DENTON COUNTY

PRELIMINARY DESIGN
SCHEMATIC

Texas Department of Transportation

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DALLAS DISTRICT
JAMES K. SELMAN P.E.,
DISTRICT ENGINEER

FM 455

FROM WEST OF FM 2450 TO EAST OF MARION ROAD
CSJ NO. 0816-02-072

ROADWAY = 28,951.18 FT = 5.483 MI
BRIDGE = 250 FT = 0.047 MI
NET LENGTH OF PROJECT = 29,201.18 FT = 5.530 MI

FM 455

FUNCTIONAL CLASS:	MINOR ARTERIAL
DESIGN SPEED:	45 MPH (LOW SPEED URBAN)
PROJECTED ADT (2020):	15,400
PROJECTED ADT (2040):	21,400

TRAFFIC SOURCE: TXDOT, TP&P MEMO JUNE 10, 2013

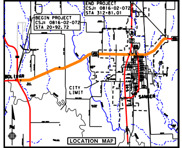
SAM BASS ROAD

DESIGN SPEED: 35 MPH (CITY STREET)

MARION ROAD

DESIGN SPEED: 40 MPH (CITY STREET)

EQUATIONS: NONE
RAILROADS: BNSF RR
EXCEPTIONS: NONE


END PROJECT
CSJ: 0816-02-072
STA 312+81.01
BEGIN PROJECT
CSJ: 0816-02-072
STA 20+92.72
BOLIVAR
CITY LIMIT
SANGER
LOCATION MAP

SCALE:

200'
100'
0
200'

SCALE: HORIZONTAL 1"= 200'

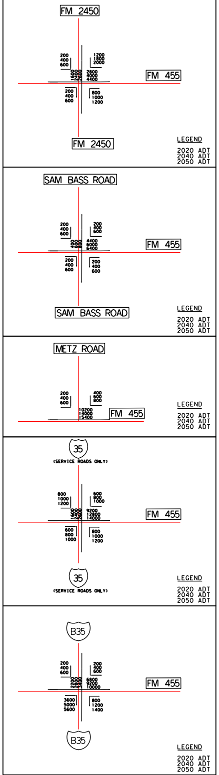
SCALE: VERTICAL 1"= 20'

DANNENBAUM
ENGINEERING COMPANY - DALLAS, LLC
T.B.P.E. FIRM REGISTRATION #392
3030 LYNDON B JOHNSON FWY, STE 910 DALLAS, TX 75234 (972) 239-2002

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW UNDER THE AUTHORITY OF DANIEL W. EVERETT, P.E. 93551. IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES. DATE: 9/29/2016

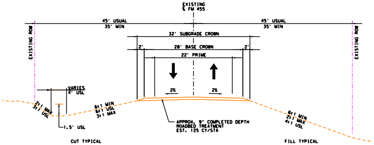
ROLL 2 OF 2

STATUS:
USER: PARKSP
FILE: G:\1220\4527-01\DGN\Schematic\452701 sch02.dgn
DATE: 9/29/2016


FM 2450
200
400
600
1200
1800
2000
1600
2400
2600
2800
4000
4400
FM 455
200
400
600
800
1000
1200
FM 2450
LEGEND
2020 ADT
2040 ADT
2050 ADT
SAM BASS ROAD
200
400
600
200
400
600
4400
6000
6400
FM 455
200
400
600
200
400
600
SAM BASS ROAD
LEGEND
2020 ADT
2040 ADT
2050 ADT
METZ ROAD
200
400
600
400
600
800
10200
14000
15400
FM 455
LEGEND
2020 ADT
2040 ADT
2050 ADT
35
(SERVICE ROADS ONLY)
800
1000
1200
600
800
1000
9200
12800
14000
FM 455
600
800
1000
800
1000
1200
35
(SERVICE ROADS ONLY)
LEGEND
2020 ADT
2040 ADT
2050 ADT
B35
200
400
600
200
400
600
6800
9200
10000
FM 455
3600
5000
5600
800
1200
1400
B35
LEGEND
2020 ADT
2040 ADT
2050 ADT

TRAFFIC DIAGRAMS

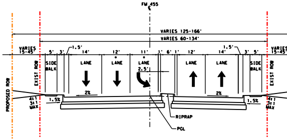
SOURCE OF DATA: TEXAS DEPARTMENT OF TRANSPORTATION; TRANSPORTATION PROGRAMMING AND PLANNING DIVISION MEMORANDUM JUNE 10, 2013


EXISTING
℄ FM 455
45' USUAL
35' MIN
45' USUAL
35' MIN
EXISTING ROW
EXISTING ROW
32' SUBGRADE CROWN
2'
28' BASE CROWN
2'
22' PRIME
2%
2%
VARIES
4' USL
2:1 MAX
3:1 USL
1.5' USL
6:1 MIN
6:1 USL
3:1 MAX
APPROX. 9" COMPLETED DEPTH
ROADBED TREATMENT
EST. 125 CY/STA
6:1 MIN
2:1 MAX
4:1 USL
CUT TYPICAL
FILL TYPICAL

FM 455 EXISTING TYPICAL SECTION

N.T.S.

STA 20+92.72 TO STA 313+23.50

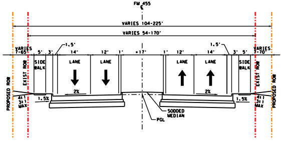

FM 455
℄
VARIES 125-166'
VARIES 60-134'
VARIES 15-45'
5'
3'
1.5'
14'
12'
11'
1'
6'
1'
12'
14'
1.5'
3'
5'
PROPOSED ROW
EXIST ROW
SIDE WALK
LANE
LANE
LANE
2.5'
LANE
LANE
SIDE WALK
2%
2%
4:1
3:1
MAX
1.5%
1.5%
RIPRAP
PGL

FM 455 PROPOSED TYPICAL SECTION

N.T.S.

STA 24+17.19 TO STA 28+97.69
* STA 37+23.56 TO STA 42+22.23
STA 63+71.89 TO STA 68+76.07
STA 89+30.01 TO STA 94+48.05
STA 112+48.41 TO STA 117+79.40
STA 137+90.84 TO STA 143+14.03
STA 161+34.07 TO STA 166+66.93
STA 168+81.51 TO STA 173+28.18
STA 192+87.93 TO STA 198+27.11
STA 202+63.22 TO STA 207+11.22
STA 278+57.96 TO STA 284+11.50
STA 286+80.04 TO STA 291+97.82

* SEE PLAN VIEW FOR LANE CONFIGURATION

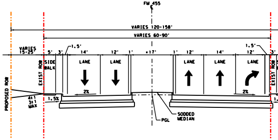

FM 455
℄
VARIES 104-225'
VARIES 54-170'
VARIES 7-65'
5'
3'
1.5'
14'
12'
1'
±17'
1'
12'
14'
1.5'
3'
5'
VARIES 7-70'
PROPOSED ROW
EXIST ROW
SIDE WALK
LANE
LANE
LANE
LANE
SIDE WALK
EXIST ROW
PROPOSED ROW
2%
2%
4:1
3:1
MAX
1.5%
1.5%
SODDED MEDIAN
PGL

FM 455 PROPOSED TYPICAL SECTION

N.T.S.

STA 28+97.69 TO STA 32+75.54
STA 42+22.23 TO STA 51+15.29
STA 55+64.34 TO STA 59+26.10
STA 68+76.07 TO STA 84+82.01
STA 94+48.05 TP STA 107+83.87
STA 117+79.40 TO STA 133+42.94
STA 143+14.01 TO STA 156+89.54
STA 154+85.40 TO STA 156+89.69
STA 166+66.93 TO STA 167+81.51
STA 173+28.18 TO STA 178+75.69
STA 183+24.98 TO STA 188+42.43
*STA 224+74.97 TO STA 230+45.59
STA 262+43.99 TO STA 274+11.96
STA 284+11.50 TO STA 286+80.04
SAT 291+97.82 TO STA 300+08.25

* CENTER MEDIAN TAPERS FROM 17' TO 6' FROM STA 224+74.97 TO STA 230+45.59

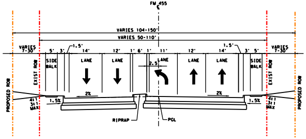

FM 455
℄
VARIES 120-158'
VARIES 60-90'
VARIES 15-25'
5'
3'
1.5'
14'
12'
1'
±17'
1'
12'
14'
12'
1.5'
PROPOSED ROW
EXIST ROW
SIDE WALK
LANE
LANE
LANE
LANE
LANE
2%
2%
4:1
3:1
MAX
1.5%
PGL
SODDED MEDIAN

FM 455 PROPOSED TYPICAL SECTION

N.T.S.

STA 198+27.11 TO STA 202+63.22
* STA 234+49.59 TO STA 238+24.46
STA 283+59.64 TO STA 287+28.09

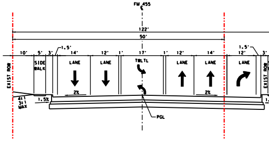
* CENTER MEDIAN TAPERS FROM 6' TO 17' FROM STA 234+49.59 TO STA 238+24.46


FM 455
℄
VARIES 104-150'
VARIES 50-110'
VARIES 7-50'
5'
3'
1.5'
14'
12'
1'
6'
1'
11'
12'
14'
1.5'
3'
5'
VARIES 7-50'
PROPOSED ROW
EXIST ROW
SIDE WALK
LANE
LANE
2.5'
LANE
LANE
LANE
SIDE WALK
EXIST ROW
PROPOSED ROW
2%
2%
4:1
3:1
MAX
1.5%
1.5%
RIPRAP
PGL

FM 455 PROPOSED TYPICAL SECTION

N.T.S.

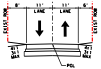
STA 32+75.54 TO STA 37+23.56
STA 51+15.29 TO STA 55+64.34
STA 59+26.10 TO STA 63+71.89
STA 84+82.01 TO STA 89+30.01
STA 107+83.87 TO STA 112+48.41
STA 133+42.94 TO STA 137+90.94
STA 156+89.54 TO STA 161+34.07
STA 178+85.47 TO STA 183+24.98
STA 188+24.98 TO STA 192+87.93
STA 274+11.96 TO STA 278+57.96
STA 300+08.25 TO STA 304+53.19


FM 455
℄
122'
50'
10'
5'
3'
1.5'
14'
12'
1'
17'
1'
12'
14'
12'
1.5'
3'
EXIST ROW
SIDE WALK
LANE
LANE
TWLTL
LANE
LANE
LANE
2%
2%
4:1
3:1
MAX
1.5%
PGL

FM 455 PROPOSED DOWNTOWN TYPICAL SECTION

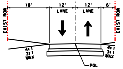
N.T.S.

STA 238+24.46 TO STA 247+28.06


8'
11'
11'
6'
LANE
LANE
EXIST ROW
EXIST ROW
4:1
3:1
MAX
4:1
3:1
MAX
PGL

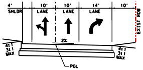
SAM BASS ROAD
EXISTING/PROPOSED TYPICAL SECTION

N.T.S.


18'
12'
12'
6'
LANE
LANE
EXIST ROW
EXIST ROW
4:1
3:1
MAX
4:1
3:1
MAX
PGL

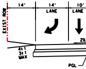
MARION ROAD
EXISTING/PROPOSED TYPICAL SECTION

N.T.S.


4'
SHLDR
10'
10'
14'
10'
LANE
LANE
LANE
EXIST ROW
2%
4:1
3:1
MAX
4:1
3:1
MAX
PGL

IH35 NORTHBOUND FRONTAGE ROAD
EXISTING/PROPOSED TYPICAL SECTION

N.T.S.


14'
14'
10'
LANE
LANE
EXIST ROW
2%
4:1
3:1
MAX
PGL

IH35 SOUTHBOUND F
EXISTING/PROPOSED T

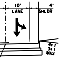
N.T.S.

NOTE: ALL CURBS ARE TYPE II UNLESS OTHERWISE NOTED.

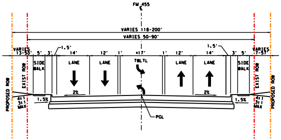
PROPOSED ROW

VARIES
15-33'
5'
SIDE
WALK
4:1
3:1
MAX
PROPOSED ROW

5'
10'
SIDE
WALK
4:1
3:1
MAX
PROPOSED ROW


10'
4'
LANE
SHLDR
4:1
3:1
MAX

RONTAGE ROAD
YPICAL SECTION

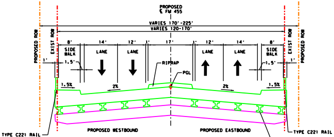

FM 455
℄
VARIES 118-200'
VARIES 50-90'
VARIES
13-53'
5'
3'
1.5'
14'
12'
1'
*17'
1'
12'
14'
1.5'
3'
5'
VARIES
7-57'
SIDE
WALK
LANE
LANE
TWLTL
LANE
LANE
SIDE
WALK
PROPOSED ROW
EXIST ROW
EXIST ROW
PROPOSED ROW
2%
2%
1.5%
1.5%
4:1
3:1
MAX
4:1
3:1
MAX
PGL

FM 455 PROPOSED DOWNTOWN TYPICAL SECTION

N.T.S.

STA 207+11.22 TO STA 224+74.97
STA 247+28.06 TO STA 262+43.99
*STA 304+53.19 TO STA 309+67.24

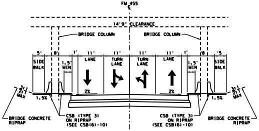
*STRIPED FLUSH MEDIAN


PROPOSED
℄ FM 455
VARIES 170'-225'
VARIES 120-170'
PROPOSED ROW
EXIST ROW
EXIST ROW
PROPOSED ROW
8'
14'
12'
1'
17'
1'
12'
14'
8'
SIDE
WALK
LANE
LANE
LANE
LANE
SIDE
WALK
1'
1.5'
1.5'
1'
RIPRAP
PGL
1.5%
2%
2%
1.5%
PROPOSED WESTBOUND
PROPOSED EASTBOUND
TYPE C221 RAIL
TYPE C221 RAIL
PRESTR CONC
GIRDER
(TYPE TX46-UNLESS
OTHERWISE NOTED)
(TYPE TX 70 OVER
DUCK CREEK)

FM 455 PROPOSED TYPICAL BRIDGE SECTION

N.T.S.

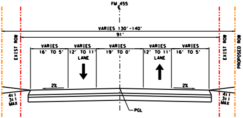
STA 29+00.51 TO STA 30+00.51
STA 153+35.40 TO STA 154+85.40


FM 455
℄
14'9" CLEARANCE
BRIDGE COLUMN
BRIDGE COLUMN
5'
8'
1'
11'
11'
11'
11'
1'
8
5
SIDE
WALK
1.5'
MIN
LANE
TURN
LANE
TURN
LANE
LANE
1.5'
MIN
SIDE
WALK
3:1
2:1
MAX
3:1
2:1
MAX
1.5%
2%
2%
1.5%
BRIDGE CONCRETE
RIPRAP
CSB (TYPE 3)
ON RIPRAP
(SEE CSB(6)-10)
CSB (TYPE 3)
ON RIPRAP
(SEE CSB(6)-10)
BRIDGE CONCRETE
RIPRAP

FM 455 PROPOSED TYPICAL SECTION AT IH 35

N.T.S.

STA 230+45.59 TO STA 234+49.59


FM 455
℄
VARIES 130'-140'
91'
PROPOSED ROW
EXIST ROW
VARIES
16' TO 5'
VARIES
12' TO 11'
LANE
VARIES
19' TO 0'
VARIES
12' TO 11'
LANE
VARIES
16' TO 5'
EXIST ROW
PROPOSED ROW
2%
2%
4:1
3:1
MAX
4:1
3:1
MAX
PGL

FM 455 PROPOSED ASPHALT TRANSITION

N.T.S.

STA 309+67.24 TO STA 312+81.01

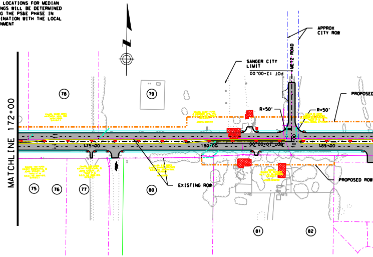
PROPERTY OWNER INFORMATION		
NUMBER	PROPERTY ID NO.	OWNER NAMES
1	59126	RANDY L. BENTLEY
2	59144	STEPHEN L. & GARY L. MARTIN
3	58818	CLEAR CREEK ANIMAL HOSPITAL INC.
4	57964	RANDY L. BENTLEY
5	250374	MARGARET LEROY BENTLEY
6	164480	FD EST CURTSINGER
7	250372	B R JR & MICHELLE A BENTLEY
8	57964	RANDY L. BENTLEY
9	122831	GERALD P. CARSEY
10	117863	GERALD P. CARSEY
11	58796	JOSHUA L & LACEY L SMITH
12	164480	JUSTIN CURTSINGER
13	58800	PHILLIP C & CHRISTINE L WAGNER
14	188925	SUSAN P. STEWART
15	58828	CALVIN HARBERSON
16	58831	BOLIVAR BAPTIST CHURCH
17	122976	AARON M. & JODI M MARTIN
18	186532	JUSTIN R MAXWELL
19	186533	CALVIN M & AMY R JONES
20	186534	PAUL W & SHARON SPRUIELL
21	56215	JUSTIN CURTSINGER
22	111336	CHERI ANNE GRAVES
23	244984	CHERI ANNE GRAVES
24	58833	ROBERT IRWIN ALBRECHT
25	123015	BOLIVAR BAPTIST CHURCH
26	123016	BOLIVAR BAPTIST CHURCH
27	117106	TERRY STOKES
28	117108	JANET L TIPPIT
29	56411	DANNY & VICTORIA BERTEL
30	257967	SUMEER HOMES INC
31	257969	SUMEER HOMES INC
32	258007	SUMEER HOMES INC
33	56269	RENNA L MOSS
34	283703	DAVID C & SARAH MANTSCH
35	56407	MEDIEVAL CASTLE INC
36	247079	B R JR & MICHELLE A BENTLEY
37	56285	JASON W & LAURA M DOWNING
38	56294	RIDIN FOR THE BRAND COWBOY CHURCH
39	56366	MIKE & LINDA THATEN
40	46409	ARTHUR P TRUST BUTHOD
41	134535	PEDRO & ARCELIA CASTOR RIVERA
42	134538	ANTHONY PAX
43	114138	ANTHONY PAX
44	76437	MARTIN BLACK
45	134541	TOMMY & DIANE RHODES
46	134540	TOMMY RHODES
47	149570	JOHNNY MELTON
48	149586	TONY A & BRENDA K BLEDSOE
49	57186	JUDY KNOWES SELPH
50	57193	FLOYD W & JEAN A HALBERT
51	111255	JUDY KNOWES SELPH
52	57224	BILLY ED NANCE
53	57372	NANCE
54	57205	JOHN W III & DELORES COKER
55	57208	PEGGY (AKA BETTY L) PATE
56	57200	ALLEN A & KAREN S SERRANO
57	59752	JO ANN HOLSON
58	59747	JO ANN HOLSON
59	59742	JO ANN HOLSON
60	59761	WILLIAM E NANCE
61	106056	GERALD A KNEZEK
62	106058	WOODARD II & HELEN WEBB
63	106059	GERALD A KNEZEK
64	132566	WOODARD II & HELEN WEBB
65	59751	SANDRA KAY DOBBS
66	75839	SANDRA KAY DOBBS
67	59768	ROBERTA E WALLACE
68	128451	TERRY LEE & NORMA STRAIN JONES
69	283345	DONNY & BRANDY A KNIGHTSTEP
70	300028	WILLIAM J & BELITA G MORRIS
71	300029	BRIAN P & MELISSA A MANN
72	59737	ROBERT G & GAYLETA PUGH
73	208169	DONNY KNIGHTSTEP
74	620422	BOLIVAR WATER SUPPLY CORP
75	225100	KATHY & STOUFFE ROSENTHAL
76	225315	KATHY & STOUFFE ROSENTHAL
77	225313	KATHY & STOUFFE ROSENTHAL
78	59901	JOHN & CAROL BETH KNIGHTSTEP
79	59905	JAMES V SR & DARLENE WATSON
80	59711	CONNIE & STROOPE HOLLSTEIN
81	59734	RANDY R & PATTIE R SLIGER
82	77796	RANDY R & PATTIE R SLIGER
83	77077	RUTH MRS MARSHALL
84	232698	R&R RANCHING AND REAL ESTATE INC
85	232699	R&R RANCHING AND REAL ESTATE INC
86	56536	KENNETH D & SHELLEY L RULAND
87	131208	SANGER ISD
88	56489	PAC GROUP LTD
89	233824	PORTER
90	245453	REED LAND HOLDINGS LLC
91	245454	JJEM PROFESSIONALS LLC
92	245455	SHIELDS FAMILY LLC II
93	245456	KENNETH R HERMES
94	245457	RICHARD J PERRY
95	245458	PAC GROUP LTD
96	56513	S&T RENTALS LLC
97	56518	LINDA DIANE HEWLETT
98	56521	LINDA DIANE HEWLETT
99	56459	O'REILLY AUTOMOTIVE INC
100	243328	PAC GROUP LTD
101	253746	DAVID K & SHERRY A ISBELL
102	243327	CRIMSON TILE MANAGEMENT INC
103	57235	B-29 PROPERTIES LLC
104	238298	FIRST UNITED BANK AND TRUST COMPANY
105	205219	R C FINN INC
106	309668	FUEL MANAGEMENT LLC
107	56431	CHET TR SWITZER
108	56438	CHET TR SWITZER
109	75856	VICTRON STORES LP
110	60333	RICHARD T MUIR
111	59731	SPRINGER FAMILY RENTALS LLC
112	57946	SPRINGER FAMILY RENTALS LLC
113	57919	SPRINGER FAMILY RENTALS LLC
114	199424	SANGER PATE ADDISTION LLC
115	199629	DENTON/NORTH TEXAS SDI PORTFOLIO LLC
116	57927	KLEMENT KARL PROP INC
117	57924	KLEMENT KARL PROP INC
118	58030	DORMAN LEE JOHNSON
119	155832	RUSSEL M CEBALLOS
120	57928	JAMES W CONLEY
121	57932	SHARON S COPELAND
122	58714	LAVERNE SCHERTZ
123	58716	KERRY L & CHERYL CHERTZ
124	77706	OPAL ASHCROFT
125	57643	ALFRED ASHCROFT
126	58447	JOHN D & ELIZABETH SPRINGER
127	58441	JOHN D & ELIZABETH SPRINGER
128	239288	RJ SODHI INC
129	291008	EAGLE FARMS INC ETAL
130	58699	SPRINGER FAMILY RENTALS LLC
131	58704	SPRINGER FAMILY RENTALS LLC
132	58688	ALLAN W & CAROLYN PFAFFLY
133	58678	FRANK SAMDAD LTD P/S ETAL
134	60332	RONALD BEARD
135	58673	DENNIS & PEGGY ARRINGTON
136	58659	RONALD BEARD
137	284004	STUCKY FAMILY LTD PS
138	60307	EAGLE FARMS INC ETAL
139	58738	JESSE L BECK
140	58739	DONNA G SEARLE
141	58585	BILL & DONNA G SEARLE-PARK
142	60305	A RAY STEPHENS
143	60221	JIM & DEBBIE CONLEY
144	60218	BILLIE J PENNINGTON
145	268495	GRANITE INDUSTRIES LLC
146	60322	HUGH Z PRUETT
147	123509	SANGER ISD
148	132465	SANGER ISD

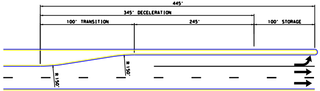
LEGEND

-·-·-	EXISTING TXDOT ROW
-·-·-	PROPOSED ROW
-·-·-	PROPOSED EASEMENT
-·-·-	EXISTING CITY/COUNTY ROW
—	PROPOSED SIDEWALK AND ADA RAMPS
▨	DISPLACEMENTS
—	PROPOSED EDGE OF PAVEMENT
▨	PROPOSED RIP RAP
—	PROPOSED METAL BEAM GUARD FENCE
●	UTILITY MANHOLE (APPROXIMATE LOCATION)
◇	FIRE HYDRANT (APPROXIMATE LOCATION)
●—	OVERHEAD ELECTRIC (APPROXIMATE LOCATION)
—	WATER LINE (APPROXIMATE LOCATION)
- - -SAN-	SANITARY SEWER LINE (APPROXIMATE LOCATION)

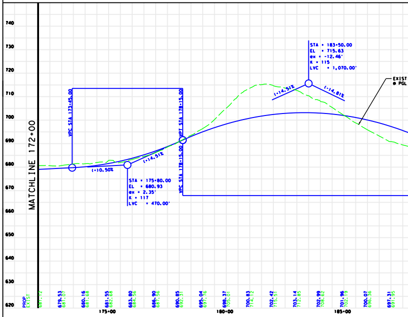
NOTES:

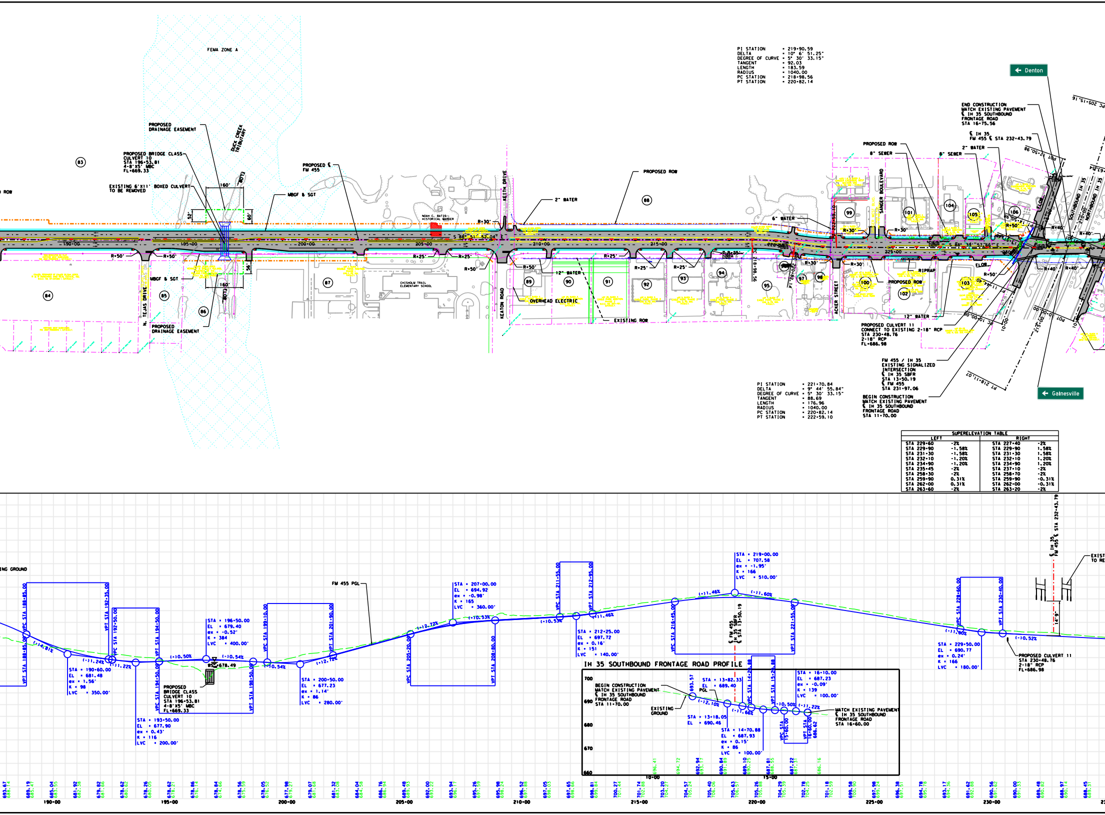
1. ALL RADII ARE MIN 15' UNLESS OTHERWISE NOTED
2. FINAL LOCATIONS FOR MEDIAN OPENINGS WILL BE DETERMINED DURING THE PS&E PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT


MATCHLINE 172+00
APPROX
CITY ROW
METZ ROAD
SANGER CITY
LIMIT
POT 13+00.00
PROPOSED
R=50'
R=50'
175+00
180+00
POT 10+00.00
10+00
185+00
EXISTING ROW
PROPOSED ROW
75
76
77
78
79
80
81
82


445'
345' DECELERATION
100' TRANSITION
245'
100' STORAGE
R 150'
R 150'

FM 455 PROPOSED LEFT TURN BAY TYPICAL DETAIL



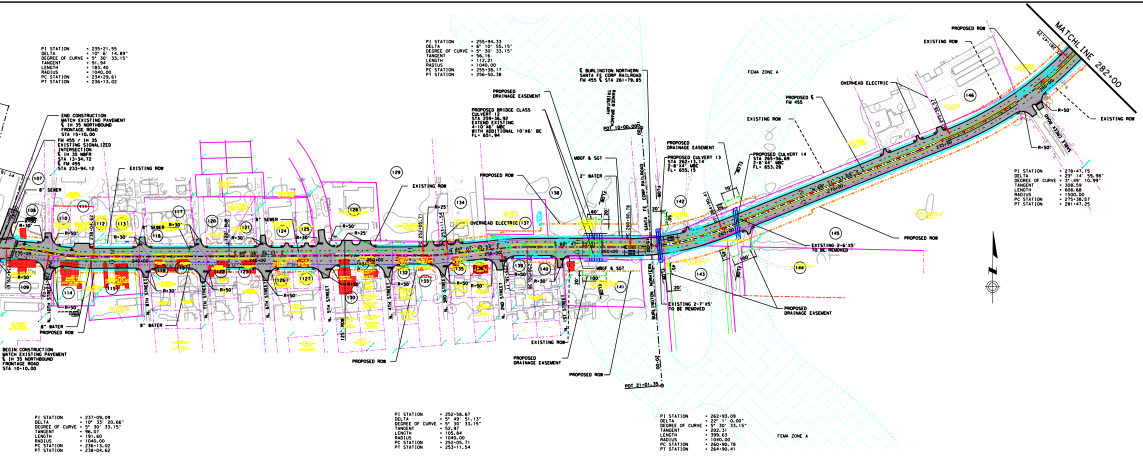

FEMA ZONE A
PROPOSED DRAINAGE EASEMENT
DUCK CREEK TRIBUTARY
PROPOSED BRIDGE CLASS CULVERT 10
STA 196+53.81
4-8'X5' MBC
FL=669.33
EXISTING 6'X11' BOXED CULVERT TO BE REMOVED
160'
52'
60'
56'
MBGF & SGT
PROPOSED ℄ FM 455
NOAH C. BATIS HISTORICAL MARKER
KEITH DRIVE
2" WATER
PROPOSED ROW
6" WATER
R=30'
R=50'
R=25'
R=35'
R=40'
190+00
195+00
200+00
205+00
210+00
215+00
220+00
225+00
N. TEJAS DRIVE
CHISHOLM TRAIL ELEMENTARY SCHOOL
KEATON ROAD
12" WATER
OVERHEAD ELECTRIC
EXISTING ROW
PC 218+98.56
PT 220+82.14
ACKER STREET
SANGER BOULEVARD
8" SEWER
RIPRAP
FLOW
PROPOSED CULVERT 11
CONNECT TO EXISTING 2-18" RCP
STA 230+48.76
2-18" RCP
FL=686.98
FM 455 / IH 35 EXISTING SIGNALIZED INTERSECTION
℄ IH 35 SBFR STA 13+50.19
℄ FM 455 STA 231+97.06
BEGIN CONSTRUCTION
MATCH EXISTING PAVEMENT
℄ IH 35 SOUTHBOUND FRONTAGE ROAD
STA 11+70.00
END CONSTRUCTION
MATCH EXISTING PAVEMENT
℄ IH 35 SOUTHBOUND FRONTAGE ROAD
STA 16+75.56
℄ IH 35 FM 455 ℄ STA 232+43.79
SOUTHBOUND IH 35
NORTHBOUND IH 35
PC 205+15.16
POT 7+50.86
PT 218+11.07
Denton
Gainesville
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
EXISTING GROUND
FM 455 PGL
VPC STA 188+85.00
VPT STA 188+85.00
VPT STA 192+35.00
VPC STA 192+50.00
VPT STA 194+50.00
STA = 190+60.00
EL = 681.48
ex = 1.56'
K = 98
LVC = 350.00'
(-)4.81%
(-)1.24%
(-)1.22%
(+)0.50%
(-)0.54%
STA = 193+50.00
EL = 677.90
ex = 0.43'
K = 116
LVC = 200.00'
VPC STA 194+50.00
STA = 196+50.00
EL = 679.40
ex = -0.52'
K = 384
LVC = 400.00'
678.49
PROPOSED BRIDGE CLASS CULVERT 10
STA 196+53.81
4-8'X5' MBC
FL=669.33
VPT STA 198+50.00
VPC STA 199+10.00
VPT STA 201+90.00
STA = 200+50.00
EL = 677.23
ex = 1.14'
K = 86
LVC = 280.00'
(+)2.12%
(+)2.72%
(-)0.54%
VPC STA 205+20.00
VPT STA 208+80.00
STA = 207+00.00
EL = 694.92
ex = -0.98'
K = 165
LVC = 360.00'
(+)0.53%
(+)0.53%
VPC STA 211+55.00
VPT STA 212+95.00
STA = 212+25.00
EL = 697.72
ex = 0.16'
K = 151
LVC = 140.00'
(+)1.46%
VPC STA 216+45.00
VPT STA 221+55.00
STA = 219+00.00
EL = 707.58
ex = -1.95'
K = 166
LVC = 510.00'
(+)1.46%
(-)1.60%
℄ FM 455
℄ IH 35 SBFR
℄ STA 13+50.19
VPC STA 228+60.00
VPT STA 230+40.00
STA = 229+50.00
EL = 690.77
ex = 0.24'
K = 166
LVC = 180.00'
(-)1.60%
(-)0.52%
PROPOSED CULVERT 11
STA 230+48.76
2-18" RCP
FL=686.98
14.9'
℄ IH 35 FM 455 ℄ STA 232+43.79
IH 35 SOUTHBOUND FRONTAGE ROAD PROFILE
BEGIN CONSTRUCTION
MATCH EXISTING PAVEMENT
℄ IH 35 SOUTHBOUND FRONTAGE ROAD
STA 11+70.00
PGL
EXISTING GROUND
STA = 13+18.05
EL = 690.46
STA = 13+82.33
EL = 689.40
(-)2.10%
(-)1.66%
(-)0.50%
(-)1.22%
STA = 14+70.88
EL = 687.93
ex = 0.15'
K = 86
LVC = 100.00'
VPC STA 14+20.88
VPT STA 15+20.88
VPC STA 15+60.00
VPT STA 16+60.00
STA = 16+10.00
EL = 687.23
ex = -0.09'
K = 139
LVC = 100.00'
MATCH EXISTING PAVEMENT
℄ IH 35 SOUTHBOUND FRONTAGE ROAD
STA 16+60.00
700
690
680
670
660
10+00
15+00
190+00
195+00
200+00
205+00
210+00
215+00
220+00
225+00
230+00

PI STATION = 219+90.59
DELTA = 10° 6' 51.25"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 92.03
LENGTH = 183.59
RADIUS = 1040.00
PC STATION = 218+98.56
PT STATION = 220+82.14

PI STATION = 221+70.84
DELTA = 9° 44' 55.84"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 88.69
LENGTH = 176.96
RADIUS = 1040.00
PC STATION = 220+82.14
PT STATION = 222+59.10

SUPERELEVATION TABLE

LEFT		RIGHT	
STA 229+60	-2%	STA 227+40	-2%
STA 229+90	-1.58%	STA 229+90	1.58%
STA 231+30	-1.58%	STA 231+30	1.58%
STA 232+10	-1.20%	STA 232+10	1.20%
STA 234+90	-1.20%	STA 234+90	1.20%
STA 235+45	-2%	STA 237+10	-2%
STA 258+30	-2%	STA 258+70	-2%
STA 259+90	0.31%	STA 259+90	-0.31%
STA 262+00	0.31%	STA 262+00	-0.31%
STA 263+60	-2%	STA 263+20	-2%


MATCHLINE 282+00
PT 281+47.25
PROPOSED ROW
EXISTING ROW
OVERHEAD ELECTRIC
PROPOSED ℄ FM 455
EXISTING ROW
FEMA ZONE A
℄ BURLINGTON NORTHERN SANTA FE CORP RAILROAD FM 455 ℄ STA 261+79.85
RANGER BRANCH TRIBUTARY
POT 10+00.00
PROPOSED DRAINAGE EASEMENT
PROPOSED BRIDGE CLASS CULVERT 12 STA 259+36.92 EXTEND EXISTING 4-10'X6' MBC WITH ADDITIONAL 10'X6' BC FL= 651.94
MBGF & SGT
2" WATER
PROPOSED ROW
PROPOSED DRAINAGE EASEMENT
PROPOSED CULVERT 13 STA 262+13.14 2-8'X4' MBC FL= 655.15
PROPOSED CULVERT 14 STA 265+56.69 2-8'X4' MBC FL= 653.28
EXISTING 2-6'X5' TO BE REMOVED
PROPOSED ROW
EXISTING 2-7'X5' TO BE REMOVED
PROPOSED DRAINAGE EASEMENT
R=50'
EXISTING ROW
SABLE CREEK ROAD
END CONSTRUCTION MATCH EXISTING PAVEMENT ℄ IH 35 NORTHBOUND FRONTAGE ROAD STA 15+10.00
FM 455 / IH 35 EXISTING SIGNALIZED INTERSECTION ℄ IH 35 NBFR STA 13+34.72 ℄ FM 455 STA 233+94.12
EXISTING ROW
8" SEWER
8" SEWER
8" SEWER
8" WATER
8" WATER
PROPOSED ROW
BEGIN CONSTRUCTION MATCH EXISTING PAVEMENT ℄ IH 35 NORTHBOUND FRONTAGE ROAD STA 10+10.00
EXISTING ROW
PROPOSED ROW
OVERHEAD ELECTRIC
PROPOSED ROW
EXISTING ROW
PROPOSED DRAINAGE EASEMENT
PROPOSED ROW
POT 21+01.35
MBGF & SGT
N. 10TH STREET
N. 8TH STREET
N. 7TH STREET
N. 6TH STREET
N. 5TH STREET
N. 4TH STREET
N. 3RD STREET
N. 2ND STREET
N. 1ST STREET
125' ROW
122' ROW
S 89° 08' 26.33" E
N 85° 01' 42.54" E
S 88° 47' 22.31" E
N 69° 11' 37.69" E
235+00
240+00
245+00
250+00
255+00
260+00
265+00
270+00
275+00
280+00
PC 234+29.61
PT 236+13.02
238+04.62
PC 252+05.71
PT 253+11.54
PC 255+38.17
PT 256+50.38
PC 260+90.78
PT 264+90.41
PC 275+38.57
R=50'
R=30'
R=25'
60'
20'
10'
100'
45'
30'
FLOW
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146

PI STATION = 235+21.55
DELTA = 10° 6' 14.89"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 91.94
LENGTH = 183.40
RADIUS = 1040.00
PC STATION = 234+29.61
PT STATION = 236+13.02

PI STATION = 255+94.33
DELTA = 6° 10' 55.15"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 56.16
LENGTH = 112.21
RADIUS = 1040.00
PC STATION = 255+38.17
PT STATION = 256+50.38

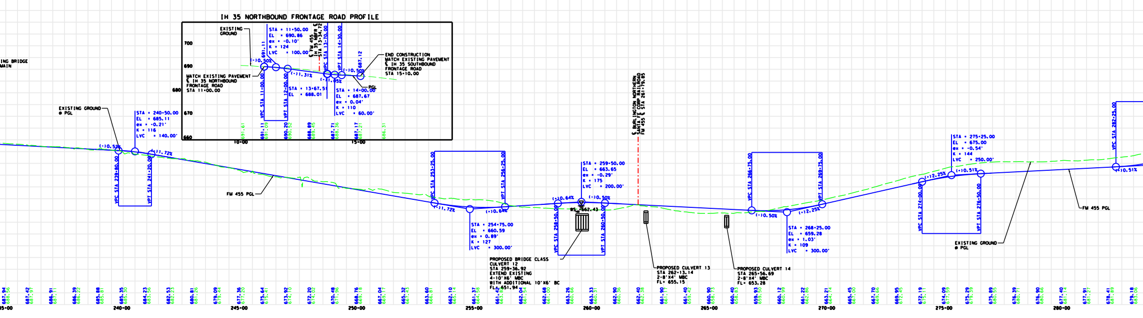
PI STATION = 278+47.15
DELTA = 23° 14' 59.98"
DEGREE OF CURVE = 3° 49' 10.99"
TANGENT = 308.59
LENGTH = 608.68
RADIUS = 1500.00
PC STATION = 275+38.57
PT STATION = 281+47.25

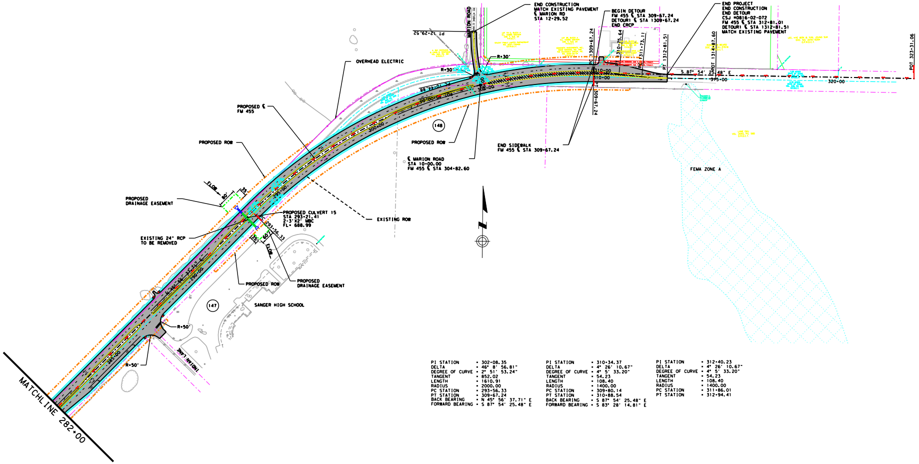
PI STATION = 237+09.09
DELTA = 10° 33' 20.66"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 96.07
LENGTH = 191.60
RADIUS = 1040.00
PC STATION = 236+13.02
PT STATION = 238+04.62

PI STATION = 252+58.67
DELTA = 5° 49' 51.13"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 52.97
LENGTH = 105.84
RADIUS = 1040.00
PC STATION = 252+05.71
PT STATION = 253+11.54

PI STATION = 262+93.09
DELTA = 22° 1' 0.00"
DEGREE OF CURVE = 5° 30' 33.15"
TANGENT = 202.31
LENGTH = 399.63
RADIUS = 1040.00
PC STATION = 260+90.78
PT STATION = 264+90.41

FEMA ZONE A


IH 35 NORTHBOUND FRONTAGE ROAD PROFILE


END CONSTRUCTION
MATCH EXISTING PAVEMENT
℄ MARION RD
STA 12+29.52
BEGIN DETOUR
FM 455 ℄ STA 309+67.24
DETOUR1 ℄ STA 1309+67.24
END CRCP
END PROJECT
END CONSTRUCTION
END DETOUR
CSJ #0816-02-072
FM 455 ℄ STA 312+81.01
DETOUR1 ℄ STA 1312+81.51
MATCH EXISTING PAVEMENT
MARION ROAD
OVERHEAD ELECTRIC
R=30'
PC 1309+67.24
PT 1310+75.64
PC 1311+73.11
PT 1312+81.51
POT 1314+87.60
POT 323+31.06
S 87° 54' 25.48" E
310+00
315+00
320+00
305+00
300+00
295+00
290+00
285+00
PROPOSED ℄ FM 455
PROPOSED ROW
148
147
PROPOSED ROW
℄ MARION ROAD
STA 10+00.00
FM 455 ℄ STA 304+82.60
END SIDEWALK
FM 455 ℄ STA 309+67.24
FEMA ZONE A
PROPOSED DRAINAGE EASEMENT
FLOW
PROPOSED CULVERT 15
STA 293+21.41
2-3'X2' MBC
FL= 688.99
EXISTING ROW
EXISTING 24" RCP TO BE REMOVED
293+56.33
PROPOSED ROW
PROPOSED DRAINAGE EASEMENT
SANGER HIGH SCHOOL
R=50'
R=50'
INDIAN TRL
MATCHLINE 282+00

PI STATION = 302+08.35
DELTA = 46° 8' 56.81"
DEGREE OF CURVE = 2° 51' 53.24"
TANGENT = 852.02
LENGTH = 1610.91
RADIUS = 2000.00
PC STATION = 293+56.33
PT STATION = 309+67.24
BACK BEARING = N 45° 56' 37.71" E
FORWARD BEARING = S 87° 54' 25.48" E

PI STATION = 310+34.37
DELTA = 4° 26' 10.67"
DEGREE OF CURVE = 4° 5' 33.20"
TANGENT = 54.23
LENGTH = 108.40
RADIUS = 1400.00
PC STATION = 309+80.14
PT STATION = 310+88.54
BACK BEARING = S 87° 54' 25.48" E
FORWARD BEARING = S 83° 28' 14.81" E

PI STATION = 312+40.23
DELTA = 4° 26' 10.67"
DEGREE OF CURVE = 4° 5' 33.20"
TANGENT = 54.23
LENGTH = 108.40
RADIUS = 1400.00
PC STATION = 311+86.01
PT STATION = 312+94.41

LEGEND

-·-·-	EXISTING TXDOT ROW
-·-·-	PROPOSED ROW
-·-·-	PROPOSED EASEMENT
-·-	EXISTING CITY/COUNTY ROW
—	PROPOSED SIDEWALK AND ADA RAMPS
▨	DISPLACEMENTS
—	PROPOSED EDGE OF PAVEMENT
▨	PROPOSED RIP RAP
—	PROPOSED METAL BEAM GUARD FENCE
●	UTILITY MANHOLE (APPROXIMATE LOCATION)
●	FIRE HYDRANT (APPROXIMATE LOCATION)
●—	OVERHEAD ELECTRIC (APPROXIMATE LOCATION)
—	WATER LINE (APPROXIMATE LOCATION)
- - SAN -	SANITARY SEWER LINE (APPROXIMATE LOCATION)

NOTES:
1. ALL RADII ARE MIN 15' UNLESS OTHERWISE NOTED
2. FINAL LOCATIONS FOR MEDIAN OPENINGS WILL BE DETERMINED DURING THE PS&E PHASE IN COORDINATION WITH THE LOCAL GOVERNMENT

DENTON COUNTY

PRELIMINARY DESIGN SCHEMATIC

Texas Department of Transportation

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DALLAS DISTRICT
JAMES K. SELMAN P.E.,
DISTRICT ENGINEER

FM 455

FROM WEST OF FM 2450 TO EAST OF MARION ROAD
CSJ NO. 0816-02-072

ROADWAY = 28,951.18 FT = 5.483 MI
BRIDGE = 250 FT = 0.047 MI
NET LENGTH OF PROJECT = 29,201.18 FT = 5.530 MI

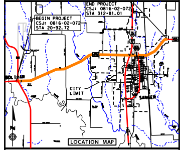
FM 455
FUNCTIONAL CLASS: MINOR ARTERIAL

DESIGN SPEED: 45 MPH (LOW SPEED URBAN)

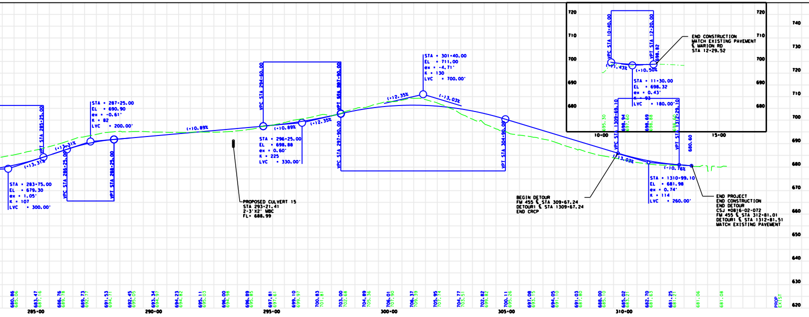
PROJECTED ADT (2020): 15,400
PROJECTED ADT (2040): 21,400
TRAFFIC SOURCE: TXDOT, TP&P MEMO JUNE 10, 2013

SAM BASS ROAD
DESIGN SPEED: 35 MPH (CITY STREET)
MARION ROAD
DESIGN SPEED: 40 MPH (CITY STREET)

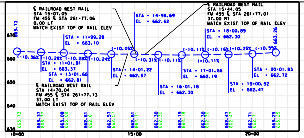
EQUATIONS: NONE
RAILROADS: BNSF RR
EXCEPTIONS: NONE


END PROJECT
CSJ: 0816-02-072
STA 312+81.01
BEGIN PROJECT
CSJ: 0816-02-072
STA 20+92.72
CITY LIMIT
SANGER
LOCATION MAP

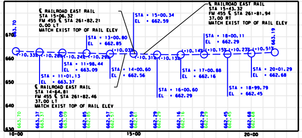
MARION ROAD PROFILE


720
710
700
690
680
VPC STA 10+40.00
VPI STA 12+20.00
698.82
(-)1.43%
(+)0.50%
STA = 11+30.00
EL = 698.32
ex = 0.43'
K = 93
LVC = 180.00'
VPI STA 1309+69.10
698.94
698.69
VPT STA 1312+29.10
680.60
10+00
15+00
END CONSTRUCTION
MATCH EXISTING PAVEMENT
℄ MARION RD
STA 12+29.52
STA = 283+75.00
EL = 679.30
ex = 1.05'
K = 107
LVC = 300.00'
(+)3.31%
(+)1.31%
VPC STA 282+25.00
VPT STA 288+25.00
STA = 287+25.00
EL = 690.90
ex = -0.61'
K = 82
LVC = 200.00'
(+)0.89%
(+)0.89%
VPC STA 294+60.00
STA = 296+25.00
EL = 698.88
ex = 0.60'
K = 225
LVC = 330.00'
(+)2.35%
VPT STA 297+90.00
VPC STA 297+90.00
(+)2.35%
STA = 301+40.00
EL = 711.00
ex = -4.71'
K = 130
LVC = 700.00'
(-)3.03%
VPT STA 304+90.00
(-)3.03%
(-)0.76%
STA = 1310+99.10
EL = 681.98
ex = 0.74'
K = 114
LVC = 260.00'
PROPOSED CULVERT 15
STA 293+21.41
2-3'X2' MBC
FL= 688.99
BEGIN DETOUR
FM 455 ℄ STA 309+67.24
DETOUR1 ℄ STA 1309+67.24
END CRCP
END PROJECT
END CONSTRUCTION
END DETOUR
CSJ #0816-02-072
FM 455 ℄ STA 312+81.01
DETOUR1 ℄ STA 1312+81.51
MATCH EXISTING PAVEMENT
740
730
720
710
700
690
680
670
660
650
640
630
620
PROP
EXIST
285+00
290+00
295+00
300+00
305+00
310+00

BNSF EXISTING TOP OF RAIL PROFILE


℄ RAILROAD WEST RAIL
STA 15+07.05
FM 455 ℄ STA 261+77.06
0.00 LT
MATCH EXIST TOP OF RAIL ELEV
STA = 14+98.69
EL = 662.62
℄ RAILROAD WEST RAIL
STA 15+44.05
FM 455 ℄ STA 261+77.01
37.00 RT
MATCH EXIST TOP OF RAIL ELEV
STA = 11+99.28
EL = 663.10
STA = 18+00.89
EL = 662.30
(+)0.05%
(+)0.11%
(+)0.16%
(+)0.25%
(+)0.55%
(-)0.36%
(-)0.28%
(-)0.28%
(-)0.24%
(-)0.31%
(-)0.11%
(+)0.11%
STA = 11+01.91
EL = 663.37
STA = 13+01.66
EL = 662.81
STA = 14+01.22
EL = 662.57
STA = 17+01.66
EL = 662.19
STA = 20+01.83
EL = 662.72
STA = 16+01.18
EL = 662.30
STA = 19+00.52
EL = 662.47
℄ RAILROAD WEST RAIL
STA 14+70.04
FM 455 ℄ STA 261+77.13
37.00 LT
MATCH EXIST TOP OF RAIL ELEV
663.73
663.26
670
660
650
640
630
10+00
15+00
20+00

BNSF EXISTING TOP OF RAIL PROFILE


℄ RAILROAD EAST RAIL
STA 15+06.32
FM 455 ℄ STA 261+82.21
0.00 LT
MATCH EXIST TOP OF RAIL ELEV
STA = 15+00.34
EL = 662.59
℄ RAILROAD EAST RAIL
STA 15+43.32
FM 455 ℄ STA 261+81.94
37.00 RT
MATCH EXIST TOP OF RAIL ELEV
STA = 13+00.80
EL = 662.85
STA = 18+00.11
EL = 662.29
STA = 11+98.44
EL = 663.09
STA = 11+01.13
EL = 663.37
STA = 14+00.60
EL = 662.56
STA = 17+00.88
EL = 662.16
STA = 20+01.29
EL = 662.68
STA = 16+00.60
EL = 662.29
STA = 18+99.79
EL = 662.45
℄ RAILROAD EAST RAIL
STA 14+64.81
FM 455 ℄ STA 261+82.46
37.00 LT
MATCH EXIST TOP OF RAIL ELEV
663.70
663.19
670
660
650
640
630
10+00
15+00
20+00

SCALE:

200' 100' 0 200'

SCALE: HORIZONTAL 1"= 200'

20' 10' 0 20'

SCALE: VERTICAL 1"= 20'

DANNENBAUM
ENGINEERING COMPANY - DALLAS, LLC
T.B.P.E. FIRM REGISTRATION #392
3030 LYNDON B JOHNSON FWY, STE 910 DALLAS, TX 75234 (972) 239-2002

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