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

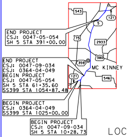
PROJECT LENGTH

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

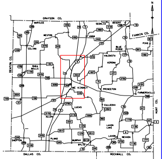

543
121
5
75
2933
380
359
MC KINNEY
121
546

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


N
GRAYSON CO.
MARILEE
WESTON
CELINA
SEDALIA
DESERT
ANNA
FANNIN CO.
BLUE RIDGE
PIKE
DENTON CO.
PRINCETON
FARMERSVILLE
MC KINNEY
LUCAS
WYLIE
MURPHY
PLANO
ALLEN
PARKER
DALLAS CO.
ROCKWALL CO.
HUNT CO.

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
CAREN D. CHAMBERS P.E. 99772
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

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

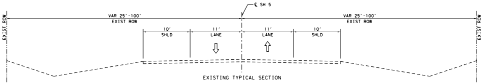
PLAN & PROFILE
SH 5
STA 316+00 TO STA 369+00

ROLL 8 OF 10 ROLLS

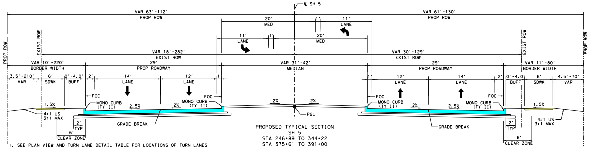
DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-008
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc.	SH 5

DATE: 4/3/2020
FILE: ...\SRPP00•S108.dgn
ROLLPLOT - V8i•BAKER•WIN•CO•PDF.pltcfg

TIME: 11:43:21 PM
PEN TABLE - SH5•TxDOT•McKinney•Schematic.tbl

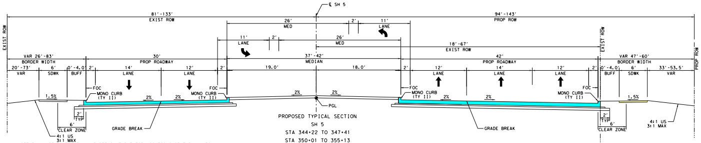

℄ SH 5
VAR 25'-100' EXIST ROW
VAR 25'-100' EXIST ROW
EXIST ROW
EXIST ROW
10' SHLD
11' LANE
11' LANE
10' SHLD

EXISTING TYPICAL SECTION
SH 5
STA 260+00.00 TO 347+34.35
STA 349+94.35 TO 355+14.35
STA 360+19.35 TO 370+04.35
NTS


℄ SH 5
VAR 63'-112' PROP ROW
VAR 61'-130' PROP ROW
PROP ROW
EXIST ROW
20' MED
11'
11' LANE
11' LANE
20' MED
VAR 18'-282' EXIST ROW
VAR 30'-129' EXIST ROW
VAR 10'-220' BORDER WIDTH
29' PROP ROADWAY
VAR 31'-42' MEDIAN
29' PROP ROADWAY
VAR 11'-80' BORDER WIDTH
3.5'-210' VAR
6' SDWK
0'-4.0' BUFF
2'
14' LANE
12' LANE
1'
12' LANE
14' LANE
2'
0'-4.0' BUFF
6' SDWK
4.5'-70' VAR
FOC
MONO CURB (TY II)
1.5%
2.5%
2%
2%
2%
2.5%
2%
1.5%
PGL
4:1 US 3:1 MAX
2' TYP
6' CLEAR ZONE
GRADE BREAK

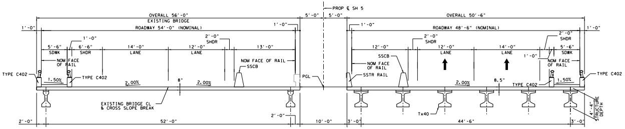
PROPOSED TYPICAL SECTION
SH 5
STA 246+89 TO 344+22
STA 375+61 TO 391+00
NTS

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.

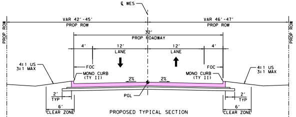

℄ SH 5
81'-133' EXIST ROW
94'-143' PROP ROW
EXIST ROW
PROP ROW
26' MED
2'
11' LANE
11' LANE
2'
26' MED
18'-67' EXIST ROW
VAR 26'-83' BORDER WIDTH
30' PROP ROADWAY
37'-42' MEDIAN
42' PROP ROADWAY
VAR 47'-60' BORDER WIDTH
20'-73' VAR
6' SDWK
0'-4.0' BUFF
2'
14' LANE
12' LANE
2'
19.0'
18.0'
2'
12' LANE
14' LANE
12' LANE
2'
0'-4.0' BUFF
6' SDWK
33'-53.5' VAR
FOC
MONO CURB (TY II)
1.5%
2%
2%
2%
2%
2%
2%
1.5%
PGL
2' TYP
6' CLEAR ZONE
4:1 US 3:1 MAX
GRADE BREAK

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.

PROPOSED TYPICAL SECTION
SH 5
STA 344+22 TO 347+41
STA 350+01 TO 355+13
STA 360+15 TO 370+00
STA 372+40 TO 375+61
NTS


PROP ℄ SH 5
OVERALL 56'-0"
EXISTING BRIDGE
ROADWAY 54'-0" (NOMINAL)
5'-0"
5'-0"
OVERALL 50'-6"
ROADWAY 48'-6" (NOMINAL)
1'-0"
5'-6" SDWK
6'-6" SHDR
14'-0" LANE
12'-0" LANE
2'-0" SHDR
13'-0"
12'-0"
2'-0" SHDR
12'-0" LANE
14'-0" LANE
2'-0" SHDR
5'-6" SDWK
NOM FACE OF RAIL
SSCB
SSTR RAIL
TYPE C402
1.50%
2.00%
8"
2.00%
PGL
2.00%
8.5"
1.50%
EXISTING BRIDGE CL & CROSS SLOPE BREAK
2'-0"
52'-0"
2'-0"
10'-0"
3'-0"
Tx40
44'-6"
3'-0"
4'-4" STRUCTURE DEPTH

PROPOSED TYPICAL SECTION
SH 5
FROM STA 347+41 TO 350+01
FROM STA 355+13 TO 360+15
FROM STA 370+00 TO 372+40


℄ WES
VAR 42'-45' PROP ROW
VAR 46'-47' PROP ROW
PROP ROW
PROP ROW
32' PROP ROADWAY
4'
12' LANE
12' LANE
4'
FOC
MONO CURB (TY II)
2%
2%
4:1 US 3:1 MAX
PGL
2' TYP
6' CLEAR ZONE

PROPOSED TYPICAL SECTION
SH 195 (WESTON RD)
STA 14+60 TO STA 17+30
NTS

CHAIN NAME	CURVE NAME	P.I. STATION	P.I. EASTING
℄ SH5	CLSH5-20	321+83.46	2,546,447.64
℄ SH5	CLSH5-21	335+44.31	2,546,546.82
℄ SH5	CLSH5-22	341+86.13	2,546,684.94
℄ SH5	CLSH5-23	353+77.89	2,546,851.99
℄ CYP	CLCYP-1	11+50.47	2,546,461.73
℄ WES	CLWES-1	13+38.61	2,546,130.29

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

PROPERTY OWNERS

SOURCE:
COLLIN COUNTY APPRAISAL DISTRICT
JULY 2019

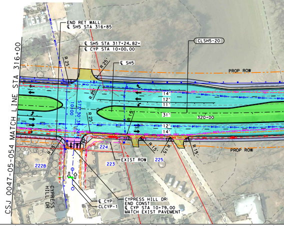
ID#	SITE ADDRESS	OWNER	BUSINESS NAME
222B	400 CYPRESS HILL DR	EDUARDO & ELSIE CHAVEZ	
223	401 CYPRESS HILL DR	FRANK S & LORRAINE J BENTLE	
224	MCKINNEY, TX 75071	ASSOCIATION OF TRINITY HEIGHTS HOMEOWNERS INC	
225	3590 N MCDONALD ST	AZAM MIRBAGHERY	
226	3600 N MCDONALD ST	MICKEY BEATTY & JOHN M LOUCEL & KENNETH E LUSK	
227	3827 N MCDONALD ST	CORE5 INDUSTRIAL PARTNERS LLC	
228	3700 N MCDONALD ST	ALEJANDRO & ALICIA DIAZ	
229	3850 N MCDONALD ST	J GUADALUPE H ROMERO	
230	N MCDONALD ST	PAUL RAY & LINDA IRENE EASTHAM	
231	3874 N MCDONALD ST	GRANTSIE ANN YOUNGBLOOD	
232	N MCDONALD ST	STEFEN DARBY & GLENN	
233	3991 N MCDONALD ST	SEMINOLE BLOOMINFIVE LP	
234	STATE HWY 5	GREATER TEXOMA UTILITY AUTHORITY	
235	4000 N MCDONALD ST	LONE TREE RESOURCES & CONSULTING INC	LONE TREE RESOURCES & CONSULTING
236	FM HWY 543	VICKIE D (CAVE) HUMPHREY TST	
237	MCDONALD ST N	JAMAL & NAZNEEN TALUKDER	
238	1006 FM 543	JAMAL TALUKDER	
239	4177 N MCDONALD ST	MIKE A SCOTTI	
240	4080 N MCDONALD ST	W J FAMILY LP	
241		TERRY LACORE	
242		LACORE AGRICULTURE LLC	
243	N MCDONALD ST	TERRY LACORE	

CROSS SLOPE TRANSITION DATA

ALIGNMENT	STA	SB OUTSIDE LANE	SB INSIDE LANE	NB OUTSIDE LANE
SH5		SLOPE	SLOPE	SLOPE
BEG TRANSITION	345+50.00	N/A	2.0%	N/A
BEG TRANSITION	347+00.00	2.5%	N/A	-2.5%
END TRANSITION	347+20.00	2.0%	-2.0%	-2.0%
BEG TRANSITION	349+35.78	2.0%	-2.0%	N/A
END TRANSITION	351+34.70	-5.5%	-5.5%	N/A
BEG TRANSITION	356+11.32	-5.5%	-5.5%	N/A
END TRANSITION	358+10.16	2.0%	-2.0%	N/A
BEG TRANSITION	372+65.00	2.0%	-2.0%	-2.0%

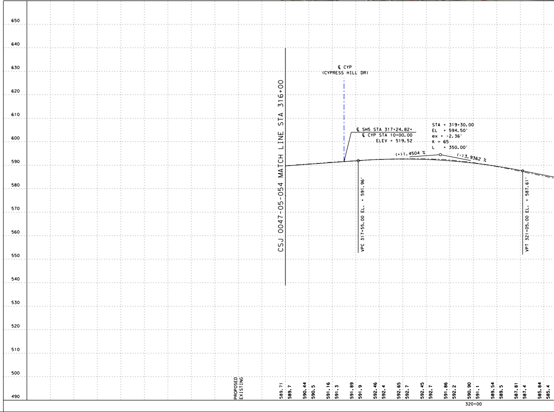
NOTES: SB OUTSIDE AND INSIDE LANES ROTATE ABOUT SB GRADE BREAK POINT
NB OUTSIDE LANE ROTATES ABOUT NB GRADE BREAK POINT

CROSS SLOPE SIGN INDICATION


CSJ 0047-05-054 MATCH LINE STA 316+00
END RET WALL
℄ SH5 STA 316+85
℄ SH5 STA 317+24.82=
℄ CYP STA 10+00.00
CLSH5-20
℄ SH5
R 25'
R 25'
R 25'
R 25'
R 25'
PROP ROW
14'
12'
11'
31'
320+00
12'
14'
10+00
S73° 30' 39" E
R 15'
R 15'
R 15'
R 15'
224
225
223
222B
EXIST ROW
PROP ROW
CYPRESS HILL DR
℄ CYP
CLCYP-1
CYPRESS HILL DR
END CONST
℄ CYP STA 10+79.00
MATCH EXIST PAVEMENT

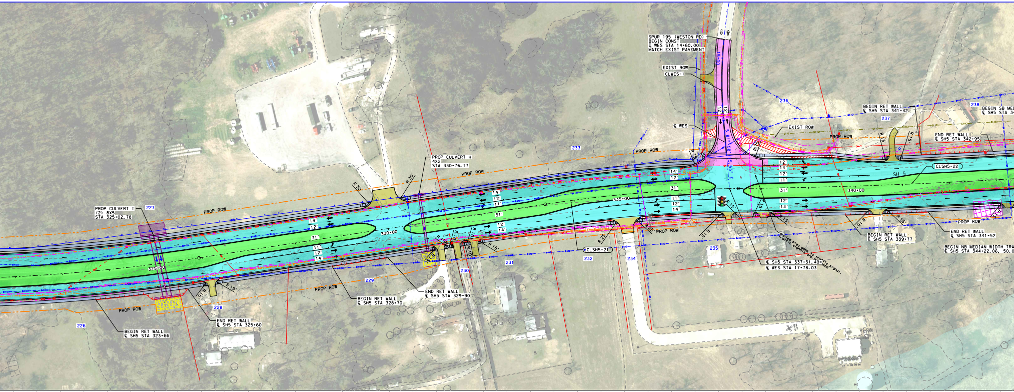
NOTES:

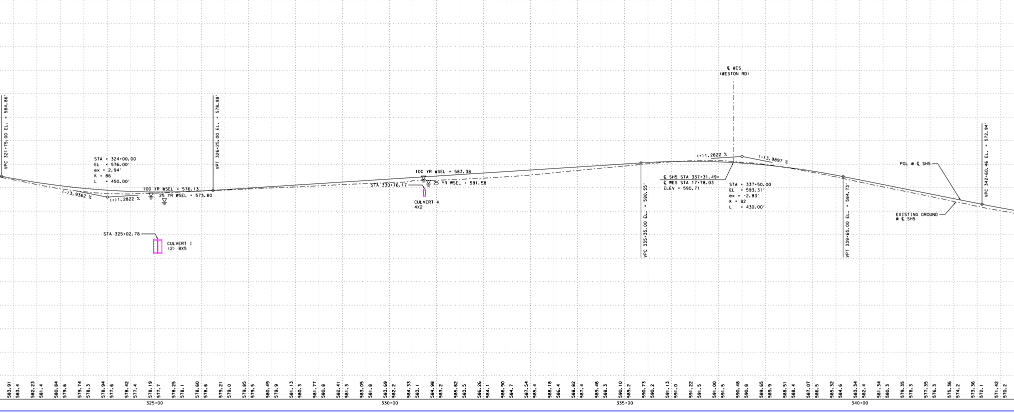
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, RAIL, UNLESS OTHERWISE NOTED.
2. MEDIAN OPENINGS WERE DETERMINED IN COORDINATION WITH LOCAL GOVERNMENT. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT.
3. SUPERELEVATION 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.

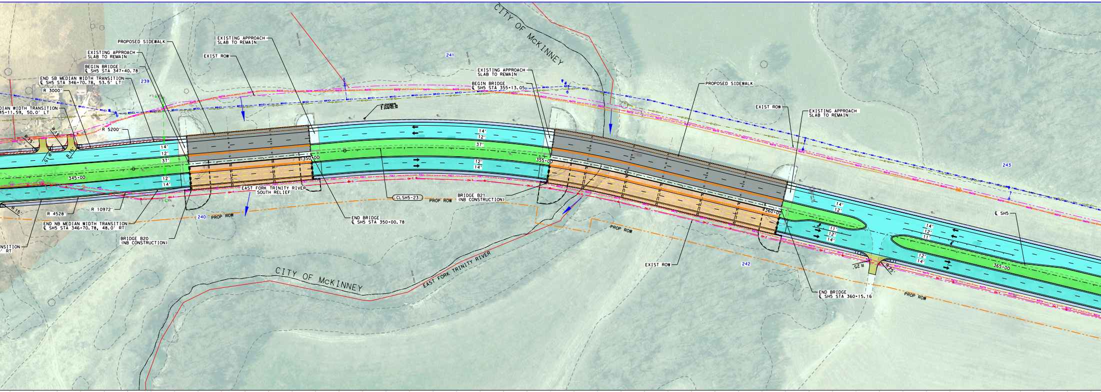


HORIZONTAL ALIGNMENT DATA

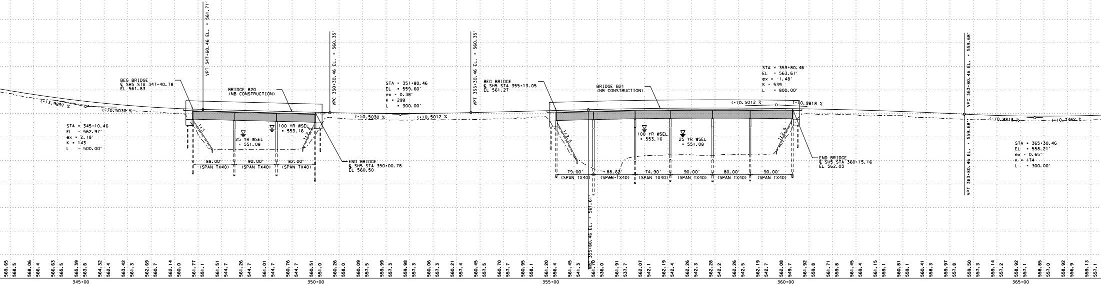
P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
7,138,368.91	3,820.00'	12° 19' 12.92" LT	821.41'	412.30'	317+71.16	325+92.57
7,139,729.33	2,864.79'	8° 14' 35.39" RT	412.16'	206.44'	333+37.87	337+50.03
7,140,356.84	11,460.00'	4° 21' 30.63" LT	871.77'	436.09'	337+50.03	346+21.80
7,141,537.26	1,876.86'	18° 26' 19.21" RT	604.00'	304.63'	350+73.26	356+77.26
7,137,886.42	300.00'	7° 58' 27.54" LT	41.75'	20.91'	11+29.56	11+71.31
7,139,977.27	940.00'	37° 02' 04.17" LT	607.59'	314.83'	10+23.77	16+31.37


SPUR 195 (WESTON RD)
BEGIN CONST
℄ WES STA 14+60.00
MATCH EXIST PAVEMENT
EXIST ROW
CLWES-1
℄ WES
15+00
S 81° 58' 53" E
236
237
238
BEGIN RET WALL
℄ SH5 STA 341+42
BEGIN SB MED
℄ SH5 STA 34
END RET WALL
℄ SH5 STA 342+95
EXIST ROW
PROP ROW
CLSH5-22
SH 5
340+00
335+00
330+00
325+00
233
PROP CULVERT H
4X2
STA 330+76.17
PROP ROW
R 30'
R 30'
PROP CULVERT I
(2) 8X5
STA 325+02.78
227
PROP ROW
14'
12'
11'
31'
12'
14'
R 15'
R 10'
226
228
229
230
231
232
234
235
BEGIN RET WALL
℄ SH5 STA 323+66
END RET WALL
℄ SH5 STA 325+60
BEGIN RET WALL
℄ SH5 STA 328+70
END RET WALL
℄ SH5 STA 329+90
CLSH5-21
PROP ROW
℄ SH5 STA 337+31.49=
℄ WES STA 17+78.03
Buried elec goes to traffic signal. Traffic signals are overhead
BEGIN RET WALL
℄ SH5 STA 339+77
END RET WALL
℄ SH5 STA 341+52
BEGIN NB MEDIAN WIDTH TRA
℄ SH5 STA 344+22.06, 50.0


VPC 321+75.00 EL. = 584.86'
STA = 324+00.00
EL = 576.00'
ex = 2.94'
K = 86
L = 450.00'
(-)3.9362 %
(+)1.2822 %
100 YR WSEL = 576.13
25 YR WSEL = 573.80
VPT 326+25.00 EL. = 578.88'
STA 325+02.78
CULVERT I
(2) 8X5
100 YR WSEL = 583.38
STA 330+76.17
25 YR WSEL = 581.58
CULVERT H
4X2
℄ WES
(WESTON RD)
(+)1.2822 %
(-)3.9897 %
℄ SH5 STA 337+31.49=
℄ WES STA 17+78.03
ELEV = 590.71
STA = 337+50.00
EL = 593.31'
ex = -2.83'
K = 82
L = 430.00'
VPC 335+35.00 EL. = 590.55'
VPT 339+65.00 EL. = 584.73'
PGL @ ℄ SH5
EXISTING GROUND @ ℄ SH5
VPC 342+60.46 EL. = 572.94'
583.91
583.4
582.23
581.4
580.84
579.6
579.74
578.3
578.94
577.6
578.42
577.4
578.19
577.7
578.25
578.1
578.60
578.6
579.21
579.0
579.85
579.5
580.49
579.9
581.13
580.3
581.77
580.8
582.41
581.3
583.05
581.8
583.69
582.2
584.33
583.1
584.98
583.2
585.62
583.5
586.26
584.1
586.90
584.7
587.54
585.4
588.18
586.4
588.82
587.4
589.46
588.3
590.10
589.2
590.73
590.2
591.13
591.0
591.22
591.5
591.00
591.5
590.48
590.8
589.65
589.9
588.51
588.4
587.07
586.5
585.32
584.6
583.34
582.4
581.34
580.3
579.35
578.3
577.35
576.3
575.36
574.2
573.36
572.1
571.42
570.2
325+00
330+00
335+00
340+00



PROPOSED SIDEWALK
EXISTING APPROACH SLAB TO REMAIN
EXIST ROW
EXISTING APPROACH SLAB TO REMAIN
BEGIN BRIDGE
℄ SH5 STA 347+40.78
END SB MEDIAN WIDTH TRANSITION
℄ SH5 STA 346+70.78, 53.5' LT
R 3000'
DIAN WIDTH TRANSITION
45+11.59, 50.0' LT
R 5200'
R 15'
14'
12'
37'
12'
14'
345+00
350+00
R 15'
R 4528'
R 10972'
END NB MEDIAN WIDTH TRANSITION
℄ SH5 STA 346+70.78, 48.0' RT
NSITION
' RT
BRIDGE B20
(NB CONSTRUCTION)
EAST FORK TRINITY RIVER
SOUTH RELIEF
240
PROP ROW
239
241
CITY OF McKINNEY
EXISTING APPROACH SLAB TO REMAIN
BEGIN BRIDGE
℄ SH5 STA 355+13.05
CLSH5-23
PROP ROW
BRIDGE B21
(NB CONSTRUCTION)
END BRIDGE
℄ SH5 STA 350+00.78
355+00
PROPOSED SIDEWALK
EXIST ROW
EXISTING APPROACH SLAB TO REMAIN
243
360+00
14'
12'
11'
12'
14'
℄ SH5
14'
12'
11'
12'
14'
365+00
R 25'
R 25'
PROP ROW
EXIST ROW
242
END BRIDGE
℄ SH5 STA 360+15.16
EAST FORK TRINITY RIVER
CITY OF McKINNEY



VPT 347+60.46 EL. = 561.71'
VPC 350+30.46 EL. = 560.35'
VPT 353+30.46 EL. = 560.35'
BEG BRIDGE
℄ SH5 STA 347+40.78
EL 561.83
BRIDGE B20
(NB CONSTRUCTION)
(-)3.9897 %
(-)0.5030 %
STA = 345+10.46
EL = 562.97'
ex = 2.18'
K = 143
L = 500.00'
1:3
25 YR WSEL
= 551.08
100 YR WSEL
= 553.16
1:2.5
88.00'
(SPAN TX40)
90.00'
(SPAN TX40)
82.00'
(SPAN TX40)
END BRIDGE
℄ SH5 STA 350+00.78
EL 560.50
STA = 351+80.46
EL = 559.60'
ex = 0.38'
K = 299
L = 300.00'
(-)0.5030 %
(+)0.5012 %
BEG BRIDGE
℄ SH5 STA 355+13.05
EL 561.27
BRIDGE B21
(NB CONSTRUCTION)
STA = 359+80.46
EL = 563.61'
ex = -1.48'
K = 539
L = 800.00'
(+)0.5012 %
(-)0.9818 %
1:2.5
100 YR WSEL
= 553.16
25 YR WSEL
= 551.08
1:2.5
79.00'
(SPAN TX40)
88.63'
(SPAN-TX40)
74.90'
(SPAN TX40)
90.00'
(SPAN TX40)
80.00'
(SPAN TX40)
90.00'
(SPAN TX40)
END BRIDGE
℄ SH5 STA 360+15.16
EL 562.03
VPC 355+80.46 EL. = 561.61'
VPC 363+80.46 EL. = 559.68'
VPT 363+80.46 EL. = 559.68'
(-)0.9818 %
(+)0.7462 %
STA = 365+30.46
EL = 558.21'
ex = 0.65'
K = 174
L = 300.00'
569.65
568.5
568.06
566.4
566.63
565.5
565.39
563.8
564.32
562.4
563.42
561.3
562.69
560.7
562.14
560.0
561.77
551.1
561.51
544.7
561.26
544.7
561.01
544.7
560.76
544.7
560.51
551.0
560.26
558.0
560.09
557.5
559.99
557.3
559.98
557.3
560.06
557.3
560.21
557.4
560.45
557.5
560.70
557.7
560.95
558.1
561.20
556.4
561.45
541.3
561.70
536.0
561.91
537.7
562.07
542.1
562.19
542.4
562.26
542.3
562.28
542.2
562.26
542.5
562.19
542.7
562.08
549.7
561.92
559.8
561.71
559.8
561.45
569.4
561.15
559.1
560.81
559.1
560.41
558.3
559.97
557.8
559.50
557.3
559.14
557.2
558.92
557.1
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558.92
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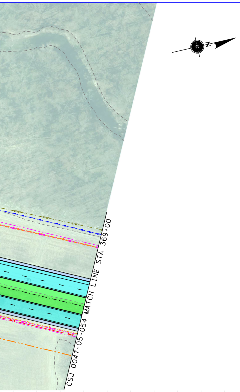
559.13
557.1
345+00
350+00
355+00
360+00
365+00


CSJ 0047-05-054 MATCH LINE STA 369+00
N

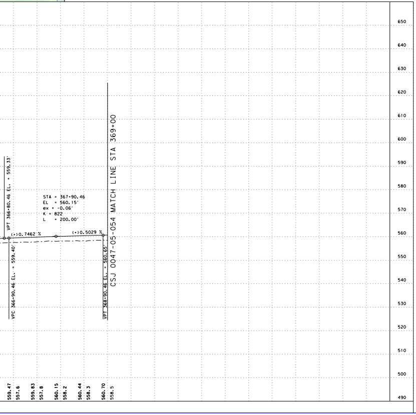
UTILITY LEGEND

WATER	—W1—·—W1—·—W1—·—	CITY OF MCKINNEY WATER
WATER	—·—·—W1 (C)—·—·—	CITY OF MCKINNEY WATER
WATER	—·—·— W1 (D) —·—·—	CITY OF MCKINNEY WATER
WATER	—·—·—W2 (C)—·—·—	NORTH TEXAS MUNICIPAL WATER DISTRICT
WATER	—·—·—W3 (D)—·—·—	CITY OF IRVING WATER
WATER	—W4—·—W4—·—W4—·—	NORTH COLLINS WATER SUPPLY
WATER	—·—·— W4 (C) —·—·—	NORTH COLLINS WATER SUPPLY
WATER	—·—·—W4 (D)—·—·—	NORTH COLLINS WATER SUPPLY
WASTE WATER	—— WW1 —— ——	CITY OF MCKINNEY WASTE WATER
WASTE WATER	——WW1 (C)—— —— -	CITY OF MCKINNEY WASTE WATER
WASTE WATER	—— WW1 (D) —— ——	CITY OF MCKINNEY WASTER WATER
STORM DRAIN	—— SD —— ——	CITY OF MCKINNEY STORM
STORM DRAIN	—— SD (C) —— ——	CITY OF MCKINNEY STORM
STORM DRAIN	—— SD(D) —— ——	CITY OF MCKINNEY STORM
ELECTRIC BURIED	— — — — E1 — —	ONCOR
OVERHEAD ELECTRIC	— — — — OH — —	ONCOR
OVERHEAD ELECTRIC,TELEPHONE	———————— OH-T -	ONCOR, AT&T
OVERHEAD ELECTRIC,COAX	— — — — OH1 —	ONCOR, TIME WARNER CABLE
OVERHEAD ELECTRIC,FIBER,COAX	— — — — OH2 —	ONCOR, AT&T, TIME WARNER CABLE
OH ELECTRIC,FIBER,TELEPHONE,COAX	— — — — OH3 —	ONCOR, AT&T, TIME WARNER CABLE
OVERHEAD ELECTRIC,FIBER	— — — — OH4 —	ONCOR, AT&T
OVERHEAD TELEPHONE, COAX	— — — — OH5 —	AT&T,TIME WARNER CABLE
ELECTRIC BURIED	————————————	TRAFFIC SIGNAL TXDOT
TELEPHONE	—— - —— - ——T1—— - ——	AT&T
TELEPHONE	—— - —— - ——T1 (D)—— -	AT&T
OVERHEAD TELEPHONE	—— - —— - —— T1 OH ——	AT&T
TELEPHONE DUCT	—— - —— - ——T-DUCT1——	AT&T
SUPPORT STRAND	————————————	AT&T
GAS	—G1—··—G1—··—G1—	ATMOS
GAS	—— ·· —— ·· ——G1 (C)——	ATMOS
GAS	—— ·· —— ·· —— G1 (D) ——	ATMOS
FIBER	—— - —— - —— FOC1 ——	AT&T
FIBER	—— - —— - ——FOC1 (D)——	AT&T
FIBER DUCT	—— - —— - —— DUCT2 ——	AT&T
FIBER	—— - —— - —— FOC3 ——	ZAYO
FIBER	—— - —— - —— FOC4 ——	CITY OF IRVING COMMUNICATIONS
CABLE	— — — — CATV —	TIME WARNER CABLE

* LINE SIZES ARE FROM BEST AVAIABLE RECORDS

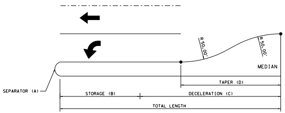
UTILITY LEGEND

○	POWER POLE
○	POLE RISER
EJ	ELECTRIC JUNCTION BOX
▣	ELECTRIC PULL BOX
EM	ELECTRIC METER
▣	ELECTRIC PED
Ⓣ	TELEPHONE MANHOLE
▨	TELEPHONE PED
JB	TELEPHONE JUNCTION BOX
HH	TELEPHONE HAND HOLE
GV	GAS VALVE
GM	GAS METER
WW	WASTE WATER MANHOLE
Ⓦ	WATER MANHOLE
WM	WATER METER
⋈	WATER VALVE
T	WATER CAP
○	FIRE HYDRANT
SD	STORM MANHOLE
▭	STORM INLET
FH	FIBER OPTICS HAND HOLE
▥	STORM GRATE INLET
◁	HEAD WALL



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

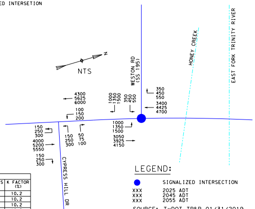

R 50.00'
R 50.00'
MEDIAN
SEPARATOR (A)
TAPER (D)
STORAGE (B)
DECELERATION (C)
TOTAL LENGTH

TURN LANE DETAIL

TURN LANE DETAIL TABLE

CROSS STREET	MEDIAN NOSE STA @ SH 5	MEDIAN NOSE RADIUS (FT)	STORAGE (FT)	DECELERATION (FT)	TAPER (FT)	TOTAL LENGTH (FT)	L/R	SB/NB
		(A)	(B)	(C)	(D)			
CYPRESS HILL DR	316+94.84	4	100	275	100	375	L	NB
PRIVATE DRIVEWAY	317+69.57	4	100	275	100	375	L	SB
PRIVATE DRIVEWAY	329+73.59	4	100	275	100	375	L	NB
U TURN LANE	330+33.36	4	100	260	100	360	L	NB
WESTON RD*	337+01.48	4	100	275	100	375	L	NB
WESTON RD*	337+61.48	4	100	275	100	375	L	SB
U TURN LANE	361+99.05	4	0	160	50	160	L	NB
PRIVATE DRIVEWAY	362+59.05	4	100	275	100	375	L	SB

* SIGNALIZED INTERSETION


N
NTS
WESTON RD (SS 195)
HONEY CREEK
EAST FORK TRINITY RIVER
CYPRESS HILL DR
4300 5625 6000
100 150 200
1000 1350 1500
350 450 550
350 450 550
3400 4425 4700
1000 1350 1500
3050 3925 4150
150 250 300
4000 5200 5550
150 250 300
150 250 300
50 75 100

LEGEND:

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

SOURCE: TxDOT TP&P 01/31/2019

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

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'

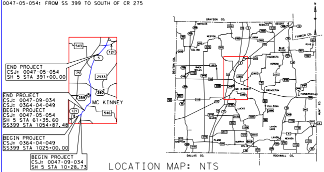
PROJECT LENGTH

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.
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
CAREN D. CHAMBERS P.E. 99772
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 RAMPS AND CROSS STREETS

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

PLAN & PROFILE

SH 5

STA 316+00 TO STA 369+00

ROLL 8 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-008
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc	SH 5

FILE: ...\5RPP00+S108.dgn