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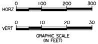
Texas Department of Transportation

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

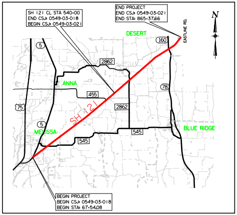
ROLL 5 of 11

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
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.

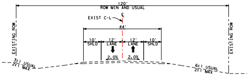
LEGEND

– - – -	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

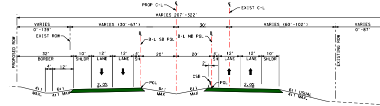
These documents are not intended for Construction, Bidding or Permit Purposes. They are prepared by, or under the supervision of:

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

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

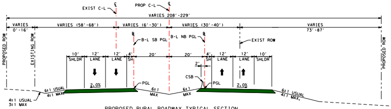

120'
ROW MIN AND USUAL
EXIST C-L
44'
10' SHLD
12' LANE
12' LANE
10' SHLD
2.0%
2.0%
EXISTING ROW
EXISTING ROW
3:1 USUAL
2:1 MAX
6:1 USUAL
2:1 MAX

EXISTING TYPICAL SECTION (ANNA)
NTS
STA. 607+00 TO STA. 747+00


PROP C-L
EXIST C-L
VARIES 207'-322'
VARIES 0'-139'
VARIES (30'-67')
30'
VARIES (60'-102')
VARIES 0'-87'
EXIST ROW
B-L SB PGL
B-L NB PGL
PROPOSED ROW
EXISTING ROW
32' BORDER
4'
12'
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
2'
CSB
PGL
PGL
2.0%
2.0%
4:1 MAX.
4:1 MAX
6:1
6:1 MAX
6:1 MAX
6:1 USUAL
4:1 MAX.

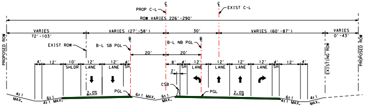
PROPOSED RURAL ROADWAY TYPICAL SECTION
NTS CSJ 0549-03-021

STA. 613+05 TO STA. 631+75
STA. 648+98 TO STA. 657+29
STA. 674+42 TO STA. 698+07.46
STA. 700+77.46 TO STA. 707+59


EXIST C-L
PROP C-L
VARIES 208'-229'
VARIES 0'-16'
VARIES (58'-68')
VARIES (6'-30')
VARIES (30'-40')
VARIES 73'-87'
B-L SB PGL
B-L NB PGL
EXIST ROW
PROPOSED ROW
EXISTING ROW
PROPOSED ROW
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
2'
CSB
PGL
PGL
2.0%
2.0%
6:1 USUAL
4:1 MAX
4:1 USUAL
3:1 MAX
6:1 MAX
6:1 MAX
6:1 USUAL
4:1 MAX.

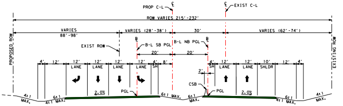
PROPOSED RURAL ROADWAY TYPICAL SECTION
NTS CSJ 0549-03-021

STA. 723+26 TO STA. 747+00


PROP C-L
EXIST C-L
ROW VARIES 226'-290'
VARIES 72'-103'
VARIES (27'-58')
30'
VARIES (60'-87')
VARIES 0'-43'
EXIST ROW
B-L SB PGL
B-L NB PGL
PROPOSED ROW
EXISTING ROW
PROPOSED ROW
4'
12'
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
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 0549-03-021

STA. 631+75 TO STA. 640+38
STA. 657+29 TO STA. 665+78


PROP C-L
EXIST C-L
ROW VARIES 215'-232'
VARIES 88'-98'
VARIES (28'-38')
30'
VARIES (62'-74')
EXIST ROW
B-L SB PGL
B-L NB PGL
PROPOSED ROW
EXISTING ROW
4'
12'
12' LANE
12' LANE
12' LANE
12' LANE
4' SH
8'
20'
20'
4' SH
12' LANE
12' LANE
10' SHLDR
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 0549-03-021

STA. 640+38 TO STA. 648+98
STA. 665+78 TO STA. 674+42

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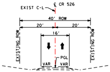
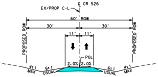
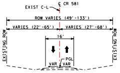
PROPOSED ROW


EXIST C-L
℄ CR 526
40' ROW
20'
20'
16'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

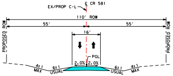
EXISTING CR 526 TYPICAL SECTION
NTS CSJ 0549-03-021


EX/PROP C-L
℄ CR 526
60' ROW
30'
30'
11'
11'
PROPOSED ROW
PROPOSED ROW
PGL
2.0%
2.0%
4:1 MAX
6:1 USUAL
6:1 USUAL
4:1 MAX

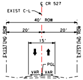
EXISTING CR 526 TYPICAL SECTION
NTS CSJ 0549-03-021


EXIST C-L
℄ CR 581
ROW VARIES (49'-133')
VARIES (22'-65')
VARIES (27'-68')
16'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

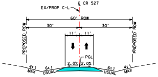
EXISTING CR 581 TYPICAL SECTION
NTS CSJ 0549-03-021


EX/PROP C-L
℄ CR 581
110' ROW
55'
55'
16'
PROPOSED ROW
PROPOSED ROW
PGL
2.0%
2.0%
4:1 MAX
6:1 USUAL
6:1 USUAL
4:1 MAX

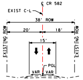
PROPOSED CR 581 TYPICAL SECTION
NTS CSJ 0549-03-021


EXIST C-L
℄ CR 527
40' ROW
20'
20'
15'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

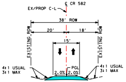
EXISTING CR 527 TYPICAL SECTION
NTS CSJ 0549-03-021


EX/PROP C-L
℄ CR 527
60' ROW
30'
30'
11'
11'
PROPOSED ROW
PROPOSED ROW
PGL
2.0%
2.0%
4:1 MAX
6:1 USUAL
6:1 USUAL
4:1 MAX

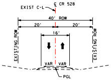
PROPOSED CR 527 TYPICAL SECTION
NTS CSJ 0549-03-021


EXIST C-L
℄ CR 582
38' ROW
20'
18'
15'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

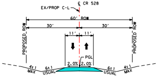
EXISTING CR 582 TYPICAL SECTION
NTS CSJ 0549-03-021


EX/PROP C-L
℄ CR 582
38' ROW
20'
18'
15'
EXISTING ROW
EXISTING ROW
PGL
2.0%
2.0%
4:1 USUAL
3:1 MAX
4:1 USUAL
3:1 MAX

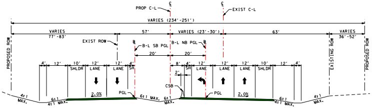
PROPOSED CR 582 TYPICAL SECTION
NTS CSJ 0549-03-021


EXIST C-L
℄ CR 528
40' ROW
20'
20'
16'
EXISTING ROW
EXISTING ROW
VAR
VAR
PGL

EXISTING CR 528 TYPICAL SECTION
NTS CSJ 0549-03-021

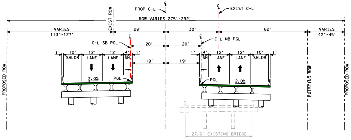

EX/PROP C-L
℄ CR 528
60' ROW
30'
30'
11'
11'
PROPOSED ROW
PROPOSED ROW
PGL
2.0%
2.0%
4:1 MAX
6:1 USUAL
6:1 USUAL
4:1 MAX

PROPOSED CR 528 TYPICAL SECTION
NTS CSJ 0549-03-021


PROP C-L
℄
℄
EXIST C-L
VARIES (234'-251')
VARIES 77'-83'
57'
VARIES (23'-30')
63'
VARIES 36'-52'
EXIST ROW
B-L SB PGL
B-L NB PGL
20'
20'
4'
12'
10' SHLDR
12' LANE
12' LANE
4' SH
8'
4' SH
12' LANE
12' LANE
12' LANE
10' SHLDR
12'
4'
2'
CSB
PGL
PGL
2.0%
2.0%
PROPOSED ROW
EXISTING ROW
PROPOSED ROW
4:1 MAX.
6:1
4:1 MAX.
6:1 MAX.
6:1
4:1 MAX.
6:1
4:1 MAX.
4:1 MAX.

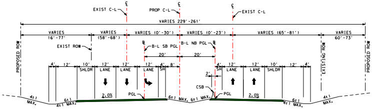
PROPOSED RURAL ROADWAY TYPICAL SECTION
LEFT TURN LANE
NTS CSJ 0549-03-021

STA. 707+59 TO STA. 714+78


PROP C-L
℄
℄
EXIST C-L
EXIST ROW
ROW VARIES 275'-292'
VARIES 113'-127'
28'
30'
62'
VARIES 42'-45'
C-L SB PGL
C-L NB PGL
20'
20'
19'
19'
1'
10' SHLDR
12' LANE
12' LANE
4' SH
1'
1'
4' SH
12' LANE
12' LANE
10' SHLDR
1'
PGL
PGL
2.0%
2.0%
PROPOSED ROW
EXISTING ROW
PROPOSED ROW
27.6' EXISTING BRIDGE

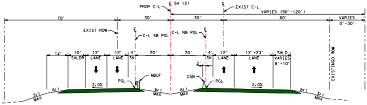
PROPOSED RURAL BRIDGE TYPICAL SECTION
NTS CSJ 0549-03-021

PILOT GROVE CREEK STA. 698+07.46 TO STA. 700+77.46


EXIST C-L
℄
PROP C-L
℄
℄
EXIST C-L
VARIES 229'-261'
VARIES 16'-77'
VARIES (58'-68')
VARIES (0'-30')
VARIES (0'-23')
VARIES (65'-81')
VARIES 60'-73'
EXIST ROW
B-L SB PGL
B-L NB PGL
20'
20'
4'
12'
10' SHLDR
12' LANE
12' LANE
12' LANE
4' SH
8'
4' SH
12' LANE
12' LANE
10' SHLDR
12'
4'
2'
CSB
PGL
PGL
2.0%
2.0%
PROPOSED ROW
EXISTING ROW
PROPOSED ROW
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
LEFT TURN LANE
NTS CSJ 0549-03-021

STA. 714+78 TO STA. 723+26

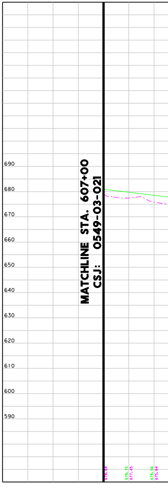

PROP C-L
℄ SH 121
℄
EXIST C-L
VARIES (90'-120')
70'
30'
30'
60'
VARIES 0'-30'
EXIST ROW
C-L SB PGL
C-L NB PGL
12'
10' SHLDR
12' LANE
12' LANE
4' SH
20'
20'
4' SH
12' LANE
12'-23' LANE
SHLD VARIES 8'-10'
2'
CSB
PGL
PGL
MBGF
2.0%
2.0%
EXISTINGD ROW
PROPOSED ROW
3:1 MAX
6:1
6:1 MAX
6:1 MAX
6:1
3:1 MAX

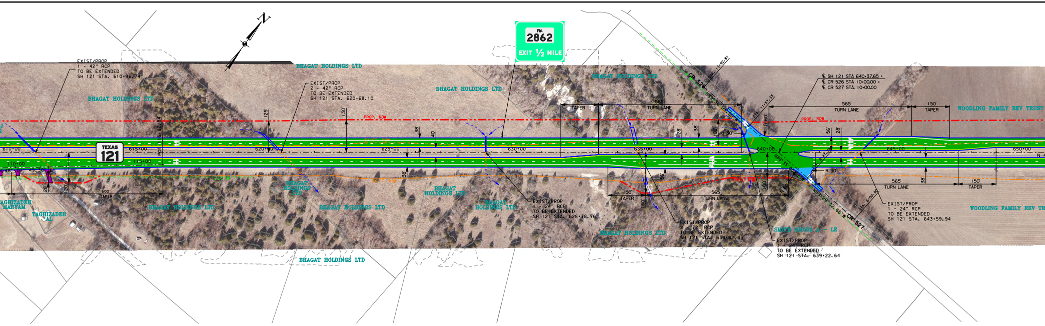
PROPOSED SH 121 TYPICAL SECTION
NTS CSJ 0549-03-021
STA. 607+00 TO 613+05

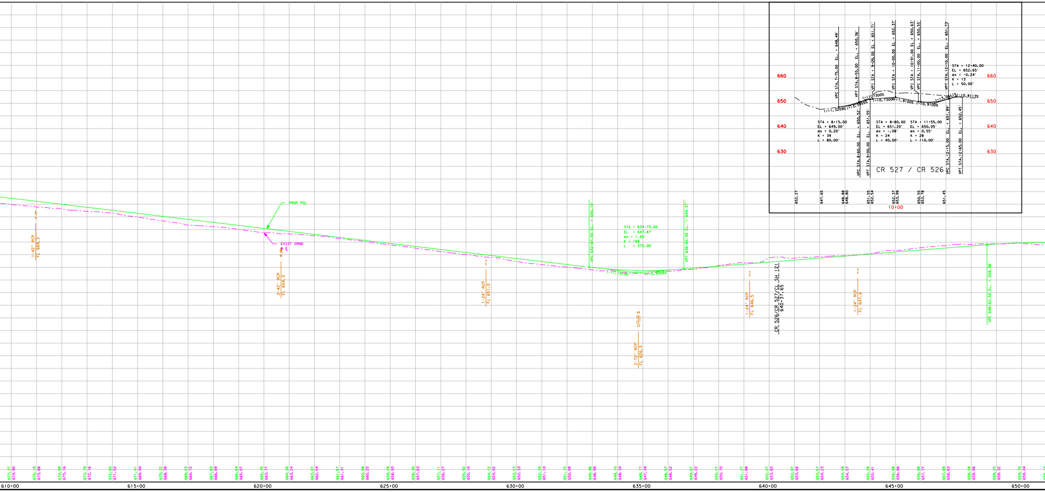
MATCHLINE STA. 607+00
CSJ: 0549-03-021

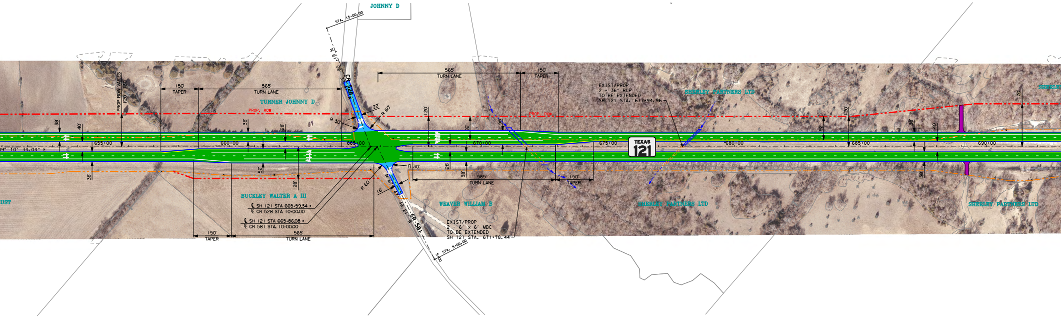
PROP. ROW
LOPEZ RAUL & ADELINA
450'
ACCELERATION
HALL JOHN Q & CYNTHIA

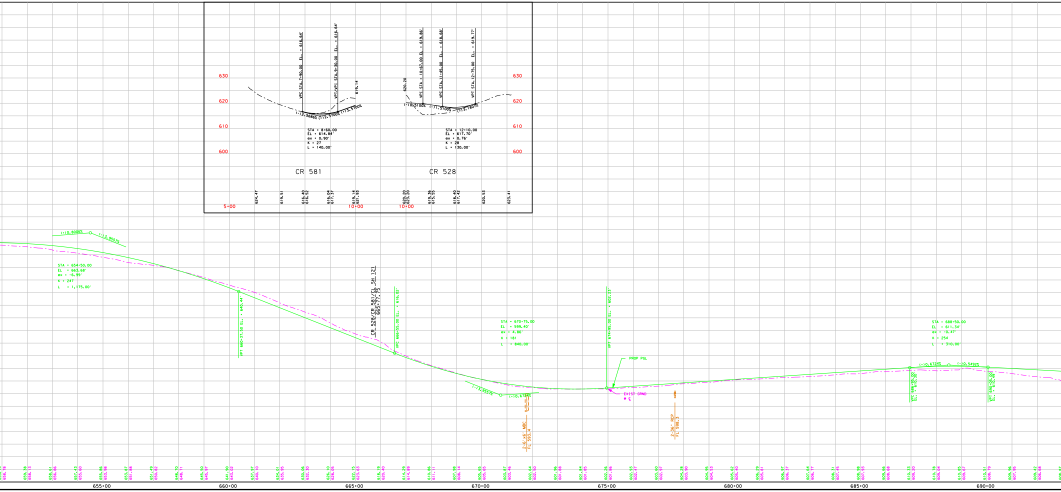
MATCHLINE STA. 607+00
CSJ: 0549-03-021

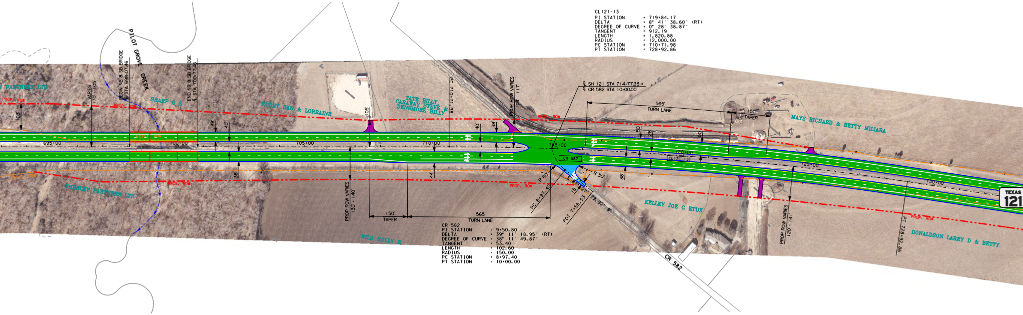



FM 2862
EXIT ½ MILE
TEXAS
121
EXIST/PROP
1 - 42" RCP
TO BE EXTENDED
SH 121 STA. 610+96.74
EXIST/PROP
2 - 42" RCP
TO BE EXTENDED
SH 121 STA. 620+68.10
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
BHAGAT HOLDINGS LTD
TAGHIZADEH MARYAM
TAGHIZADEH AL
WOODLING FAMILY REV TRUST
WOODLING FAMILY REV TR
SMITH RHODA A - LE
PROP. ROW
PROP. ROW
610+00
615+00
620+00
625+00
630+00
635+00
640+00
645+00
650+00
110+00
115+00
POT 115+82.84
48° 01' 49.30"
2.5' W
2.5' W
125'
130'
38'
40'
38'
120'
28'
600' TAPER
150' TAPER
565' TURN LANE
150' TAPER
565 TURN LANE
565' TURN LANE
150' TAPER
565' TURN LANE
150' TAPER
28'
38'
102'
56'
28'
56'
160'
100'
38'
R 30'
R 60'
R 60'
R 30'
CR 526
STA. 13+92.81
N89°36'03.50"W
STA. 11+57.33
CR 527
N89°35'03.52"W
N89°29'32.66"W
STA. 8+47.18
STA. 6+00.00
℄ SH 121 STA 640+37.65 =
℄ CR 526 STA 10+00.00 =
℄ CR 527 STA 10+00.00
EXIST/PROP
1 - 24" RCP
TO BE EXTENDED
SH 121 STA. 628+78.76
EXIST/PROP
2 - 72" RCP
TO BE EXTENDED
SH 121 STA. 634+82.43
EXIST/PROP
1 - 24" RCP
TO BE EXTENDED
SH 121 STA. 639+22.64
EXIST/PROP
1 - 24" RCP
TO BE EXTENDED
SH 121 STA. 643+59.94
N


PROP PGL
EXIST GRND
℄
1-42" RCP
FL 669.3
2-42" RCP
FL 654.3
1-24" RCP
FL 651.0
VPC 632+87.50 EL. = 650.10'
STA = 634+75.00
EL = 647.87'
ex = 1.05'
K = 188
L = 375.00'
(-)1.1919%
(+)0.8006%
VPT 636+62.50 EL. = 649.37'
2-72" RCP
FL 626.5
1-24" RCP
FL 646.5
CR 526/CR 527/CL SH 121
640+37.65
1-24" RCP
FL 647.6
VPC 648+62.50 EL. = 658.98'
CR 527 / CR 526
660
650
640
630
VPC STA. 7+75.00 EL. = 648.49'
VPT STA. 8+55.00 EL. = 650.36'
VPI STA = 9+09.00 EL = 651.71'
VPI STA = 10+00.00 EL = 652.37'
VPI STA = 10+91.00 EL = 650.63'
VPC STA. 11+00.00 EL. = 650.55'
VPT STA. 12+10.00 EL. = 651.73'
STA = 12+40.00
EL = 652.65'
ex = -0.24'
K = 13
L = 50.00'
(+)1.3209%
(+)3.3955%
(+)1.7300%
(+)0.7300%
(-)1.9100%
(-)0.9100%
(+)3.0611%
(-)0.8113%
STA = 8+15.00
EL = 649.00'
ex = 0.20'
K = 39
L = 80.00'
VPC STA. 8+60.00 EL. = 650.52'
VPT STA. 9+00.00 EL. = 651.55'
STA = 8+80.00
EL = 651.20'
ex = -.08'
K = 24
L = 40.00'
STA = 11+55.00
EL = 650.05'
ex = 0.55'
K = 28
L = 110.00'
VPC STA. 12+15.00 EL. = 651.89'
VPT STA. 12+65.00 EL. = 652.45'
652.27
647.65
648.88 648.80
651.55 652.54
652.37 653.99
650.55 653.78
651.45
10+00
677.37 674.90
676.18 673.88
674.99 673.16
673.79 672.16
672.60 671.52
671.41 669.94
670.22 668.38
669.03 666.72
667.83 666.09
666.64 665.07
665.45 663.77
664.26 663.24
663.07 662.54
661.87 661.41
660.68 660.25
659.49 658.93
658.30 657.63
657.11 656.27
655.92 655.10
654.72 654.02
653.53 652.33
652.34 651.10
651.15 650.09
649.96 648.99
649.10 648.34
648.77 647.49
648.97 648.52
649.67 649.22
650.47 650.70
651.27 651.88
652.07 653.83
652.87 653.66
653.67 654.23
654.48 654.57
655.28 655.41
656.08 656.66
656.88 657.77
657.68 658.63
658.48 659.06
659.25 659.32
659.70 659.44
610+00
615+00
620+00
625+00
630+00
635+00
640+00
645+00
650+00

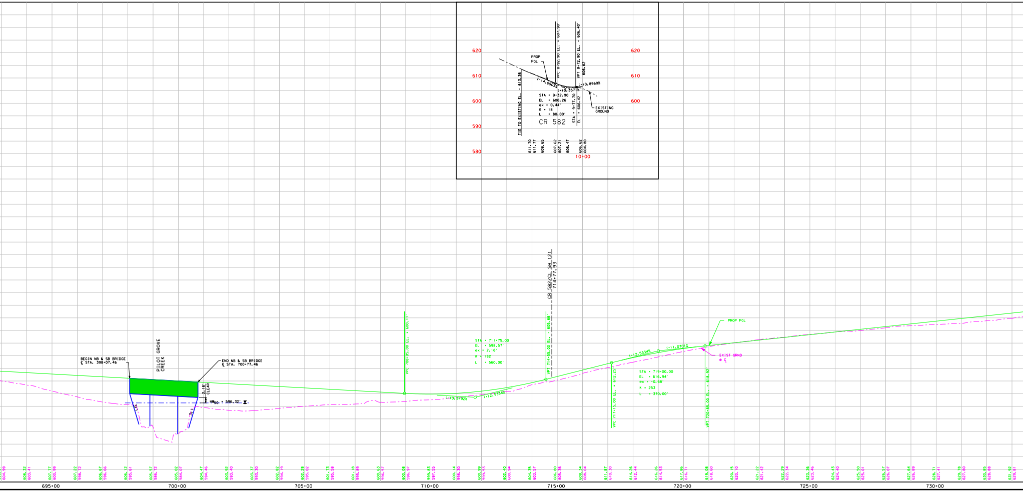

JOHNNY D
STA. 15+00.00
N 19° 06' 32" W
CR 528
TURNER JOHNNY D
PROP. ROW
PROP ROW VARIES
120' - 130'
150'
TAPER
565'
TURN LANE
565'
TURN LANE
150'
TAPER
22'
R 60'
R 30'
38'
40'
38'
28'
120'
92'
56'
655+00
660+00
665+00
670+00
675+00
680+00
685+00
690+00
N 69° 10' 34.04" E
38'
56'
28'
128'
28'
38'
R 30'
R 60'
16'
N 19° 21' 47" W
CR 581
UST
BUCKLEY WALTER A III
℄ SH 121 STA 665+59.34 =
℄ CR 528 STA 10+00.00
℄ SH 121 STA 665+86.08 =
℄ CR 581 STA 10+00.00
150'
TAPER
565'
TURN LANE
565'
TURN LANE
150'
TAPER
WEAVER WILLIAM B
EXIST/PROP
2 - 6' x 6' MBC
TO BE EXTENDED
SH 121 STA. 671+78.44
STA. 5+00.00
EXIST/PROP
2 - 36" RCP
TO BE EXTENDED
SH 121 STA. 677+94.96
SHERLEY PARTNERS LTD
TEXAS
121
SHERLEY PARTNERS LTD
92'
120'
38'
40'
170'
38'
SHERLEY PARTNERS LTD
SHERLEY

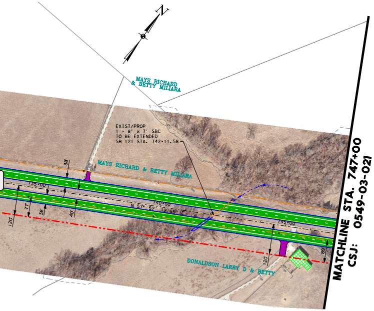

630
620
610
600
VPC STA. 7+90.00 EL. = 616.64'
VPT/VPI STA. 9+30.00 EL. = 616.64'
619.14
(-)12.5686%
(+)12.5700%
(+)13.5700%
STA = 8+60.00
EL = 614.84'
ex = 0.90'
K = 27
L = 140.00'
CR 581
620.20
VPI STA = 10+67.00 EL. = 619.86'
VPC STA. 11+45.00 EL. = 618.68'
VPT STA. 12+75.00 EL. = 619.77'
(-)0.5100%
(-)11.5100%
(+)13.1807%
STA = 12+10.00
EL = 617.70'
ex = 0.76'
K = 28
L = 130.00'
CR 528
630
620
610
600
624.47
619.51
616.40
616.52
616.04
617.37
619.14
621.93
620.20
623.20
619.36
615.55
618.40
617.42
620.53
623.41
5+00
10+00
10+00
(+)0.8006%
(-)3.9557%
STA = 654+50.00
EL = 663.68'
ex = -6.99'
K = 247
L = 1,175.00'
VPT 660+37.50 EL. = 640.44'
CR 528/CR 581/CL SH 121
665+77.75
VPC 666+55.00 EL. = 616.02'
STA = 670+75.00
EL = 599.40'
ex = 4.86'
K = 181
L = 840.00'
(-)3.9557%
(+)0.6724%
2-6'x6' MBC
FL 593.4
VPT 674+95.00 EL. = 602.23'
PROP PGL
EXIST GRND
● ℄
2-36" RCP
FL 598.3
STA = 688+50.00
EL = 611.34'
ex = -0.47'
K = 254
L = 310.00'
(+)0.6724%
(-)0.5492%
VPC 686+95.00
EL. = 610.30'
VPT 690+05.00
EL. = 610.49'
658.78
659.38
658.13
658.61
656.86
657.43
655.60
655.86
653.98
653.87
651.88
651.49
650.82
648.70
648.71
645.50
645.97
641.90
643.02
637.97
640.10
634.01
635.95
630.06
632.30
626.10
628.05
622.15
623.63
618.19
620.40
614.29
614.89
610.86
611.11
607.98
608.14
605.65
605.65
603.87
603.46
602.64
602.50
601.96
601.88
601.84
601.85
602.26
601.86
602.93
602.47
603.60
602.97
604.28
603.90
604.95
604.53
605.62
605.40
606.29
605.81
606.97
606.37
607.64
606.77
608.31
607.45
608.98
607.93
609.66
608.68
610.33
609.20
610.78
609.04
610.85
609.67
610.51
608.79
609.96
607.95
609.42
606.68
655+00
660+00
665+00
670+00
675+00
680+00
685+00
690+00

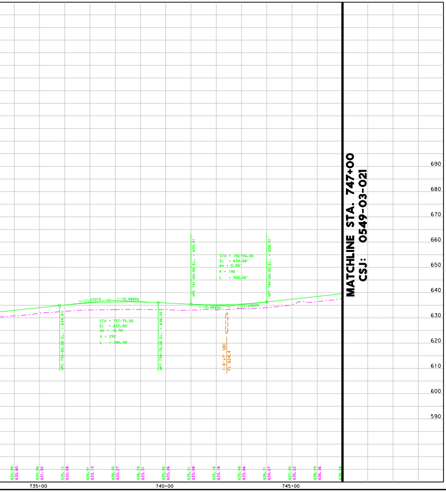

PILOT GROVE CREEK
BEGIN NB & SB BRIDGE ℄ STA. 698+07.46
END NB & SB BRIDGE ℄ STA. 700+77.46
VARIES 170' - 105'
105'
SHARP S S
RUBY DAN & LORRAINE
TATE BILLY, CARAWAY STEVE & DENSMORE BILLY
SHERRY PARTNERS LTD
WILD HOLLY K
KELLEY JOE G ETUX
MAYS RICHARD & BETTY MILIARA
DONALDSON LARRY D & BETTY
PROP. ROW
PROP ROW VARIES 130' - 140'
PROP ROW VARIES 108' - 117'
PROP ROW VARIES 120' - 141'
PC 710+71.98
PT 728+92.86
℄ SH 121 STA 714+77.93 =
℄ CR 582 STA 10+00.00
565' TURN LANE
150' TAPER
PC 8+97.40
POT 7+58.53
R 60'
R 30'
CR 582
CL121-13
40'
38'
44'
50'
28'
695+00
700+00
705+00
710+00
715+00
720+00
725+00
730+00
TEXAS 121

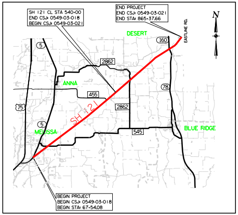
CL121-13
PI STATION = 719+84.17
DELTA = 8° 41' 38.60" (RT)
DEGREE OF CURVE = 0° 28' 38.87"
TANGENT = 912.19
LENGTH = 1,820.88
RADIUS = 12,000.00
PC STATION = 710+71.98
PT STATION = 728+92.86

CR 582
PI STATION = 9+50.80
DELTA = 39° 11' 18.95" (RT)
DEGREE OF CURVE = 38° 11' 49.87"
TANGENT = 53.40
LENGTH = 102.60
RADIUS = 150.00
PC STATION = 8+97.40
PT STATION = 10+00.00


PROP PGL
(-)4.0903%
(+)0.3571%
(+)0.8969%
VPC 8+92.90 EL. = 607.90'
VPT 9+72.90 EL. = 606.40'
606.62
STA = 9+32.90
EL = 606.26
ex = 0.44'
K = 18
L = 80.00'
STA = 9+77.70
EL = 606.42
TIE TO EXISTING EL. = 613.36
EXISTING GROUND
CR 582
620
610
600
590
580
611.70
611.77
609.65
607.62
607.21
606.47
606.62
604.80
10+00
BEGIN NB & SB BRIDGE ℄ STA. 398+07.46
PILOT GROVE CREEK
END NB & SB BRIDGE ℄ STA. 700+77.46
2.18' CLEAR
HW50 = 596.32'
3:1
3:1
VPC 708+95.00 EL. = 600.11'
STA = 711+75.00
EL = 598.57'
ex = 2.16'
K = 182
L = 560.00'
(-)0.5492%
(+)2.5334%
CR 582/CL SH 121 714+77.93
VPT 714+55.00 EL. = 605.66'
VPC 717+15.00 EL. = 612.25'
(+)2.5334%
(+)1.0701%
STA = 719+00.00
EL = 616.94'
ex = -0.68'
K = 253
L = 370.00'
VPT 720+85.00 EL. = 618.92'
PROP PGL
EXIST GRND @ ℄
695+00
700+00
705+00
710+00
715+00
720+00
725+00
730+00


N
MAYS RICHARD & BETTY MILIARA
EXIST/PROP
1 - 8' x 7' SBC
TO BE EXTENDED
SH 121 STA. 742+11.58
MAYS RICHARD & BETTY MILIARA
735+00
740+00
745+00
N 57° 52' 12.65" E
38'
77
38'
40
120
120
83
DONALDSON LARRY D & BETTY
MATCHLINE STA. 747+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

Texas Department of Transportation

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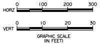
DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

ROLL 5 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

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, PROGRAMMING AND PLANNING DIVISION MARCH 27, 2007
3. ALL URBAN SECTIONS WILL HAVE CONCRETE CURB AND GUTTER WITH BARRIER CURBS.