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TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT

WILLIAM HALE, P.E. - DISTRICT ENGINEER

DESIGN SCHEMATIC
URBAN MINOR ARTERIAL

FM 156
DENTON COUNTY

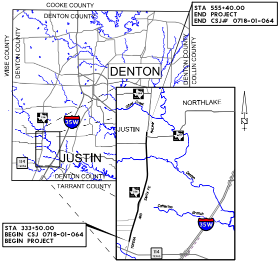
WIDEN 2-LANE RURAL TO 4-LANE DIVIDED URBAN CROSS SECTION
FROM: SH 114
TO: NORTH OF JUSTIN CITY LIMIT (NORTH OF FM 407)
PROJECT LENGTH: 4.203 MILES (22,190.00 FT)

CSJ #: 0718-01-064

TABLE OF CONTENTS: 2 ROLLS

ROADWAY SECTION	DESIGN SPEED	FUNCTION CLASS
FM 156: 333+50 - 455+00	45 MPH, L.S.	URBAN MINOR ARTERIAL
FM 156: 455+00 - 555+40.00	40 MPH, L.S.	URBAN MINOR ARTERIAL
DOC MITCHELL RD	30 MPH	URBAN COLLECTOR
MATANY RD	30 MPH	RURAL LOCAL
GAFFIELD RD	30 MPH	RURAL LOCAL
G CARDINAS RD	30 MPH	RURAL LOCAL
SAM REYNOLDS RD	30 MPH	RURAL LOCAL
CATHERINE BRANCH CIR	30 MPH	LOCAL STREET
INDUSTRIAL RD	30 MPH	RURAL LOCAL
HARMONSON RD	30 MPH	LOCAL STREET
JOHN WILEY RD	30 MPH	PRIMARY ARTERIAL
BISHOP PARK	30 MPH	LOCAL STREET
HARDEMAN BLVD	30 MPH	COMMERCIAL COLLECTOR
S SNYDER AVE	30 MPH	LOCAL STREET
S SEALY AVE	30 MPH	LOCAL STREET
BARRETT DR	30 MPH	LOCAL STREET
W FM 407(1ST ST)	30 MPH	MINOR ARTERIAL/COMMERCIAL COLLECTOR
DOWNE RD	15 MPH	LOCAL STREET
2ND ST	20 MPH	LOCAL STREET
3RD ST	20 MPH	LOCAL STREET
4TH ST (E & W)	20 MPH	LOCAL STREET
E FM 407	15 MPH	MINOR ARTERIAL
W 5TH ST	20 MPH	LOCAL STREET
6TH ST	20 MPH	LOCAL STREET
7TH ST	20 MPH	RESIDENTIAL COLLECTOR
8TH ST	20 MPH	LOCAL STREET
12TH ST	30 MPH	COMMERCIAL COLLECTOR

PROJECT LOCATION


COOKE COUNTY
DENTON COUNTY
WISE COUNTY
DENTON COUNTY
DENTON COUNTY
COLLIN COUNTY
DENTON
35W
JUSTIN
114
DENTON COUNTY
TARRANT COUNTY
NORTHLAKE
JUSTIN
SANTA FE
TOPEKA
Catherine
Branch
35W
114

STA 555+40.00
END PROJECT
END CSJ# 0718-01-064

STA 333+50.00
BEGIN CSJ 0718-01-064
BEGIN PROJECT

PREPARED BY TEAGUE NALL AND PERKINS, INC.
FIRM REGISTRATION NUMBER 230

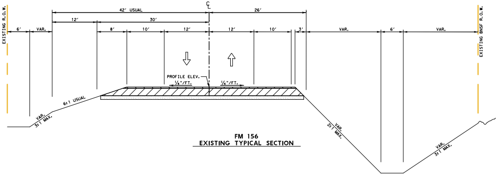
DANIEL P. McCULLOUGH
98291

DATE APPROVED

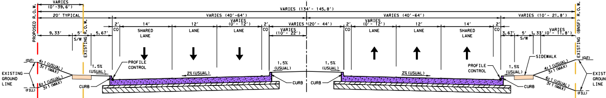
50 0 100 200 300
HORIZONTAL
SCALE IN FEET

ROLL 1 of 2

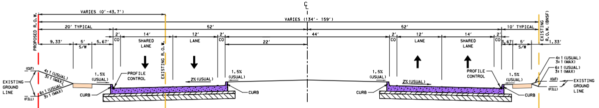
AUGUST 2012


EXISTING R.O.W.
EXISTING BNSF R.O.W.
℄
42' USUAL
26'
12'
30'
6'
VAR.
8'
10'
12'
12'
10'
3'
VAR.
6'
VAR.
PROFILE ELEV.
1/4"/FT.
1/4"/FT.
6:1 USUAL
VAR. 3:1 MAX.
2:1 VAR. MAX.
VAR. 3:1 MAX.

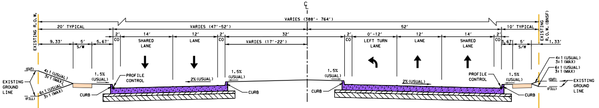
FM 156
EXISTING TYPICAL SECTION


PROPOSED R.O.W.
EXISTING R.O.W.
EXISTING (BNSF) R.O.W.
℄
VARIES (0'-39.6')
VARIES (134'- 145.8')
20' TYPICAL
VARIES (40'-64')
VARIES (40'-64')
VARIES (10'- 21.8')
9.33'
5'
S/W
5.67'
2'
CO
14'
SHARED LANE
12'
LANE
VARIES (0'- 12')
LANE
2'
CO
VARIES (20'- 44')
VARIES (10'- 22')
2'
CO
VARIES (0'- 12')
LANE
12'
LANE
14'
SHARED LANE
2'
CO
3.67'
5'
S/W
1.33'
VARIES (0'- 11.8')
SIDEWALK
PROFILE CONTROL
PROFILE CONTROL
1.5% (USUAL)
2% (USUAL)
CURB
EXISTING GROUND LINE
(CUT)
(FILL)
4:1 (USUAL) 3:1 (MAX)
6:1 (USUAL) 3:1 (MAX)

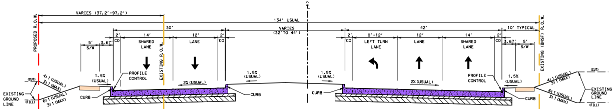
FM 156
PROPOSED TYPICAL SECTION
STA 333+50.00 TO STA 340+78.00


PROPOSED R.O.W.
EXISTING R.O.W.
EXISTING (BNSF) R.O.W.
℄
VARIES (0'-43.7')
VARIES (134'- 159')
20' TYPICAL
52'
44'
52'
10' TYPICAL
9.33'
5'
S/W
5.67'
2'
CO
14'
SHARED LANE
12'
LANE
22'
12'
LANE
14'
SHARED LANE
3.67'
1.33'
PROFILE CONTROL
1.5% (USUAL)
2% (USUAL)
CURB
EXISTING GROUND LINE
(CUT)
(FILL)
4:1 (USUAL) 3:1 (MAX)
6:1 (USUAL) 3:1 (MAX)

FM 156
PROPOSED TYPICAL SECTION
STA 340+78.00 TO STA 343+50.00
STA 348+30.00 TO STA 361+30.00
STA 367+75.00 TO STA 391+00.00
STA 398+00.00 TO STA 411+20.00
STA 418+95.00 TO STA 438+00.00


PROPOSED R.O.W.
EXISTING R.O.W.
EXISTING R.O.W. (BNSF)
℄
VARIES (388'- 764')
20' TYPICAL
VARIES (47'-52')
32'
52'
10' TYPICAL
9.33'
5'
S/W
5.67'
2'
CO
14'
SHARED LANE
12'
LANE
VARIES (17'-22')
0'-12'
LEFT TURN LANE
12'
LANE
14'
SHARED LANE
3.67
1.33'
PROFILE CONTROL
1.5% (USUAL)
2% (USUAL)
CURB
EXISTING GROUND LINE
(CUT)
(FILL)
4:1 (USUAL) 3:1 (MAX)
6:1 (USUAL) 3:1 (MAX)

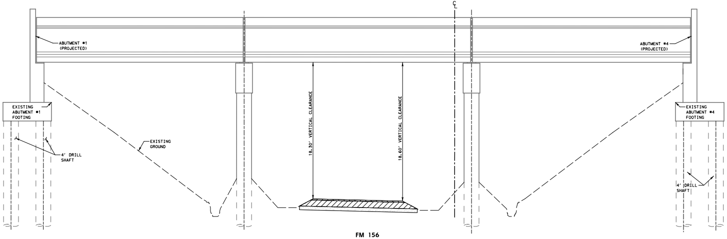
FM 156
PROPOSED TYPICAL SECTION
STA 391+00.00 TO STA 393+00.00
STA 414+60.00 TO STA 418+95.00


PROPOSED R.O.W.
EXISTING R.O.W.
EXISTING (BNSF) R.O.W.
℄
VARIES (37.2'-97.2')
134' USUAL
30'
VARIES (32' TO 44')
42'
10' TYPICAL
5'
S/W
3.67'
2'
CO
14'
SHARED LANE
12'
LANE
0'-12'
LEFT TURN LANE
12'
LANE
14'
SHARED LANE
5'
S/W
PROFILE CONTROL
1.5% (USUAL)
2% (USUAL)
CURB
EXISTING GROUND LINE
(CUT)
(FILL)
4:1 (USUAL) 3:1 (MAX)
6:1 (USUAL) 3:1 (MAX)

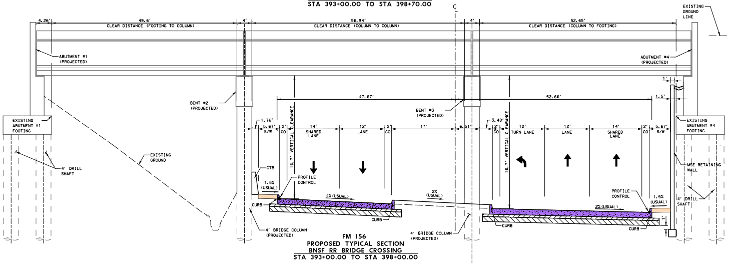
FM 156
PROPOSED TYPICAL SECTION
AT LEFT TURN LANES

STA 343+50.00 TO STA 348+30.00 (LTL LOOKING BACK)
STA 361+30.00 TO STA 367+75.00
STA 411+20.00 TO STA 414+60.00

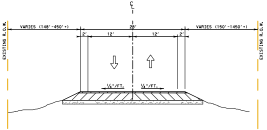
NOTE: ALL SECTION ARE N.T.S.


℄
ABUTMENT #1 (PROJECTED)
ABUTMENT #4 (PROJECTED)
EXISTING ABUTMENT #1 FOOTING
EXISTING ABUTMENT #4 FOOTING
EXISTING GROUND
4' DRILL SHAFT
18.30' VERTICAL CLEARANCE
18.60' VERTICAL CLEARANCE
4' DRILL SHAFT

FM 156
EXISTING TYPICAL SECTION
BNSF RR BRIDGE CROSSING
STA 393+00.00 TO STA 398+70.00

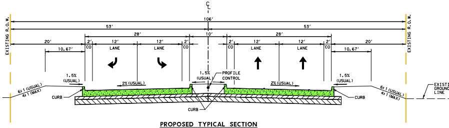

℄
4.26'
49.6'
CLEAR DISTANCE (FOOTING TO COLUMN)
4'
56.94'
CLEAR DISTANCE (COLUMN TO COLUMN)
4'
52.65'
CLEAR DISTANCE (COLUMN TO FOOTING)
EXISTING GROUND LINE
ABUTMENT #1 (PROJECTED)
ABUTMENT #4 (PROJECTED)
BENT #2 (PROJECTED)
BENT #3 (PROJECTED)
47.67'
52.66'
1'
1.5'
1.76'
5.67'
2'
14'
12'
2'
17'
6.51'
3.48'
2'
12'
12'
14'
2'
5.67'
S/W
CO
SHARED LANE
LANE
CO
CO
TURN LANE
LANE
SHARED LANE
CO
S/W
EXISTING ABUTMENT #1 FOOTING
EXISTING ABUTMENT #4 FOOTING
16.7' VERTICAL CLEARANCE
16.7' VERTICAL CLEARANCE
EXISTING GROUND
4' DRILL SHAFT
CTB
PROFILE CONTROL
1.5% (USUAL)
4% (USUAL)
2% (USUAL)
2% (USUAL)
PROFILE CONTROL
1.5% (USUAL)
MSE RETAINING WALL
4' DRILL SHAFT
CURB
CURB
CURB
CURB
4' BRIDGE COLUMN (PROJECTED)
4' BRIDGE COLUMN (PROJECTED)
1'

FM 156
PROPOSED TYPICAL SECTION
BNSF RR BRIDGE CROSSING
STA 393+00.00 TO STA 398+00.00


℄
EXISTING R.O.W.
VARIES (148'-450'+)
28'
VARIES (150'-1450'+)
EXISTING R.O.W.
2'
12'
12'
2'
¼"/FT.
¼"/FT.

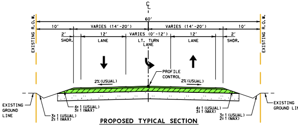
EXISTING TYPICAL SECTION

SAM REYNOLDS RD.


℄
EXISTING R.O.W.
106'
53'
53'
28'
10'
28'
20'
2'
12'
12'
2'
2'
12'
12'
2'
20'
CO
LANE
LANE
CO
CO
LANE
LANE
CO
10.67'
10.67'
EXISTING R.O.W.
EXISTING GROUND LINE
1.5% (USUAL)
2% (USUAL)
1.5% (USUAL)
PROFILE CONTROL
2% (USUAL)
1.5% (USUAL)
6:1 (USUAL)
4:1 (MAX)
6:1 (USUAL)
4:1 (MAX)
CURB
CURB
CURB
EXISTING GROUND LINE

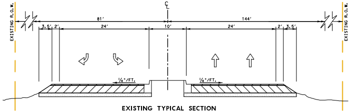
PROPOSED TYPICAL SECTION

DOC MITCHELL RD.


℄
EXISTING R.O.W.
60'
10'
VARIES (14'-20')
VARIES (14'-20')
10'
2'
12'
VARIES (0'-12')
12'
2'
SHDR.
LANE
LT. TURN LANE
LANE
SHDR.
EXISTING R.O.W.
PROFILE CONTROL
2% (USUAL)
2% (USUAL)
EXISTING GROUND LINE
4:1 (USUAL)
3:1 (MAX)
3:1 (USUAL)
2:1 (MAX)
4:1 (USUAL)
3:1 (MAX)
3:1 (USUAL)
2:1 (MAX)
EXISTING GROUND LINE

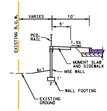
PROPOSED TYPICAL SECTION

MATANY RD.
GAFFIELD RD.
G CARDINAS RD.
INDUSTRIAL RD.


℄
EXISTING R.O.W.
81'
144'
EXISTING R.O.W.
3.5'
2'
24'
10'
24'
2'
3.5'
¼"/FT.
¼"/FT.

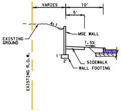
EXISTING TYPICAL SECTION

DOC MITCHELL RD.


EXISTING R.O.W.
VARIES
10'
5'
PED. RAIL
1.5%
MOMENT SLAB AND SIDEWALK
MSE WALL
6:1
1'
2'
WALL FOOTING
EXISTING GROUND

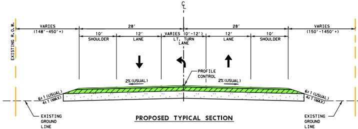
FM 156
TYPICAL SECTION

RETAINING WALL - FILL SECTION
(SEE PLAN FOR LOCATIONS)


VARIES
10'
5'
4:1
EXISTING GROUND
MSE WALL
1.5%
1'
2'
SIDEWALK
WALL FOOTING
EXISTING R.O.W.

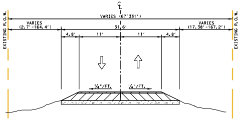
FM 156
TYPICAL SECTION

RETAINING WALL - CUT SECTION
(SEE PLAN FOR LOCATIONS)


℄
EXISTING R.O.W.
VARIES (148'-450'+)
28'
28'
VARIES (150'-1450'+)
10'
SHOULDER
12'
LANE
VARIES (0'-12')
LT. TURN LANE
12'
LANE
10'
SHOULDER
PROFILE CONTROL
2% (USUAL)
2% (USUAL)
6:1 (USUAL)
4:1 (MAX)
6:1 (USUAL)
4:1 (MAX)
EXISTING GROUND LINE
EXISTING GROUND LINE

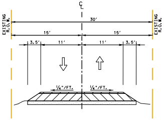
PROPOSED TYPICAL SECTION

SAM REYNOLDS RD.


℄
EXISTING R.O.W.
VARIES (67'331')
VARIES (2.7'-164.4')
31.6'
VARIES (17.38'-167.2')
EXISTING R.O.W.
4.8'
11'
11'
4.8'
¼"/FT.
¼"/FT.

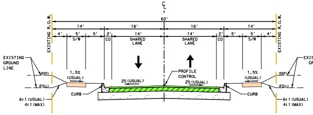
EXISTING TYPICAL SECTION

MATANY RD.
CATHERINE BRANCH CIR.


℄
EXISTING R.O.W.
30'
15'
15'
EXISTING R.O.W.
3.5'
11'
11'
3.5'
¼"/FT.
¼"/FT.

EXISTING TYPICAL SECTION

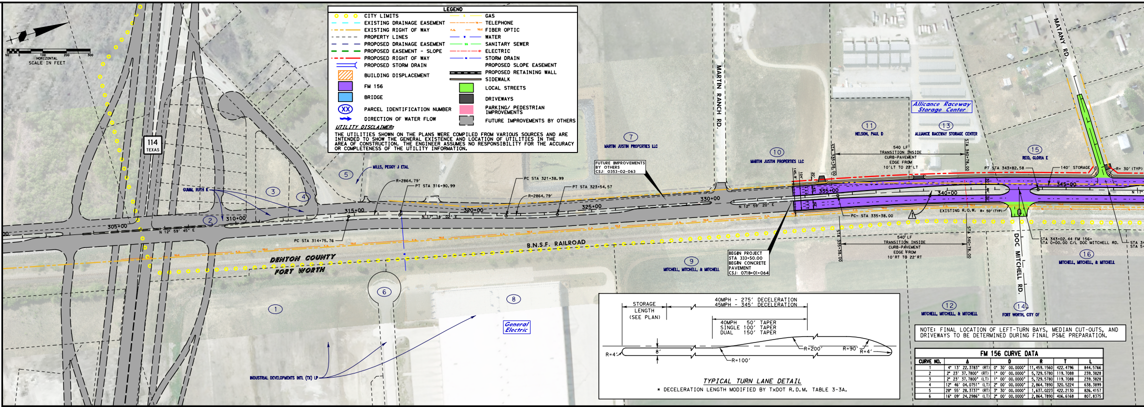
GAFFIELD RD.
G CARDINAS RD.
INDUSTRIAL RD.


℄
EXISTING R.O.W.
60'
14'
16'
16'
14'
4'
5'
5'
2'
14'
14'
2'
5'
5'
4'
S/W
CO
SHARED LANE
SHARED LANE
CO
S/W
EXISTING R.O.W.
EXISTING GROUND LINE
(CUT)
(FILL)
1.5% (USUAL)
2% (USUAL)
PROFILE CONTROL
2% (USUAL)
1.5% (USUAL)
(CUT)
(FILL)
CURB
CURB
6:1 (USUAL)
4:1 (MAX)
6:1 (USUAL)
4:1 (MAX)

PROPOSED TYPICAL SECTION

CATHERINE BRANCH CIR.

TYPICAL SECTION


HORIZONTAL
SCALE IN FEET
50 0 100 200 300
114
TEXAS
GUMM, RUTH K
MILLS, PEGGY J ETAL
MARTIN JUSTIN PROPERTIES LLC
NELSON, PAUL D
ALLIANCE RACEWAY STORAGE CENTER
Allicance Raceway Storage Center
REID, GLORIA E
MITCHELL, MITCHELL, & MITCHELL
FORT WORTH, CITY OF
INDUSTRIAL DEVELOPMENTS INTL (TX) LP
General Electric
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
305+00
310+00
315+00
320+00
325+00
330+00
335+00
340+00
345+00
N 12° 59' 45" E
N 17° 18' 02" E
N 12° 59' 20" E
N 17°
R=2864.79'
PT STA 316+90.99
PC STA 314+75.76
PC STA 321+38.99
R=2864.79'
PT STA 323+54.57
FUTURE IMPROVEMENTS
BY OTHERS
CSJ: 0353-02-063
MARTIN RANCH RD.
B.N.S.F. RAILROAD
DENTON COUNTY
FORT WORTH
BEGIN PROJECT
STA 333+50.00
BEGIN CONCRETE
PAVEMENT
CSJ: 0718-01-064
145.8'
104'
20'
12'
12'
30'
14'
30'
STA 335+38.00
STA 340+78.00
540 LF
TRANSITION INSIDE
CURB-PAVEMENT
EDGE FROM
10'LT TO 22'LT
540 LF
TRANSITION INSIDE
CURB-PAVEMENT
EDGE FROM
10'RT TO 22'RT
PC~ STA 335+38.00
1
EXISTING R.O.W.
R= 50' (TYP)
PT STA 343+82.58
140' STORAGE
R= 30' (TYP)
STA 343+02.44 FM 156=
STA 0+00.00 C/L DOC MITCHELL RD.
STA 34
STA 5+
DOC MITCHELL RD.
MATANY RD.
40MPH - 275' DECELERATION
45MPH - 345' DECELERATION
STORAGE
LENGTH
(SEE PLAN)
40MPH 50' TAPER
SINGLE 100' TAPER
DUAL 150' TAPER
8'
R=4'
R=100'
R=200'
R=90'
R=4'

LEGEND

○ ○ ○	CITY LIMITS	— G —	GAS
— — —	EXISTING DRAINAGE EASEMENT	— — TE —	TELEPHONE
— — —	EXISTING RIGHT OF WAY	F.O. — TELE	FIBER OPTIC
- - - - -	PROPERTY LINES	— W —	WATER
— — —	PROPOSED DRAINAGE EASEMENT	— SS —	SANITARY SEWER
— — —	PROPOSED EASEMENT - SLOPE	— — EL	ELECTRIC
— — —	PROPOSED RIGHT OF WAY	— SD —	STORM DRAIN
	PROPOSED STORM DRAIN		PROPOSED SLOPE EASEMENT
▨	BUILDING DISPLACEMENT		PROPOSED RETAINING WALL
			SIDEWALK
🟪	FM 156	🟩	LOCAL STREETS
🟦	BRIDGE	⬛	DRIVEWAYS
XX	PARCEL IDENTIFICATION NUMBER	■	PARKING/ PEDESTRIAN IMPROVEMENTS
→	DIRECTION OF WATER FLOW	■	FUTURE IMPROVEMENTS BY OTHERS

UTILITY DISCLAIMER:

THE UTILITIES SHOWN ON THE PLANS WERE COMPILED FROM VARIOUS SOURCES AND ARE INTENDED TO SHOW THE GENERAL EXISTENCE AND LOCATION OF UTILITIES IN THE AREA OF CONSTRUCTION. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE UTILITY INFORMATION.

TYPICAL TURN LANE DETAIL

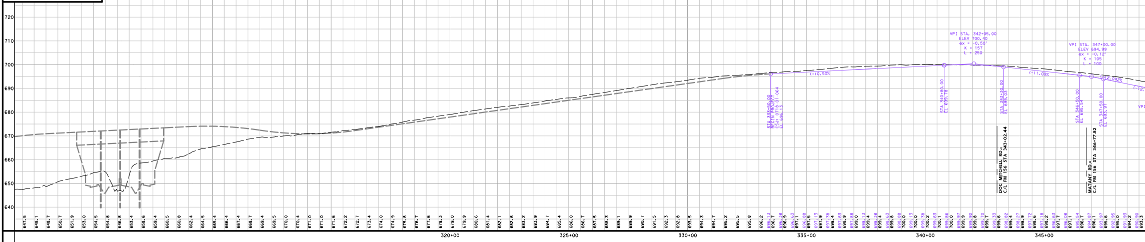
* DECELERATION LENGTH MODIFIED BY TxDOT R.D.M. TABLE 3-3A.

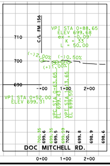
NOTE: FINAL LOCATION OF LEFT-TURN BAYS, MEDIAN CUT-OUTS, AND DRIVEWAYS TO BE DETERMINED DURING FINAL PS&E PREPARATION.

FM 156 CURVE DATA

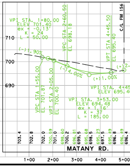
CURVE NO.	Δ	D	R	T	L
1	4° 13' 22.3783" (RT)	0° 30' 00.0000"	11,459.1560	422.4796	844.5766
2	2° 23' 37.7800" (RT)	1° 00' 00.0000"	5,729.5780	119.7088	239.3828
3	2° 23' 37.7800" (LT)	1° 00' 00.0000"	5,729.5780	119.7088	239.3828
4	12° 46' 04.0751" (LT)	2° 00' 00.0000"	2,864.7890	320.5224	638.3899
5	28° 55' 28.3737" (RT)	3° 30' 00.0000"	1,637.0223	422.2130	826.4157
6	16° 09' 24.2986" (LT)	2° 00' 00.0000"	2,864.7890	406.6168	807.8375

FM 156

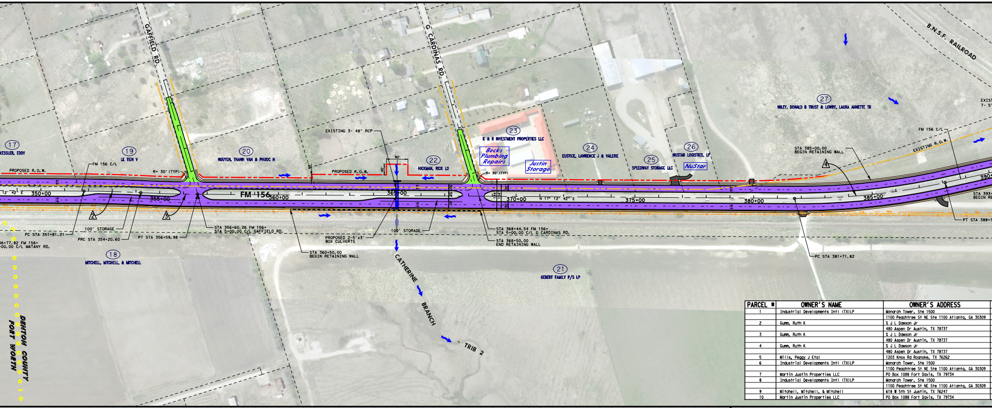




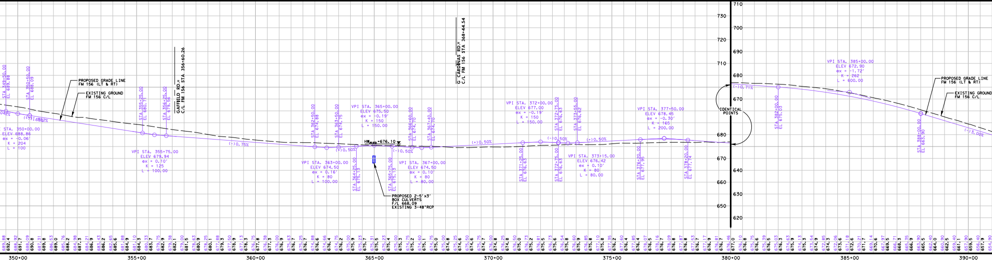
DOC MITCHELL RD.

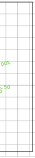


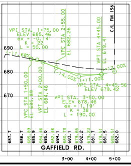
MATANY RD.

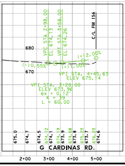

B.N.S.F. RAILROAD
GAFFIELD RD.
G CARDINAS RD.
FM 156
17
KESSLER, EDDY
19
LE TIEN V
20
NGUYEN, THANH VAN & PHUOC N
22
HICKMAN, RICK LO
23
K & R INVESTMENT PROPERTIES LLC
Becks Plumbing Repairs
Justin Storage
24
EUSTICE, LAWRENCE J & VALERIE
25
SPEEDWAY STORAGE LLC
26
NUSTAR LOGISTICS, LP
NuStar
27
WILEY, DONALD B TRUST & LOWRY, LAURA ANNETTE TR
18
MITCHELL, MITCHELL, & MITCHELL
21
GEBERT FAMILY P/S LP
EXISTING 3- 48" RCP
90'
45'
PROPOSED R.O.W.
R= 30' (TYP)
FM 156 C/L
350+00
355+00
360+00
365+00
370+00
375+00
380+00
385+00
390+
N 17° 12' 42" E
100' STORAGE
PC STA 351+81.21
PRC STA 354+20.60
PT STA 356+59.98
STA 356+60.26 FM 156= STA 5+00.00 C/L GAFFIELD RD.
PROPOSED 2-5'x3' BOX CULVERTS
STA 360+50.00 BEGIN RETAINING WALL
STA 368+44.54 FM 156= STA 5+00.00 C/L G CARDINAS RD.
STA 368+50.00 END RETAINING WALL
STA 385+00.00 BEGIN RETAINING WALL
EXISTING R.O.W.
FM 156 C/L
PC STA 381+71.82
PT STA 388+1
STA 393+ BEGIN RE
EXIST 7- 5'
STA 356+77.82 FM 156= STA 5+00.00 C/L MATANY RD.
CATHERINE BRANCH
TRIB 2
DENTON COUNTY
FORT WORTH
2
3
4

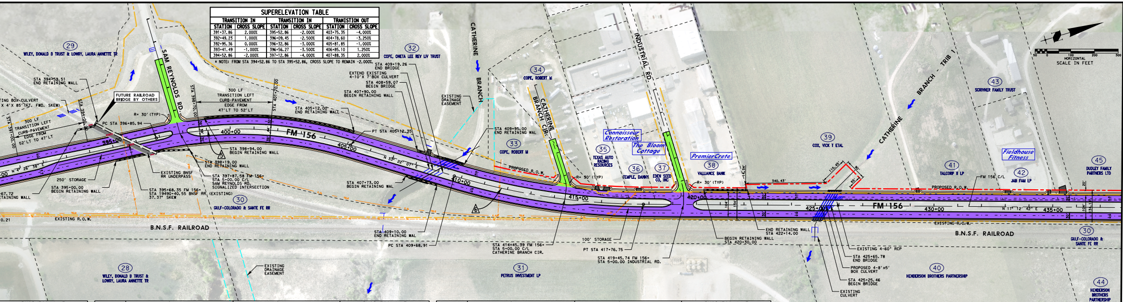
PARCEL #	OWNER'S NAME	OWNER'S ADDRESS
1	Industrial Developments Intl (TX)LP	Monarch Tower, Ste 1500
		1100 Peachtree St NE Ste 1100 Atlanta, GA 30309
2	Gumm, Ruth K	% J L Dawson Jr
		480 Aspen Dr Austin, TX 78737
3	Gumm, Ruth K	% J L Dawson Jr
		480 Aspen Dr Austin, TX 78737
4	Gumm, Ruth K	% J L Dawson Jr
		480 Aspen Dr Austin, TX 78737
5	Mills, Peggy J Etal	1203 Knox Rd Roanoke, TX 76262
6	Industrial Developments Intl (TX)LP	Monarch Tower, Ste 1500
		1100 Peachtree St NE Ste 1100 Atlanta, GA 30309
7	Martin Justin Properties LLC	PO Box 1088 Fort Davis, TX 79734
8	Industrial Developments Intl (TX)LP	Monarch Tower, Ste 1500
		1100 Peachtree St NE Ste 1100 Atlanta, GA 30309
9	Mitchell, Mitchell, & Mitchell	618 W 5th St Justin, TX 76247
10	Martin Justin Properties LLC	PO Box 1088 Fort Davis, TX 79734










FM 156
SAM REYNOLDS RD.
CATHERINE BRANCH
CATHERINE BRANCH CIR.
INDUSTRIAL RD.
CATHERINE BRANCH - TRIB 1
B.N.S.F. RAILROAD
EXISTING R.O.W.
PROPOSED R.O.W.
FUTURE RAILROAD BRIDGE BY OTHERS
300 LF TRANSITION LEFT CURB-PAVEMENT EDGE FROM 47'LT TO 52'LT
300 LF TRANSITION LEFT CURB-PAVEMENT EDGE FROM 52'LT TO 47'LT
STA 394+59.51 END RETAINING WALL
PC STA 396+85.94
250' STORAGE
STA 395+00.00 BEGIN RETAINING WALL
EXISTING BNSF RR UNDERPASS
STA 397+87.58 FM 156= STA 5+00.00 C/L SAM REYNOLDS RD. SIGNALIZED INTERSECTION
STA 395+68.35 FM 156= STA 19490+40.55 BNSF RR (EXISTING) 37.37° SKEW
STA 398+19.00 END RETAINING WALL
STA 398+94.00 BEGIN RETAINING WALL
STA 405+12.00 END RETAINING WALL
PT STA 405+12.35
STA 407+73.00 BEGIN RETAINING WALL
STA 409+19.26 END BRIDGE
EXTEND EXISTING 4-10'X 7'BOX CULVERT
STA 408+59.07 BEGIN BRIDGE
STA 407+90.00 BEGIN RETAINING WALL
EXISTING DRAINAGE EASEMENT
STA 409+95.00 END RETAINING WALL
STA 409+10.00 END RETAINING WALL
PC STA 409+68.91
STA 414+45.39 FM 156= STA 5+00.00 C/L CATHERINE BRANCH CIR.
100' STORAGE
PT STA 417+76.75
STA 419+45.74 FM 156= STA 5+00.00 INDUSTRIAL RD.
BEGIN RETAINING WALL STA 420+30.00
END RETAINING WALL STA 422+14.00
EXISTING 4-60" RCP
STA 425+65.78 END BRIDGE
PROPOSED 4-8'x5' BOX CULVERT
STA 425+25.46 BEGIN BRIDGE
EXISTING CULVERT
R= 30' (TYP)
N 17° 12' 42" E
FM 156 C/L
HORIZONTAL SCALE IN FEET
(29) WILEY, DONALD B TRUST & LOWRY, LAURA ANNETTE TR
(28) WILEY, DONALD B TRUST & LOWRY, LAURA ANNETTE TR
(30) GULF-COLORADO & SANTE FE RR
(31) PETRUS INVESTMENT LP
(32) COPE, ONETA LEE REV LIV TRUST
(33) COPE, ROBERT M
(34) COPE, ROBERT M
(35) TEXAS AUTO RACING RESOURCES
(36) TEMPLE, DANNY
(37) EDEN SEED CO, INC
(38) VALLIANCE BANK
(39) COX, VICK T ETAL
(40) HENDERSON BROTHERS PARTNERSHIP
(41) TALCORP II LP
(42) JAB FAM LP
(43) SCRIVNER FAMILY TRUST
(44) HENDERSON BROTHERS PARTNERSHIP
(45) DUDLEY FAMILY PARTNERS LTD
Connoisseur Restoration
The Bloom Cottage
PremierCrete
Fieldhouse Fitness

SUPERELEVATION TABLE

TRANSITION IN		TRANSITION IN		TRANISTION OUT	
STATION	CROSS SLOPE	STATION	CROSS SLOPE	STATION	CROSS SLOPE
391+37.86	2.000%	395+52.86	-2.000%	403+75.35	-4.000%
392+49.23	1.000%	396+09.45	-2.500%	404+78.60	-3.250%
392+95.36	0.000%	396+32.86	-3.000%	405+81.85	-1.000%
393+41.49	-1.000%	396+56.27	-3.500%	406+85.10	1.250%
394+52.86	-2.000%	397+12.86	-4.000%	407+88.35	2.000%

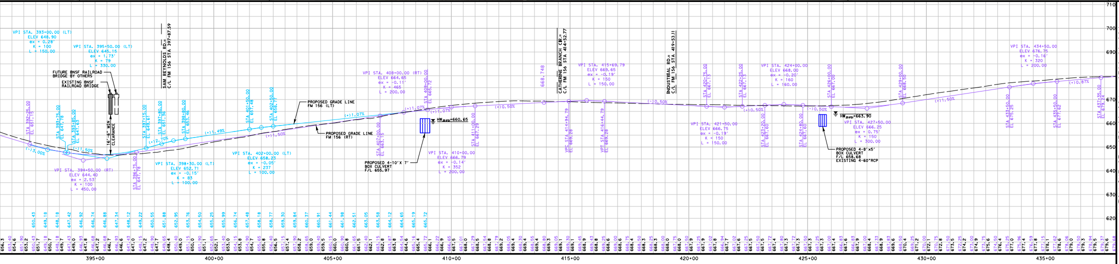
* NOTE: FROM STA 394+52.86 TO STA 395+52.86, CROSS SLOPE TO REMAIN -2.000%.

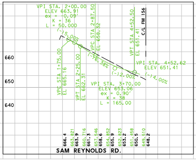
BUSINESS NAME
General Electric

PARCEL #	OWNER'S NAME	OWNER'S ADDRESS	BUSINESS NAME
11	Nelson, Paul D	2218 Virginia Ln Haslet, TX 76052	
12	Mitchell, Mitchell, & Mitchell	618 W 5th St Justin, TX 76247	
13	Alliance Raceway Storage Center	1182 N Asher Dr Palm Springs, CA 92262	Alliance Raceway Storage Center
14	Fort Worth, City of	1000 Throckmorton St Fort Worth, TX 76102	
15	Reid, Gloria E	C/O Jose Henry Brantley Maclean & Alvarado LLP	
		675 N Henderson St Fort Worth, TX 76107	
16	Mitchell, Mitchell, & Mitchell	618 W 5th St Justin, TX 76247	
17	Kessler, Eddy	17509 Matany Rd Justin, TX 76247	
18	Mitchell, Mitchell, & Mitchell	618 W 5th St Justin, TX 76247	
19	Le Tien V	409 Domingo Dr Grand Prairie, TX 75051	
20	Nguyen, Thanh Van & Phuoc N	4927 Cape Coral Dr Dallas, TX 75287	
21	Gebert Family P/S LP	% Mary Hawes	
		529 N Cowan Ave Lewisville, TX 75057	
22	Hickman, Rick L	8000 County Rd 517 Alvarado, TX 76009	
23	K & R Investment Properties LLC	18014 Cheshier Rd Justin, TX 76247	Beck's Plumbing Repairs/ Justin Storage
24	Eustice, Lawrence J & Valerie	16414 FM 156 S Justin, TX 76247	

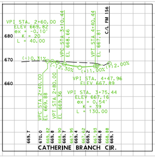
PARCEL #	OWNER'S NAME	OWNER'S ADDRESS	BUSINESS NAME
25	Speedway Storage LLC	2212 N Rough Creek Ct Granbury, TX 76048	
26	Nustar Logistics, LP	Attn: ROW Dept	Nustar
		PO Box 780339 San Antonio, TX 78278	
27	Wiley, Donald B Trust & Lowry, Laura Annette Tr	1422 Clover Ln Fort Worth, TX 76107	
28	Wiley, Donald B Trust & Lowry, Laura Annette Tr	1422 Clover Ln Fort Worth, TX 76107	
29	Wiley, Donald B Trust & Lowry, Laura Annette Tr	1422 Clover Ln Fort Worth, TX 76107	
30	Gulf-Colorado & Sante Fe RR	22 East Dundee Rd #22 Barrington, IL 66010	B.N.S.F. Railroad
31	Petrus Investment LP	% Hillwood	
		13600 Heritage Pkwy Ste 200 Fort Worth, TX 76177	
32	Cope, Oneta Lee (Trustee)	Cope, Oneta Lee Revocable Living Trust	
		2125 Boss Range Rd Justin, TX 76247	
33	Cope, Robert M	499 Catherine Branch Cir Justin, TX 76247	
34	Cope, Robert M	499 Catherine Branch Cir Justin, TX 76247	
35	Texas Auto Racing Resources	15468 Hwy 156 Justin, TX 76247	
36	Temple, Danny	PO Box 143 Justin, TX 76247	Connoisseur Restoration
37	Eden Seed Co, Inc.	820 Conestoga Trl Rhome, TX 76078	The Bloom Cottage

PARCEL #	OWNER'S NAME	OWNER'S ADDRESS	BUSINESS NAME
38	Valliance Bank	5900 S Lake Forest Dr Ste 100 McKinney, TX 75070	PremierCrete
39	Cox, Vick T Etal	418 E Texas St Grapevine, TX 76051	
40	Henderson Brothers Partnership	601 Shaffner St Ponder, TX 76259	
41	Talcorp II LP	PO Box 6 Justin, TX 76247	
42	Jab Fam LP	15080 S Hwy 156 Justin, TX 76247	Fieldhouse Fitness
43	Scrivner Family Trust	% Thurman L Scrivner, Trustee	
		7417 Faith Ln Argyle, TX 76226	
44	Henderson Brothers Partnership	601 Shaffner St Ponder, TX 76259	
45	Dudley Family Partners LTP	2712 Cole Ave Dallas, TX 76204	

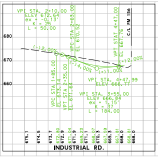




SAM REYNOLDS RD.



CATHERINE BRANCH CIR.



INDUSTRIAL RD.

0+00 1+00 2+00 3+00 4+00 5+00

2+00 3+00 4+00 5+00

1+00 2+00 3+00 4+00 5+00

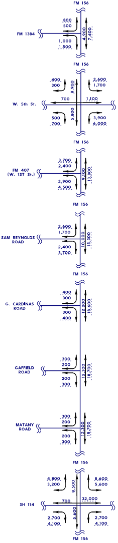
MATCHLINE STA 438+00 CSJ#: 0718-01-064

MATCHLINE STA 438+00 CSJ#: 0718-01-064

TRAFFIC DATA

JUNE 22, 2011

INFORMATION PROVIDED BY
TRANSPORTATION PLANNING
AND PROGRAMMING DIVISION


FM 156
FM 1384
800
500
1,000
1,500
4,900
7,400
FM 156
W. 5th St.
FM 407
(E. 5TH ST.)
400
300
8,900
2,600
1,700
700
1,100
500
700
5,800
3,900
6,000
FM 156
FM 407
(W. 1ST St.)
3,700
2,400
2,900
4,500
9,100
13,800
FM 156
SAM REYNOLDS
ROAD
2,600
1,700
2,400
3,700
10,000
15,300
FM 156
G. CARDINAS
ROAD
400
300
300
400
12,200
18,600
GAFFIELD
ROAD
300
200
200
300
12,300
18,700
MATANY
ROAD
300
200
200
300
12,300
18,700
FM 156
SH 114
4,800
3,200
8,500
8,600
5,600
700
32,000
2,700
4,100
5,600
2,700
4,100
FM 156

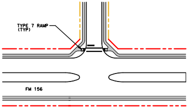
LEGEND

1,000 - 2015 ADT
1,000 - 2035 ADT

STRAIGHT-LINE SCHEMATICS

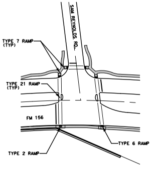
2015 AND 2035

ANTICIPATED
AVERAGE DAILY TRAFFIC VOLUMES
AND TURNING MOVEMENTS
AT THE SPECIFIED INTERSECTIONS ALONG
FM 156 FROM SH 114 TO FM 1384.

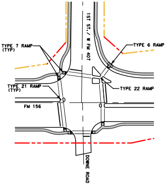

TYPE 7 RAMP
(TYP)
FM 156

TYPICAL TEE INTERSECTION RAMP CONFIGURATION
(TO BE USED AT THE FOLLOWING LOCATIONS)

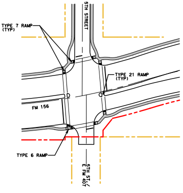
DOC MITCHELL RD.	S SNYDER AVE.
MATANY RD.	S SEALY AVE.
GAFFIELD RD.	BARRETT DR.
G CARDINAS RD.	2nd ST.
CARTHERINE BRANCH CIR.	3rd St.
INDUSTRIAL RD.	4th ST.
HARMONSON RD.	6th ST.
JOHN WILEY RD.	7th ST.
BISHOP PARK	8th ST.
HARDEMAN BLVD.	


SAM REYNOLDS RD.
TYPE 7 RAMP
(TYP)
TYPE 21 RAMP
(TYP)
FM 156
TYPE 6 RAMP
TYPE 2 RAMP

SAM REYNOLDS RD. RAMP CONFIGURATION


1ST ST./ W FM 407
TYPE 7 RAMP
(TYP)
TYPE 6 RAMP
TYPE 21 RAMP
(TYP)
TYPE 22 RAMP
FM 156
DOWNE ROAD

1st ST./ W FM 407 RAMP CONFIGURATION


5TH STREET
TYPE 7 RAMP
(TYP)
TYPE 21 RAMP
(TYP)
FM 156
TYPE 6 RAMP
5TH ST./
E FM 407

5th ST./ E FM 407 RAMP CONFIGURATION

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TEXAS DEPARTMENT OF TRANSPORTATION

DALLAS DISTRICT

WILLIAM HALE, P.E. - DISTRICT ENGINEER

DESIGN SCHEMATIC
URBAN MINOR ARTERIAL

FM 156

DENTON COUNTY

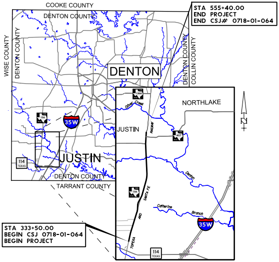
WIDEN 2-LANE RURAL TO 4-LANE DIVIDED URBAN CROSS SECTION
FROM: SH 114
TO: NORTH OF JUSTIN CITY LIMIT (NORTH OF FM 407)
PROJECT LENGTH: 4.203 MILES (22,190.00 FT)

CSJ #: 0718-01-064

TABLE OF CONTENTS: 2 ROLLS

ROADWAY SECTION	DESIGN SPEED	FUNCTION CLASS
FM 156: 333+50 - 455+00	45 MPH, L.S.	URBAN MINOR ARTERIAL
FM 156: 455+00 - 555+40.00	40 MPH, L.S.	URBAN MINOR ARTERIAL
DOC MITCHELL RD	30 MPH	URBAN COLLECTOR
MATANY RD	30 MPH	RURAL LOCAL
GAFFIELD RD	30 MPH	RURAL LOCAL
G CARDINAS RD	30 MPH	RURAL LOCAL
SAM REYNOLDS RD	30 MPH	RURAL LOCAL
CATHERINE BRANCH CIR	30 MPH	LOCAL STREET
INDUSTRIAL RD	30 MPH	RURAL LOCAL
HARMONSON RD	30 MPH	LOCAL STREET
JOHN WILEY RD	30 MPH	PRIMARY ARTERIAL
BISHOP PARK	30 MPH	LOCAL STREET
HARDEMAN BLVD	30 MPH	COMMERCIAL COLLECTOR
S SNYDER AVE	30 MPH	LOCAL STREET
S SEALY AVE	30 MPH	LOCAL STREET
BARRETT DR	30 MPH	LOCAL STREET
W FM 407(1ST ST)	30 MPH	MINOR ARTERIAL/COMMERCIAL COLLECTOR
DOWNE RD	15 MPH	LOCAL STREET
2ND ST	20 MPH	LOCAL STREET
3RD ST	20 MPH	LOCAL STREET
4TH ST (E & W)	20 MPH	LOCAL STREET
E FM 407	15 MPH	MINOR ARTERIAL
W 5TH ST	20 MPH	LOCAL STREET
6TH ST	20 MPH	LOCAL STREET
7TH ST	20 MPH	RESIDENTIAL COLLECTOR
8TH ST	20 MPH	LOCAL STREET
12TH ST	30 MPH	COMMERCIAL COLLECTOR

PROJECT LOCATION


COOKE COUNTY
DENTON COUNTY
WISE COUNTY
DENTON COUNTY
DENTON
DENTON COUNTY
COLLIN COUNTY
156
35W
JUSTIN
114
TEXAS
DENTON COUNTY
TARRANT COUNTY
1384
Oliver Creek
NORTHLAKE
JUSTIN
RAILWAY
407
156
SANTA FE
AND
TOPEKA
Denton
Catherine
Branch
35W
114
TEXAS
N

STA 555+40.00
END PROJECT
END CSJ# 0718-01-064

STA 333+50.00
BEGIN CSJ 0718-01-064
BEGIN PROJECT

PREPARED BY TEAGUE NALL AND PERKINS, INC.
FIRM REGISTRATION NUMBER 230

DATE APPROVED

DANIEL P. McCULLOUGH
98291

ROLL 1 of 2

AUGUST 2012

50 0 100 200 300
HORIZONTAL
SCALE IN FEET