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

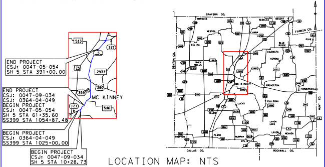
PROJECT LENGTH

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.
FANNIN CO.
DALLAS CO.
ROCKWALL CO.
N

LOCATION MAP: NTS

TIME: 12:57:49 PM
PEN TABLE - SH5*TxDOT*McKinney*Schematic.tbl

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

MCi 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

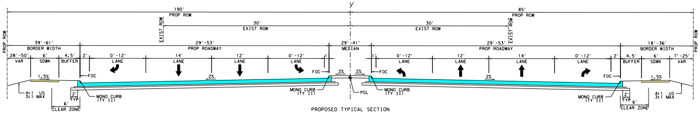
STA 10+28.73 TO STA 45+00

STA 70+33.69 TO STA 95+00

ROLL 1 OF 10 ROLLS

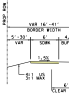
DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
MCI	6	XX (XX) XXXX		S-001
DRAWN BY:	STATE	DIST.	COUNTY	
MCI	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
MCI	0047	05	054, etc.	SH 5

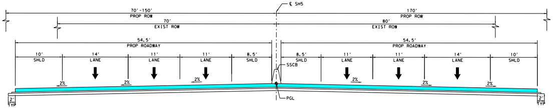
DATE: 4/3/2020
FILE: ...\d0684835\5RPP10*S101.dgn
ROLLPLOT - V8i*BAKER*WIN*CO*PDF.pltcfg


190'
PROP ROW
30'
EXIST ROW
85'
PROP ROW
39'-61'
BORDER WIDTH
29'-53'
PROP ROADWAY
29'-41'
MEDIAN
18'-36'
BORDER WIDTH
28'-50' VAR
6' SDWK
4.5' BUFFER
0'-12' LANE
14' LANE
12' LANE
FOC
2%
1.5%
MONO CURB (TY II)
PGL
4:1 US 3:1 MAX
6' CLEAR ZONE
7'-25' VAR

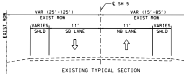
PROPOSED TYPICAL SECTION
SH 5
STA 15+23.19 TO STA 45+00
NTS

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

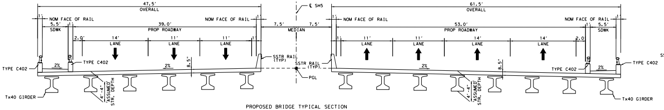

PROP ROW
VAR 16'-41'
BORDER WIDTH
5'-30' VAR
6' SDWK
1.5%
4:1 US 3:1 MAX


℄ SH5
70'-150'
PROP ROW
70'
EXIST ROW
170'
PROP ROW
80'
EXIST ROW
54.5'
PROP ROADWAY
10' SHLD
14' LANE
11' LANE
8.5' SHLD
SSCB
2%
PGL
2' TYP

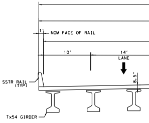
PROPOSED TYPICAL SECTION
SH 5
STA 70+33.69 TO STA 73+53.53
STA 75+87.53 TO STA 83+49.64
NTS

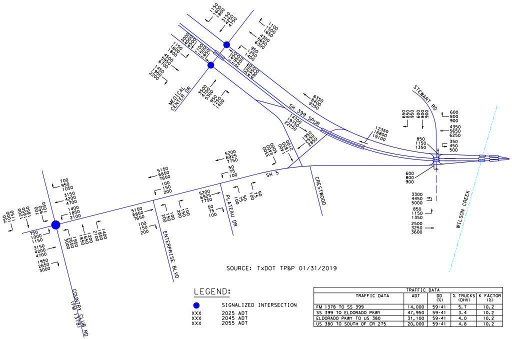

℄ SH 5
EXIST ROW
VAR (25'-125')
EXIST ROW
VAR (15'-85')
EXIST ROW
VARIES SHLD
11' SB LANE
11' NB LANE
VARIES SHLD

EXISTING TYPICAL SECTION
SH 5
STA 10+28.73 TO STA 45+00
NTS


℄ SH5
47.5'
OVERALL
61.5'
OVERALL
NOM FACE OF RAIL
5.5' SDWK
39.0'
PROP ROADWAY
53.0'
PROP ROADWAY
7.5'
MEDIAN
2.0'
14' LANE
11' LANE
TYPE C402
SSTR RAIL (TYP)
PGL
2%
8.5'
Tx40 GIRDER
4'-4"
ASSUMED STR. DEPTH

PROPOSED BRIDGE TYPICAL SECTION
SH 5
STA 88+25.00 TO STA 92+75.00
NTS


NOM FACE OF RAIL
10'
14' LANE
SSTR RAIL (TYP)
Tx54 GIRDER
8.5'

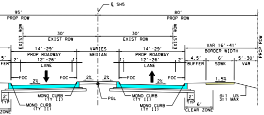

SH 399 SPUR
SH 5
STEWART RD
MEDICAL CENTER DR
CRESTWOOD
PLATEAU DR
ENTERPRISE BLVD
COUNTRY CLUB RD (FM 1378)
WILSON CREEK
LEGEND:
SIGNALIZED INTERSECTION
XXX 2025 ADT
XXX 2045 ADT
XXX 2055 ADT

SOURCE: TxDOT TP&P 01/31/2019

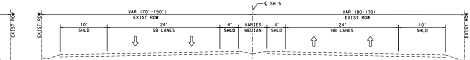
TRAFFIC DATA				
TRAFFIC DATA	ADT	DD (%)	% TRUCKS (DHV)	K FACTOR (%)
FM 1378 TO SS 399	14,000	59-41	5.7	10.2
SS 399 TO ELDORADO PKWY	47,950	59-41	3.4	10.2
ELDORADO PKWY TO US 380	31,100	59-41	4.0	10.2
US 380 TO SOUTH OF CR 275	20,000	59-41	4.8	10.2

PROPERTY OWNERS

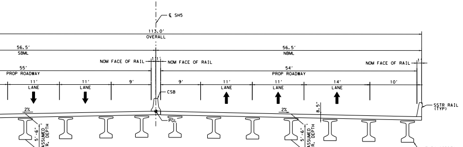
ID#	SITE ADDRESS	OWNER
1	888 STATE HWY 5 FAIRVIEW, TX 75069	APPLE'S CROSSING RESIDENTIAL ASSOCIATION INC
2		
3	910 STATE HWY 5 FAIRVIEW, TX 75069	APPLES CORNER LLC
4	891 S STATE HWY 5	RUTH MYRA KENNEDY
5	901 S STATE HWY 5	KENNETH SPURGIN
6	STATE HWY 5	PATSY REMBERT A NEVIL ETAL
7	FAIRVIEW, TX 75069	FRISCO 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


℄ SH5
95'
PROP ROW
80'
PROP ROW
30'
EXIST ROW
30'
EXIST ROW
EXIST ROW
EXIST ROW
PROP ROW
14'-29'
PROP ROADWAY
12'-26'
LANE
VARIES
MEDIAN
14'-29'
PROP ROADWAY
12'-26'
LANE
VAR 16'-41'
BORDER WIDTH
4.5'
BUFFER
6'
SDWK
5'-30'
VAR
FOC
2%
2%
2%
2%
1.5%
MONO CURB (TY II)
MONO CURB (TY II)
PGL
MONO CURB (TY II)
MONO CURB (TY II)
2' TYP
2' TYP
6'
CLEAR ZONE
4:1 US
3:1 MAX

PROPOSED TYPICAL SECTION
SH 5
STA 10+28.73 TO STA 15+23.19


℄ SH 5
VAR (70'-150')
EXIST ROW
VAR (80-170)
EXIST ROW
EXIST ROW
EXIST ROW
10'
SHLD
24'
SB LANES
4'
SHLD
VARIES
MEDIAN
4'
SHLD
24'
NB LANES
10'
SHLD

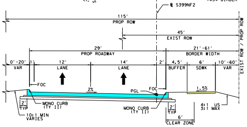
EXISTING TYPICAL SECTION
SH 5
STA 70+00 TO STA 95+00
NTS


℄ SH5
113.0'
OVERALL
56.5'
SBML
56.5'
NBML
NOM FACE OF RAIL
NOM FACE OF RAIL
NOM FACE OF RAIL
55'
PROP ROADWAY
54'
PROP ROADWAY
11'
LANE
11'
LANE
9'
9'
11'
LANE
11'
LANE
14'
LANE
10'
CSB
8.5'
SSTR RAIL (TYP)
2%
2%
PGL
5'-6" ASSUMED STR. DEPTH
5'-6" ASSUMED STR. DEPTH
Tx54 GIRDER

PROPOSED BRIDGE TYPICAL SECTION
SH 5
STA 73+53.53 TO STA 75+87.53
NTS

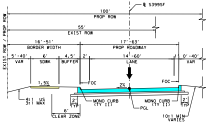
SOURCE:
LIN COUNTY APPRAISAL DISTRICT
JULY 2019

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


℄ S399NF2
115'
PROP ROW
45'
EXIST ROW
PROP ROW / EXIST 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%
2' TYP
MONO CURB (TY II)
MONO CURB (TY II)
2' TYP
10:1 MIN VARIES
6'
CLEAR ZONE
4:1 US
3:1 MAX

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


℄ 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
2' TYP
MONO CURB (TY II)
MONO CURB (TY II)
2' TYP
PGL
4:1 US
3:1 MAX
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

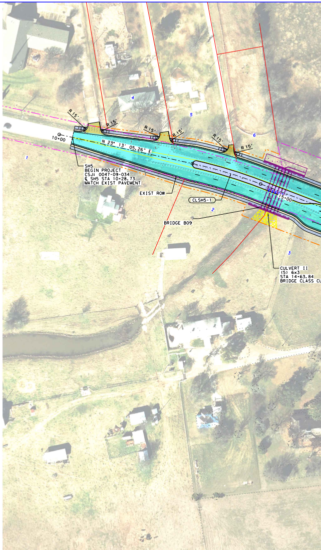
1. SEE PLAN VIEW AND TURN LANE DETAIL TABLE FOR LOCATIONS OF TURN LANES
2. CROSS SLOPES SHOWN ARE USUAL. SEE CROSS SLOPE TRANSITION TABLE FOR MORE DETAIL

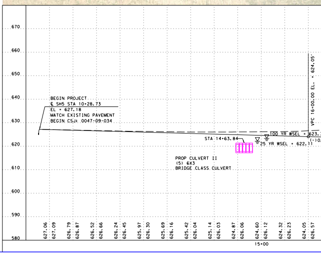
COLOR LEGEND

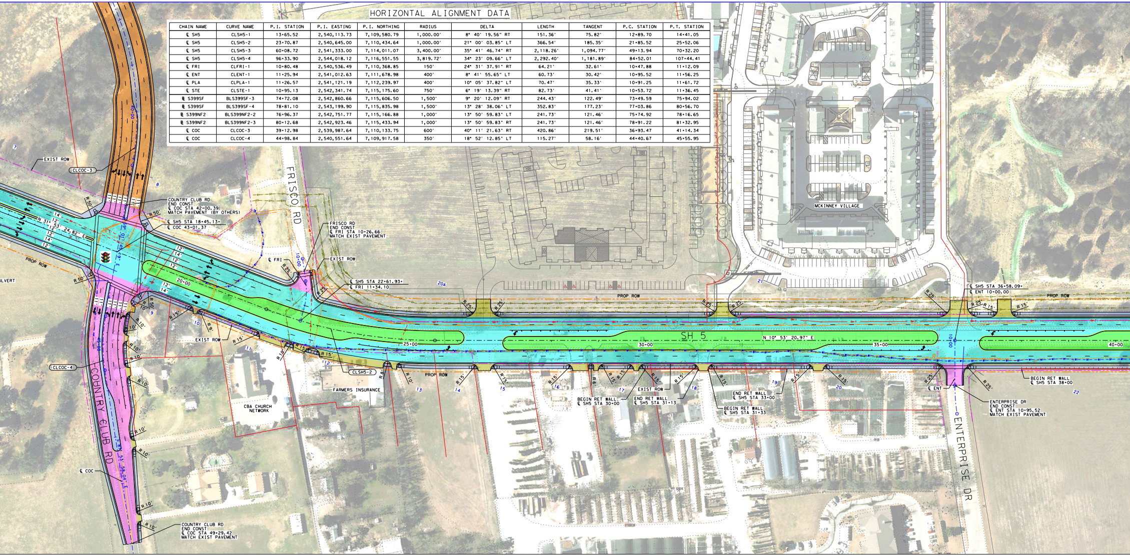
🟦	PROPOSED MAINLANES
🟧	PROPOSED BRIDGE
🟨	PROPOSED DRIVEWAY
🟪	PROPOSED CROSS STREET
🟫	PROPOSED RAMP
🟦	PROPOSED SIDEWALK AND PAVED MEDIAN
🟩	PROPOSED LANDSCAPED MEDIAN
🟧	FUTURE BY OTHERS
⬛	EXISTING BRIDGE TO REMAIN
☐	100 YEAR FLOOD PLAIN
🟪	EXISTING PAVEMENT (BY OTHERS)
▨	EXISTING PAVEMENT TO BE REMOVED
☒	POTENTIAL STRUCTURE DISPLACEMENT
-·-·-	CENTERLINE/BASELINE (CROSS STREETS)
-·-·-	CENTERLINE (MAINLANE)
-·-·-	PROPOSED ROW
—	CITY LIMITS
-·-·-	EXISTING ROW
—	PROPERTY LINES
—II—	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 ARE SHOWN AND 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.

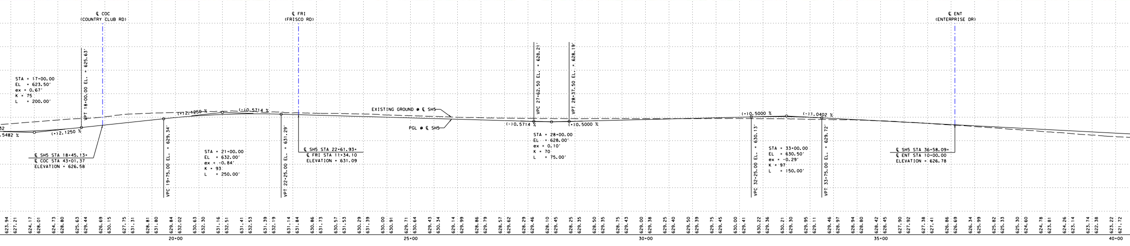

R 15'
R 15'
R 15'
R 15'
R 15'
R 15'
10+00
N 23° 13' 05.26" E
SH5
BEGIN PROJECT
CSJ: 0047-09-034
℄ SH5 STA 10+28.73
MATCH EXIST PAVEMENT
EXIST ROW
CLSH5-1
15+00
BRIDGE B09
CULVERT II
(5) 6x3
STA 14+63.84
BRIDGE CLASS CU
1
2
3
4
5
6

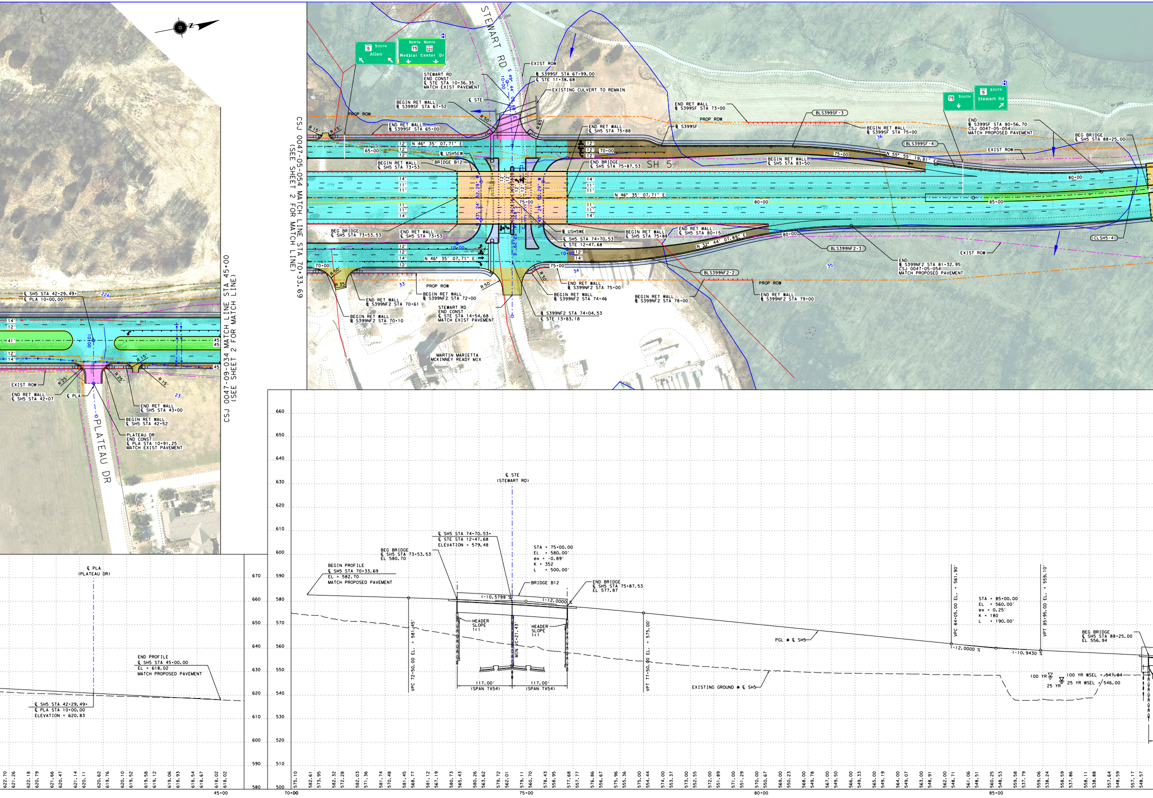


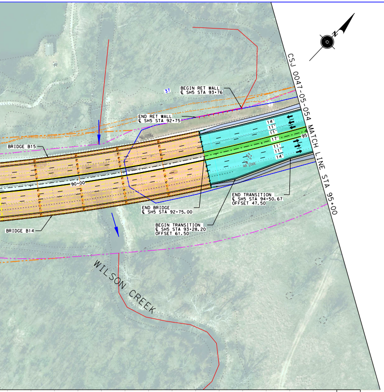

EXIST ROW
CLCOC-3
COUNTRY CLUB RD
END CONST
℄ COC STA 42+00.39
MATCH PAVEMENT (BY OTHERS)
℄ SH5 STA 18+45.13=
℄ COC 43+01.37
N 31° 53' 24.82" E
PROP ROW
ULVERT
R 50'
14'
12'
12'
14'
12'
12'
FRISCO RD
FRISCO RD
END CONST
℄ FRI STA 10+26.66
MATCH EXIST PAVEMENT
℄ FRI
EXIST ROW
R 25'
10+00
20+00
℄ SH5 STA 22+61.93=
℄ FRI 11+34.10
EXIST ROW
R 15'
R 9'
R 10'
CLCOC-4
COUNTRY CLUB RD
CBA CHURCH NETWORK
FARMERS INSURANCE
CLSH5-2
25+00
PROP ROW
℄ COC
COUNTRY CLUB RD
END CONST
℄ COC STA 49+29.42
MATCH EXIST PAVEMENT
MCKINNEY VILLAGE
PROP ROW
SH 5
N 10° 53' 20.97" E
30+00
35+00
40+00
10+00
BEGIN RET WALL
℄ SH5 STA 30+00
END RET WALL
℄ SH5 STA 31+13
EXIST ROW
END RET WALL
℄ SH5 STA 33+00
BEGIN RET WALL
℄ SH5 STA 31+33
R 6'
R 15'
R 25'
℄ SH5 STA 36+58.09=
℄ ENT 10+00.00
PROP ROW
℄ ENT
ENTERPRISE DR
END CONST
℄ ENT STA 10+95.52
MATCH EXIST PAVEMENT
BEGIN RET WALL
℄ SH5 STA 38+00
ENTERPRISE DR
7
8
9
10
11
12
13
14
15
16
17
18
19
20
20A
21
22

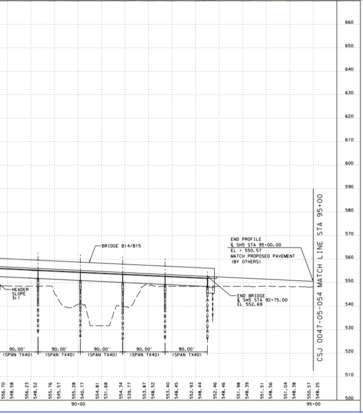
HORIZONTAL ALIGNMENT DATA

CHAIN NAME	CURVE NAME	P.I. STATION	P.I. EASTING	P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
℄ SH5	CLSH5-1	13+65.52	2,540,113.73	7,109,580.79	1,000.00'	8° 40' 19.56" RT	151.36'	75.82'	12+89.70	14+41.05
℄ SH5	CLSH5-2	23+70.87	2,540,645.00	7,110,434.64	1,000.00'	21° 00' 03.85" LT	366.54'	185.35'	21+85.52	25+52.06
℄ SH5	CLSH5-3	60+08.72	2,541,333.00	7,114,011.07	3,400.00'	35° 41' 46.74" RT	2,118.26'	1,094.77'	49+13.94	70+32.20
℄ SH5	CLSH5-4	96+33.90	2,544,018.12	7,116,551.55	3,819.72'	34° 23' 09.66" LT	2,292.40'	1,181.89'	84+52.01	107+44.41
℄ FRI	CLFRI-1	10+80.48	2,540,536.49	7,110,368.85	150'	24° 31' 37.91" RT	64.21'	32.61'	10+47.88	11+12.09
℄ ENT	CLENT-1	11+25.94	2,541,012.63	7,111,678.98	400'	8° 41' 55.65" LT	60.73'	30.42'	10+95.52	11+56.25
℄ PLA	CLPLA-1	11+26.57	2,541,121.19	7,112,239.97	400'	10° 05' 37.82" LT	70.47'	35.33'	10+91.25	11+61.72
℄ STE	CLSTE-1	10+95.13	2,542,341.74	7,115,175.60	750'	6° 19' 13.39" RT	82.73'	41.41'	10+53.72	11+36.45
BL S399SF	BLS399SF-3	74+72.08	2,542,860.66	7,115,606.50	1,500'	9° 20' 12.09" RT	244.43'	122.49'	73+49.59	75+94.02
BL S399SF	BLS399SF-4	78+81.10	2,543,199.90	7,115,835.98	1,500'	13° 28' 38.06" LT	352.83'	177.23'	77+03.86	80+56.70
BL S399NF2	BLS399NF2-2	76+96.37	2,542,751.77	7,115,166.88	1,000'	13° 50' 59.83" LT	241.73'	121.46'	75+74.92	78+16.65
BL S399NF2	BLS399NF2-3	80+12.68	2,542,923.46	7,115,433.94	1,000'	13° 50' 59.83" RT	241.73'	121.46'	78+91.22	81+32.95
℄ COC	CLCOC-3	39+12.98	2,539,987.64	7,110,133.75	600'	40° 11' 21.63" RT	420.86'	219.51'	36+93.47	41+14.34
℄ COC	CLCOC-4	44+98.84	2,540,551.64	7,109,917.58	350'	18° 52' 12.85" LT	115.27'	58.16'	44+40.67	45+55.95


℄ COC
(COUNTRY CLUB RD)
℄ FRI
(FRISCO RD)
℄ ENT
(ENTERPRISE DR)
STA = 17+00.00
EL = 623.50'
ex = 0.67'
K = 75
L = 200.00'
VPT 18+00.00 EL. = 625.63'
32
.5482 %
(+)2.1250 %
℄ SH5 STA 18+45.13=
℄ COC STA 43+01.37
ELEVATION = 626.58
(+)2.1250 %
VPC 19+75.00 EL. = 629.34'
STA = 21+00.00
EL = 632.00'
ex = -0.84'
K = 93
L = 250.00'
(-)0.5714 %
VPT 22+25.00 EL. = 631.29'
℄ SH5 STA 22+61.93=
℄ FRI STA 11+34.10
ELEVATION = 631.09
EXISTING GROUND @ ℄ SH5
PGL @ ℄ SH5
VPC 27+62.50 EL. = 628.21'
VPT 28+37.50 EL. = 628.19'
(-)0.5714 %
(+)0.5000 %
STA = 28+00.00
EL = 628.00'
ex = 0.10'
K = 70
L = 75.00'
(+)0.5000 %
(-)1.0402 %
VPC 32+25.00 EL. = 630.13'
STA = 33+00.00
EL = 630.50'
ex = -0.29'
K = 97
L = 150.00'
VPT 33+75.00 EL. = 629.72'
℄ SH5 STA 36+58.09=
℄ ENT STA 10+00.00
ELEVATION = 626.78
623.94 627.21
624.17 628.01
624.73 628.80
625.63 629.44
626.69 630.15
627.75 631.31
628.81 631.80
629.84 632.02
630.63 632.30
631.16 632.51
631.41 632.53
631.39 632.19
631.14 631.84
630.86 631.73
630.57 631.53
630.29 631.39
630.00 630.91
629.71 630.64
629.43 630.34
629.14 629.99
628.86 629.79
628.57 629.62
628.29 629.46
628.10 629.45
628.25 629.35
628.50 629.35
628.75 629.43
629.00 629.38
629.25 629.40
629.50 629.39
629.75 629.45
630.00 629.41
630.22 629.36
630.21 629.30
629.95 629.11
629.46 628.97
628.94 628.80
628.42 628.45
627.90 627.92
627.38 627.41
626.86 626.69
626.34 625.99
625.82 625.33
625.30 624.60
624.78 623.81
624.26 623.14
623.74 622.38
623.22 621.72
20+00
25+00
30+00
35+00
40+00


Allen
5 SOUTH
NORTH 75 NORTH 121 Medical Center Dr
STEWART RD
EXIST ROW
STEWART RD
END CONST
℄ STE STA 10+36.35
MATCH EXIST PAVEMENT
BL S399SF STA 67+99.00
℄ STE 11+38.68
EXISTING CULVERT TO REMAIN
S 49° 44' 05.68" E
10+00
℄ STE
BEGIN RET WALL
BL S399SF STA 67+52
PROP ROW
END RET WALL
BL S399SF STA 65+00
R 15'
R 15'
R 50'
R 65'
12'
N 46° 35' 07.71" E
65+00
BL USH5EW
BEGIN RET WALL
℄ SH5 STA 73+53
BRIDGE B12
END RET WALL
℄ SH5 STA 75+88
END BRIDGE
℄ SH5 STA 75+87.53
70+00
SH 5
14'
11'
75+00
N 43° 24' 52.29" W
S 43° 24' 52.29" E
END RET WALL
BL S399SF STA 73+00
BLS399SF-3
PROP ROW
BL S399SF
BEGIN RET WALL
BL S399SF STA 75+00
36
BLS399SF-4
N 55° 55' 19.81" E
BEGIN RET WALL
℄ SH5 STA 83+50
75 SOUTH
5 SOUTH Stewart Rd
END
BL S399SF STA 80+56.70
CSJ 0047-05-054
MATCH PROPOSED PAVEMENT
EXIST ROW
BEG BRIDGE
℄ SH5 STA 88+25.00
80+00
85+00
CLSH5-4
BEG BRIDGE
℄ SH5 STA 73+53.53
END RET WALL
℄ SH5 STA 73+53
BL USH5WE
℄ SH5 STA 74+70.53
℄ STE 12+47.68
BEGIN RET WALL
℄ SH5 STA 75+88
END RET WALL
℄ SH5 STA 80+15
N 32° 44' 07.89" E
80+00
BLS399NF2-3
END
BL S399NF2 STA 81+32.95
CSJ 0047-05-054
MATCH PROPOSED PAVEMENT
EXIST ROW
35
BLS399NF2-2
PROP ROW
END RET WALL
BL S399NF2 STA 79+00
BEGIN RET WALL
BL S399NF2 STA 78+00
END RET WALL
BL S399NF2 STA 75+00
BEGIN RET WALL
BL S399NF2 STA 74+46
BL S399NF2 STA 74+04.53
℄ STE 13+83.18
STEWART RD
END CONST
℄ STE STA 14+54.68
MATCH EXIST PAVEMENT
R 50'
R 35
33
34
PROP ROW
BEGIN RET WALL
BL S399NF2 STA 72+00
END RET WALL
BL S399NF2 STA 70+61
BEGIN RET WALL
BL S399NF2 STA 70+10
MARTIN MARIETTA
MCKINNEY READY MIX
CSJ 0047-05-054 MATCH LINE STA 70+33.69
(SEE SHEET 2 FOR MATCH LINE)
CSJ 0047-09-034 MATCH LINE STA 45+00
(SEE SHEET 2 FOR MATCH LINE)
℄ SH5 STA 42+29.49=
℄ PLA 10+00.00
22A
41'
12'
14'
45
R 15'
R 25'
R 25'
R 15'
23
EXIST ROW
END RET WALL
℄ SH5 STA 42+07
℄ PLA
END RET WALL
℄ SH5 STA 43+00
BEGIN RET WALL
℄ SH5 STA 42+52
PLATEAU DR
END CONST
℄ PLA STA 10+91.25
MATCH EXIST PAVEMENT
PLATEAU DR
℄ PLA
(PLATEAU DR)
END PROFILE
℄ SH5 STA 45+00.00
EL = 618.02
MATCH PROPOSED PAVEMENT
℄ SH5 STA 42+29.49=
℄ PLA STA 10+00.00
ELEVATION = 620.83
670
660
650
640
630
620
610
600
590
580
622.70 621.26
622.18 620.79
621.66 620.47
621.14 620.11
620.62 619.76
620.10 619.52
619.58 619.12
619.06 618.93
618.54 618.67
618.02 618.02
45+00
℄ STE
(STEWART RD)
660
650
640
630
620
610
600
590
580
570
560
550
540
530
520
510
500
BEGIN PROFILE
℄ SH5 STA 70+33.69
EL = 582.70
MATCH PROPOSED PAVEMENT
BEG BRIDGE
℄ SH5 STA 73+53.53
EL 580.70
℄ SH5 STA 74+70.53=
℄ STE STA 12+47.68
ELEVATION = 579.48
STA = 75+00.00
EL = 580.00'
ex = -0.89'
K = 352
L = 500.00'
BRIDGE B12
END BRIDGE
℄ SH5 STA 75+87.53
EL 577.87
(-)0.5799 %
(-)2.0000 %
VPC 72+50.00 EL. = 581.45'
HEADER SLOPE 1:1
MIN VC=21.43'
HEADER SLOPE 1:1
117.00' (SPAN TX54)
117.00' (SPAN TX54)
VPT 77+50.00 EL. = 575.00'
PGL @ ℄ SH5
EXISTING GROUND @ ℄ SH5
VPC 84+05.00 EL. = 561.90'
STA = 85+00.00
EL = 560.00'
ex = 0.25'
K = 180
L = 190.00'
VPT 85+95.00 EL. = 559.10'
(-)2.0000 %
(-)0.9430 %
BEG BRIDGE
℄ SH5 STA 88+25.00
EL 556.94
100 YR
25 YR
100 YR WSEL = 547.84
25 YR WSEL = 546.00
575.10
582.61 573.95
582.32 572.28
582.03 571.36
581.74 570.48
581.45 568.77
581.12 567.19
580.73 565.43
580.26 563.62
579.72 562.01
579.11 560.70
578.43 558.95
577.68 557.77
576.86 556.67
575.96 555.36
575.00 554.44
574.00 553.37
573.00 552.55
572.00 551.89
571.00 551.29
570.00 550.67
569.00 550.23
568.00 549.78
567.00 549.50
566.00 549.33
565.00 549.19
564.00 549.07
563.00 548.91
562.00 548.71
561.06 548.51
560.25 548.53
559.58 537.79
559.06 538.24
558.59 537.86
558.11 538.88
557.64 548.59
557.17 548.57
70+00
75+00
80+00
85+00


BEGIN RET WALL
℄ SH5 STA 93+76
END RET WALL
℄ SH5 STA 92+75
37
BRIDGE B15
BRIDGE B14
90+00
95
14'
11'
11'
17'
11'
11'
14'
END TRANSITION
℄ SH5 STA 94+50.67
OFFSET 47.50
END BRIDGE
℄ SH5 STA 92+75.00
BEGIN TRANSITION
℄ SH5 STA 93+28.20
OFFSET 61.50
WILSON CREEK
CSJ 0047-05-054 MATCH LINE STA 95+00
N



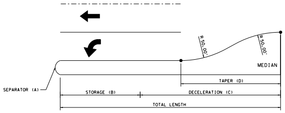
COLOR LEGEND

🟦	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


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

TURN LANE DETAIL

TURN LANE DETAIL TABLE

CROSS STREET	MEDIAN NOSE STA @ SH 5	MEDIAN NOSE RADIUS (FT) (A)	STORAGE (FT) (B)	DECELERATION (FT) (C)	TAPER (FT) (D)	TOTAL LENGTH (FT)	L/R	SB/NB
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

SH5*TxDOT*McKinney*Schematic.tbl

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

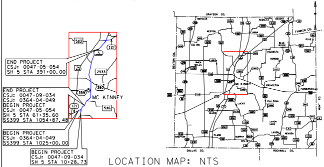
DESIGN SPEED	
60 MPH	SS 399 MAINLANE
40 MPH	SH 5 MAINLAINE, RAMPS, FM 1378 (COUNTRY CLUB RD), SPUR 399 FRONTAGE ROAD, SH 5 FRONTAGE ROAD, FM 546 (HARRY MCKILLOP BLVD), ELDORADO PKWY/INDUSTRIAL BLVD, US 380 (W UNIVERSITY DR), SS 195 (WESTON RD)
30 MPH	ALL OTHER STREETS

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


543
121
5
75
2933
380
359
MC KINNEY
121
546
GRAYSON CO.
MARILEE
WESTON
CELINA
ANNA
SEDALIA
DESERT
FANNIN CO.
PIKE
BLUE RIDGE
VALDASTA
VERONA
PRINCETON
FARMERSVILLE
MC KINNEY
CULLEOKA
LUCAS
ALLEN
PLANO
MURPHY
WYLIE
LAVON LAKE
LAVON
NEVADA
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
N

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

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

MCi 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 10+28.73 TO STA 45+00

STA 70+33.69 TO STA 95+00

ROLL 1 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
MCI	6	XX (XX) XXXX		S-001
DRAWN BY:	STATE	DIST.	COUNTY	
MCI	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
MCI	0047	05	054, etc	SH 5

FILE: ...\d0684835\5RPP10*S101.dgn