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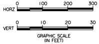
Texas Department of Transportation

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

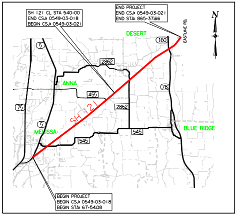
ROLL 10 of 11

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
78
75
2862
SH 121
5
MELISSA
545
BLUE RIDGE
545
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.

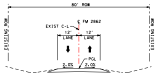
LEGEND

– – – –	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

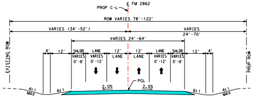
These documents are not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under the supervision of:

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

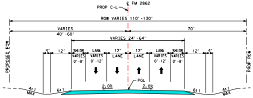
Lockwood, Andrews & Newnam, Inc.
T.B.P.E. Firm # 2614


80' ROW
EXISTING ROW
EXISTING ROW
℄ FM 2862
EXIST C-L
12'
LANE
12'
LANE
PGL
2.0%
2.0%

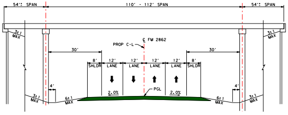
EXISTING FM 2862 TYPICAL SECTION
NTS CSJ 0549-03-021
STA. 5+00 TO STA. 31+77.24


℄ FM 2862
PROP C-L
ROW VARIES 78'-122'
VARIES (34'-52')
VARIES
24'-70'
VARIES 24'-64'
EXISTING ROW
PROP ROW
4'
12'
SHLDR
VARIES
0'-8'
LANE
VARIES
0'-12'
12'
LANE
12'
LANE
LANE
VARIES
0'-12'
SHLDR
VARIES
0'-8'
12'
4'
PGL
2.0%
2.0%
4:1
MAX
6:1
6:1
4:1
MAX

PROPOSED FM 2862 TYPICAL SECTION
NTS CSJ 0549-03-021
STA. 5+00 TO STA. 11+00

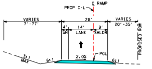

℄ FM 2862
PROP C-L
ROW VARIES 110'-130'
VARIES
40'-60'
70'
VARIES 24'-64'
PROPOSED ROW
PROP ROW
4'
12'
SHLDR
VARIES
0'-8'
LANE
VARIES
0'-12'
12'
LANE
12'
LANE
LANE
VARIES
0'-12'
SHLDR
VARIES
0'-8'
12'
4'
PGL
2.0%
2.0%
4:1
MAX
6:1
6:1
4:1
MAX

PROPOSED FM 2862 TYPICAL SECTION
NTS CSJ 0549-03-021
STA. 25+83 TO STA. 32+34.12

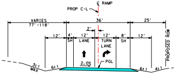

54'± SPAN
110' - 112' SPAN
54'± SPAN
3:1
MAX
3:1
MAX
℄ FM 2862
PROP C-L
30'
30'
8'
SHLDR
12'
LANE
12'
LANE
12'
LANE
12'
LANE
8'
SHLDR
4'
4'
PGL
2.0%
2.0%
3:1
MAX
6:1
MAX
6:1
MAX
3:1
MAX

PROPOSED FM 2862 TYPICAL SECTION
AT SH 121 OVERPASS
NTS CSJ 0549-03-021
STA. 11+00 TO STA. 25+83

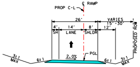
osowels
9/30/2011 8:29:22 AM
L:\118871\148-18336-000\prod\Exhibits\121 CROSS STREETS FM2862-200.dgn


PROP C-L
℄ RAMP
VARIES
7'-77'
26'
VARIES
20'-35'
4'
SH
14'
LANE
8'
SHLDR
PROPOSED ROW
2.0%
PGL
3:1
MAX
6:1
6:1

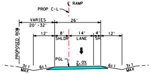
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 NB EXIT
CSJ 0549-03-021 NTS
STA. 78+16.61 TO STA. 84+02.20


PROP C-L
℄ RAMP
VARIES
77'-118'
36'
25'
12'
4'
SH
12'
LANE
2'
12'
TURN
LANE
8'
SH
12'
PROPOSED ROW
2.0%
PGL
3:1
MAX
6:1
6:1
4:1

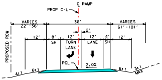
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 NB EXIT
CSJ 0549-03-021 NTS
STA. 84+02.20 TO STA. 88+00.00


PROP C-L
℄ RAMP
26'
VARIES
15'-30'
4'
SH
14'
LANE
8'
SHLDR
12'
PROPOSED ROW
2.0%
PGL
3:1
MAX
6:1
6:1
3:1
MAX

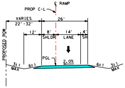
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 NB ENTRANCE
CSJ 0549-03-021 NTS
STA. 88+68.26 TO STA. 98+53.69


PROP C-L
℄ RAMP
VARIES
20'-32'
26'
12'
8'
SHLDR
14'
LANE
4'
SH
12'
PROPOSED ROW
PGL
2.0%
3:1
MAX
6:1
6:1
3:1
MAX

PROPOSED RAMP TYPICAL SECTION
AT FM 2862 SB ENTRANCE
NTS CSJ 0549-03-021
STA. 82+14.04 TO STA. 90+53.90

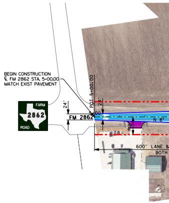

PROP C-L
℄ RAMP
VARIES
22'-36'
36'
VARIES
61'-101'
12'
8'
SH
12'
TURN
LANE
2'
12'
LANE
4'
SH
12'
PROPOSED ROW
PGL
2.0%
4:1
6:1
6:1
3:1
MAX

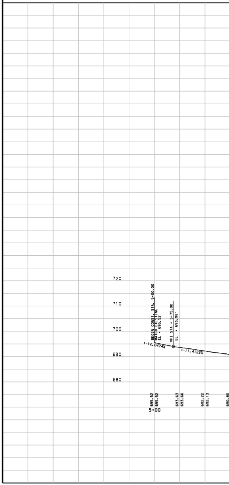
PROPOSED RAMP TYPICAL SECTION
AT FM 2862 SB EXIT
NTS CSJ 0549-03-021
STA. 92+43.41 TO STA. 95+63.31


PROP C-L
℄ RAMP
VARIES
22'-32'
26'
12'
8'
SHLDR
14'
LANE
4'
SH
PROPOSED ROW
PGL
2.0%
3:1
MAX
6:1
6:1
3:1
MAX

PROPOSED RAMP TYPICAL SECTION
AT FM 2862 SB EXIT
NTS CSJ 0549-03-021
STA. 95+63.31 TO STA. 100+27.59

SUPERELEVATION TABLE					
ROADWAY	EVENT	LEFT		RIGHT	
		STA.	X- SLOPE	STA.	X- SLOPE
FM 2862	BEGIN SE TRANSITION	10+66	-2.00%	9+65	-2.00%
	END SE TRANSITION	12+10	-6.00%	12+53	6.00%
	BEGIN SE TRANSITION	13+74	-6.00%	14+32	6.00%
	END SE TRANSITION	15+18	-2.00%	17+20	-2.00%
	BEGIN SE TRANSITION	18+00	-2.00%	19+68	-2.00%
	END SE TRANSITION	22+56	6.00%	21+12	-6.00%
	BEGIN SE TRANSITION	23+47	6.00%	23+90	-6.00%
	END SE TRANSITION	26+35	-2.00%	25+34	-2.00%
	BEGIN SE TRANSITION	26+47	-2.00%	25+47	-2.00%
	END SE TRANSITION	27+91	-6.00%	28+35	6.00%
	BEGIN SE TRANSITION	31+34	-6.00%	30+91	6.00%
	END SE TRANSITION	32+34	-2.00%	32+34	-2.00%

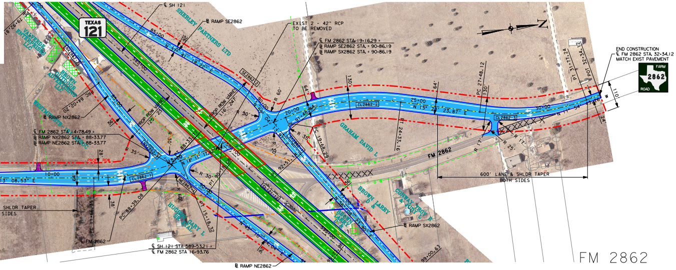

BEGIN CONSTRUCTION
℄ FM 2862 STA. 5+00.00
MATCH EXIST PAVEMENT
FARM
2862
ROAD
24'
FM 2862
POT 5+00.00
24'
N 8°
600' LANE &
BOTH



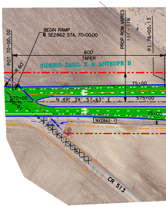
CL2862-1
PI STATION = 13+44.62
DELTA = 22° 24′ 26.15" (LT)
DEGREE OF CURVE = 6° 21′ 58.31"
TANGENT = 178.26
LENGTH = 351.97
RADIUS = 900.00
PC STATION = 11+66.35
PT STATION = 15+18.32

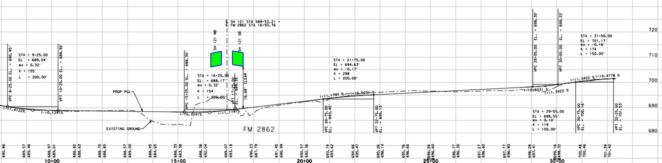
CL2862-2
PI STATION = 22+06.03
DELTA = 29° 35′ 41.49" (RT)
DEGREE OF CURVE = 6° 21′ 58.31"
TANGENT = 237.75
LENGTH = 464.87
RADIUS = 900.00
PC STATION = 19+68.29
PT STATION = 24+33.16

CL2862-3
PI STATION = 29+66.83
DELTA = 27° 19′ 07.13" (LT)
DEGREE OF CURVE = 6° 21′ 58.31"
TANGENT = 218.72
LENGTH = 429.12
RADIUS = 900.00
PC STATION = 27+48.12
PT STATION = 31+77.24


TEXAS 121
℄ SH 121
SHERLEY PARTNERS LTD
℞ RAMP SE2862
EXIST 2 - 42" RCP TO BE REMOVED
℄ FM 2862 STA 19+16.29 =
℞ RAMP SE2862 STA = 90+86.19
℞ RAMP SX2862 STA = 90+86.19
VALVERDE ENTERPRISES LLC
BROWN OUTDOOR ADVERTISING LLC
NX2862-2
SE2862-2
85+00
N 37° 41′ 18.22" E
585+00
PRC 84+02.20
℞ RAMP NX2862
PROP ROW VARIES 125′-23′
PROP ROW VARIES 116′-247′
℄ FM 2862 STA 14+78.49 =
℞ RAMP NX2862 STA = 88+33.77
℞ RAMP NE2862 STA = 88+33.77
PROP ROW
10+00
15+00
20+00
25+00
30+00
CL2862-1
CL2862-2
CL2862-3
NX2862-1
NE2862-1
SX2862-1
CL121-12
590+00
595+00
N 14° 11′ 17.62" E
N 15° 27′ 23.87" E
PT 88+33.77
PC 88+39.08
PT 90+18.08
PT 15+18.32
PC 11+66.35
PC 19+68.29
PT 24+33.16
PC 27+48.12
PT 31+77.24
POT 32+34.12
PC 91+48.84
PT 92+51.14
SHLDR TAPER
SIDES
℄ FM 2862
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
℞ RAMP NE2862
HUGHES GARY L SR ETAL
GRAHAM DAVID L
BROWN LARRY D &
CONWAY TROY R & JUDY L
℞ RAMP SX2862
FM 2862
99+00.63
END CONSTRUCTION
℄ FM 2862 STA 32+34.12
MATCH EXIST PAVEMENT
FARM 2862 ROAD
600′ LANE & SHLDR TAPER
BOTH SIDES
FM 2862

SE2862-1
PI STATION = 81+89.84
DELTA = 12° 41′ 21.92" (LT)
DEGREE OF CURVE = 1° 59′ 59.47"
TANGENT = 318.56
LENGTH = 634.52
RADIUS = 2,865.00
PC STATION = 78+71.28
PT STATION = 85+05.80


BEGIN RAMP
℞ SE2862 STA. 70+00.00
POT 70+00.00
PROP ROW VARIES 111′-116′
PI 76+00.13
600′ TAPER
SIDERIS BASIL K & ANTEOPE B
75+00
570+00
575+00
N 49° 39′ 57.63" E
NX2862-1
CR 513


℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
SH 121 NB
SH 121 SB
VPC 8+25.00 EL. = 690.45′
VPT 10+25.00 EL. = 688.92′
STA = 9+25.00
EL = 689.04′
ex = 0.32′
K = 155
L = 200.00′
(-)1.4122%
(-)0.1241%
PROP PGL
EXISTING GROUND
VPC 15+25.00 EL. = 688.30′
STA = 16+25.00
EL = 688.17′
ex = 0.32′
K = 154
L = 200.00′
VPT 17+25.00 EL. = 689.35′
16.68′ CLEAR
(-)0.1241%
(+)1.1741%
FM 2862
STA = 21+75.00
EL = 694.63′
ex = -0.17′
K = 298
L = 200.00′
(+)1.1741 %
(+)0.5031 %
VPC 20+75.00 EL. = 693.45′
VPT 22+75.00 EL. = 695.13′
VPC 29+05.00 EL. = 698.30′
VPT 30+05.00 EL. = 699.22′
STA = 31+50.00
EL = 701.17′
ex = -0.16′
K = 174
L = 150.00′
(+)1.3422 %
(+)0.4778 %
(+)0.5031 %
(+)1.3422 %
STA = 29+55.00
EL = 698.55′
ex = 0.10′
K = 119
L = 100.00′
VPC 30+75.00 EL. = 700.16′
VPT 32+25.00 EL. = 701.53′
720
710
700
690
680
690.86
689.57 689.46
688.97 689.01
688.82 688.63
688.70 688.85
688.57 689.00
688.45 684.65
688.33 683.38
688.38 692.04
689.07 693.18
690.23 687.79
691.40 690.99
692.57 692.36
693.74 693.62
694.66 695.47
695.26 696.14
695.76 696.66
696.26 696.60
696.77 696.30
697.27 696.60
697.77 696.80
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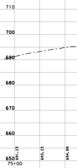
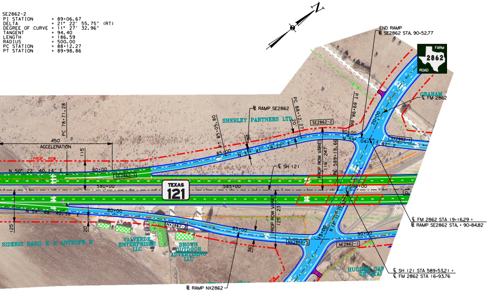
701.39 701.42
10+00
15+00
20+00
25+00
30+00

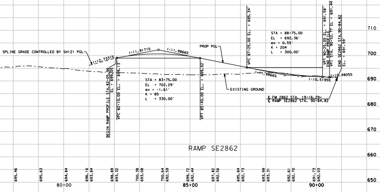

710
700
690
680
670
660
650
691.23
693.23
694.89
75+00

SE2862-2
PI STATION = 89+06.67
DELTA = 21° 22′ 55.75" (RT)
DEGREE OF CURVE = 11° 27′ 32.96"
TANGENT = 94.40
LENGTH = 186.59
RADIUS = 500.00
PC STATION = 88+12.27
PT STATION = 89+98.86


N
END RAMP
℞ SE2862 STA. 90+52.77
FARM
2862
ROAD
GRAHAM
℄ FM 2862
℞ RAMP SE2862
SHERLEY PARTNERS LTD
PC 78+71.28
PT 85+05.80
PC 88+12.27
PT 89+98.86
SE2862-2
SE2862-1
SX2862-1
450'
ACCELERATION
115'
PROP. ROW
N 50° 22′ 40.14" E
N 37° 41′ 18.22" E
N 59° 04′ 13.97" E
80+00
85+00
90+00
20+00
580+00
585+00
590+00
TEXAS
121
℄ SH 121
PROP ROW VARIES
116' - 247'
PC 589+19.66
N 54° 48′ 42.38" E
125'
20'
36'
26'
PROP ROW VARIES
125' - 231'
NX2862-2
NX2862-3
NE2862-1
15+00
N 14° 11′ 17.62" W
SIDERIS BASIL K & ANTEOPE B
VALVERDE ENTERPRISES LLC
BROWN OUTDOOR ADVERTISING LLC
HUGHES GAR SR ETAL
℄ FM 2862 STA 19+16.29 =
℞ RAMP SE2862 STA. = 90+84.82
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
℞ RAMP NX2862

RAMP SE2862

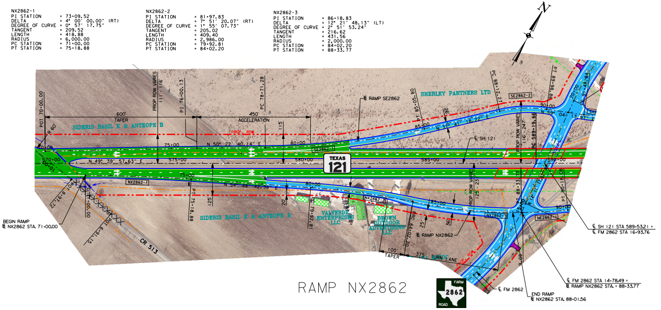
SUPERELEVATION TABLE					
ROADWAY	EVENT	LEFT		RIGHT	
		STA.	X- SLOPE	STA.	X- SLOPE
RAMP SE 2862	BEGIN SE TRANSITION			78+70	2.00%
	END SE TRANSITION			78+72	2.08%
	BEGIN SE TRANSITION			85+05	2.08%
	END SE TRANSITION			85+07	2.00%



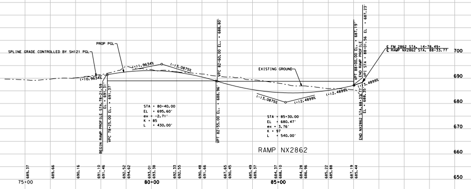
NX2862-1
PI STATION = 73+09.52
DELTA = 4° 00′ 00.00" (RT)
DEGREE OF CURVE = 0° 57′ 17.75"
TANGENT = 209.52
LENGTH = 418.88
RADIUS = 6,000.00
PC STATION = 71+00.00
PT STATION = 75+18.88

NX2862-2
PI STATION = 81+97.83
DELTA = 7° 51′ 20.07" (RT)
DEGREE OF CURVE = 1° 55′ 07.73"
TANGENT = 205.02
LENGTH = 409.40
RADIUS = 2,986.00
PC STATION = 79+92.81
PT STATION = 84+02.20

NX2862-3
PI STATION = 86+18.83
DELTA = 12° 21′ 48.13" (LT)
DEGREE OF CURVE = 2° 51′ 53.24"
TANGENT = 216.62
LENGTH = 431.56
RADIUS = 2,000.00
PC STATION = 84+02.20
PT STATION = 88+33.77


N
POT 70+00.00
R 60'
600'
TAPER
PROP ROW VARIES
111' - 116'
PI 76+00.13
PC 78+71.28
450'
ACCELERATION
115'
SIDERIS BASIL K & ANTEOPE B
PROP. ROW
70+00
75+00
80+00
85+00
90+00
20+00
15+00
10+00
570+00
575+00
580+00
585+00
590+00
N 50° 22′ 40.14" E
N 49° 39′ 57.63" E
N 54° 48′ 42.38" E
N 37° 41′ 18.22" E
N 59° 04′ 13.97" E
SE2862-1
SE2862-2
NX2862-1
NX2862-2
NX2862-3
NE2862-1
TEXAS
121
POT 8+97.72
POT 6+91.15
CR 513
PT 75+18.88
125'
20'
26'
25'
36'
PC 79+92.81
PRC 84+02.20
BEGIN RAMP
℞ NX2862 STA. 71+00.00
VALVERDE ENTERPRISES LLC
BROWN OUTDOOR ADVERTISING LLC
SHERLEY PARTNERS LTD
℞ RAMP SE2862
PT 85+05.80
PC 88+12.27
PT 89+98.86
PT 91+48.84
℄ SH 121
PROP ROW VARIES
116' - 247'
PC 589+19.66
PROP ROW VARIES
125' - 231'
PT 88+33.77
PT 90+18.08
N 14° 11′ 17.62" W
℞ RAMP NX2862
100'
TAPER
375' TURN LANE
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
℄ FM 2862 STA 14+78.49 =
℞ RAMP NX2862 STA. = 88+33.77
℄ FM 2862
END RAMP
℞ NX2862 STA. 88+01.56
RAMP NX2862
FARM
2862
ROAD

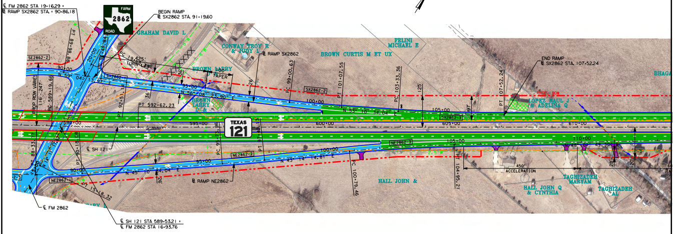
SUPERELEVATION TABLE					
ROADWAY	EVENT	LEFT		RIGHT	
		STA.	X- SLOPE	STA.	X- SLOPE
RAMP NX 2862	BEGIN SE TRANSITION	79+93	2.00%		
	END SE TRANSITION	79+93	2.01%		
	BEGIN SE TRANSITION	84+02	2.01%		
	END SE TRANSITION	84+02	2.00%		



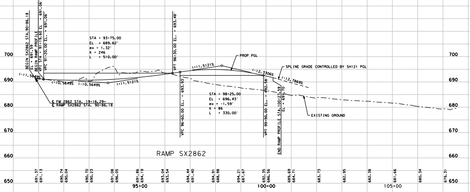
SX2862-1
PI STATION = 92+00.00
DELTA = 2° 55′ 50.07" (LT)
DEGREE OF CURVE = 2° 51′ 53.24"
TANGENT = 51.16
LENGTH = 102.30
RADIUS = 2,000.00
PC STATION = 91+48.84
PT STATION = 92+51.14

SX2862-2
PI STATION = 100+04.12
DELTA = 2° 57′ 49.85" (LT)
DEGREE OF CURVE = 1° 25′ 56.62"
TANGENT = 103.48
LENGTH = 206.92
RADIUS = 4,000.00
PC STATION = 99+00.63
PT STATION = 101+07.55

SX2862-3
PI STATION = 105+42.88
DELTA = 4° 00′ 00.00" (LT)
DEGREE OF CURVE = 0° 57′ 17.75"
TANGENT = 209.52
LENGTH = 418.88
RADIUS = 6,000.00
PC STATION = 103+33.36
PT STATION = 107+52.24


℄ FM 2862 STA 19+16.29 =
℄ RAMP SX2862 STA. = 90+86.18
BEGIN RAMP
℄ SX2862 STA. 91+19.60
FARM 2862 ROAD
GRAHAM DAVID L
CONWAY TROY R & JUDY L
℄ RAMP SX2862
BROWN CURTIS M ET UX
FELINI MICHAEL E
BROWN LARRY D &
TAPER
END RAMP
℄ SX2862 STA. 107+52.24
LOPEZ RAUL J & ADELINA Q
TEXAS 121
℄ SH 121
℄ RAMP NE2862
HALL JOHN &
HALL JOHN Q & CYNTHIA
TAGHIZADEH MARYAM
TAGHIZADEH ALI
450' ACCELERATION
PT 592+62.23
PC 589+19.66
595+00
600+00
605+00
610+00
℄ FM 2862
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76

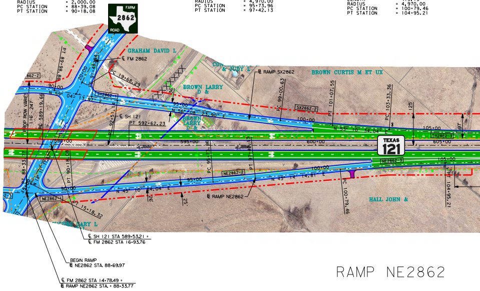
RAMP SX2862



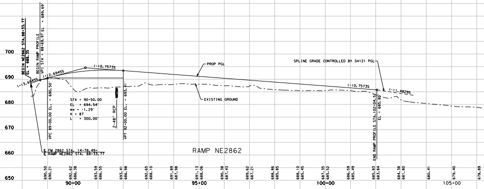
NE2862-1
PI STATION = 89+28.64
DELTA = 5° 07′ 40.27" (LT)
DEGREE OF CURVE = 2° 51′ 53.24"
TANGENT = 89.56
LENGTH = 178.94
RADIUS = 2,000.00
PC STATION = 88+39.08
PT STATION = 90+18.08

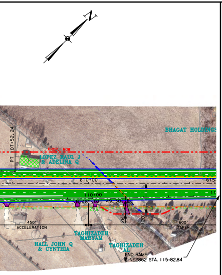
NE2862-2
PI STATION = 96+58.05
DELTA = 1° 56′ 19.24" (LT)
DEGREE OF CURVE = 1° 09′ 10.20"
TANGENT = 84.09
LENGTH = 168.17
RADIUS = 4,970.00
PC STATION = 95+73.96
PT STATION = 97+42.13

NE2862-3
PI STATION = 102+87.45
DELTA = 4° 47′ 34.49" (RT)
DEGREE OF CURVE = 1° 09′ 10.20"
TANGENT = 208.00
LENGTH = 415.75
RADIUS = 4,970.00
PC STATION = 100+79.46
PT STATION = 104+95.21


FARM 2862 ROAD
GRAHAM DAVID L
℄ FM 2862
CONWAY TROY R & JUDY L
℄ RAMP SX2862
BROWN CURTIS M ET UX
BROWN LARRY D &
TEXAS 121
℄ SH 121
℄ RAMP NE2862
HALL JOHN &
HUGHES GARY L
PT 592+62.23
595+00
600+00
605+00
℄ SH 121 STA 589+53.21 =
℄ FM 2862 STA 16+93.76
BEGIN RAMP
℄ NE2862 STA. 88+69.97
℄ FM 2862 STA 14+78.49 =
℄ RAMP NE2862 STA. = 88+33.77

RAMP NE2862




N
BHAGAT HOLDINGS
PROP. ROW
PT 107+52.24
LOPEZ RAUL J & ADELINA Q
610+00
615
110+00
N 48° 01' 49.30" E
28'
120'
450' ACCELERATION
600' TAPER
TAGHIZADEH MARYAM
HALL JOHN Q & CYNTHIA
TAGHIZADEH AL
END RAMP
℄ NE2862 STA. 115+82.84

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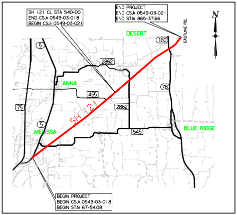
Texas Department of Transportation

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

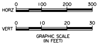
ROLL 10 of 11

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)


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
2862
78
75
SH 121
5
MELISSA
545
BLUE RIDGE
BEGIN PROJECT
BEGIN CSJ: 0549-03-018
BEGIN STA: 67+54.08

LOCATION MAP


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

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.