Texas Department of Transportation®

DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

STATE HIGHWAY 114
DESIGN SCHEMATIC
AT FM 156
DENTON COUNTY
PROJECT LENGTH: 1.079 MI.

CONTROL: 0353–02–063
PROJECT LIMIT: AT FM 156
FROM 0.53 Mi. WEST OF FM 156
TO 0.54 Mi. EAST OF FM 156

FUNCTIONAL CLASS: RURAL PRINCIPAL ARTERIAL

DESIGN SPEED SH 114: 70 mph MAINLANES
DESIGN SPEED FM 156: 45 mph DIVIDED ARTERIAL
DESIGN SPEED SH 114: 40 mph FRONTAGE ROADS
DESIGN SPEED SH 114: 50 mph RAMPS
DESIGN SPEED SH 114: 35 mph DIRECT CONNECTORS
DESIGN SPEED SH 114: 30 mph SIDE STREETS

ROLL 1 OF 3

SCALE: 1″ = 200′ H, 1″ = 20′ V

JANUARY 18, 2013

HALFF ASSOCIATES, INC.
PRELIMINARY FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

NAME	P.E. NO.	DATE
M.E. ROMANOWSKI	56306	1/18/2013

TBPE FIRM #F-312

HALFF
1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200

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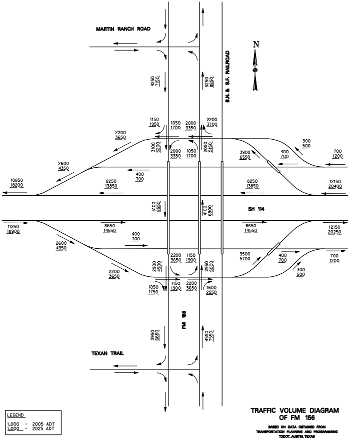
LEGEND

EXISTING R.OW.
PROPOSED R.OW.
→ DIRECTION OF TRAFFIC
EXISTING PROPERTY LINE
EXISTING LOT LINE
FUTURE LOT LINE
ROW AQUISITION
GRADING LIMITS
SURVEY LINE
CITY LIMITS
100 FLOODPLAIN LIMITS
548 100 YR FLOOD ELEVATION
12" W EXISTING WATER LINE
GAS EXISTING GAS LINE
8" SS EXISTING SANITARY SEWER
EXISTING STORM SEWER
FIBER OPTIC EXISTING FIBER OPTICS
● EXISTING POWER POLE
○MH EXISTING SANITARY SEWER MANHOLE
EXISTING CONTOURS
EXISTING PAVEMENT EDGES
EXISTING UTILITY EASEMENTS
PROPOSED SH 114 CENTERLINE
PROPOSED DRAINAGE EASEMENT
PROPOSED CONTROL OF ACCESS
PROPOSED RETAINING WALL
PROPOSED STORM SEWER
PROPOSED MAINLANES PAVEMENT
PROPOSED FUTURE MAINLANES PAVEMENT
PROPOSED FUTURE RAMP PAVEMENT
PROPOSED FRONTAGE ROAD PAVEMENT
PROPOSED SIDE STREET PAVEMENT
PROPOSED FM 156 PAVEMENT
PROPOSED BRIDGE
PROPOSED FUTURE BRIDGE

NOTES

1.) THE FLOODPLAIN BOUNDARY LIMITS WERE OBTAINED FROM FIRM COMMUNITY-PANEL NUMBERS:

48121C0490 G, APRIL 18, 2011
48121C0495 G, APRIL 18, 2011

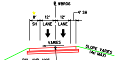

MARTIN RANCH ROAD
N
B.N. & S.F. RAILROAD
4250 7150
5250 8850
1150 1950
1050 1700
2000 3350
2200 3700
2200 3650
3100 5200
2000 3350
1050 1700
2050 5150
3900 6550
400 700
300 500
700 1200
2600 4350
400 700
10850 18200
8250 13850
8250 13850
12150 20400
5100 8550
4100 6900
SH 114
11250 18900
8650 14550
8650 14550
12150 20250
400 700
2600 4350
2200 3650
1150 1900
3500 5700
400 700
700 1200
2900 4900
2950 5000
300 500
2200 3650
1050 1750
1150 1900
2200 3650
1600 2550
FM 156
3950 6650
4550 7550
TEXAN TRAIL
LEGEND
1,000 - 2005 ADT
1,000 - 2025 ADT

TRAFFIC VOLUME DIAGRAM
OF FM 156

BASED ON DATA OBTAINED FROM
TRANSPORTATION PLANNING AND PROGRAMMING
TXDOT, AUSTIN, TEXAS

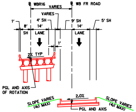
TRAFFIC DIAGRAM

N.T.S.


℄ WBR06
8'
12'
12'
4' SH
SH
LANE
LANE
VARIES
SLOPE VARIES (4:1 MAX)
PGL AND AXIS OF ROTATION

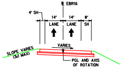
★ TRANSITION FROM 10' TO 8'
FROM STA 984+56.92
TO STA 1002+25.46

WB ENTRANCE RAMP (WBR06)

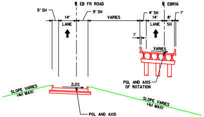

℄ WBR16
VARIES
℄ WB FR ROAD
VARIES
1'
4' SH
9' SH
5' SH
8'
14'
14'
SH
LANE
LANE
1'
2% TYP
PGL AND AXIS OF ROTATION
SLOPE VARIES (4:1 MAX)
2.0%
SLOPE VARIES (4:1 MAX)
PGL AND AXIS OF ROTATION

FUTURE WBR16 EXIT RAMP

WB FRONTAGE RD

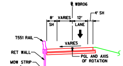

℄ EBR16
4' SH
14'
14'
8'
LANE
LANE
SH
VARIES
SLOPE VARIES (3:1 MAX)
PGL AND AXIS OF ROTATION

EB ENTRANCE RAMP (EBR16)


℄ EB FR ROAD
℄ EBR16
5' SH
9' SH
14'
VARIES
4' SH
14'
8'
1'
LANE
LANE
SH
1'
VARIES
SLOPE VARIES (4:1 MAX)
2.0%
SLOPE VARIES (4:1 MAX)
PGL AND AXIS OF ROTATION
PGL AND AXIS OF ROTATION

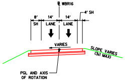
EB FRONTAGE RD

FUTURE EBR16 ENTRANCE RAMP

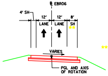

℄ WBR06
8'
VARIES
12'
4' SH
SH
LANE
T551 RAIL
RET WALL
MOW STRIP
4:1 MAX
4'
VARIES
PGL AND AXIS OF ROTATION

ENTRANCE RAMP (WBR06) WITH RETAINING WALL

STA. 997+03.93 TO STA. 998+83.59

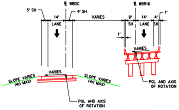

℄ WBR16
8'
14'
14'
4' SH
SH
LANE
LANE
VARIES
SLOPE VARIES (3:1 MAX)
PGL AND AXIS OF ROTATION

WB EXIT RAMP (WBR16)


℄ EBR06
4' SH
12'
12'
8'
LANE
LANE
SH ★★
VARIES
PGL AND AXIS OF ROTATION

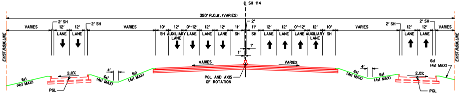
EB EXIT RAMP (EBR06)

★★ TRANSITION FROM 10' TO 8'
FROM STA 982+17.62
TO STA 984+73.35


℄ WBDC
℄ WBR16
5' SH
4' SH
14'
VARIES
8'
14'
4'
1'
LANE
SH
LANE
SH
1'
VARIES
VARIES
SLOPE VARIES (4:1 MAX)
SLOPE VARIES (4:1 MAX)
PGL AND AXIS OF ROTATION
PGL AND AXIS OF ROTATION

WB DIRECT CONNECTOR

FUTURE WBR16 EXIT RAMP

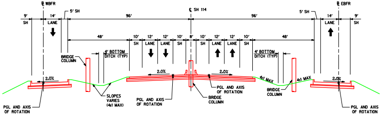

℄ SH 114
350' R.O.W. (VARIES)
EXIST.R.O.W.LINE
VARIES
2' SH
12'
12'
2' SH
VARIES
10'
12'
0'-12'
12'
12'
11'
2'
11'
12'
12'
0'-12'
12'
10'
VARIES
2' SH
12'
12'
2' SH
VARIES
LANE
LANE
SH
AUXILIARY LANE
LANE
LANE
LANE
SH
SH
LANE
LANE
LANE
AUXILIARY LANE
SH
LANE
LANE
1'
1'
VARIES
VARIES
6:1 (4:1 MAX)
2.0%
PGL
4'
6:1 (4:1 MAX)
6:1 (4:1 MAX)
PGL AND AXIS OF ROTATION
6:1 (4:1 MAX)
4'
6:1 (4:1 MAX)
2.0%
PGL
6:1 (4:1 MAX)
EXIST.R.O.W.LINE

EXISTING WB FRONTAGE RD

FUTURE MAINLANES S.H. 114

STA.1009+28.19 TO STA.1020+00.00 (EASTBOUND)
STA.1009+28.19 TO STA.1020+00.00 (WESTBOUND)

EXISTING EB FRONTAGE RD

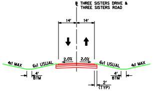

℄ WBFR
℄ SH 114
℄ EBFR
9'
14'
5' SH
96'
96'
5' SH
14'
9'
SH
LANE
LANE
SH
48'
10'
12'
12'
10'
8'
10'
12'
12'
10'
48'
SH
LANE
LANE
SH
SH
LANE
LANE
SH
BRIDGE COLUMN
4' BOTTOM DITCH (TYP)
4' BOTTOM DITCH (TYP)
2.0%
2.0%
2.0%
2.0%
4:1 MAX
4:1 MAX
PGL AND AXIS OF ROTATION
SLOPES VARIES (4:1 MAX)
PGL AND AXIS OF ROTATION
BRIDGE COLUMN
PGL AND AXIS OF ROTATION
BRIDGE COLUMN
PGL AND AXIS OF ROTATION

WB FRONTAGE RD

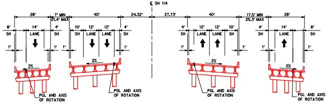
TYPICAL ROAD SECTION S.H. 114

STA.1001+03.00 TO STA.1009+28.19 (EASTBOUND)
STA.1001+31.00 TO STA. 1009+28.19 (WESTBOUND)

EB FRONTAGE RD


℄ THREE SISTERS DRIVE & THREE SISTERS ROAD
14'
14'
4:1 MAX
6:1 USUAL
2.0%
2.0%
6:1 USUAL
4:1 MAX
4' BTM
4' BTM
2' (TYP)

TYPICAL SECTION THREE SISTERS DRIVE & THREE SISTERS ROAD


℄ SH 114
28'
7' MIN 21.4' MAX
40'
24.32'
27.73'
40'
17.5' MIN 25.3' MAX
28'
8'
14'
4'
10'
12'
12'
4'
4'
12'
12'
10'
4'
14'
8'
SH
LANE
SH
SH
LANE
LANE
SH
SH
LANE
LANE
SH
SH
LANE
SH
1'
2%
2%
2%
2%
PGL AND AXIS OF ROTATION
PGL AND AXIS OF ROTATION
PGL AND AXIS OF ROTATION
PGL AND AXIS OF ROTATION

WB FRONTAGE ROAD BRIDGE

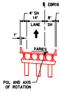
FUTURE WB MAINLANES BRIDGE

FUTURE EB MAINLANES BRIDGE

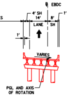
EB FRONTAGE ROAD BRIDGE

TYPICAL BRIDGE SECTION S.H. 114

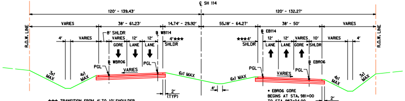
STA.988+30.61 TO STA.991+80.61 (EASTBOUND)
STA.988+24.80 TO STA.991+74.80 (WESTBOUND)


℄ EBR16
4' SH
14'
8'
1'
1'
LANE
SH
VARIES
PGL AND AXIS OF ROTATION

FUTURE EBR16 ENTRANCE RAMP


℄ EBDC
VARIES
4' SH
14'
8'
1'
1'
LANE
SH
VARIES
PGL AND AXIS OF ROTATION

EB DIRECT CONNECTOR

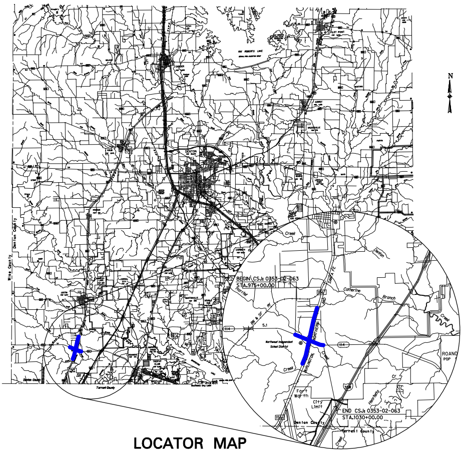

℄ SH 114
120' - 139.43'
120' - 132.27'
R.O.W. LINE
VARIES
38' - 61.23'
14.74' - 29.92'
55.18' - 64.27'
38' - 50'
VARIES
R.O.W. LINE
4'
VARIES
8' SHLDR
VARIES
12'
12'
℄ WB114
4'★★★
SHLDR
★★★4'
SHLDR
℄ EB114
12'
12'
VARIES
10'
VARIES
4'
GORE
LANE
LANE
LANE
LANE
GORE
• SHLDR
℄ WBR06
℄ EBR06
PGL
PGL
PGL
PGL
VARIES
VARIES
3:1 MAX
4:1 MAX
6:1 MAX
6:1 MAX
4:1 MAX
3:1 MAX
2' (TYP)
4'
2' (TYP)

★★★ TRANSITION FROM 4' TO 10' SHOULDER
FROM STA 996+41.91 TO STA 999+46.15
(EASTBOUND) AND FROM STA 995+75.72
TO STA 1000+01.34 (WESTBOUND)

TYPICAL SECTION S.H. 114

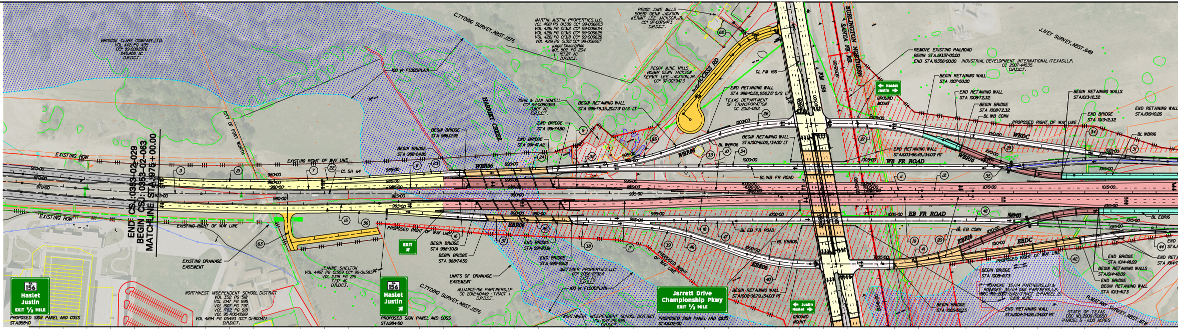
STA. 975+00.00 TO STA. 988+30.61 (EASTBOUND)
STA. 991+80.61 TO STA. 1001+03.00 (EASTBOUND)
STA. 975+00.00 TO STA. 988+24.80 (WESTBOUND)
STA. 988+24.80 TO STA. 1001+31.00 (WESTBOUND)

• EBR06 GORE
BEGINS AT STA. 981+00
TO STA. 987+04.00
WBR16 GORE
BEGINS AT STA. 981+96.00


N
Wise County
Denton County
Tarrant County
DENTON
BEGIN CSJ: 0353-02-063
STA.975+00.00
Harriet
BN & SF RY
5.1
114
156
SANTA FE
AND
NORTHERN
BURLINGTON
Catherine
Branch
Creek
Creek
Creek
Northwest Independent School District
Denton
Creek
114
Cr
ROANOKE POP
Fort Worth
City Limit
Henrietta
156
35W
END CSJ: 0353-02-063
STA.1030+00.00
Denton County
Tarrant County
Creek

LOCATOR MAP

N.T.S.


BRISCOE CLARK COMPANY,LTD.
VOL 4421 PG 435
CC# 99-0092976
245.408 AC
D.R.D.C.T.
100 yr FLOODPLAIN
CITY OF FORT WORTH
EXISTING ROW
EXISTING RIGHT OF WAY LINE
END CSJ:0353-02-029
BEGIN CSJ: 0353-02-063
MATCHLINE STA. 975+00.00
970+00
975+00
980+00
985+00
990+00
995+00
1000+00
1005+00
1010+00
1015+00
CL SH 114
EXISTING DRAINAGE EASEMENT
JEANNE SHELTON
VOL 4467 PG 01559 CC# 99-011585
VOL 2318 PG 215
7.137 AC
D.R.D.C.T.
NORTHWEST INDEPENDENT SCHOOL DISTRICT
VOL 352 PG 518
VOL 1047 PG 995
VOL 1607 PG 797
VOL 1782 PG 918
VOL 95-R0042861
VOL 4894 PG 05493 (CC# 01-80047)
D.R.D.C.T.
156
Haslet
Justin
EXIT ½ MILE
PROPOSED SIGN PANEL AND COSS
STA958+10
EXIT
PROPOSED SIGN PANEL AND COSS
STA984+50
PROPOSED RIGHT OF WAY LINE
C.TYDING SURVEY,ABST.1276
MARTIN JUSTIN PROPERTIES,LLC.
VOL 4261 PG 01309 CC# 99-006623
VOL 4261 PG 01312 CC# 99-006624
VOL 4261 PG 01315 CC# 99-006625
VOL 4261 PG 01318 CC# 99-006626
VOL 4261 PG 01321 CC# 99-006627
Legal Description
VOL 802 PG 204
157.87 AC
D.R.D.C.T.
PEGGY JUNE MILLS
BOBBY GENN JACKSON
KERMIT LEE JACKSON,JR.
CC# 97-0079473
D.R.D.C.T.
HARRIET CREEK
BEGIN BRIDGE
STA 988+01.92
BEGIN BRIDGE
STA 988+24.80
END BRIDGE
STA 991+74.80
END BRIDGE
STA 991+47.42
JOHN & DAN HOWELL
CC# 94-0080393
0.807 AC
D.R.D.C.T.
BEGIN RETAINING WALL
STA 996+79.35,201.73' O/S LT
ACCESS RD
CL FM 156
END RETAINING WALL
STA 998+10.52,252.75' O/S LT
TEXAS DEPARTMENT
OF TRANSPORATION
CC 2012-4212
BEGIN RETAINING WALL
STA1001+61.02,134.00' LT
BL WBR06
WBR06
BL WB FR ROAD
BL EB FR ROAD
BL EBR06
EBR06
BEGIN BRIDGE
STA 988+30.61
BEGIN BRIDGE
STA 988+74.50
END BRIDGE
STA 991+80.61
END BRIDGE
STA 992+29.12
LIMITS OF DRAINAGE
EASEMENT
ALLIANCE-156 PARTNERS,LP
CC 2012-110449 - TRACT 1
D.R.D.C.T.
METZGER PROPERTIES,LLC
CC# 2006-27924
7.137 AC
D.R.D.C.T.
100 yr FLOODPLAIN
NORTHWEST INDEPENDENT SCHOOL DISTRICT
VOL 1047 PG 995
D.R.D.C.T.
PROPOSED RIGHT OF WAY LINE
Jarrett Drive
Championship Pkwy
EXIT ½ MILE
PROPOSED SIGN PANEL AND COSS
STA1002+00
BEGIN RETAINING WALL
STA1002+08.79,134.00' RT
Justin
Haslet
GROUND MOUNT
FM 156
BURLINGTON NORTHERN
SANTA FE RR
19355+00
19345+00
REMOVE EXISTING RAILROAD
BEGIN STA.19337+00.00
END STA.19356+00.00
INDUSTRIAL DEVELOPMENT INTERNATIONAL (TEXAS),L.P.
CC 2007-44535
D.R.D.C.T.
J.NEY SURVEY,ABST.649
Haslet
Justin
GROUND MOUNT
BEGIN RETAINING WALL
STA 1007+50.00
END RETAINING WALL
STA 1008+72.32
BEGIN BRIDGE
STA 1008+72.32
BL WB CONN
PROPOSED RIGHT OF WAY LINE
BEGIN RETAINING WALLS
STA1013+12.32
END BRIDGE
STA 1013+12.32
END RETAINING WALL
STA.1019+10.26
BL WBR16
WBDC
WBR16
END RETAINING WALL
STA1003+86.49,134.00' RT
WB FR ROAD
EB FR ROAD
BL EB CONN
EBR16
EBDC
BL EBR16
BEGIN BRIDGE
STA 1008+41.73
BEGIN BRIDGE
STA 1005+52.75
END RETAINING WALL
STA1004+34.26,134.00' RT
ROANOKE 35/114 PARTNERS,LP &
ROANOKE 35/114 O&G PARTNERS,LP
DOC NO 2007-21421 (TRACT 2,PARCEL 2)
2.818 ACRE
STATE OF TEXAS
DOC NO.2006-152650
PARCEL 5 - 11.00 ACRES
R.MATANY SURVEY,ABST.878
END BRIDGE
STA 1014+48.09
BEGIN RETAINING WALLS
STA1014+48.09
END BRIDGE
BEGIN RETAINING WALL
STA 1013+41.73
END
STA.
END RETA
STA 1014+7
3
7
8
9
10
11
12
15
16
17
18
19
20
21
22
23
24
25
26
27
28
31
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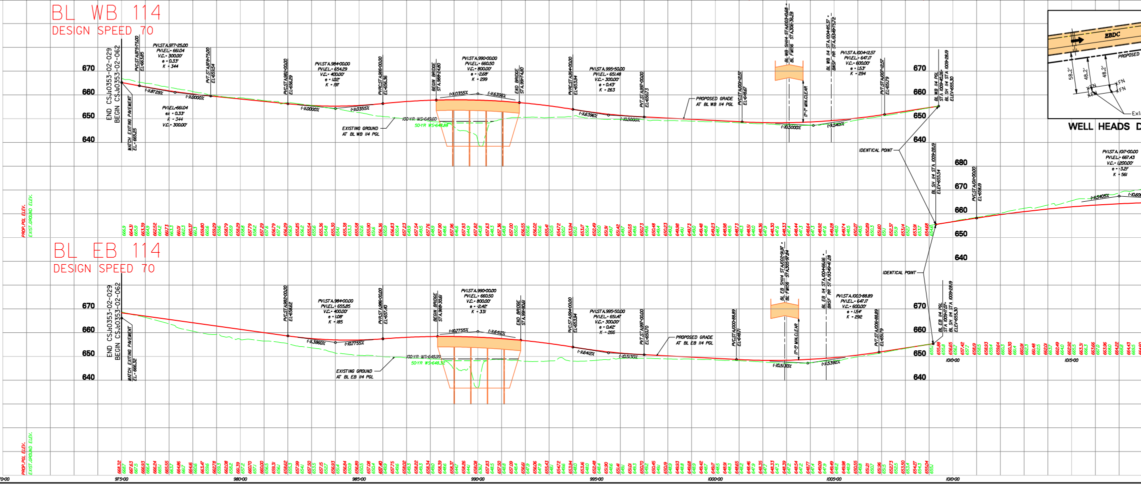
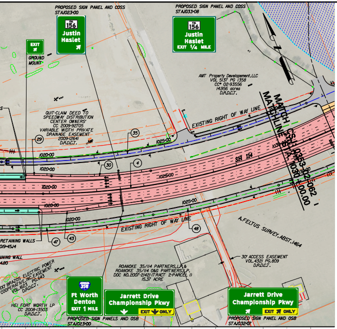
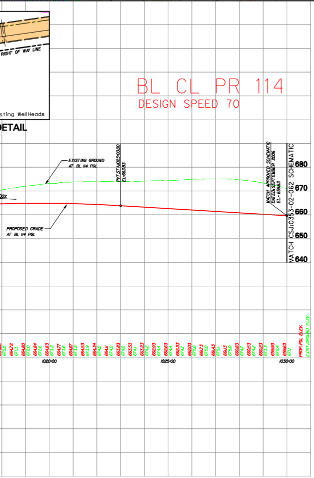
44
45
46
47
48
62
63


BL WB 114
DESIGN SPEED 70
670
660
650
640
END CSJ:0353-02-029
BEGIN CSJ:0353-02-062
MATCH EXITING PAVEMENT
EL.= 665.25
PVC.STA.975+75.00
EL=663.85
PVI.STA.977+25.00
PVI.EL.= 661.04
V.C.= 300.00'
e = 0.33'
K = 344
(-)1.8729%
(-)1.0000%
PVI.EL.=661.04
ex = 0.33'
K = 344
V.C.= 300.00'
PVT.STA.978+75.00
EL=659.54
PVC.STA.982+00.00
EL=656.29
PVI.STA.984+00.00
PVI.EL.= 654.29
V.C.= 400.00'
e = 1.02'
K = 197
(-)1.0000%
(+)1.0355%
PVRC.STA.986+00.00
EL=656.36
EXISTING GROUND
AT BL WB 114 PGL
BEGIN BRIDGE
STA.988+24.80
PVI.STA.990+00.00
PVI.EL.= 660.50
V.C.= 800.00'
e = -2.68'
K = 299
(+)1.0355%
(-)1.6396%
100-YR WS=649.60
50-YR WS=648.88
END BRIDGE
STA.991+74.80
PVRC.STA.994+00.00
EL=653.94
PVI.STA.995+50.00
PVI.EL.= 651.48
V.C.= 300.00'
e = 0.43'
K = 263
(-)1.6396%
(-)0.5000%
PVT.STA.997+00.00
EL=650.73
PROPOSED GRADE
AT BL WB 114 PGL
PVC.STA.1001+12.57
EL=648.67
BL WB SH114 STA.1003+10.68 =
BL FM156 STA.306+36.28
17'-7" MIN.CLEAR
(-)0.5000%
(+)1.5401%
BL WB 114 STA.1004+85.37 =
BNSF RR STA.19349+75.72
PVI.STA.1004+12.57
PVI.EL.= 647.17
V.C.= 600.00'
e = 1.53'
K = 294
PVT.STA.1007+12.57
EL=651.79
BL WB 114 PGL
STA 1009+40.26=
BL SH 114 STA 1009+28.19
ELEV=655.30
IDENTICAL POINT
680
670
660
650
640
BL SH 114 STA 1009+28.19
ELEV=655.54
PVC.STA.1011+00.00
EL=658.19
PVI.STA. 1017+00.00
PVI.EL.= 667.43
V.C.= 1,200.00'
e = -3.21'
K = 561
(+)1.5405%
(-)0.60
PROP. PGL ELEV.
EXIST. GROUND ELEV.
BL EB 114
DESIGN SPEED 70
670
660
650
640
END CSJ:0353-02-029
BEGIN CSJ:0353-02-062
MATCH EXITING PAVEMENT
EL.= 666.32
PVC.STA.982+00.00
EL=658.62
PVI.STA.984+00.00
PVI.EL.= 655.85
V.C.= 400.00'
e = 1.08'
K = 185
(-)1.3860%
(+)0.7755%
PVR.STA.986+00.00
EL=657.40
EXISTING GROUND
AT BL EB 114 PGL
BEGIN BRIDGE
STA.988+30.61
PVI.STA.990+00.00
PVI.EL.= 660.50
V.C.= 800.00'
e = -2.42'
K = 331
(+)0.7755%
(-)1.6412%
100-YR WS=648.99
50-YR WS=648.32
END BRIDGE
STA.991+80.61
PVC.STA.994+00.00
EL=653.94
PVI.STA.995+50.00
PVI.EL.= 651.47
V.C.= 300.00'
e = 0.42'
K = 266
(-)1.6412%
(-)0.5130%
PVT.STA.997+00.00
EL=650.70
PROPOSED GRADE
AT BL EB 114 PGL
PVC.STA.1000+88.89
EL=648.71
BL EB SH114 STA.1002+91.97 =
BL FM156 STA.305+97.84
17'-5" MIN.CLEAR
(-)0.5130%
(+)1.5392%
BL EB 114 STA.1004+66.66 =
BNSF RR STA.19349+47.28
PVI.STA.1003+88.89
PVI.EL.= 647.17
V.C.= 600.00'
e = 1.54'
K = 292
PVT.STA.1006+88.89
EL=651.79
IDENTICAL POINT
BL EB 114 PGL
STA 1009+17.07=
BL SH 114 STA 1009+28.19
ELEV=655.30
1010+00
1015+00
PROP. PGL ELEV.
EXIST. GROUND ELEV.
970+00
975+00
980+00
985+00
990+00
995+00
1000+00
1005+00
1010+00
EBDC
PROPOSED
58.2'
48.2'
48.2'
FN
FN
FN
FN
Exi
WELL HEADS D


PROPOSED SIGN PANEL AND COSS
STA1023+00
FM 156
Justin
Haslet
EXIT
GROUND MOUNT
PROPOSED SIGN PANEL AND COSS
STA1033+08
FM 156
Justin
Haslet
EXIT 1/4 MILE
AMT Property Developement,LLC
VOL 5137 PG 1358
CC# 02-93556
14.956 acres
D.R.D.C.T.
QUIT-CLAIM DEED TO
SPEEDWAY DISTRIBUTION
CENTER OWNERS'
CC 2009-92705
VARIABLE WIDTH PRIVATE
DRAINAGE EASEMENT
2009-12641
D.R.D.C.T.
EXISTING RIGHT OF WAY LINE
MATCH CSJ:0353-02-062
MATCHLINE STA. 1030+00.00
SH 114
1020+00
1025+00
1030+00
29
35
30
4
47
43
48
RETAINING WALLS
1019+45.14
RETAINING WALL
EXISTING RIGHT OF WAY LINE
A.FELTUS SURVEY,ABST.1464
30' ACCESS EASEMENT
VOL.4321 PG.809
D.R.D.C.T.
ROANOKE 35/114 PARTNERS,L.P.&
ROANOKE 35/114 O&G PARTNERS,L.P.
DOC NO.2007-21421(TRACT 2-PARCEL 1)
15.37 ACRE
100' BRAZOS ELECTRIC POWER
COOPERATIVE,INC.EASEMENT
VOL.1623 PG.643
D.R.D.C.T.
HEI FORT WORTH LP
CC 2008-13503
D.R.D.C.T.
35W
Ft Worth
Denton
EXIT 1 MILE
Jarrett Drive
Championship Pkwy
EXIT ONLY
PROPOSED SIGN PANELS AND OSB
STA1023+00
Jarrett Drive
Championship Pkwy
EXIT ONLY
PROPOSED SIGN PANEL AND OSB
STA1032+07



CURVE DATA

CENTERLINE SH 114 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
1	CLPR114-1	950+17.23	N 7,062,649.2718	E 2,328,848.5328	23° 15′ 21.76″ (RT)	2,934.75	603.91	1,191.20	S 78° 33′ 43.93″ E	1,183.04	944+13.32	956+04.52
2	CLPR114-2	966+60.29	N 7,061,999.0246	E 2,330,375.5397	5° 18′ 37.54″ (RT)	5,729.58	265.71	531.04	S 64° 16′ 44.29″ E	530.85	963+94.58	969+25.63
3	CLPR114-3	974+16.25	N 7,061,639.5664	E 2,331,041.0030	5° 18′ 37.44″ (LT)	5,729.58	265.71	531.04	S 64° 16′ 44.24″ E	530.85	971+50.54	976+81.58
4	CLPR114-4	1025+58.69	N 7,059,624.6699	E 2,335,772.6760	23° 05′ 02.32″ (LT)	2,864.79	585.03	1,154.20	S 78° 28′ 34.12″ E	1,146.41	1019+73.65	1031+27.85

WESTBOUND PROFILE GRADE BASELINE SH 114 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
5	BLWB114-1	951+61.78	N 7,062,628.5458	E 2,328,994.1957	17° 39′ 32.72″ (RT)	2,972.75	461.78	916.23	S 75° 45′ 49.41″ E	912.61	947+00.00	956+16.23
6	BLWB114-2	966+73.77	N 7,062,033.2963	E 2,330,392.0491	5° 18′ 37.54″ (RT)	5,767.58	267.47	534.56	S 64° 16′ 44.29″ E	534.37	964+06.29	969+40.86
7	BLWB114-3	978+07.37	N 7,061,494.3572	E 2,331,389.7846	7° 06′ 23.53″ (LT)	10,784.00	669.64	1337.57	S 65° 10′ 37.28″ E	1336.71	971+37.73	984+75.30
8	BLWB114-4	986+43.87	N 7,061,190.2868	E 2,332,170.9047	1° 47′ 46.11″ (RT)	10,754.00	168.58	337.12	S 67° 49′ 56.00″ E	337.11	984+75.30	988+12.42
9	BLWB114-5	993+76.02	N 7,060,903.4287	E 2,332,844.5464	2° 07′ 41.20″ (RT)	10,754.00	199.74	399.43	S 65° 52′ 12.34″ E	399.41	991+76.28	995+75.71
10	BLWB114-6	997+88.55	N 7,060,727.8023	E 2,333,217.8736	2° 07′ 41.22″ (LT)	11,459.16	212.84	425.62	S 65° 52′ 12.35″ E	425.60	995+75.71	1000+01.34
11	BLWB114-7	1006+19.62	N 7,060,402.1810	E 2,333,982.5449	0° 32′ 06.86″ (RT)	22,918.31	107.05	214.10	S 66° 39′ 59.53″ E	214.09	1005+12.57	1007+26.66
12	BLWB114-8	1008+33.71	N 7,060,316.4637	E 2,334,178.7340	0° 32′ 06.86″ (LT)	22,918.31	107.05	214.10	S 66° 39′ 59.53″ E	214.09	1007+26.66	1009+40.76

EASTBOUND PROFILE GRADE BASELINE SH 114 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
13	BLEB114-1	951+49.97	N 7,062,553.9963	E 2,328,975.2816	17° 39′ 32.72″ (RT)	2,896.75	449.97	892.81	S 75° 45′ 49.41″ E	889.28	947+00.00	955+92.81
14	BLEB114-2	966+46.82	N 7,061,964.7529	E 2,330,359.0304	5° 18′ 37.54″ (RT)	5,691.58	263.95	527.52	S 64° 16′ 44.29″ E	527.33	963+82.87	969+10.39
15	BLEB114-3	977+17.87	N 7,061,455.5485	E 2,331,301.7182	7° 29′ 01.99″ (LT)	10,754.00	703.34	1404.67	S 65° 21′ 56.51″ E	1403.67	970+14.53	984+19.20
16	BLEB114-4	986+23.78	N 7,061,131.7750	E 2,332,149.9367	2° 10′ 24.89″ (RT)	10,784.00	204.58	409.10	S 68° 01′ 15.06″ E	409.08	984+19.20	988+28.30
17	BLEB114-5	994+21.11	N 7,060,819.3703	E 2,332,883.5674	2° 21′ 11.22″ (LT)	10,754.00	220.86	441.66	S 68° 06′ 38.22″ E	441.63	992+00.24	996+41.91
18	BLEB114-6	998+77.24	N 7,060,658.0205	E 2,333,310.2784	2° 21′ 10.87″ (RT)	11,459.16	235.34	470.60	S 68° 06′ 38.40″ E	470.57	996+41.91	1001+12.51
19	BLEB114-7	1005+95.93	N 7,060,376.4195	E 2,333,971.5748	0° 32′ 06.86″ (LT)	22,918.31	107.05	214.10	S 67° 12′ 06.39″ E	214.09	1004+88.88	1007+02.98
20	BLEB114-8	1008+10.03	N 7,060,294.3824	E 2,334,169.3311	0° 32′ 06.86″ (RT)	22,918.31	107.05	214.10	S 67° 12′ 06.39″ E	214.09	1007+02.98	1009+17.07

WESTBOUND ENTRANCE RAMP WBR06 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
21	WBR06-1	977+55.22	N 7,061,554.2635	E 2,331,361.6060	4° 29′ 39.92″ (LT)	5,729.58	224.84	449.44	S 65° 57′ 25.68″ E	449.33	975+30.38	979+79.83
22	WBR06-2	982+61.57	N 7,061,366.1718	E 2,331,831.9722	2° 25′ 45.59″ (LT)	2,864.79	60.74	121.47	S 69° 25′ 08.44″ E	121.46	982+00.83	983+22.29
23	WBR06-3	987+14.02	N 7,061,216.1285	E 2,332,258.8440	1° 41′ 58.35″ (RT)	5,729.58	84.98	169.95	S 69° 47′ 02.05″ E	169.95	986+29.04	987+99.00
24	WBR06-4	992+14.52	N 7,061,036.2244	E 2,332,725.9046	3° 31′ 53.02″ (LT)	5,729.58	176.63	353.14	S 70° 41′ 59.39″ E	353.08	990+37.90	993+91.04
25	WBR06-5	995+13.17	N 7,060,946.2158	E 2,333,010.7775	12° 10′ 00.98″ (LT)	1,145.92	122.13	243.34	S 78° 32′ 56.39″ E	242.88	993+91.04	996+34.38
26	WBR06-6	1000+43.64	N 7,060,896.5070	E 2,333,539.8421	17° 41′ 53.91″ (RT)	954.93	148.67	294.97	S 75° 46′ 59.92″ E	293.80	998+94.97	1001+89.94

WESTBOUND EXIT RAMP WBR16 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
27	WBR16-1	1006+08.33	N 7,060,651.5985	E 2,334,114.9717	21° 59′ 16.38″ (RT)	954.93	185.51	366.46	S 55° 56′ 24.78″ E	364.22	1004+22.81	1007+89.28
28	WBR16-2	1011+84.31	N 7,060,240.7082	E 2,334,525.0922	21° 59′ 16.38″ (LT)	954.93	185.51	366.46	S 55° 56′ 24.78″ E	364.22	1009+98.79	1013+65.26
29	WBR16-3	1019+64.86	N 7,059,933.1059	E 2,335,247.4487	3° 16′ 32.18″ (RT)	1909.86	54.61	109.19	S 65° 17′ 46.87″ E	109.17	1019+10.26	1020+19.44
30	WBR16-4	1022+29.86	N 7,059,815.5103	E 2,335,484.9526	12° 34′ 26.86″ (LT)	1909.86	210.41	419.14	S 69° 56′ 44.21″ E	418.30	1020+19.44	1024+38.58

WESTBOUND CONNECTOR BASELINE WBDC CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
31	BLWBDC-1	1016+00.22	N 7,060,122.7306	E 2,334,955.9371	6° 53′ 14.22″ (LT)	3,100.00	186.54	372.64	S 62° 14′ 19.23″ E	372.41	1014+13.67	1017+86.31

WESTBOUND FRONTAGE ROAD BASELINE WBFR CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
32	BLWBFR-1	992+80.53	N 7,061,015.6722	E 2,332,791.9906	3° 33′ 56.28″ (RT)	2,864.79	89.17	178.28	S 68° 43′ 01.10″ E	178.25	991+91.36	993+69.65
33	BLWBFR-2	997+94.66	N 7,060,814.2198	E 2,333,265.0705	1° 18′ 39.91″ (LT)	5,729.58	65.56	131.11	S 67° 35′ 22.92″ E	131.11	997+29.11	998+60.21
34	BLWBFR-3	999+25.77	N 7,060,765.6242	E 2,333,386.8467	1° 18′ 39.91″ (RT)	5,729.58	65.56	131.11	S 67° 35′ 22.92″ E	131.11	998+60.21	999+91.32
35	BLWBFR-4	1010+80.83	N 7,060,313.0811	E 2,334,449.5744	5° 25′ 14.76″ (LT)	1,140.92	54.01	107.94	S 69° 38′ 40.34″ E	107.90	1010+26.82	1011+34.77

EASTBOUND EXIT RAMP BASELINE EBR06 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
36	EBR06-1	983+25.22	N 7,061,215.7090	E 2,331,861.8690	5° 00′ 19.83″ (RT)	2,864.79	125.22	250.28	S 65° 26′ 13.26″ E	250.20	982+00.00	984+50.28
37	EBR06-2	988+96.92	N 7,060,955.5059	E 2,332,371.1012	2° 55′ 38.69″ (LT)	5,729.58	146.40	292.74	S 64° 23′ 52.68″ E	292.71	987+50.52	990+43.26
38	EBR06-3	993+06.81	N 7,060,787.8581	E 2,332,745.2110	5° 16′ 02.49″ (RT)	5,729.58	263.55	526.74	S 63° 13′ 40.78″ E	526.55	990+43.26	995+69.99
39	EBR06-4	996+53.30	N 7,060,617.5539	E 2,333,047.3822	11° 12′ 37.09″ (RT)	848.83	83.31	166.08	S 54° 59′ 21.00″ E	165.81	995+69.99	997+36.07
40	EBR06-5	1001+20.80	N 7,060,312.8729	E 2,333,402.6589	17° 33′ 00.51″ (LT)	881.47	136.07	270.00	S 58° 09′ 32.71″ E	268.95	999+84.73	1002+54.73

EASTBOUND ENTRANCE RAMP BASELINE EBR16 CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
41	EBR16-1	1006+95.44	N 7,060,065.6877	E 2,333,983.1351	22° 24′ 55.90″ (LT)	954.93	189.22	373.59	S 78° 08′ 30.91″ E	371.21	1005+06.22	1008+79.81
42	EBR16-2	1012+60.62	N 7,060,059.2180	E 2,334,553.1201	22° 24′ 55.90″ (RT)	881.47	174.66	344.85	S 78° 08′ 30.91″ E	342.66	1010+85.96	1014+30.81
43	EBR16-3	1020+47.66	N 7,059,749.1154	E 2,335,281.3480	8° 11′ 15.29″ (LT)	1432.39	102.52	204.69	S 71° 01′ 40.61″ E	204.52	1019+45.14	1021+49.83

EASTBOUND CONNECTOR BASELINE EBDC CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
44	BLEBDC-1	1016+16.90	N 7,059,844.0272	E 2,334,879.1914	7° 48′ 26.59″ (RT)	2,864.79	195.49	390.37	S 71° 08′ 16.02″ E	390.07	1014+21.42	1018+11.78

EASTBOUND FRONTAGE ROAD BASELINE EBFR CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
45	BLEBFR-1	990+05.28	N 7,060,873.7062	E 2,332,553.6391	1° 04′ 20.94″ (LT)	5,729.58	53.63	107.25	S 66° 23′ 52.49″ E	107.25	989+51.66	990+58.91
46	BLEBFR-2	996+34.62	N 7,060,627.1391	E 2,333,132.6637	1° 18′ 39.91″ (RT)	5,729.58	65.56	131.11	S 66° 16′ 43.01″ E	131.11	995+69.06	997+00.17
47	BLEBFR-3	997+65.73	N 7,060,573.0232	E 2,333,252.0892	1° 18′ 39.91″ (LT)	5,729.58	65.56	131.11	S 66° 16′ 43.01″ E	131.11	997+00.17	998+31.28
48	BLEBFR-4	1008+90.99	N 7,060,132.1543	E 2,334,287.4019	2° 47′ 31.04″ (RT)	5,724.58	139.50	278.95	S 65° 32′ 17.44″ E	278.92	1007+51.49	1010+30.44

CENTERLINE ACCESS ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
62	BLACCES-1	8+18.74	N 7,061,247.5592	E 2,333,670.2770	40° 00′ 10.94″ (RT)	300.00	109.20	209.46	N 82° 59′ 39.64″ E	205.23	7+09.54	9+19.00

CENTERLINE THREE SISTERS ROAD CURVE DATA

CURVE NO.	CURVE	P.I. STATION	P.I. STATION - N	P.I. STATION - E	DELTA	RADIUS	TANGENT	LENGTH	CHORD BEARING	CHORD LENGTH	P.C. STATION	P.T. STATION
63	DR98044R-01	8+34.78	N 7,061,240.3819	E 2,331,553.3846	22° 38′ 34.05″ (RT)	250.00	50.05	98.80	N 11° 44′ 21.60″ E	98.16	7+84.73	8+83.53

SUPERELEVATION TABLES

WESTBOUND	*SH 114 MAINLANES*	*EASTBOUND*
STATION	TEMPLATE	STATION
975+00.00	+2.00% CL. -2.00% AXIS OF ROTATION (TYP.) AXIS OF ROTATION (TYP.)	975+00.00
1016+93.65	+2.00% CL. -2.00%	1013+73.65
1021+13.65	+5.50% CL. +5.50%	1022+73.65
1029+87.85	+5.50% CL. +5.50%	1028+27.85
1034+07.85	+2.00% CL. -2.00%	1037+27.85

RAMP WBR06

STATION	TEMPLATE
987+12.69	+2.00% BL.
992+93.04	+2.00% BL.
994+40.04	+5.68% BL.
995+85.38	+5.68% BL.
997+32.38	+2.00% BL.
997+66.97	+2.00% BL.
999+58.97	-6.00% BL.
1000+71.49	-6.00% BL.
1002+27.49	-0.5005% BL.

RAMP WBR16

STATION	TEMPLATE
1002+81.16	-0.4923% BL.
1003+85.00	-0.401% BL.
1004+20.00	-0.401% BL.
1005+85.00	-6.00% BL.
1007+51.28	-6.00% BL.
1008+65.28	-2.00% BL.
1010+65.54	+6.00% BL.
1013+16.26	+6.00% BL.
1014+63.26	+2.00% BL.
1018+50.26	+2.00% BL.
1019+10.26	+3.7196% BL.

RAMP EBR06

STATION	TEMPLATE
986+87.00	-2.00% BL.
994+71.99	-2.00% BL.
996+18.99	-6.00% BL.
996+87.07	-6.00% BL.
998+34.07	-2.00% BL.
998+56.73	-2.00% BL.
1000+48.73	+6.00% BL.
1001+75.16	+6.00% BL.
1003+07.34	-0.4923% BL.

RAMP EBR16

STATION	TEMPLATE
1003+64.92	-0.4923% BL.
1004+70.00	-0.4013% BL.
1005+06.22	-0.4013% BL.
1006+41.34	+6.00% BL.
1008+14.88	+6.00% BL.
1011+50.88	-6.00% BL.
1013+81.81	-6.00% BL.
1015+28.81	-2.00% BL.
1017+98.14	-2.00% BL.
1019+45.14	-2.8476% BL.

WB DC

STATION	TEMPLATE
1007+35.90	-1.00% BL.
1008+25.90	+2.00% BL.
1014+80.31	+2.00% BL.

EB DC

STATION	TEMPLATE
1007+50.00	+1.00% BL.
1008+05.49	+1.00% BL.
1008+42.05	+0.2832% BL.
1009+43.99	-2.00% BL.
1015+64.18	-2.00% BL.

CROSS SLOPE TRANSITIONS SHALL BE EFFECTED USING LINE INTERPOLATION OF THE CROSS SLOPE VALUES OVER THE L OF THE TRANSITION.

Texas Department of Transportation®

DALLAS DISTRICT
WILLIAM L. HALE, P.E., DISTRICT ENGINEER

STATE HIGHWAY 114
DESIGN SCHEMATIC
AT FM 156
DENTON COUNTY
PROJECT LENGTH: 1.079 MI.

CONTROL: 0353–02–063
PROJECT LIMIT: AT FM 156
FROM 0.53 Mi. WEST OF FM 156
TO 0.54 Mi. EAST OF FM 156

FUNCTIONAL CLASS: RURAL PRINCIPAL ARTERIAL

DESIGN SPEED SH 114: 70 mph MAINLANES
DESIGN SPEED FM 156: 45 mph DIVIDED ARTERIAL
DESIGN SPEED SH 114: 40 mph FRONTAGE ROADS
DESIGN SPEED SH 114: 50 mph RAMPS
DESIGN SPEED SH 114: 35 mph DIRECT CONNECTORS
DESIGN SPEED SH 114: 30 mph SIDE STREETS

ROLL 1 OF 3

SCALE: 1″ = 200′ H, 1″ = 20′ V

JANUARY 18, 2013

HALFF ASSOCIATES, INC.
PRELIMINARY FOR INTERIM REVIEW ONLY

THESE DOCUMENTS ARE FOR INTERIM REVIEW AND INTENDED FOR REGULATORY APPROVAL, PERMIT, BIDDING OR CONSTRUCTION PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

M.E. ROMANOWSKI	56306	1/18/2013
NAME	P.E. NO.	DATE

TBPE FIRM #F-312

AR
ENGTH

HALFF

1201 NORTH BOWSER ROAD
RICHARDSON, TEXAS 75081-2275
TEL (214) 346-6200

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