Texas Department of Transportation

© 2020 Texas Department of Transportation; all rights reserved

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

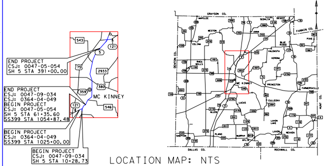
PROJECT LENGTH

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.
DENTON CO.
HUNT CO.
DALLAS CO.
ROCKWALL CO.
N

LOCATION MAP: NTS

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

APRIL 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

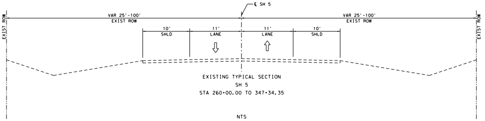
PLAN & PROFILE

SH 5

STA 260+00 TO STA 316+00

ROLL 7 OF 10 ROLLS

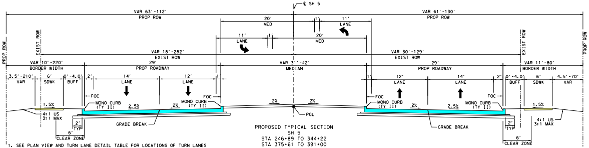
DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		ROLL NO.
BAKER	6	XX (XX) XXXX		S-007
DRAWN BY:	STATE	DIST.	COUNTY	
BAKER	TEXAS	DAL	COLLIN	
CHECKED BY:	CONT	SEC	JOB	HIGHWAY NO.
BAKER	0047	05	054, etc.	SH 5



℄ 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

NTS



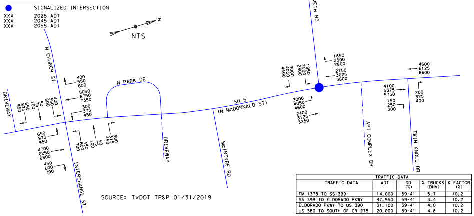
℄ SH 5
VAR 63'-112'
PROP ROW
VAR 61'-130'
PROP ROW
20'
MED
11'
LANE
1'
11'
LANE
1'
20'
MED
PROP ROW
EXIST ROW
VAR 18'-282'
EXIST ROW
VAR 30'-129'
EXIST ROW
EXIST ROW
PROP ROW
VAR 10'-220'
BORDER WIDTH
29'
PROP ROADWAY
VAR 31'-42'
MEDIAN
29'
PROP ROADWAY
VAR 11'-80'
BORDER WIDTH
3.5'-210'
VAR
6'
SDWK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

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.

LEGEND:

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



N
NTS
N CHURCH ST
INTERCHANGE ST
DRIVEWAY
DRIVEWAY
N PARK DR
SH 5
(N McDONNALD ST)
McINTYRE RD
WILMETH RD
APT COMPLEX DR
TWIN KNOLL DR
400 550 600
5050 6750 7350
300 375 450
400 550 600
50 75 100
650 875 950
650 875 950
4700 6250 6800
450 600 700
700 600 450
100 75 50
450 375 300
3000 4050 4600
1850 2500 2800
1850 2500 2800
2750 3625 3800
3000 4050 4600
2400 3125 3250
4600 6125 6600
4100 5375 5750
150 250 300
200 325 400

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

CHAIN NAME	CURVE NAME	P.I. STATION
℄ SH5	CLSH5-17	274+94.36
℄ SH5	CLSH5-18	292+65.73
℄ SH5	CLSH5-19	303+01.16
℄ CHU	CLCHU-1	10+90.70
℄ CHU	CLCHU-2	13+25.02
℄ PAR	CLPAR-1	12+32.65
℄ NPAR	CLNPAR-1	12+63.36
℄ MCI	CLMCI-1	12+17.67
℄ TWIN	CLTWIN-1	11+61.85

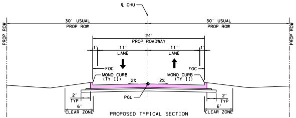
TIME: 11:41:50 PM
PEN TABLE - SH5*TxDOT*McKinney*Schematic.tbl

DATE: 4/3/2020
FILE: ...\SRPP00*S107.dgn
ROLLPLOT - V8i*BAKER*WIN*CO*PDF.pltcfg

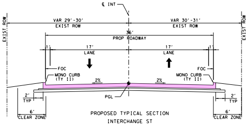
PROPERTY OWNERS

SOURCE:
COLLIN COUNTY APPRAISAL DISTRICT
JULY 2019

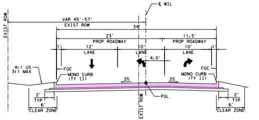
ID#	SITE ADDRESS	OWNER	BUSINESS NAME
196	1512 S MCDONALD ST	SAMARITAN INN INC	
197	1515 N MCDONALD ST	HIGHWAY 5 DEPOT LP	AT&T SERVICES
198	1533 N MCDONALD ST	NORTH BAYPORT INDUSTRIAL PARK II LTD &	UNITED RENTALS
199	1615 N MCDONALD ST	1622 ROGERS ROAD LTD	METRO IRRIGATION SUPPLY COMPANY
200	401 INTERCHANGE ST	KOUROSH INVESTMENTS LLC	PRECISION ALIGN & AUTO SERVICE
201	1625 S MCDONALD ST	BRIAN ROPER	
202	N MCDONALD ST	AMON BRIAN ROPER	
203	1710 MCDONALD ST N	KELLOGG SOLUTIONS LLC	SAMARITAN INN
204	1723 N MCDONALD ST	SAMARITAN INN INC	THE NORTH TEXAS GATEWAY APTS
205	1720 N MCDONALD ST	MCKINNEY NURSING HMS LTD	NORTH PARK HEALTH & REHAB CENTER
206	1725 S MCDONALD ST	SAMARITAN INN INC	
207	1800 N MCDONALD ST	TYG LEASING LP	TYG
208	MCKINNEY, TX	CITY OF MCKINNEY	
209	STATE HWY 5	SP5 CONLEY COMMONS MASTER LLC	
210	MCKINNEY, TX	CITY OF MCKINNEY	OAK HOLLOW GOLF COURSE
211	2010 N MCDONALD ST	SLOAN CREEK LTD & PLF LTD	
212	3101 N MCDONALD ST	DFA LTD	OAK HOLLOW
213	1028 N MCDONALD ST	ACIS PROPERTIES LLC	
214	3109 N MCDONALD ST	VEENA & BODHIREDDY	
215	MCKINNEY, TX 75071	VEENA & BODHIREDDY	
216	MCKINNEY, TX 75071	WILMETH AND FIVE CORNER LLC	
217	3300 N MCDONALD ST	CREEK POINT LP	CREEK POINT APARTMENTS TC
218	MCKINNEY, TX 75071	N - MCDONALD LLC	
219	3352 N MCDONALD ST	RSJS WAREHOUSE LTD	
220	400 TWIN KNOLL DR	JEFFERY T & DANA L GULESERIAN	
220A	MCKINNEY, TX 75071	ASSOCIATION OF TRINITY HEIGHTS HOMEOWNERS INC	
221	3303 N MCDONALD ST	CROOKED CREEK INC	MCD INNOVATIONS
222	401 TWIN KNOLL DR	DOMINIC BURKS	
222A	MCKINNEY, TX 75071	ASSOCIATION OF TRINITY HEIGHTS HOMEOWNERS INC	


℄ CHU
30' USUAL
PROP ROW
30' USUAL
PROP ROW
PROP ROW
PROP ROW
24'
PROP ROADWAY
11'
LANE
11'
LANE
FOC
FOC
MONO CURB
(TY II)
MONO CURB
(TY II)
2%
2%
PGL
2'
TYP
2'
TYP
6'
CLEAR ZONE
6'
CLEAR ZONE

PROPOSED TYPICAL SECTION
CHURCH ST
STA 11+77 TO STA 17+89
NTS


℄ INT
VAR 29'-30'
EXIST ROW
VAR 30'-31'
EXIST ROW
EXIST ROW
EXIST ROW
36'
PROP ROADWAY
17'
LANE
17'
LANE
FOC
FOC
MONO CURB
(TY II)
MONO CURB
(TY II)
2%
2%
PGL
2'
TYP
2'
TYP
6'
CLEAR ZONE
6'
CLEAR ZONE

PROPOSED TYPICAL SECTION
INTERCHANGE ST
STA 18+89 TO STA 20+50
NTS


℄ WIL
EXIST ROW
VAR 45'-57'
EXIST ROW
34'
23'
PROP ROADWAY
11.5'
PROP ROADWAY
12'
LANE
10'
LANE
10'
LANE
4.0'
4:1 US
3:1 MAX
FOC
FOC
MONO CURB
(TY II)
MONO CURB
(TY II)
2%
2%
PGL
EXIST ROW
2'
TYP
2'
TYP
6'
CLEAR ZONE
6'
CLEAR ZONE

PROPOSED TYPICAL SECTION
WILMETH RD
STA 11+00 TO STA 12+57
NTS

HORIZONTAL ALIGNMENT DATA

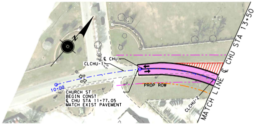
P.I. EASTING	P.I. NORTHING	RADIUS	DELTA	LENGTH	TANGENT	P.C. STATION	P.T. STATION
2,545,743.61	7,133,782.40	950.00'	10° 07' 42.75" RT	167.94'	84.19'	274+10.17	275+78.10
2,546,067.07	7,135,524.44	1,909.86'	19° 10' 15.53" LT	639.03'	322.53'	289+43.20	295+82.23
2,545,910.39	7,136,554.05	1,450.00'	25° 08' 33.56" RT	636.29'	323.35'	299+77.80	306+14.10
2,545,046.72	7,133,069.94	1,091.35'	9° 30' 06.84" RT	180.99'	90.70'	10+00.00	11+80.99
2,545,209.27	7,133,239.29	333.00'	46° 46' 49.43" RT	271.89'	144.03'	11+80.99	14+52.87
2,545,619.49	7,133,625.30	333.00'	39° 29' 32.77" LT	229.53'	119.53'	11+13.11	13+42.64
2,545,791.79	7,134,323.71	333.00'	8° 26' 22.61" RT	49.05'	24.57'	12+38.79	12+87.84
2,546,257.90	7,135,566.14	2,500.00'	1° 19' 17.14" RT	57.66'	28.83'	11+88.84	12+46.50
2,546,397.43	7,137,629.09	333.00'	17° 51' 22.71" LT	103.78'	52.31'	11+09.54	12+13.32

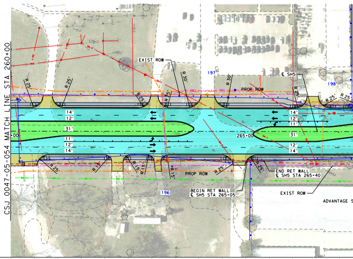
COLOR LEGEND

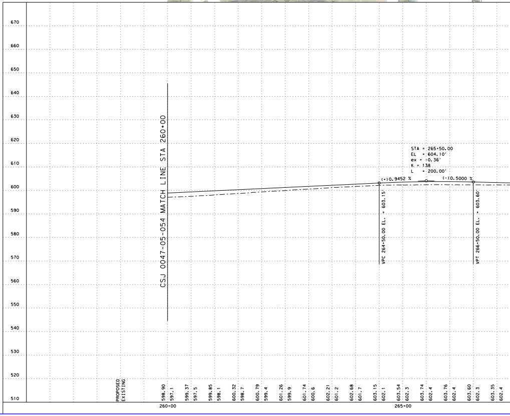
🟦	PROPOSED MAINLANES
🟧	PROPOSED BRIDGE
🟨	PROPOSED DRIVEWAY
🟪	PROPOSED CROSS STREET
🟫	PROPOSED RAMP
🟦	PROPOSED SIDEWALK AND PAVED MEDIAN
🟩	PROPOSED LANDSCAPED MEDIAN
🟧	FUTURE BY OTHERS
⬛	EXISTING BRIDGE TO REMAIN
⬜	100 YEAR FLOOD PLAIN
🟪	EXISTING PAVEMENT (BY OTHERS)
▨	EXISTING PAVEMENT TO BE REMOVED
☒	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

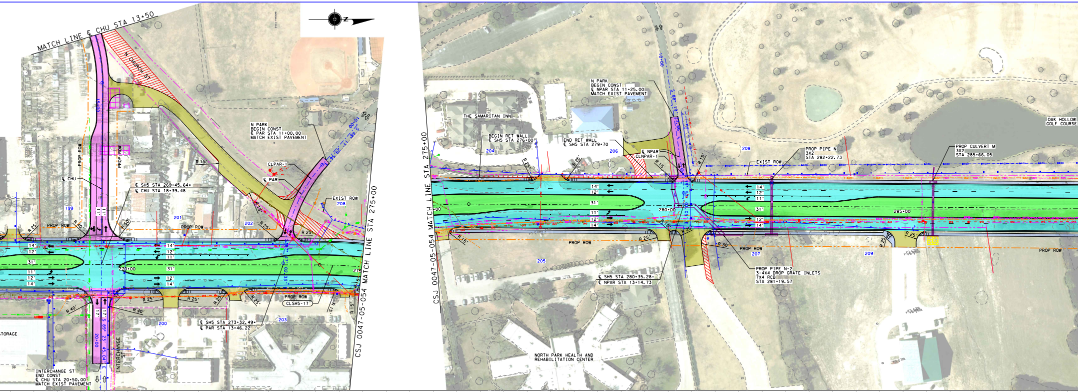
NOTES:

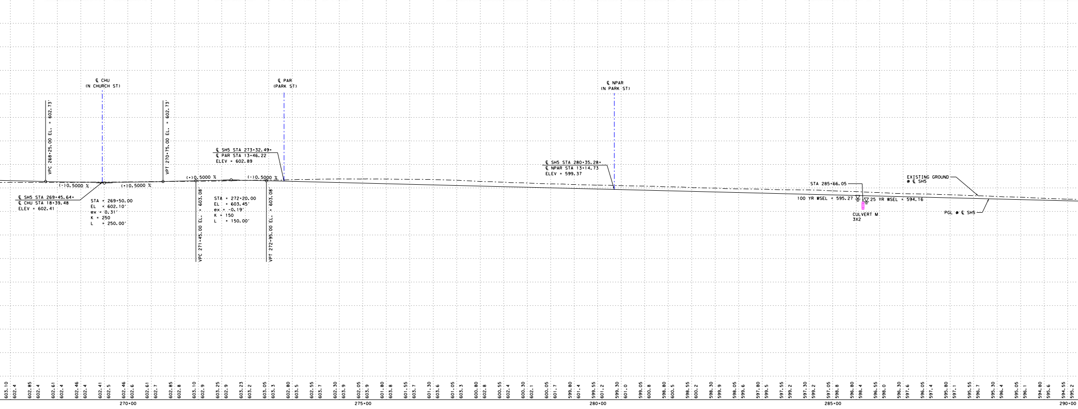
1. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT, FACE OF CURB, RAIL, UNLESS OTHERWISE NOTED.
2. MEDIAN OPENINGS WERE DETERMINED IN COORDINATION WITH LOCAL GOVERNMENT. FINAL LOCATION OF MEDIAN OPENINGS WILL BE DETERMINED IN THE PS&E DEVELOPMENT PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT.
3. SUPERELEVATION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

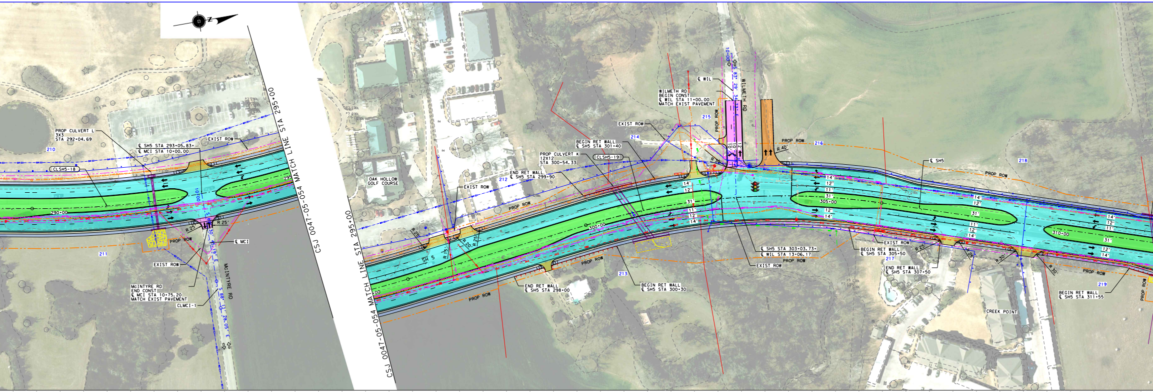

N
℄ CHU
CLCHU-1
10+00
CHURCH ST
BEGIN CONST
℄ CHU STA 11+77.05
MATCH EXIST PAVEMENT
PROP ROW
CLCHU-2
MATCH LINE ℄ CHU STA 13+50

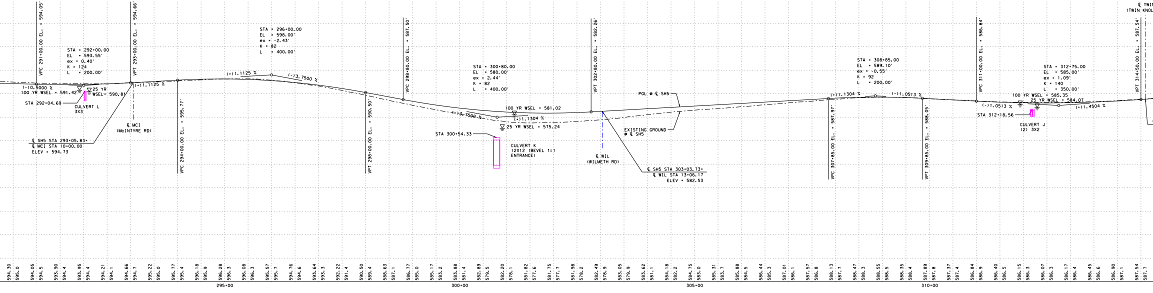

CSJ 0047-05-054 MATCH LINE STA 260+00
EXIST ROW
197
R 30'
R 30'
℄ SH5
198
PROP ROW
R 25'
R 25'
R 25'
R 25'
R 25'
14'
12'
31'
11'
12'
14'
14'
12'
11'
31'
12'
14'
265+00
R 25'
R 15'
R 15'
R 15'
R 15'
PROP ROW
R 25'
R 25'
END RET WALL
℄ SH5 STA 265+40
196
BEGIN RET WALL
℄ SH5 STA 265+05
EXIST ROW
ADVANTAGE S

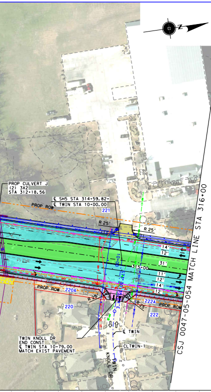



MATCH LINE ℄ CHU STA 13+50
N CHURCH ST
N PARK
BEGIN CONST
℄ PAR STA 11+00.00
MATCH EXIST PAVEMENT
CLPAR-1
℄ PAR
℄ CHU
℄ SH5 STA 269+45.64=
℄ CHU STA 18+39.48
PROP ROW
EXIST ROW
R 15'
R 25'
R 40'
R 50'
199
200
201
202
203
208
14'
12'
11'
31'
17'
270+00
275
15+00
20+00
10+00
S 89° 23' 45.04" E
S 48° 17' 29.56"
S 87° 47' 02.33"
PROP ROW
CLSH5-17
℄ SH5 STA 273+32.49=
℄ PAR STA 13+46.22
STORAGE
INTERCHANGE ST
INTERCHANGE ST
END CONST
℄ CHU STA 20+50.00
MATCH EXIST PAVEMENT
CSJ 0047-05-054 MATCH LINE STA 275+00
N
THE SAMARITAN INN
N PARK
BEGIN CONST
℄ NPAR STA 11+25.00
MATCH EXIST PAVEMENT
BEGIN RET WALL
℄ SH5 STA 276+00
END RET WALL
℄ SH5 STA 279+70
204
206
208
℄ NPAR
CLNPAR-1
R 15'
R 25'
R 30'
EXIST ROW
PROP PIPE N
3X2
STA 282+22.73
PROP CULVERT M
3X2
STA 285+66.05
OAK HOLLOW
GOLF COURSE
280+00
285+00
S 88° 19' 25.00"
PROP ROW
205
207
209
℄ SH5 STA 280+35.28=
℄ NPAR STA 13+14.73
PROP PIPE N-2
3-4X4 DROP GRATE INLETS
7X4 RCB
STA 281+19.57
NORTH PARK HEALTH AND
REHABILITATION CENTER


℄ CHU
(N CHURCH ST)
℄ PAR
(PARK ST)
℄ NPAR
(N PARK ST)
VPC 268+25.00 EL. = 602.73'
VPT 270+75.00 EL. = 602.73'
(-)0.5000 %
(+)0.5000 %
(+)0.5000 %
(-)0.5000 %
℄ SH5 STA 269+45.64=
℄ CHU STA 18+39.48
ELEV = 602.41
STA = 269+50.00
EL = 602.10'
ex = 0.31'
K = 250
L = 250.00'
VPC 271+45.00 EL. = 603.08'
VPT 272+95.00 EL. = 603.08'
STA = 272+20.00
EL = 603.45'
ex = -0.19'
K = 150
L = 150.00'
℄ SH5 STA 273+32.49=
℄ PAR STA 13+46.22
ELEV = 602.89
℄ SH5 STA 280+35.28=
℄ NPAR STA 13+14.73
ELEV = 599.37
STA 285+66.05
100 YR WSEL = 595.27
25 YR WSEL = 594.16
CULVERT M
3X2
EXISTING GROUND
@ ℄ SH5
PGL @ ℄ SH5
603.10
602.4
602.85
602.4
602.61
602.4
602.46
602.4
602.41
602.5
602.46
602.6
602.61
602.7
602.85
602.8
603.10
602.9
603.25
602.9
603.23
603.2
603.05
603.3
602.80
603.5
602.55
603.7
602.30
603.9
602.05
603.9
601.80
603.8
601.55
603.7
601.30
603.6
601.05
603.3
600.80
602.8
600.55
602.4
600.30
602.1
600.05
601.7
599.80
601.4
599.55
601.2
599.30
601.0
599.05
600.8
598.80
600.5
598.55
600.2
598.30
599.9
598.05
599.6
597.80
599.5
597.55
599.2
597.30
599.2
597.05
598.8
596.80
598.4
596.55
598.0
596.30
597.6
596.05
597.4
595.80
597.1
595.55
596.7
595.30
596.4
595.05
596.1
594.80
595.6
594.55
595.2
270+00
275+00
280+00
285+00
290+00


PROP CULVERT L
3X3
STA 292+04.69
210
CLSH5-18
290+00
℄ SH5 STA 293+05.83=
℄ MCI STA 10+00.00
EXIST ROW
10+00
R 25'
R 25'
PROP ROW
℄ MCI
211
EXIST ROW
McINTYRE RD
END CONST
℄ MCI STA 10+75.20
MATCH EXIST PAVEMENT
CLMCI-1
McINTYRE RD
CSJ 0047-05-054 MATCH LINE STA 295+00
CSJ 0047-05-054 MATCH LINE STA 295+00
OAK HOLLOW
GOLF COURSE
EXIST ROW
212
PROP ROW
SH 5
R 15'
R 20'
R 25'
R 25
END RET WALL
℄ SH5 STA 299+90
PROP CULVERT K
12X12
STA 300+54.33
CLSH5-19
BEGIN RET WALL
℄ SH5 STA 301+40
EXIST ROW
214
300+00
END RET WALL
℄ SH5 STA 298+00
213
BEGIN RET WALL
℄ SH5 STA 300+30
WILMETH RD
BEGIN CONST
℄ WIL STA 11+00.00
MATCH EXIST PAVEMENT
℄ WIL
10+00
S 83° 29' 34.73" E
WILMETH RD
215
PROP ROW
10'
10'
12'
R 30'
R 40'
PROP ROW
216
14'
12'
31'
11'
12'
14'
℄ SH5 STA 303+03.73=
℄ WIL STA 13+06.17
PROP ROW
EXIST ROW
14'
12'
11'
31'
305+00
12'
14'
℄ SH5
218
PROP ROW
14'
12'
31'
11'
12'
14'
EXIST ROW
BEGIN RET WALL
℄ SH5 STA 305+50
217
END RET WALL
℄ SH5 STA 307+50
R 25
R 25
R 30'
R 30'
CREEK POINT
14'
12'
11'
310+00
31'
12'
14'
PROP ROW
219
BEGIN RET WALL
℄ SH5 STA 311+55
PROP ROW


VPC 291+00.00 EL. = 594.05'
STA = 292+00.00
EL = 593.55'
ex = 0.40'
K = 124
L = 200.00'
(-)0.5000 %
100 YR WSEL = 591.42
25 YR
WSEL = 590.81
STA 292+04.69
CULVERT L
3X3
VPT 293+00.00 EL. = 594.66'
(+)1.1125 %
℄ MCI
(McINTYRE RD)
℄ SH5 STA 293+05.83=
℄ MCI STA 10+00.00
ELEV = 594.73
VPC 294+00.00 EL. = 595.77'
STA = 296+00.00
EL = 598.00'
ex = -2.43'
K = 82
L = 400.00'
(+)1.1125 %
(-)3.7500 %
VPT 298+00.00 EL. = 590.50'
VPC 298+80.00 EL. = 587.50'
STA = 300+80.00
EL = 580.00'
ex = 2.44'
K = 82
L = 400.00'
(-)3.7500 %
100 YR WSEL = 581.02
(+)1.1304 %
25 YR WSEL = 575.24
STA 300+54.33
CULVERT K
12X12 (BEVEL 1:1
ENTRANCE)
VPT 302+80.00 EL. = 582.26'
℄ WIL
(WILMETH RD)
℄ SH5 STA 303+03.73=
℄ WIL STA 13+06.17
ELEV = 582.53
PGL @ ℄ SH5
EXISTING GROUND
@ ℄ SH5
VPC 307+85.00 EL. = 587.97'
STA = 308+85.00
EL = 589.10'
ex = -0.55'
K = 92
L = 200.00'
(+)1.1304 %
(-)1.0513 %
VPT 309+85.00 EL. = 588.05'
VPC 311+00.00 EL. = 586.84'
(-)1.0513 %
STA 312+18.56
CULVERT J
(2) 3X2
100 YR WSEL = 585.35
25 YR WSEL = 584.07
STA = 312+75.00
EL = 585.00'
ex = 1.09'
K = 140
L = 350.00'
(+)1.4504 %
VPT 314+50.00 EL. = 587.54'
℄ TWI
(TWIN KNOL
594.30 595.0
594.05 594.5
593.90 594.4
593.95 594.4
594.21 594.1
594.66 594.7
595.22 595.0
595.77 595.4
596.18 595.9
596.28 596.3
596.08 596.3
595.57 595.7
594.76 594.6
593.64 593.3
592.22 591.4
590.50 589.4
588.63 587.1
586.77 585.0
585.17 583.2
583.88 581.4
582.89 579.5
582.20 578.1
581.82 577.6
581.75 577.7
581.98 578.2
582.49 578.9
583.05 579.9
583.62 581.1
584.18 582.2
584.75 583.0
585.31 583.7
585.88 584.5
586.44 585.3
587.01 586.1
587.57 586.8
588.13 587.7
588.47 588.3
588.55 588.5
588.35 588.4
587.89 587.8
587.37 587.4
586.84 586.9
586.40 586.5
586.15 586.3
586.07 586.3
586.17 586.4
586.45 586.6
586.90 587.1
587.54 587.7
295+00
300+00
305+00
310+00


PROP CULVERT J
(2) 3X2
STA 312+18.56
℄ SH5 STA 314+59.82=
℄ TWIN STA 10+00.00
PROP ROW
221
R 25'
R 25'
14'
12'
31'
315+00
10+00
11'
12'
14'
12'
PROP ROW
220A
R 25'
220
222A
R 25'
PROP ROW
222
℄ TWIN
CLTWIN-1
TWIN KNOLL DR
END CONST
℄ TWIN STA 10+79.00
MATCH EXIST PAVEMENT
TWIN KNOLL DR
CSJ 0047-05-054 MATCH LINE STA 316+00

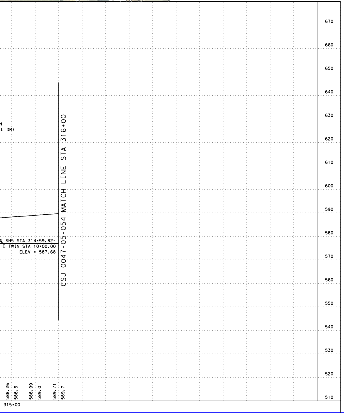
UTILITY LEGEND

WATER	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	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	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

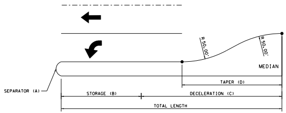
UTILITY LEGEND

⌖	POWER POLE
⌖	POLE RISER
J	ELECTRIC JUNCTION BOX
▣	ELECTRIC PULL BOX
M	ELECTRIC METER
▣	ELECTRIC PED
Ⓣ	TELEPHONE MANHOLE
⊘	TELEPHONE PED
Ⓑ	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
—‖—	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
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)			
PRIVATE DRIVEWAY	263+90.89	4	100	275	100	375	L	NB
PRIVATE DRIVEWAY	265+17.92	4	100	160	100	260	L	SB
N CHURCH ST	269+07.64	4	100	160	100	260	L	NB
N CHURCH ST	269+83.66	4	100	275	100	375	L	SB
N PARK	279+51.34	4	100	275	100	375	L	NB
PRIVATE DRIVEWAY	280+72.67	4	100	275	100	375	L	SB
MCINTYRE RD	292+75.83	4	100	310	100	410	L	NB
WILMETH RD*	302+73.15	4	100	310	100	410	L	NB
WILMETH RD*	304+19.78	4	100	275	100	375	L	SB
U TURN LANE	309+03.87	4	100	275	100	375	L	NB
U TURN LANE	309+63.87	4	100	275	100	375	L	SB

* SIGNALIZED INTERSETION

Texas Department of Transportation

©2020 Texas Department of Transportation; all rights reserved

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'

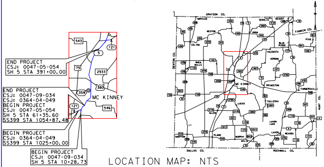
PROJECT LENGTH

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
N
GRAYSON CO.
FANNIN CO.
DALLAS CO.
ROCKWALL CO.
DENTON CO.
HUNT CO.
WESTON
CELINA
ANNA
MC KINNEY
PRINCETON
FARMERSVILLE
LUCAS
WYLIE
MURPHY
PLANO
LAVON
NEVADA

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 260+00 TO STA 316+00

ROLL 7 OF 10 ROLLS

DESIGNED BY:	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.			ROLL NO.
BAKER	6	XX (XX) XXXX			S-007
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•S107.dgn