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, MAY 19, 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 100+04.77

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. 83000
NOVEMBER, 2011

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

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ROLL 3 OF 3

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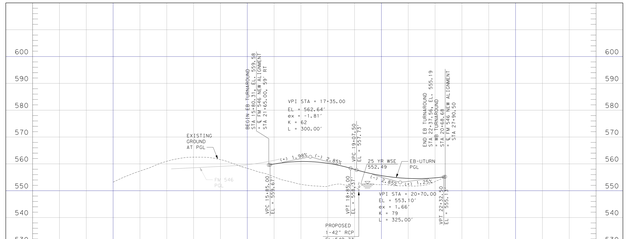
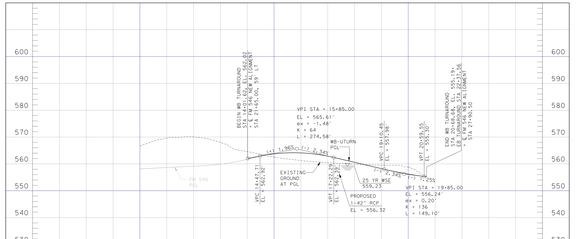
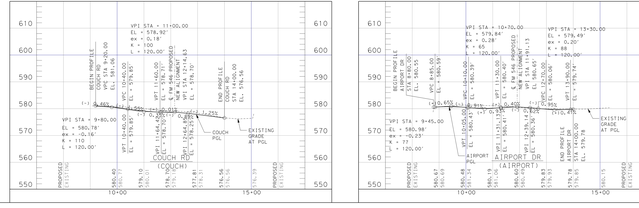
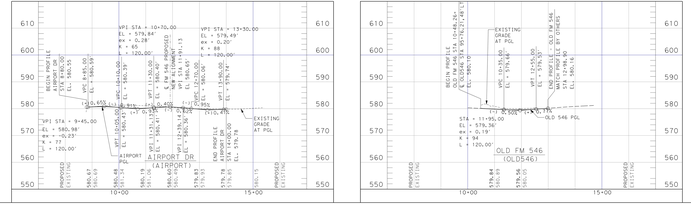








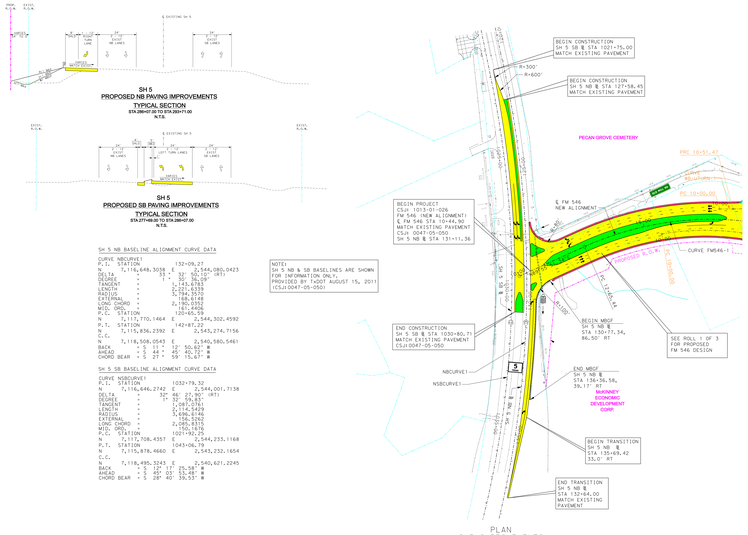
SH 5 NB BASELINE ALIGNMENT CURVE DATA

CURVE NBCURVE1			
P.I. STATION	=	132+09.27	
N	=	7,116,648.3038	E = 2,544,080.0423
DELTA	=	33° 16' 10.0"	(RT)
TANGENT	=	1' 50.10'	
LENGTH	=	3,143.6783'	
LONG CHORD	=	3,127.6378'	
RADIUS	=	5,400.0000'	
EXTERNAL	=	168.6148'	
LONG CHORD	=	2,190.0592'	
M.O. STATION	=	130+46.59	
M.O. STATION	=	105+65.59	
N	=	7,117,170.1464	E = 2,543,302.4592
P.T. STATION	=	142+87.22	
N	=	7,115,836.2392	E = 2,543,274.7156
S.L.	=	1,118,508.0543	E = 2,540,580.5461
BACK	=	S 51° 12' 50.63"	W
AHEAD	=	S 44° 45' 40.73"	W
CHORD BEAR	=	S 27° 59' 15.67"	W

SH 5 SB BASELINE ALIGNMENT CURVE DATA

CURVE NBCURVE1			
P.I. STATION	=	1032+79.32	
N	=	7,116,646.2742	E = 2,544,001.7138
DELTA	=	32° 46' 27.90"	(RT)
TANGENT	=	1,500.00'	
LENGTH	=	2,947.0761'	
LENGTH	=	2,114.5439'	
LONG CHORD	=	2,086.5376'	
EXTERNAL	=	196.5392'	
LONG CHORD	=	2,085.8315'	
M.O. STATION	=	1032+79.32	
M.O. STATION	=	1031+45.25	
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.	=	7,118,495.5243'	E = 2,540,621.2245
BACK	=	S 40° 11' 54.53"	W
AHEAD	=	S 40° 01' 55.48"	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)



SCALE IN FEET

LEGEND

- PROPOSED CONCRETE ROADWAY
- PROPOSED SIDEWALK
- PROPOSED DRIVEWAY
- PROPOSED MEDIAN
- PROPOSED TURNAROUND
- PROPOSED STRUCTURE (BRIDGE)
- PROPOSED TRANSITION PAVEMENT
- EXISTING R.O.W./PROPERTY LINE (ACCESS BY PERMIT ONLY)
- PROPOSED DRAINAGE EASEMENT
- EASEMENT
- PROPOSED R.O.W.
- PROPOSED RETAINING WALL
- TRAFFIC FLOW
- PROPOSED CROSS DRAINAGE STRUCTURE

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 1?, 2010
   ONLY VISIBLE UTILITIES AS OF AUGUST 1?, 2010 WERE LOCATED.
   ALL POINTS WERE LOCATED USING THE WDS VRS NETWORK.
   ALL POINTS WERE CONVERTED TO SURFACE USING THE TXDOT DATUM: NAD83 (CORS 2002) SCALE FACTOR OF 1.00015275?10.
   CONTROLS
   FM 546 COLLIN COUNTY
   PRIMARY CONTROL
   SAMPH 29?27-06
   AUGUST 1?, 2010
   HORIZ. DATUM NAD-83 (CORS 2002)
   GEOID MODEL NAD-88 (CORS 2002)
   (CORS) SYSTEM
   TEXAS STATE PLANE NAD-83 (CORS 2002)
   ZONE: TEXAS NORTH CENTRAL (4202)
   UNITSI U.S. SURVEY FEET
   GEOID GEOID09
   PROJECT COMBINED SCALE FACTOR: 1.00015275?10.9998473?351
   PT. NORTHING, EASTING, ELEV, DESCR.
   PT. NORTHING, EASTING, BELOW ARE GPS VERTICES
   SURFACE COORDINATES
   1, 7?18594.801,2544?23.?27,592.815,OF 1
   2, 7?18647.423,2547?458.536,593.656,OF 2
   3, 7?17846.345,2550643.874,584.232,OF 3
   4, 7?15205.867,2551507.404,584.686,OF 4
   5, 7?11877.919,2551265.071,582.954,OF 5
   6, 7?12390.337,2548235.36,536.095, OF 6
   7, 7?16062.446,2547059.15?,582.351,OF 7
   8, 7?14876.011,2542248.736,570.296,OF 8

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COLLIN COUNTY

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PROJECT LOCATION
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