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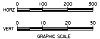
Texas Department of Transportation

DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

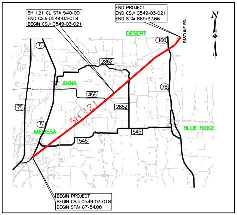
ROLL 4 of 11

FROM: SH 5 IN MELISSA TO: CR 635 (EAST LINE ROAD)
BRIDGE REPLACEMENT AND HIGHWAY RECONSTRUCTION
PROJECT LENGTH: 15.11 MILES (79784')
BRIDGE: 0.30 MILES (1560')
ROADWAY: 14.81 MILES (78224')

CSJ: 0549-03-018 (SH 5 to FM 455)
CSJ: 0549-03-021 (FM 455 to CR 635/FANNIN COUNTY LINE)


0
100
200
300
HORZ
0
10
20
30
VERT

GRAPHIC SCALE
(IN FEET)


SH 121 CL STA 540+00
END CSJ: 0549-03-018
BEGIN CSJ: 0549-03-021
END PROJECT
END CSJ: 0549-03-021
END STA: 865+37.66
N
EASTLINE RD.
DESERT
160
5
2862
ANNA
455
75
78
2862
SH 121
5
MELISSA
545
545
BLUE RIDGE
BEGIN PROJECT
BEGIN CSJ: 0549-03-018
BEGIN STA: 67+54.08

LOCATION MAP

INDEX OF ROLLS

ROLL	DESCRIPTION
1	SH 121 STA 67+54.08 TO STA. 187+00
2	SH 121 STA 187+00 TO STA. 327+00
3	SH 121 STA 327+00 TO STA. 467+00
4	SH 121 STA 467+00 TO STA. 607+00
5	SH 121 STA 607+00 TO STA. 747+00
6	SH 121 STA 747+00 TO CR 635 (FANNIN COUNTY LINE)
7	SH 121 STA 747+00 TO FANNIN COUNTY LINE (TRANSITION)
8	SH 5 AND FANNIN ROAD
9	FM 455 AND CONNECTING RAMPS
10	FM 2862 AND CONNECTING RAMPS
11	SH 160 AND CONNECTING RAMPS

DESIGN ROADWAY	LIMITS		FUNCTIONAL CLASSIFICATION	ADT		DESIGN SPEED
	FROM	TO		2012	2032	
SH 121 (SUBURBAN)	SH 5 STA 67+54.08	Outer Loop + STA 368+10.00	ARTERIAL	18800	29400	45
SH 121 (RURAL)	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	ARTERIAL	13500	21000	70
SH 121 RAMPS	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	RAMP	NA	NA	35
FM 2933	AT SH 121		COLLECTOR	1000	1600	40
455 N	AT SH 121		ARTERIAL	1550	2250	40
455 S	AT SH 121		COLLECTOR	500	700	40
E. HOUSTON ST (FM 2862)	AT SH 121		COLLECTOR	1700	2700	50
SH 160	AT SH 121		ARTERIAL	4100	6600	50
N. McDonald Street (SH 5 SOUTH)	AT SH 121		ARTERIAL	7300	11,300	40
MC KINNEY ST (SH 5 NORTH)	AT SH 121		ARTERIAL	6400	9900	40
DENTON ST (FM 545)	AT SH 121		COLLECTOR	4200	6500	30
COUNTY ROADS						
CR 418	AT SH 121		LOCAL	600	900	30
LANDFILL ENTRANCE	AT SH 121		LOCAL	NA	NA	30
416	AT SH 121		LOCAL	NA	NA	30
419	AT SH 121		LOCAL	300	600	20 •
420	AT SH 121		LOCAL	NA	NA	20 •
475	AT SH 121		LOCAL	250	450	30
507(509)	AT SH 121		LOCAL	NA	NA	20 •
424 / 513	AT SH 121		LOCAL	NA	NA	30
526 / 527	AT SH 121		LOCAL	NA	NA	20 •
528 / 581	AT SH 121		LOCAL	NA	NA	20 •
582	AT SH 121		LOCAL	NA	NA	20 •
936	AT SH 121		LOCAL	NA	NA	20 •
1002	AT SH 121		LOCAL	NA	NA	20 •
COUNTY LINE RD	AT SH 121		LOCAL	250	250	20 •
EASTLINE RD	AT SH 121		LOCAL	200	350	30
CITY STREETS						
FANNIN RD	AT SH 121		COLLECTOR	NA	NA	30
BARTLETT RD	AT SH 121		LOCAL	NA	NA	30
CREEKSIDE RD	AT SH 121		LOCAL	NA	NA	30
BERRY RD	AT SH 121		LOCAL	2600	4000	30
EASTWOOD RD	AT SH 121		LOCAL	NA	NA	30
LILLIAN DR	AT SH 121		LOCAL	NA	NA	30
NUGENT ST	AT SH 121		LOCAL	NA	NA	30
LIBERTY WAY	AT SH 121		LOCAL	900	1400	30
REDWOOD BLVD	AT SH 121		LOCAL	NA	NA	30

• = UNPAVED COUNTY ROAD
+ = FUTURE OUTER LOOP, BY OTHERS

NOTES:

1. MEDIAN OPENINGS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL MEDIAN OPENING LOCATIONS TO BE DETERMINED DURING PS&E AND IN COORDINATION WITH THE CITIES OF MELISSA AND ANNA.

2. SOURCE OF TRAFFIC DATA:
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORTATION, PROGRAMING AND PLANNING DIVISION
MARCH 27, 2007

3. ALL URBAN SECTIONS WILL HAVE CONCRETE CURB AND GUTTER WITH BARRIER CURBS.

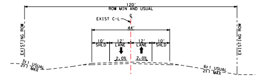
LEGEND

- - - —	EXISTING R.O.W. (ACCESS BY PERMIT ONLY)
—	PROPERTY LINES
▬ ▪ ▬	PROPOSED R.O.W. (ACCESS BY PERMIT ONLY IN ACCORDANCE WITH TXDOT ACCESS CONTROL MANUAL)
— · — · —	SH 121 CL
X X X X	OBLITERATE EXISTING ROADWAY
— —3"w— —	WATER UTILITY
- - - - - -	CITY LIMIT
🟩	SH 121 PAVEMENT
🟦	CROSS STREETS
☐	BRIDGE
🟪	DRIVEWAYS
—	RETAINING WALL
▨	DISPLACED STRUCTURE

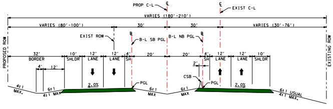
These documents are not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under the supervision of:

NANCY D. MITCHELL, P.E. 79762 09/22/11
PROJECT MANAGER PE# DATE

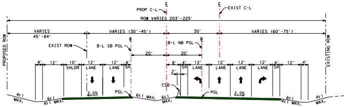
Lockwood, Andrews & Newnam, Inc.
T.B.P.E. Firm # 2614


120'
ROW MIN AND USUAL
EXIST C-L
EXISTING ROW
44'
10' SHLD
12' LANE
12' LANE
10' SHLD
2.0%
2.0%
3:1 USUAL
2:1 MAX
6:1 USUAL
2:1 MAX
EXISTING ROW

EXISTING TYPICAL SECTION (ANNA)
NTS STA. 467+00 TO STA. 607+00

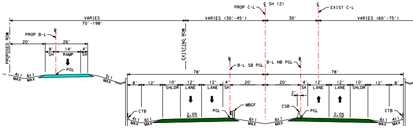

PROP C-L
EXIST C-L
VARIES (180'-210')
VARIES (80'-100')
30'
30'
VARIES (30'-76')
PROPOSED ROW
EXIST ROW
B-L SB PGL
B-L NB PGL
EXISTING ROW
32' BORDER
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
4'
12'
2'
CSB
PGL
PGL
2.0%
2.0%
4:1 MAX.
6:1
4:1 MAX
6:1 MAX
6:1 MAX
6:1 USUAL
4:1 MAX.

STA. 483+92.97 TO STA. 501+36
STA. 518+42 TO STA. 561+45.00

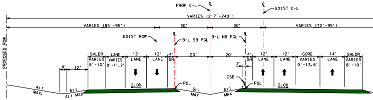

PROP C-L
EXIST C-L
ROW VARIES 203'-225'
VARIES 45'-84'
VARIES (30'-45')
30'
VARIES (60'-75')
PROPOSED ROW
EXIST ROW
B-L SB PGL
B-L NB PGL
EXISTING ROW
20'
20'
4'
12'
10' SHLDR
12' LANE
12' LANE
4' SH
8'
4' SH
12' LANE
12' LANE
12' LANE
12' LANE
4' SH
12'
4'
2'
CSB
PGL
PGL
2.0%
2.0%
4:1 MAX.
6:1
4:1 MAX.
6:1 MAX.
6:1 MAX.
6:1
4:1 MAX.
4:1 MAX.

PROPOSED RURAL ROADWAY TYPICAL SECTION
AT INTERSECTIONS
NTS CSJ 0549-03-018

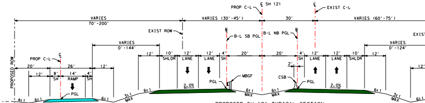
STA. 501+36 TO STA. 509+85


PROP C-L
SH 121
EXIST C-L
VARIES 70'-198'
VARIES (30'-45')
30'
VARIES (60'-75')
PROPOSED ROW
PROP B-L
20'
26'
8' SH
14' RAMP
4' SH
PGL
4:1 MAX
6:1 MAX
3:1 MAX
EXISTING ROW
B-L SB PGL
B-L NB PGL
78'
78'
8'
12'
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
12'
8'
2'
CTB
MBGF
PGL
CSB
PGL
CTB
2.0%
2.0%
4:1 MAX
6:1 MAX
6:1 MAX
6:1 MAX
6:1 MAX
4:1 MAX

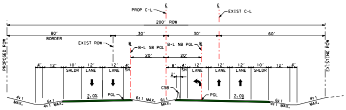
PROPOSED SH 121 TYPICAL SECTION
NTS CSJ 0549-03-018
STA. 467+00 TO STA. 479+82.97


PROP C-L
EXIST C-L
VARIES (217'-240')
VARIES (85'-95')
30'
30'
VARIES (72'-95')
PROPOSED ROW
EXIST ROW
B-L SB PGL
B-L NB PGL
4'
12'
SHLDR VARIES 8'-10'
LANE VARIES 0'-11.2'
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
GORE VARIES 0'-13.6'
14' LANE
SHLDR VARIES 8'-10'
2'
CSB
PGL
PGL
2.0%
2.0%
4:1 MAX.
6:1
4:1 MAX
6:1 MAX
6:1 MAX

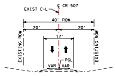
STA. 569+77 TO STA. 578+52
STA. 599+87 TO STA 607+00


PROP C-L
SH 121
EXIST C-L
VARIES 70'-200'
VARIES (30'-45')
30'
VARIES (60'-75')
EXIST ROW
B-L SB PGL
B-L NB PGL
EXIST
PROPOSED ROW
PROP C-L
VARIES 0'-144'
VARIES 0'-124'
20'
26'
12'
12'
8' SH
14' RAMP
4' SH
PGL
12'
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
12'
12'
2'
MBGF
PGL
CSB
PGL
2.0%
2.0%
4:1
6:1
6:1
3:1 MAX
6:1
6:1 MAX
6:1 MAX
6:1
3:1 MAX
6:1

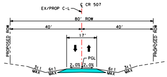
PROPOSED SH 121 TYPICAL SECTION
NTS CSJ 0549-03-018
STA. 578+52 TO STA. 599+87


PROP C-L
EXIST C-L
200' ROW
80' BORDER
30'
30'
60'
EXIST ROW
B-L SB PGL
B-L NB PGL
20'
20'
SHLDR
LANE
LANE
SH
SH
LANE
LANE
LANE
SHLDR
2.0%
PGL
CSB
6:1 MAX.
4:1 MAX.
PROPOSED ROW
EXISTING ROW

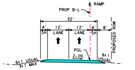
PROPOSED RURAL ROADWAY TYPICAL SECTION
LEFT TURN LANE
NTS CSJ 0549-03-018
STA. 561+45 TO STA. 569+77


EXIST C-L
CR 507
40' ROW
20'
20'
17'
PGL
VAR
VAR
EXISTING ROW
EXISTING ROW

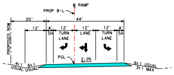
EXISTING CR 507 TYPICAL SECTION
NTS CSJ 0549-03-018


EX/PROP C-L
CR 507
80' ROW
40'
40'
17'
PGL
2.0%
2.0%
3:1 MAX
6:1 MAX
PROPOSED ROW
PROPOSED ROW

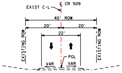
PROPOSED CR 507 TYPICAL SECTION
NTS CSJ 0549-03-018


PROP B-L
RAMP
32'
SH
LANE
LANE
SH
PGL
2.0%
6:1 USUAL
3:1 MAX
PROPOSED ROW

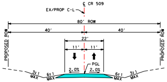
PROPOSED RAMP TYPICAL SECTION
AT FM 455 NB ENTRANCE
NTS CSJ 0549-03-018


PROP B-L
RAMP
20'
44'
SH
TURN LANE
LANE
TURN LANE
SH
PGL
2.0%
4:1 USUAL
6:1 USUAL
3:1 MAX
PROPOSED ROW

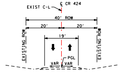
PROPOSED RAMP TYPICAL SECTION
AT FM 455 SB EXIT
NTS CSJ 0549-03-018


EXIST C-L
CR 509
40' ROW
20'
20'
22'
PGL
VAR
VAR
EXISTING ROW
EXISTING ROW

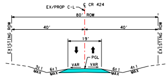
EXISTING CR 509 TYPICAL SECTION
NTS CSJ 0549-03-018


EX/PROP C-L
CR 509
80' ROW
40'
40'
22'
11'
11'
PGL
2.0%
2.0%
3:1 MAX
6:1 MAX
PROPOSED ROW
PROPOSED ROW

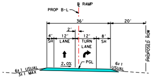
PROPOSED CR 509 TYPICAL SECTION
NTS CSJ 0549-03-018


EXIST C-L
CR 424
40' ROW
20'
20'
19'
PGL
VAR
VAR
EXISTING ROW
EXISTING ROW

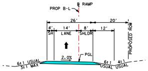
EXISTING CR 424 TYPICAL SECTION
NTS CSJ 0549-03-018


EX/PROP C-L
CR 424
80' ROW
40'
40'
19'
PGL
VAR
VAR
3:1 MAX
6:1 MAX
4:1 MAX
EXISTING ROW
EXISTING ROW

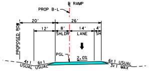
PROPOSED CR 424 TYPICAL SECTION
NTS CSJ 0549-03-018


PROP B-L
RAMP
36'
20'
SH
LANE
TURN LANE
SH
PGL
2.0%
6:1 USUAL
3:1 MAX
PROPOSED ROW

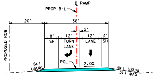
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 NB EXIT
NTS CSJ 0549-03-018


PROP B-L
RAMP
26'
20'
SH
LANE
SHLDR
PGL
2.0%
6:1 USUAL
4:1 USUAL
3:1 MAX
PROPOSED ROW

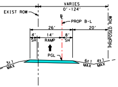
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 NB ENTRANCE
NTS CSJ 0549-03-018

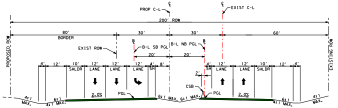

PROP B-L
RAMP
20'
26'
SHLDR
LANE
SH
PGL
2.0%
6:1 USUAL
4:1 USUAL
3:1 MAX
PROPOSED ROW

PROPOSED RAMP TYPICAL SECTION
AT FM 2862 SB ENTRANCE
NTS CSJ 0549-03-018


PROP B-L
RAMP
20'
36'
SH
TURN LANE
LANE
SH
PGL
2.0%
6:1 USUAL
3:1 MAX
PROPOSED ROW

PROPOSED RAMP TYPICAL SECTION
AT FM 2862 SB EXIT
NTS CSJ 0549-03-018


EXIST ROW
VARIES 0'-124'
PROP B-L
26'
20'
SH
RAMP
SH
PGL
6:1 MAX
4:1 MAX
3:1 MAX
PROPOSED ROW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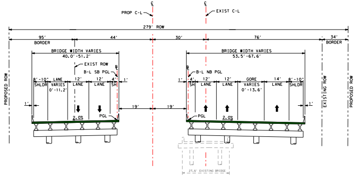
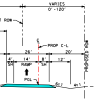
EXIST C-L
200' ROW
80' BORDER
30'
30'
60'
EXIST ROW
B-L SB PGL
B-L NB PGL
20'
20'
SHLDR
LANE
LANE
LANE
SH
SH
LANE
LANE
SHLDR
CSB
PGL
2.0%
6:1 MAX.
4:1 MAX.
PROPOSED ROW
EXISTING ROW

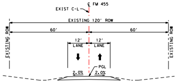
PROPOSED RURAL ROADWAY TYPICAL SECTION
AT INTERSECTIONS
NTS CSJ 0549-03-018
STA. 509+85 TO STA. 518+42


PROP C-L
EXIST C-L
279' ROW
95' BORDER
44'
30'
76'
34' BORDER
BRIDGE WIDTH VARIES 40.0'-51.2'
BRIDGE WIDTH VARIES 53.5'-67.6'
EXIST ROW
B-L SB PGL
B-L NB PGL
SHLDR
LANE VARIES 0'-11.2'
LANE
LANE
SH
SH
LANE
LANE
GORE VARIES 0'-13.6'
LANE
SHLDR
19'
19'
PGL
2.0%
27.5' EXISTING BRIDGE
PROPOSED ROW
EXISTING ROW

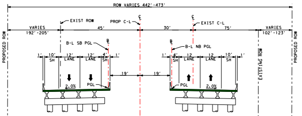
PROPOSED BRIDGE TYPICAL SECTION
NTS CSJ 0549-03-018
SISTER GROVE CREEK
STA. 479+82.97 TO STA. 483+92.97

EXISTING ROW
6:1 USUAL
4:1 MAX.

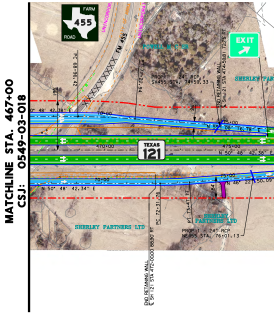

VARIES 0'-120'
ROW
PROP C-L
26'
20'
SH
RAMP
SH
PGL
6:1
4:1
PROPOSED ROW

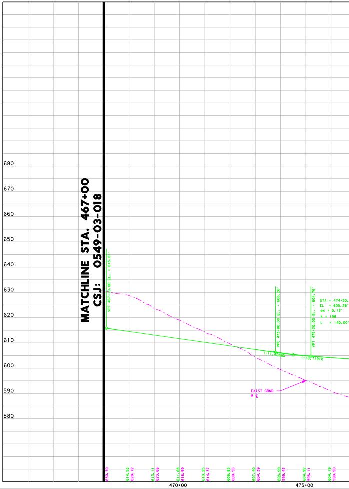

EXIST C-L
FM 455
EXISTING 120' ROW
60'
60'
LANE
LANE
PGL
2.0%
2.0%
EXISTING ROW
EXISTING ROW

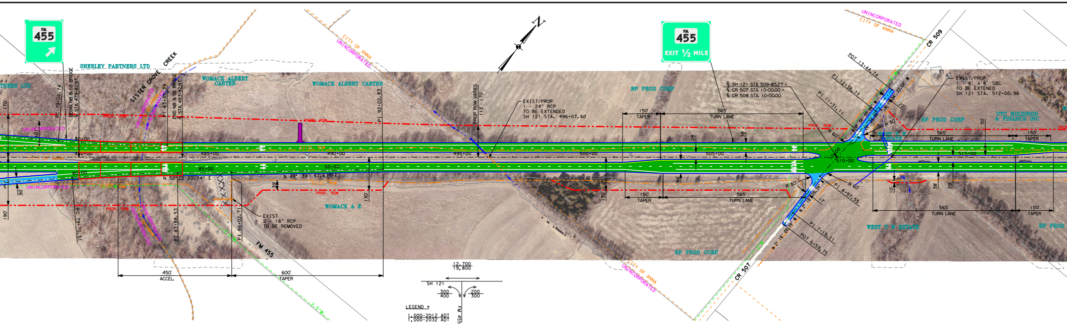
EXISTING FM 455 TYPICAL SECTION
NTS CSJ 0549-03-018


ROW VARIES 442'-473'
VARIES 192'-205'
EXIST ROW
PROP C-L
EXIST C-L
45'
30'
75'
VARIES 102'-123'
B-L SB PGL
B-L NB PGL
SH
LANE
LANE
SH
19'
19'
PGL
2.0%
PROPOSED ROW
EXISTING ROW

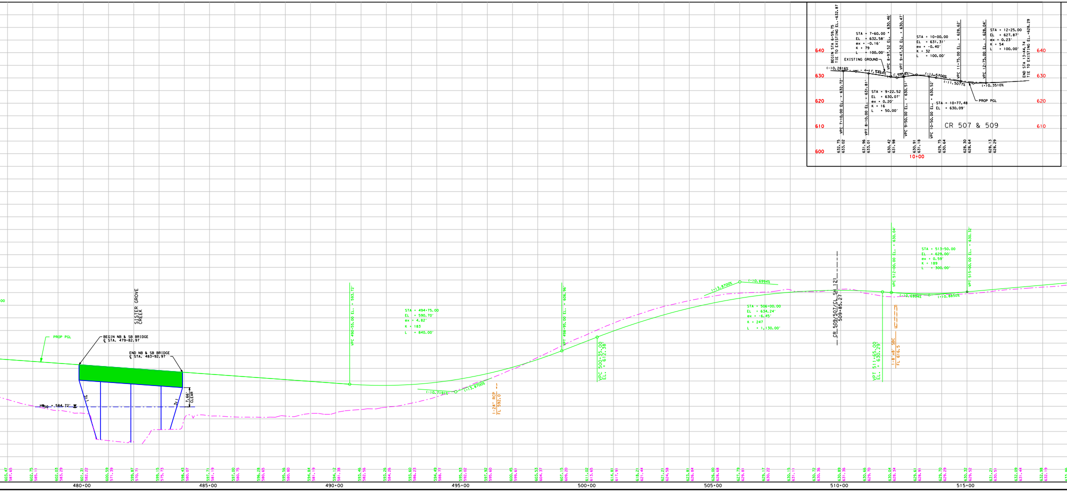
PROPOSED RURAL BRIDGE TYPICAL SECTION
AT FM 2862
NTS CSJ 0549-03-018
STA. 588+43.24 TO STA. 590+63.24


MATCHLINE STA. 467+00
CSJ: 0549-03-018
FARM 455 ROAD
FM 455
TEXAS 121
EXIT
POWELL M C SR
SHERLEY PARTNERS LTD
PROP 1 - 24" RCP SX455 STA. 74+59.33
PROP 1 - 24" RCP NE455 STA. 76+01.13
470+00
475+00
END RETAINING WALL

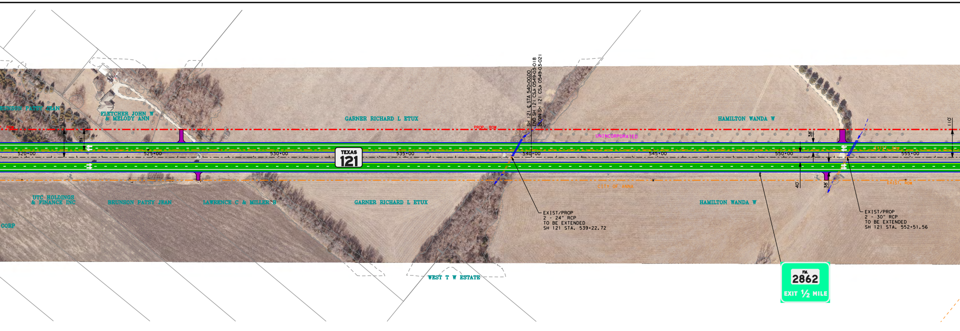


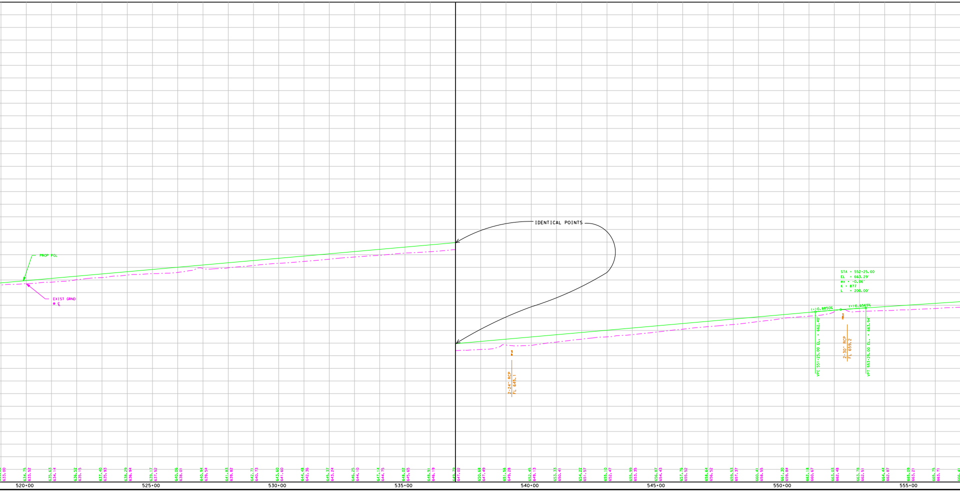


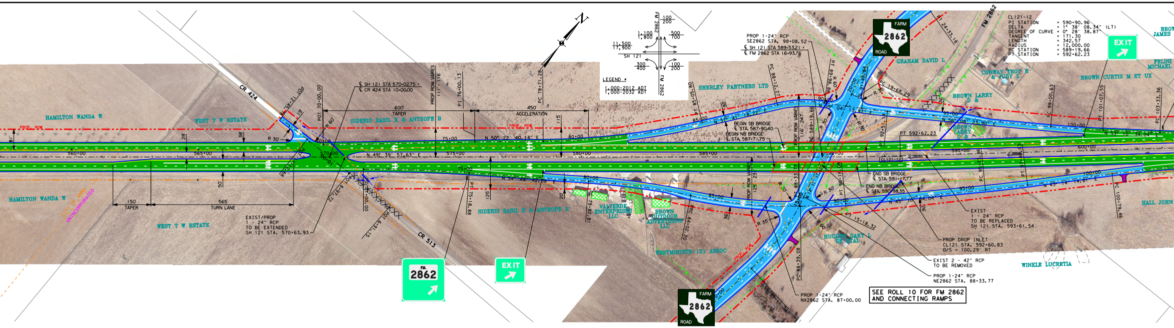
F.M. 455
F.M. 455 EXIT ½ MILE
SHERLEY PARTNERS LTD
SISTER GROVE CREEK
WOMACK ALBERT CARTER
WOMACK ALBERT CARTER
CITY OF ANNA
UNINCORPORATED
BEGIN NB & SB BRIDGE ℄ STA. 479+82.97
END NB & SB BRIDGE ℄ STA. 483+92.97
PC 79+06.74
PI 83+59.39
PI 92+02.83
PROP ROW VARIES 113'-170'
EXIST/PROP 1 - 24" RCP TO BE EXTENDED SH 121 STA. 496+07.60
PROP. ROW
480+00
485+00
490+00
495+00
500+00
505+00
510+00
515+00
80+00
85+00
90+00
N 50° 22' 20.74" E
N 49° 39' 57.67" E
EXIST 2 - 18" RCP TO BE REMOVED
WOMACK A E
PC 79+70.51
PT 83+88.53
PI 86+02.71
FM 455
450' ACCEL.
600' TAPER
12,700
19,800
SH 121
300
400
200
300
FM 455
LEGEND =
1,000-2012 ADT
1,000-2032 ADT
BP PROD CORP
℄ SH 121 STA 509+85.27 =
℄ CR 507 STA 10+00.00 =
℄ CR 509 STA 10+00.00
150' TAPER
565' TURN LANE
CR 509
POT 13+44.74
PI 12+38.77
PI 11+31.11
UNINCORPORATED
CITY OF ANNA
EXIST/PROP 1 - 8' × 8' SBC TO BE EXTENDED SH 121 STA. 512+00.96
BP PROD CORP
UTC HOLDINGS & FINANCE INC
565' TURN LANE
150' TAPER
R 30
R 60
150' TAPER
565' TURN LANE
PI 8+97.55
PI 7+19.11
POT 6+59.75
CR 507
WEST T W ESTATE
BP PROD
BP PROD CORP
565' TURN LANE
150' TAPER

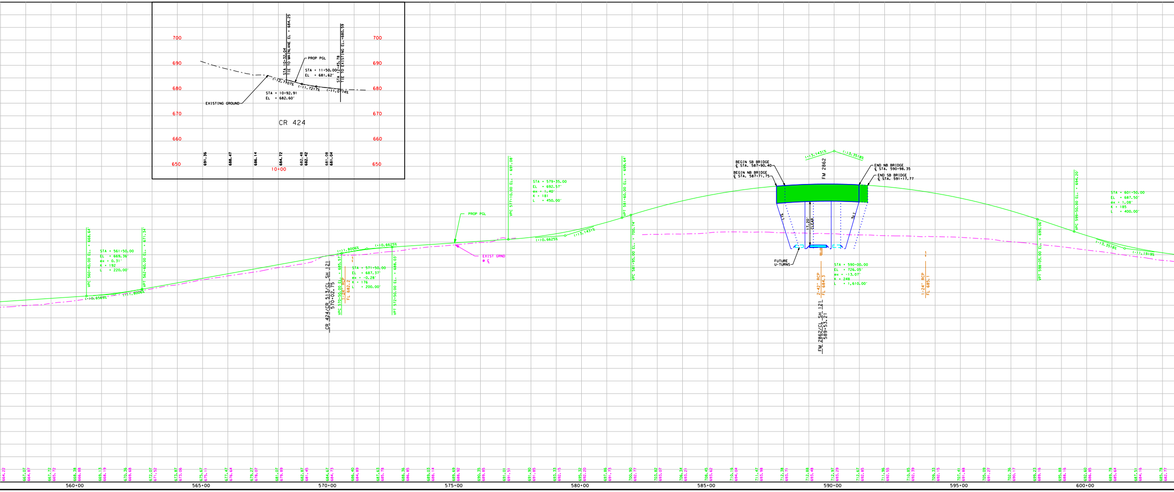


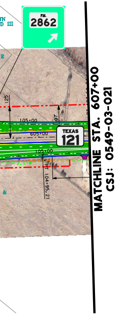
640
630
620
610
600
BEGIN STA 6+59.75 TIE TO EXISTING EL. =632.87
STA = 7+60.00
EL = 632.58'
ex = -0.16'
K = 79
L = 100.00'
EXISTING GROUND
STA = 9+22.52
EL = 630.07'
ex = 0.20'
K = 16
L = 50.00'
STA = 10+00.00
EL = 631.31'
ex = -0.40'
K = 32
L = 100.00'
STA = 10+77.48
EL = 630.09'
STA = 12+25.00
EL = 627.87'
ex = 0.23'
K = 54
L = 100.00'
END STA 13+44.74 TIE TO EXISTING EL. =628.29
PROP PGL
CR 507 & 509
10+00
PROP PGL
BEGIN NB & SB BRIDGE ℄ STA. 479+82.97
END NB & SB BRIDGE ℄ STA. 483+92.97
SISTER GROVE CREEK
HW50 = 584.72'
7.66' CLEAR
3:1
VPC 490+95.00 EL. = 593.72'
STA = 494+75.00
EL = 590.70'
ex = 4.82'
K = 183
L = 840.00'
(-)0.7161%
(+)3.8700%
1-24" RCP FL 592.0
VPT 498+95.00 EL. = 606.96'
VPC 500+35.00 EL. = 612.38'
(+)3.8700%
(-)0.6994%
STA = 506+00.00
EL = 634.24'
ex = -6.45'
K = 247
L = 1,130.00'
CR 509/507/CL SH 121 509+85.27
VPT 511+65.00 EL. = 630.29'
VPC 512+00.00 EL. = 630.64'
1-8'x8' SBC FL 616.5
(-)0.6994%
(+)0.6650%
STA = 513+50.00
EL = 629.00'
ex = 0.59'
K = 189
L = 300.00'
VPT 515+00.00 EL. = 630.32'
480+00
485+00
490+00
495+00
500+00
505+00
510+00
515+00

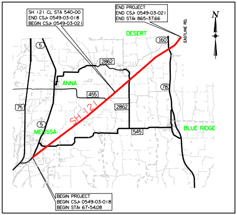

BRUNSON PATSY JEAN
FLETCHER JOHN W & MELODY ANN
GARNER RICHARD L ETUX
HAMILTON WANDA W
PROP. ROW
UNINCORPORATED
SH 121 ℄ STA 540+00.00
END SH 121 CSJ: 0549-03-018
BEGIN SH 121 CSJ: 0549-03-021
110'
38'
40'
520+00
525+00
530+00
535+00
540+00
545+00
550+00
555+00
TEXAS 121
CITY OF ANNA
EXIST. ROW
UTC HOLDINGS & FINANCE INC
BRUNSON PATSY JEAN
LAWRENCE C & MILLER B
GARNER RICHARD L ETUX
HAMILTON WANDA W
CORP
EXIST/PROP
2 - 24" RCP
TO BE EXTENDED
SH 121 STA. 539+22.72
EXIST/PROP
2 - 30" RCP
TO BE EXTENDED
SH 121 STA. 552+51.56
WEST T W ESTATE
F.M. 2862
EXIT ½ MILE


PROP PGL
EXIST GRND @ ℄
IDENTICAL POINTS
2-24" RCP
FL 645.1
STA = 552+25.00
EL = 663.29'
ex = -0.06'
K = 877
L = 200.00'
(+)0.8850%
(+)0.6569%
VPC 551+25.00 EL. = 662.40'
2-30" RCP
FL 659.2
VPT 553+25.00 EL. = 663.94'
520+00
525+00
530+00
535+00
540+00
545+00
550+00
555+00


CR 424
CR 513
FM 2862
SH 121
HAMILTON WANDA W
WEST T W ESTATE
SIDERIS BASIL K & ANTEOPE B
SHERLEY PARTNERS LTD
GRAHAM DAVID L
CONWAY TROY E & JUDY L
BROWN LARRY D &
BROWN CURTIS M ET UX
VALVERDE ENTERPRISES LLC
BROWN OUTDOOR ADVERTISING LLC
WESTMINSTER-121 ASSOC
HUGHES GARY L ET AL
WINKLE LUCRETIA
HALL JOHN
CITY OF ANNA UNINCORPORATED
PROP. ROW
EXIT
2862
FARM ROAD 2862
LEGEND :
1,000-2012 ADT
1,000-2032 ADT
11,500
17,900
1,100
1,800
500
700
300
400
100
200
100
200
℄ SH 121 STA 570+02.75 =
℄ CR 424 STA 10+00.00
600' TAPER
450' ACCELERATION
150' TAPER
565' TURN LANE
N 49° 39' 57.63" E
N 50° 22' 40.14" E
560+00
565+00
570+00
575+00
580+00
585+00
590+00
595+00
600+00
EXIST/PROP 1 - 24" RCP TO BE EXTENDED SH 121 STA. 570+63.93
PROP 1-24" RCP SE2862 STA. 90+08.52
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
BEGIN SB BRIDGE ℄ STA. 587+90.40
BEGIN NB BRIDGE ℄ STA. 587+71.75
END SB BRIDGE ℄ STA. 591+17.77
END NB BRIDGE ℄ STA. 590+98.35
PT 592+62.23
CL121-12
CL121-12
PI STATION = 590+90.96
DELTA = 1° 38' 08.34" (LT)
DEGREE OF CURVE = 0° 28' 38.87"
TANGENT = 171.30
LENGTH = 342.57
RADIUS = 12,000.00
PC STATION = 589+19.66
PT STATION = 592+62.23
EXIST 1 - 24" RCP TO BE REPLACED SH 121 STA. 593+61.54
PROP DROP INLET CL121 STA. 592+60.83 O/S = 100.29' RT
EXIST 2 - 42" RCP TO BE REMOVED
PROP 1-24" RCP NE2862 STA. 88+33.77
PROP 1-24" RCP NX2862 STA. 87+00.00
SEE ROLL 10 FOR FM 2862 AND CONNECTING RAMPS
PROP ROW VARIES 111'- 116'
PROP ROW VARIES 116'- 247'
PROP ROW VARIES 125'
N


CR 424
700
690
680
670
660
650
10+00
PROP PGL
EXISTING GROUND
STA = 11+50.00
EL = 681.62'
STA = 10+92.91
EL = 682.60'
STA 10+32.04 TIE TO MAINLANE EL = 684.25
STA 11+45.78 TIE TO EXISTING EL. = 680.59
(-2.1107)%
(-1.7217)%
(-1.0774)%
691.36
688.47
686.14
684.72
682.48
682.42
681.08
681.04
PROP PGL
EXIST GRND
STA = 561+50.00
EL = 669.36'
K = 192
L = 220.00'
STA = 571+50.00
EL = 687.37'
K = 176
L = 200.00'
STA = 579+35.00
EL = 692.57'
K = 181
L = 450.00'
STA = 590+00.00
EL = 726.06'
K = 248
L = 1,610.00'
STA = 601+50.00
EL = 687.50'
K = 185
L = 400.00'
BEGIN SB BRIDGE ℄ STA. 587+90.40
BEGIN NB BRIDGE ℄ STA. 587+71.75
END NB BRIDGE ℄ STA. 590+98.35
END SB BRIDGE ℄ STA. 591+17.77
FM 2862
17.20' CLEAR
FUTURE U-TURNS
2-42" RCP
1-24" RCP
CR 424/CL SH 121 570+02.75
FM 2862/CL SH 121 589+53.21
(+3.1431)%
(-3.3518)%
(+1.6625)%
(+1.8006)%
(+0.6625)%
560+00
565+00
570+00
575+00
580+00
585+00
590+00
595+00
600+00


FM
2862
TEXAS
121
105+00
605+00
105+00
PT 104+95.21
MATCHLINE STA. 607+00
CSJ: 0549-03-021


SH 121 CL STA 540+00
END CSJ: 0549-03-018
BEGIN CSJ: 0549-03-021
END PROJECT
END CSJ: 0549-03-021
END STA: 865+37.66
N
EASTLINE RD.
DESERT
160
5
2862
ANNA
455
78
75
2862
SH 121
5
MELISSA
545
BLUE RIDGE
BEGIN PROJECT
BEGIN CSJ: 0549-03-018
BEGIN STA: 67+54.08

LOCATION MAP

© 2011

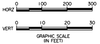
Texas Department of Transportation

DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

ROLL 4 of 11

FROM: SH 5 IN MELISSA TO: CR 635 (EAST LINE ROAD)
BRIDGE REPLACEMENT AND HIGHWAY RECONSTRUCTION
PROJECT LENGTH: 15.11 MILES (79784')
BRIDGE: 0.30 MILES (1560')
ROADWAY: 14.81 MILES (78224')

CSJ: 0549-03-018 (SH 5 to FM 455)
CSJ: 0549-03-021 (FM 455 to CR 635/FANNIN COUNTY LINE)


0
100
200
300
HORZ
0
10
20
30
VERT

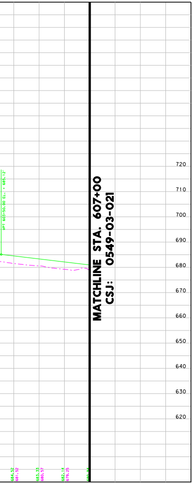
GRAPHIC SCALE
(IN FEET)

LEGEND

— - —	EXISTING R.O.W. (ACCESS BY PERMIT ONLY)
——	PROPERTY LINES
▬ ▪ ▪ ▬	PROPOSED R.O.W. (ACCESS BY PERMIT ONLY IN ACCORDANCE WITH TXDOT ACCESS CONTROL MANUAL)
- — - —	SH 121 CL
X X X X	OBLITERATE EXISTING ROADWAY
— —3"w— —	WATER UTILITY
- - - - -	CITY LIMIT
🟩	SH 121 PAVEMENT
🟦	CROSS STREETS
☐	BRIDGE
🟪	DRIVEWAYS
——	RETAINING WALL
▨	DISPLACED STRUCTURE

INDEX OF ROLLS

ROLL	DESCRIPTION
1	SH 121 STA 67+54.08 TO STA. 187+00
2	SH 121 STA 187+00 TO STA. 327+00
3	SH 121 STA 327+00 TO STA. 467+00
4	SH 121 STA 467+00 TO STA. 607+00
5	SH 121 STA 607+00 TO STA. 747+00
6	SH 121 STA 747+00 TO CR 635 (FANNIN COUNTY LINE)
7	SH 121 STA 747+00 TO FANNIN COUNTY LINE (TRANSITION)
8	SH 5 AND FANNIN ROAD
9	FM 455 AND CONNECTING RAMPS
10	FM 2862 AND CONNECTING RAMPS
11	SH 160 AND CONNECTING RAMPS


720
710
700
690
680
670
660
650
640
630
620
VPT 683+50.00 EL. = 685.12'
MATCHLINE STA. 607+00
CSJ: 0549-03-021
684.52
681.52
683.33
680.57
682.14
679.25

DESIGN ROADWAY	LIMITS		FUNCTIONAL CLASSIFICATION	ADT		DESIGN SPEED
	FROM	TO		2012	2032	
SH 121 (SUBURBAN)	SH 5 STA 67+54.08	Outer Loop + STA 368+10.00	ARTERIAL	18800	29400	45
SH 121 (RURAL)	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	ARTERIAL	13500	21000	70
SH 121 RAMPS	Outer Loop + STA 368+10.00	CR 635 STA 865+37.66	RAMP	NA	NA	35
FM 2933	AT SH 121		COLLECTOR	1000	1600	40
455 N	AT SH 121		ARTERIAL	1550	2250	40
455 S	AT SH 121		COLLECTOR	500	700	40
E. HOUSTON ST (FM 2862)	AT SH 121		COLLECTOR	1700	2700	50
SH 160	AT SH 121		ARTERIAL	4100	6600	50
N. McDonald Street (SH 5 SOUTH)	AT SH 121		ARTERIAL	7300	11,300	40
MC KINNEY ST (SH 5 NORTH)	AT SH 121		ARTERIAL	6400	9900	40
DENTON ST (FM 545)	AT SH 121		COLLECTOR	4200	6500	30
COUNTY ROADS						
CR 418	AT SH 121		LOCAL	600	900	30
LANDFILL ENTRANCE	AT SH 121		LOCAL	NA	NA	30
416	AT SH 121		LOCAL	NA	NA	30
419	AT SH 121		LOCAL	300	600	20 •
420	AT SH 121		LOCAL	NA	NA	20 •
475	AT SH 121		LOCAL	250	450	30
507(509)	AT SH 121		LOCAL	NA	NA	20 •
424 / 513	AT SH 121		LOCAL	NA	NA	30
526 / 527	AT SH 121		LOCAL	NA	NA	20 •
528 / 581	AT SH 121		LOCAL	NA	NA	20 •
582	AT SH 121		LOCAL	NA	NA	20 •
936	AT SH 121		LOCAL	NA	NA	20 •
1002	AT SH 121		LOCAL	NA	NA	20 •
COUNTY LINE RD	AT SH 121		LOCAL	250	250	20 •
EASTLINE RD	AT SH 121		LOCAL	200	350	30
CITY STREETS						
FANNIN RD	AT SH 121		COLLECTOR	NA	NA	30
BARTLETT RD	AT SH 121		LOCAL	NA	NA	30
CREEKSIDE RD	AT SH 121		LOCAL	NA	NA	30
BERRY RD	AT SH 121		LOCAL	2600	4000	30
EASTWOOD RD	AT SH 121		LOCAL	NA	NA	30
LILLIAN DR	AT SH 121		LOCAL	NA	NA	30
NUGENT ST	AT SH 121		LOCAL	NA	NA	30
LIBERTY WAY	AT SH 121		LOCAL	900	1400	30
REDWOOD BLVD	AT SH 121		LOCAL	NA	NA	30

• = UNPAVED COUNTY ROAD
+ = FUTURE OUTER LOOP, BY OTHERS

NOTES:

1. MEDIAN OPENINGS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL MEDIAN OPENING LOCATIONS TO BE DETERMINED DURING PS&E AND IN COORDINATION WITH THE CITIES OF MELISSA AND ANNA.

2. SOURCE OF TRAFFIC DATA:
TEXAS DEPARTMENT OF TRANSPORTATION
TRANSPORTATION, PROGRAMING AND PLANNING DIVISION
MARCH 27, 2007

3. ALL URBAN SECTIONS WILL HAVE CONCRETE CURB AND GUTTER WITH BARRIER CURBS.