TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT

COLLIN COUNTY

DESIGN SCHEMATIC

WILLIAM L. HALE, P.E.
DISTRICT ENGINEER

FM 546 (NEW ALIGNMENT)

CSJ: 1013-01-026

FROM: SH 5
TO: WEST OF CR 317

NET LENGTH OF PROJECT: 1.70 MILES
FUNCTIONAL CLASSIFICATION:
TxDOT - MINOR ARTERIAL
CITY OF McKINNEY - URBAN MAJOR ARTERIAL (MAD)
FM 546= 19,810 ADT (2010) 35,780 ADT (2030)

DESIGN SPEED:
FM 546 = 45 MPH
SH 5 = 60 MPH *
AIRPORT ROAD = 45 MPH
COUCH ROAD = 35 MPH
U-TURN LANE = 15 MPH
* PER TEXAS MOTOR VEHICLE BOARD, 1955

LOCATION MAP

ROLL INDEX

ROLL 1: FM 546 NEW ALIGNMENT
BEGIN PROJECT STA 10+44.90 TO STA 55+00

ROLL 2: FM 546 NEW ALIGNMENT
STA 55+00 TO END PROJECT STA 99+79.77

ROLL 3: SH 5 PROPOSED IMPROVEMENTS PLAN
AND CROSS STREETS PROFILES

PREPARED BY:
CIVIL ASSOCIATES, INC.
TBPE REGISTRATION NO. F-006998

NASER ABUSAAD, P.E., A.I.P.
SERIAL NO. 83200
AUGUST, 2011

BRAD HERNANDEZ, P.E.
SERIAL NO. 100078
AUGUST, 2011

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ROLL 3 OF 3

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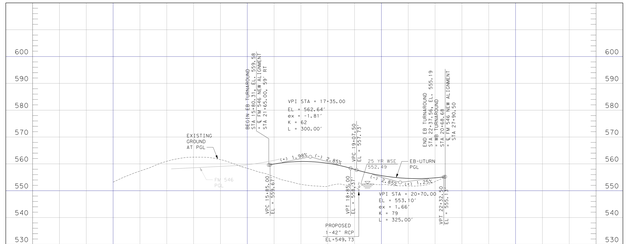
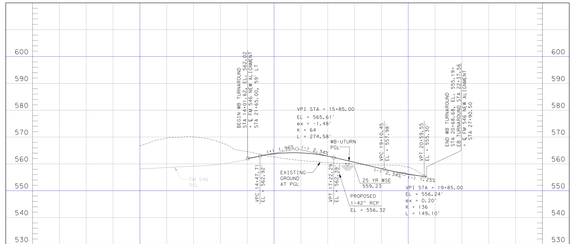
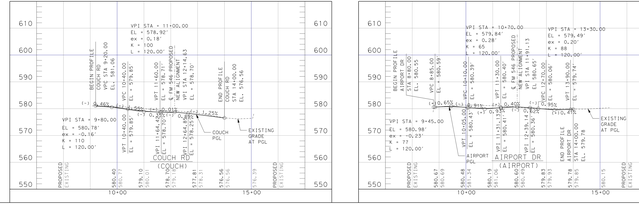
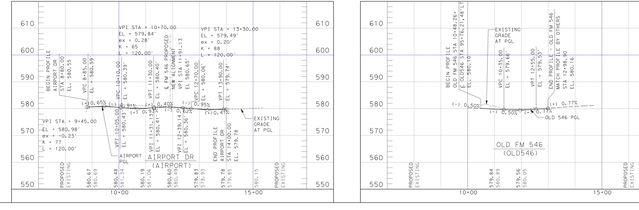
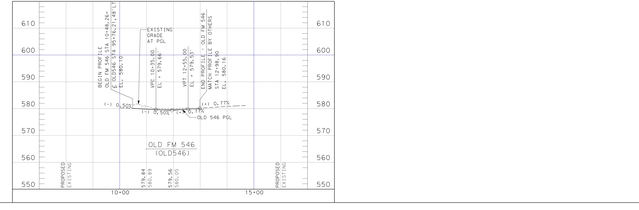










SH 5 NB BASELINE ALIGNMENT CURVE DATA

CURVE NBCURVE1			
P.I. STATION			132+09.27
N	7,116,648.3038	E	2,544,080.0423
DELTA	=	33° 51' 00.00"	(RT)
DEGREE	=	1° 30' 00.00"	(RT)
TANGENT	=	1,143.6783	
LENGTH	=	2,221.6378	
LONG CHORD	=	2,189.0155	
EXTERNAL	=	168.6148	
LONG CHORD	=	2,190.0352	
M.O. STATION	=	130+46.59	
P.C. STATION	=	120+65.59	
N	7,117,170.1464	E	2,544,302.4592
P.T. STATION			142+87.22
N	7,115,836.2392	E	2,543,274.7156
S.L.			
N	7,118,508.0543	E	2,540,580.5461
BACK	=	S 12° 50.63"	W
AHEAD	=	S 44° 45' 40.73"	W
CHORD BEAR	=	S 29° 15.67"	W

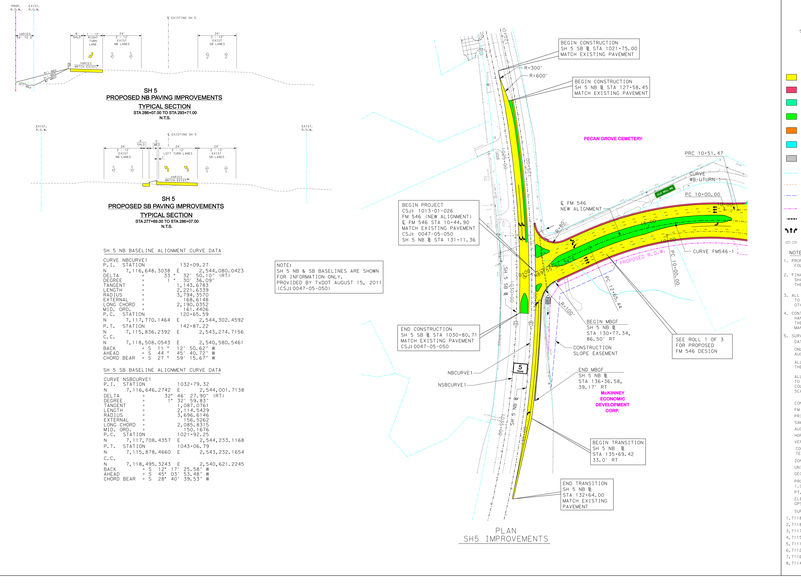
SH 5 SB BASELINE ALIGNMENT CURVE DATA

CURVE NBCURVE1			
P.I. STATION			103+79.32
N	7,116,646.2742	E	2,544,001.7138
DELTA	=	32° 46' 27.90"	(RT)
DEGREE	=	1° 30' 00.00"	(RT)
TANGENT	=	1,047.0761	
LENGTH	=	2,114.5429	
LONG CHORD	=	2,086.0315	
EXTERNAL	=	136.5292	
LONG CHORD	=	2,085.8315	
M.O. STATION	=	102+32.25	
P.C. STATION	=	103+46.79	
N	7,117,708.4357	E	2,544,233.1168
P.T. STATION			1043+06.79
N	7,115,878.4660	E	2,543,232.1654
S.L.			
N	7,118,495.5243	E	2,540,621.2245
BACK	=	S 12° 50.63"	W
AHEAD	=	S 45° 01' 53.48"	W
CHORD BEAR	=	S 28° 40' 39.53"	W

NOTE:
SH 5 NB & SB BASELINES ARE SHOWN FOR INFORMATION ONLY, PROVIDED BY TxDOT AUGUST 15, 2011 (CSJ:0047-05-050)

NOTES:

1. PROPOSED PROFILE GENERALLY FOLLOWS EXISTING.
2. FINAL DRIVEWAY LOCATIONS SHALL BE DETERMINED DURING THE FINAL DESIGN PHASE.
3. ALL DIMENSIONS ARE HORIZONTAL UNLESS OTHERWISE NOTED.
4. CONTROL OF ACCESS ALL BE HANDLED IN ACCORDANCE WITH TxDOT ACCESS MANAGEMENT MANUAL.
5. SURVEY NOTES:
DATE OF SURVEY: AUGUST 11, 2010
ONLY VISIBLE UTILITIES AS OF AUGUST 11, 2010 WERE LOCATED.
ALL POINTS WERE CONVERTED TO THE NGS VRS NETWORK.
ALL POINTS WERE CONVERTED TO SURFACE USING THE TXDOT DATUM: NAD83 (CORS 2002) SCALE FACTOR OF 1.00015275110.
CONTROLS
FM 546 COLLIN COUNTY
PRIMARY CONTROL
SAMPH 29372-06
AUGUST 17, 2010
HORIZ. DATUM NAD-83 (CORS 2002)
VERTICAL DATUM NAVD-88 (CORS 2002)
(CORS) SYSTEM
TEXAS STATE PLANE NAD-83 (CORS 2002)
ZONE: TEXAS NORTH CENTRAL (4202)
UNITSU: U.S. SURVEY FEET
GEOID: GEOID09
PROJECT COMBINED SCALE FACTOR: 1.00015275110 (0.9994973135)
PT. NORTHING, EASTING, ELEV., DESCR.
SAMPH 29372-06 BELOW ARE GPS VERTICAL
SURFACE COORDINATES
1. 7116594.801,2544073.127,592.815,OF 1
2. 7118047.423,2547458.536,593.656,OF 2
3. 7117846.345,2550643.874,594.232,OF 3
4. 7115205.867,2551507.404,594.684,OF 4
5. 7114877.919,2551265.071,594.954,OF 5
6. 7112390.337,2548235.36,536.095, OF 6
7. 7110062.446,2547059.157,592.351,OF 7
8. 7114876.011,2542248.736,570.296,OF 8



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