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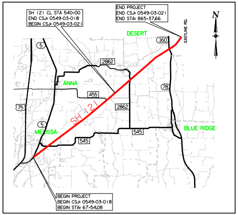
DALLAS DISTRICT
WILLIAM HALE, P.E. DISTRICT ENGINEER
SH 121
COLLIN COUNTY
DESIGN SCHEMATIC
SEPTEMBER 2011

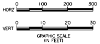
ROLL 2 of 11

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
2862
ANNA
455
78
75
5
2862
SH 121
MELISSA
545
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)

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.

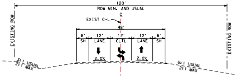
LEGEND

— - — - —	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

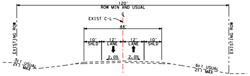
These documents are not intended for Construction, Bidding or Permit Purposes. They were prepared by, or under the supervision of:

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

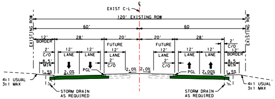
Lockwood, Andrews & Newnam, Inc.
T.B.P.E. Firm # 2614


120'
ROW MIN. AND USUAL
EXIST C-L
48'
6' SH
12' LANE
12' CLTL
12' LANE
6' SH
2.0%
2.0%
EXISTING ROW
3:1 USUAL
2:1 MAX
6:1 USUAL
2:1 MAX

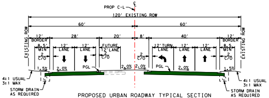
EXISTING TYPICAL SECTION (MELISSA)
NTS STA. 187+00 TO STA. 269+00


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

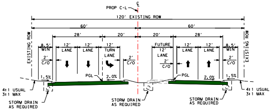
EXISTING TYPICAL SECTION (ANNA)
NTS STA. 269+00 TO STA. 327+00


EXIST C-L
120' EXISTING ROW
60'
60
12' BORDER
28'
20'
20'
28'
FUTURE 12' LANE
12' LANE
12' LANE
2' C/O
8.5' MIN
1.5%
2.0%
PGL
2.0%
2.00%
STORM DRAIN AS REQUIRED
4:1 USUAL
3:1 MAX
EXISTING ROW

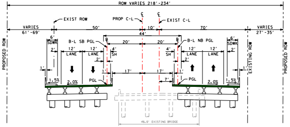
PROPOSED URBAN ROADWAY TYPICAL SECTION (MELISSA)
NTS CSJ 0549-03-018
STA. 187+00 TO STA. 188+00 STA. 243+86 TO STA. 276+36
STA. 194+00 TO STA. 207+00 STA. 289+84 TO STA. 304+05
STA. 212+00 TO STA. 221+99.60 STA. 315+79 TO STA. 327+00
STA. 224+09.60 TO STA. 229+71


PROP C-L
120' EXISTING ROW
60'
60'
12' BORDER
28'
20'
8'
40'
FUTURE 12' LANE
12' TURN LANE
12' LANE
2' C/O
8.5' MIN
1.5%
2.0%
PGL
STORM DRAIN AS REQUIRED
4:1 USUAL
3:1 MAX
EXISTING ROW

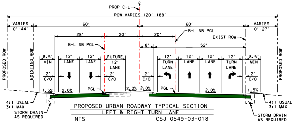
PROPOSED URBAN ROADWAY TYPICAL SECTION
LEFT TURN LANE
NTS CSJ 0549-03-018
STA. 188+00 TO STA. 194+00


PROP C-L
120' EXISTING ROW
60'
60'
28'
20'
20'
28'
12' LANE
12' TURN LANE
FUTURE 12' LANE
2' C/O
8.5' MIN
1.5%
2.0%
PGL
STORM DRAIN AS REQUIRED
4:1 USUAL
3:1 MAX
EXISTING ROW

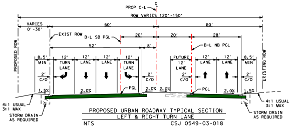
PROPOSED URBAN ROADWAY TYPICAL SECTION
W/ LEFT TURN LANE
NTS CSJ 0549-03-018
STA. 207+00 TO STA. 212+00


ROW VARIES 218'-234'
EXIST ROW
PROP C-L
EXIST C-L
VARIES 61'-69'
50'
10'
70'
VARIES 27'-35'
44'
B-L SB PGL
B-L NB PGL
6' SDWK
12' LANE
4' SH
20'
17'
7'
1.5%
2.0%
PGL
46.0' EXISTING BRIDGE
PROPOSED ROW
EXISTING ROW

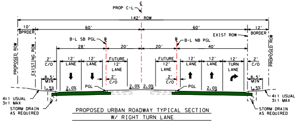
PROPOSED URBAN BRIDGE TYPICAL SECTION
CLEMONS CREEK
NTS CSJ 0549-03-018
STA. 221+99.60 TO STA. 224+09.60


PROP C-L
ROW VARIES 120'-188'
VARIES 0'-44'
60'
60'
VARIES 0'-27'
B-L SB PGL
B-L NB PGL
EXIST ROW
28'
20'
20'
8'
52'
8.5' MIN
12' LANE
FUTURE 12' LANE
12' TURN LANE
2' C/O
1.5%
2.0%
PGL
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED
PROPOSED ROW
EXISTING ROW

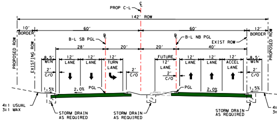
PROPOSED URBAN ROADWAY TYPICAL SECTION
LEFT & RIGHT TURN LANE
NTS CSJ 0549-03-018
STA. 229+71 TO STA. 236+82
STA. 304+05 TO STA. 309+86


PROP C-L
ROW VARIES 120'-150'
VARIES 0'-30'
60'
60'
EXIST ROW
B-L SB PGL
B-L NB PGL
52'
20'
20'
28'
8'
8.5' MIN
12' TURN LANE
12' LANE
FUTURE 12' LANE
2' C/O
1.5%
2.0%
PGL
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED
PROPOSED ROW
EXISTING ROW

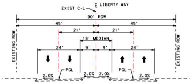
PROPOSED URBAN ROADWAY TYPICAL SECTION
LEFT & RIGHT TURN LANE
NTS CSJ 0549-03-018
STA. 236+82 TO STA. 243+86
STA. 309+86 TO STA. 315+79


PROP C-L
142' ROW
10' BORDER
60'
60'
12' BORDER
EXIST ROW
B-L SB PGL
B-L NB PGL
28'
20'
20'
40'
12' LANE
FUTURE 12' LANE
12' TURN LANE
2' C/O
8.5' MIN
1.5%
2.0%
PGL
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED
PROPOSED ROW
EXISTING ROW

PROPOSED URBAN ROADWAY TYPICAL SECTION
W/ RIGHT TURN LANE
NTS CSJ 0549-03-018
STA. 276+36 TO STA. 281+52

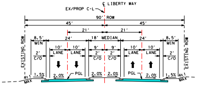

PROP C-L
142' ROW
10' BORDER
60'
60'
12' BORDER
B-L SB PGL
B-L NB PGL
EXIST ROW
28'
20'
20'
40'
12' LANE
12' TURN LANE
FUTURE 12' LANE
12' ACCEL LANE
2' C/O
8.5' MIN
1.5%
2.0%
PGL
4:1 USUAL
3:1 MAX
STORM DRAIN AS REQUIRED
PROPOSED ROW
EXISTING ROW

PROPOSED URBAN ROADWAY TYPICAL SECTION
W/ LEFT TURN LANE & ACCEL LANE
NTS CSJ 0549-03-018
STA. 281+52 TO STA. 289+84


EXIST C-L
℄ LIBERTY WAY
90' ROW
45'
45'
21'
21'
18' MEDIAN
9'
9'
24'
24'
EXISTING ROW
EXISTING ROW
PGL
PGL
2.0%
2.0%
2.0%
2.0%

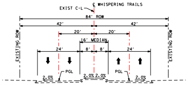
EXISTING LIBERTY WAY TYPICAL SECTION

NTS CSJ 0549-03-018


EX/PROP C-L
℄ LIBERTY WAY
90' ROW
45'
45'
21'
21'
8.5' MIN
24'
18' MEDIAN
24'
8.5' MIN
2' C/O
10' LANE
10' LANE
9'
9'
2' C/O
2' C/O
10' LANE
10' LANE
2' C/O
EXISTING ROW
EXISTING ROW
4:1 MAX
1.5%
2.0%
PGL
2.0%
2.0%
PGL
2.0%
1.5%
4:1 MAX

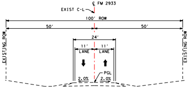
PROPOSED LIBERTY WAY TYPICAL SECTION

NTS CSJ 0549-03-018


EXIST C-L
℄ WHISPERING TRAILS
84' ROW
42'
42'
20'
20'
16' MEDIAN
8'
8'
24'
24'
EXISTING ROW
EXISTING ROW
PGL
PGL
2.0%
2.0%
2.0%
2.0%

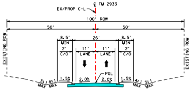
EXISTING WHISPERING TRAILS TYPICAL SECTION

NTS CSJ 0549-03-018


EXIST C-L
℄ FM 2933
100' ROW
50'
50'
24'
11' LANE
11' LANE
EXISTING ROW
EXISTING ROW
PGL
2.0%
2.0%

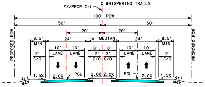
EXISTING FM 2933 TYPICAL SECTION

NTS CSJ 0549-03-018


EX/PROP C-L
℄ FM 2933
100' ROW
50'
50'
8.5' MIN
26'
8.5' MIN
2' C/O
11' LANE
11' LANE
2' C/O
EXISTING ROW
EXISTING ROW
PGL
3:1 MAX
4:1 MAX
1.5%
2.0%
2.0%
1.5%
4:1 MAX
3:1 MAX

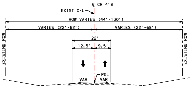
PROPOSED FM 2933 TYPICAL SECTION

NTS CSJ 0549-03-018


EX/PROP C-L
℄ WHISPERING TRAILS
100' ROW
50'
50'
20'
20'
8.5' MIN
24'
16' MEDIAN
24'
8.5' MIN
2' C/O
10' LANE
10' LANE
8'
8'
2' C/O
2' C/O
10' LANE
10' LANE
2' C/O
PROPOSED ROW
PROPOSED ROW
4:1 MAX
1.5%
2.0%
PGL
2.0%
2.0%
PGL
2.0%
1.5%
4:1 MAX

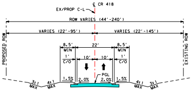
PROPOSED WHISPERING TRAILS TYPICAL SECTION

NTS CSJ 0549-03-018


EXIST C-L
℄ CR 418
ROW VARIES (44'-130')
VARIES (22'-62')
VARIES (22'-68')
22'
12.5'
9.5'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

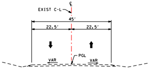
EXISTING CR 418 TYPICAL SECTION

NTS CSJ 0549-03-018


EX/PROP C-L
℄ CR 418
ROW VARIES (44'-240')
VARIES (22'-95')
VARIES (22'-145')
8.5' MIN
22'
8.5' MIN
1' C/O
10'
10'
1' C/O
PROPOSED ROW
EXISTING ROW
PGL
3:1 MAX
4:1 MAX
1.5%
2.0%
VAR
2.0%
1.5%
4:1 MAX
3:1 MAX

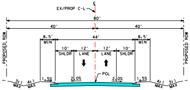
PROPOSED CR 418 TYPICAL SECTION

NTS CSJ 0549-03-018


EXIST C-L
℄
45'
22.5'
22.5'
PGL
VAR
VAR

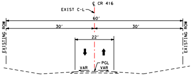
EXISTING LANDFILL ENTRANCE TYPICAL SECTION

NTS CSJ 0549-03-018


EX/PROP C-L
℄
80'
40'
40'
8.5' MIN
44'
8.5' MIN
10' SHLDR
12' LANE
12' LANE
10' SHLDR
PROPOSED ROW
PROPOSED ROW
PGL
3:1 MAX
4:1 MAX
1.5%
2.0%
2.0%
1.5%
4:1 MAX
3:1 MAX

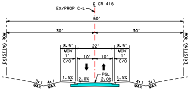
PROPOSED LANDFILL ENTRANCE TYPICAL SECTION

NTS CSJ 0549-03-018


EXIST C-L
℄ CR 416
60'
30'
30'
22'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

EXISTING CR 416 TYPICAL SECTION

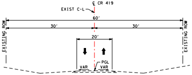
NTS CSJ 0549-03-018


EX/PROP C-L
℄ CR 416
60'
30'
30'
8.5' MIN
22'
8.5' MIN
1' C/O
10'
10'
1' C/O
EXISTING ROW
EXISTING ROW
PGL
3:1 MAX
4:1 MAX
1.5%
2.0%
2.0%
1.5%
4:1 MAX
3:1 MAX

PROPOSED CR 416 TYPICAL SECTION

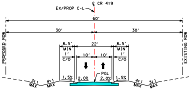
NTS CSJ 0549-03-018

1 USUAL
1 MAX


EXIST C-L
℄ CR 419
60'
30'
30'
20'
EXISTING ROW
EXISTING ROW
PGL
VAR
VAR

EXISTING CR 419 TYPICAL SECTION

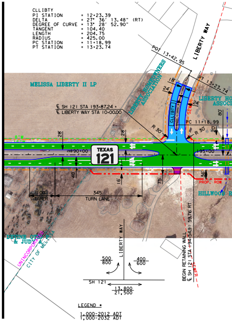
NTS CSJ 0549-03-018


EX/PROP C-L
℄ CR 419
60'
30'
30'
8.5' MIN
22'
8.5' MIN
1' C/O
10'
10'
1' C/O
PROPOSED ROW
EXISTING ROW
PGL
3:1 MAX
4:1 MAX
1.5%
2.0%
2.0%
1.5%
4:1 MAX
3:1 MAX

PROPOSED CR 419 TYPICAL SECTION

NTS CSJ 0549-03-018

MATCHLINE STA. 187+00
CSJ: 0549-03-018

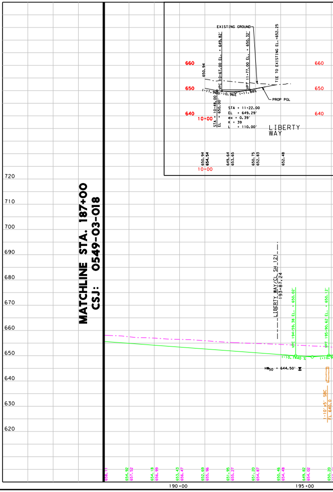

CLLIBTY
PI STATION = 12+23.39
DELTA = 27° 36' 13.48" (RT)
DEGREE OF CURVE = 13° 28' 52.90"
TANGENT = 104.40
LENGTH = 204.75
RADIUS = 425.00
PC STATION = 11+18.99
PT STATION = 13+23.74

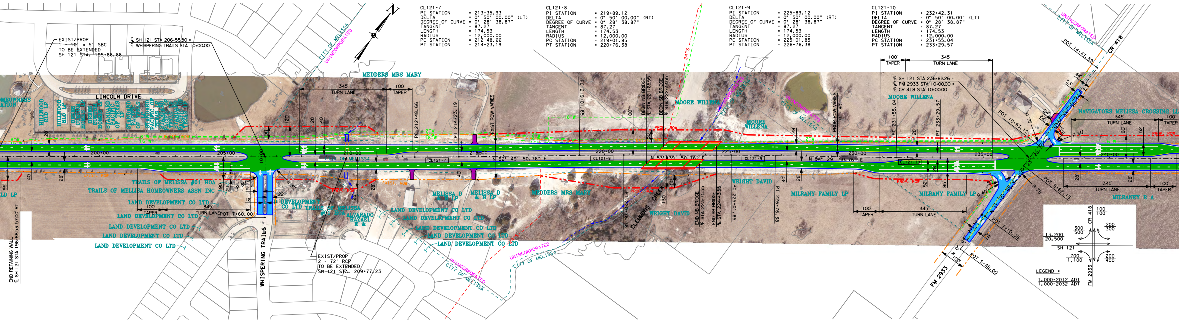
LIBERTY WAY
POT 13+42.95
PT 13+23.74
MELISSA LIBERTY II LP
LIBERTY HOMEOWNERS ASSOCIATION
LIBERTY HO ASSOC
18'
24'
24'
℄ SH 121 STA 193+87.24 =
℄ LIBERTY WAY STA 10+00.00
CLLIBTY
SEWER
PC 11+18.99
R 30'
R 30'
80'
20'
28'
28'
190+00
TEXAS 121
195+00
40'
16'
75'
36'
PROP. ROW
HILLWOOD R
100' TAPER
345' TURN LANE
BEGIN RETAINING WALL
℄ SH 121 STA 194+54.91 59.76' RT
DEVINE OTIS & JUDY A
UNINCORPORATED
CITY OF MELISSA
LIBERTY WAY
500
800
400
600
SH 121
13,800
21,500

LEGEND *

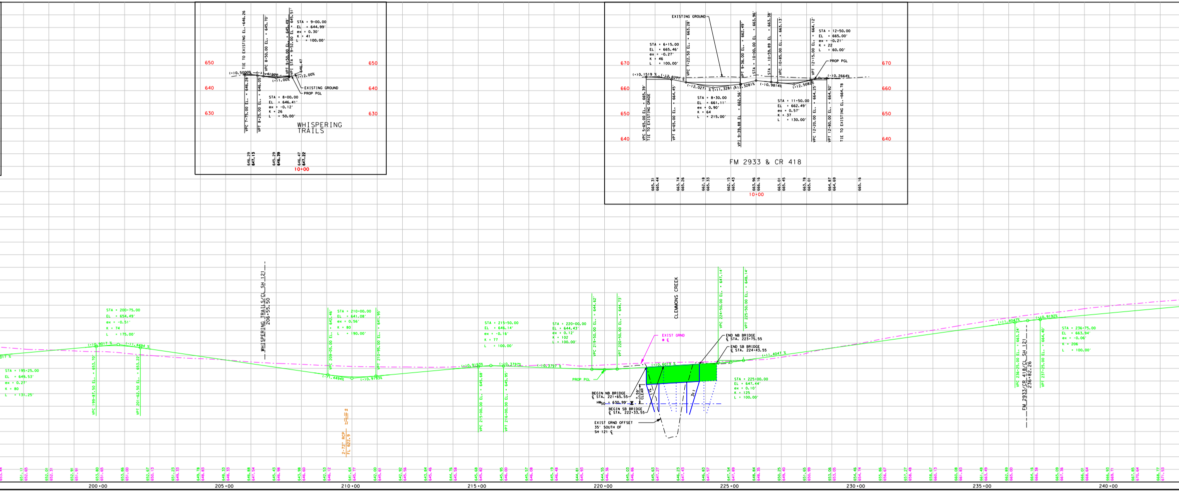
1,000-2012 ADT
1,000-2032 ADT

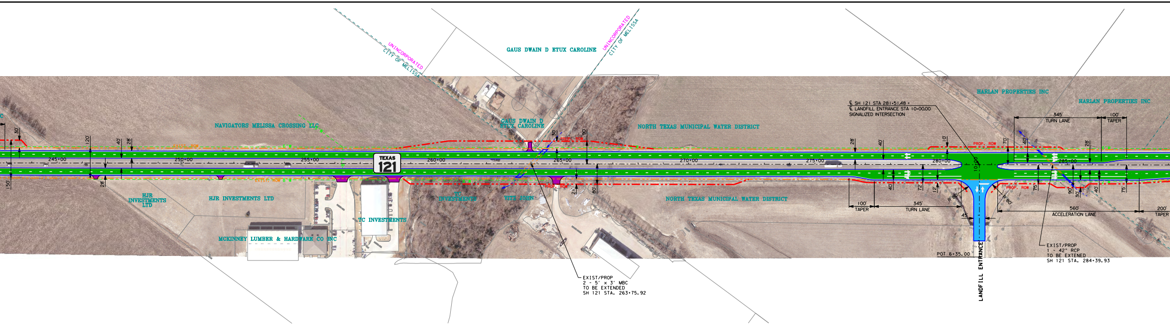
MATCHLINE STA. 187+00
CSJ: 0549-03-018

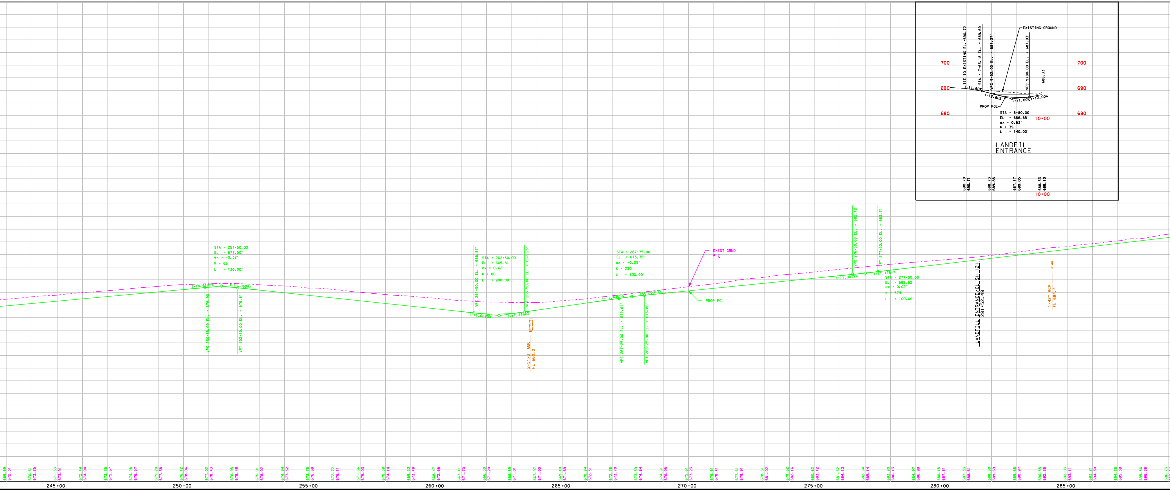


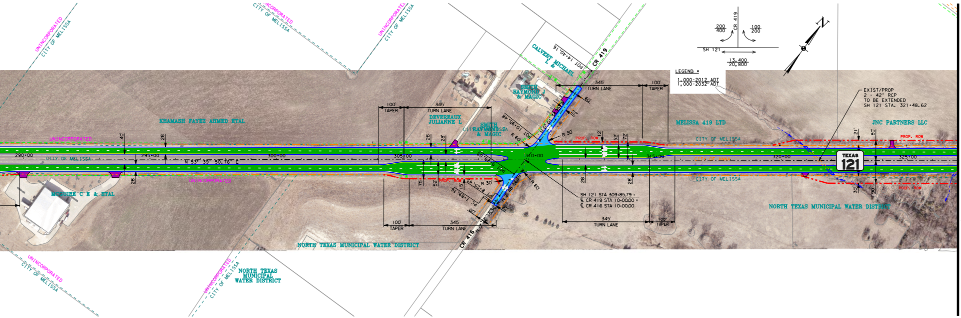

EXIST/PROP
1 - 10' x 5' SBC
TO BE EXTENDED
SH 121 STA. 195+86.66
℄ SH 121 STA 206+55.50 =
℄ WHISPERING TRAILS STA 10+00.00
CITY OF MELISSA
UNINCORPORATED
MEDDERS MRS MARY
345' TURN LANE
100' TAPER
LINCOLN DRIVE
HILLWOOD RLD LP
PC 212+48.66
PT 214+23.19
EXIST ROW VARIES
PC 219+01.85
BEGIN NB BRIDGE ℄ STA. 221+65.55
BEGIN SB BRIDGE ℄ STA. 222+33.55
24"S
16"W
MOORE WILLENA
PROP ROW VARIES 76' - 80'
PC 231+55.04
PT 233+29.57
℄ SH 121 STA 236+82.26 =
℄ FM 2933 STA 10+00.00 =
℄ CR 418 STA 10+00.00
NAVIGATORS MELISSA CROSSING LL
CR 418
POT 14+47.59
POT 10+63.12
200+00
205+00
210+00
215+00
220+00
225+00
230+00
235+00
240+00
CL121-7
CL121-8
CL121-9
CL121-10
N 52° 49' 50.76" E
N 53° 39' 50.76" E
N 54° 29' 50.76" E
PROP ROW
TRAILS OF MELISSA #01 HOA
TRAILS OF MELISSA HOMEOWNERS ASSN INC
LAND DEVELOPMENT CO LTD
100 TAPER
345 TURN LANE
POT 7+60.00
WHISPERING TRAILS
EXIST/PROP
2 - 72" RCP
TO BE EXTENDED
SH 121 STA. 209+77.23
DEVELOPMENT CO LTD
TRAILS OF MELISSA #01 HOA
ALVARADO HAZAEL E &
MELISSA D & H LP
MEDDERS MRS MARY
CLEMMONS CREEK
WRIGHT DAVID
END NB BRIDGE ℄ STA. 223+75.55
END SB BRIDGE ℄ STA. 224+43.55
PC 225+01.85
PT 226+76.38
MILRANY FAMILY LP
MILRANEY R A
POT 9+62.18
POT 7+10.38
POT 5+48.00
FM 2933
END RETAINING WALL
℄ SH 121 STA 196+88.53 57.00' RT
CR 418
100
100
300
300
500
13,200
20,500
SH 121
700
1,100
200
400
LEGEND =
1,000-2012 ADT
1,000-2032 ADT
FM 2933

	CL121-7	CL121-8	CL121-9	CL121-10
PI STATION	= 213+35.93	= 219+89.12	= 225+89.12	= 232+42.31
DELTA	= 0° 50' 00.00" (LT)	= 0° 50' 00.00" (RT)	= 0° 50' 00.00" (RT)	= 0° 50' 00.00" (LT)
DEGREE OF CURVE	= 0° 28' 38.87"	= 0° 28' 38.87"	= 0° 28' 38.87"	= 0° 28' 38.87"
TANGENT	= 87.27	= 87.27	= 87.27	= 87.27
LENGTH	= 174.53	= 174.53	= 174.53	= 174.53
RADIUS	= 12,000.00	= 12,000.00	= 12,000.00	= 12,000.00
PC STATION	= 212+48.66	= 219+01.85	= 225+01.85	= 231+55.04
PT STATION	= 214+23.19	= 220+76.38	= 226+76.38	= 233+29.57

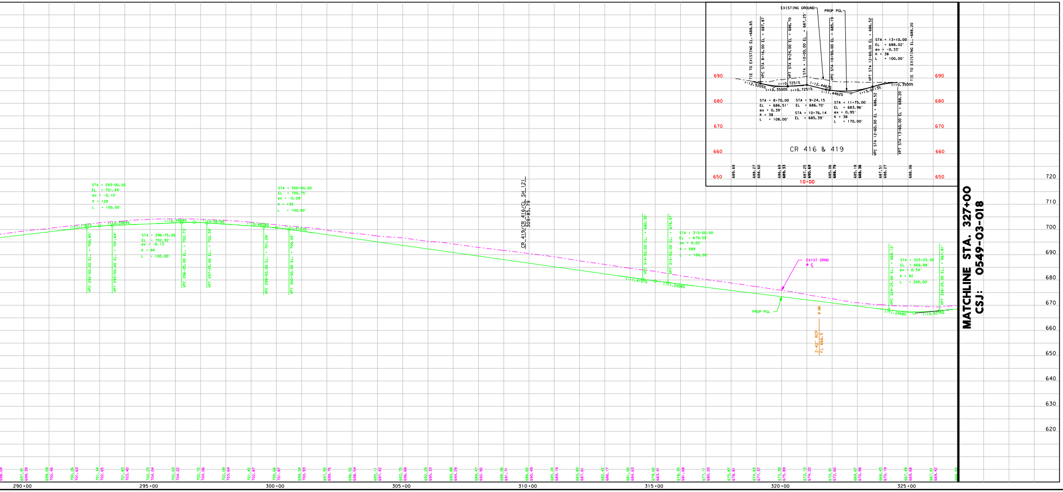

650
640
630
TIE TO EXISTING EL.=646.26
VPC 8+50.00 EL. = 645.70'
VPT 9+50.00 EL. = 645.49'
VPI STA = 9+52.00 EL = 645.51'
STA = 9+00.00
EL = 644.99'
ex = 0.30'
K = 41
L = 100.00'
(+)0.5000%
(-)1.4182%
(+)1.00%
(+)2.00%
646.47
EXISTING GROUND
PROP PGL
VPC 7+75.00 EL. = 646.28'
VPT 8+25.00 EL. = 646.05'
STA = 8+00.00
EL = 646.41'
ex = -0.12'
K = 26
L = 50.00'
WHISPERING TRAILS
646.29
647.13
645.29
646.39
646.47
647.22
10+00
670
660
650
640
EXISTING GROUND
STA = 6+15.00
EL = 665.46'
ex = -0.27'
K = 46
L = 100.00'
VPC 7+22.50 EL. = 663.28'
VPT 9+36.00 EL. = 662.49'
STA = 10+00.00 EL = 663.96'
STA = 10+59.89 EL = 663.38'
VPC 10+85.00 EL. = 663.13'
VPT 12+15.00 EL. = 664.12'
STA = 12+50.00
EL = 665.00'
ex = -0.21'
K = 22
L = 60.00'
PROP PGL
(+)0.1519 %
(-)2.0271 %
(-)2.0271 %
(+)1.3281 %
(+)2.3281%
(-)0.9814%
(+)2.5082%
(-)0.2664%
VPC 5+65.00 EL. = 665.39'
TIE TO EXISTING GRADE
VPT 6+65.00 EL. = 664.45'
STA = 8+30.00
EL = 661.11'
ex = 0.90'
K = 64
L = 215.00'
VPI 9+39.88 EL = 662.56'
STA = 11+50.00
EL = 662.49'
ex = 0.57'
K = 37
L = 130.00'
VPC 12+20.00 EL. = 664.25'
VPT 12+80.00 EL. = 664.92'
TIE TO EXISTING EL.=664.78
FM 2933 & CR 418
665.31
665.44
663.74
665.26
662.18
665.33
662.15
665.43
663.96
666.16
663.01
665.45
663.78
665.01
664.87
664.69
665.16
10+00
WHISPERING TRAILS/CL SH 121
206+55.50
STA = 195+25.00
EL = 649.53'
ex = 0.27'
K = 80
L = 131.25'
STA = 200+75.00
EL = 654.49'
ex = -0.51'
K = 74
L = 175.00'
(+)0.9017 %
(-)1.4494 %
VPC 199+87.50 EL. = 653.70'
VPT 201+62.50 EL. = 653.22'
STA = 210+00.00
EL = 641.08'
ex = 0.56'
K = 80
L = 190.00'
VPC 209+05.00 EL. = 642.46'
VPT 210+95.00 EL. = 641.95'
(-)1.4494%
(+)0.9193%
2-72" RCP
FL 622.9
STA = 215+50.00
EL = 646.14'
ex = -0.16'
K = 77
L = 100.00'
(+)0.9193%
(-)0.3797%
VPC 215+00.00 EL. = 645.68'
VPT 216+00.00 EL. = 645.95'
STA = 220+00.00
EL = 644.43'
ex = 0.12'
K = 102
L = 100.00'
VPC 219+50.00 EL. = 644.62'
VPT 220+50.00 EL. = 644.73'
PROP PGL
CLEMMONS CREEK
EXIST GRND @ ℄
(+)0.6019 %
END NB BRIDGE ℄ STA. 223+75.55
END SB BRIDGE ℄ STA. 224+43.55
VPC 224+50.00 EL. = 647.14'
VPT 225+50.00 EL. = 648.14'
BEGIN NB BRIDGE ℄ STA. 221+65.55
7.59' CLEAR
HW50 = 630.99'
BEGIN SB BRIDGE ℄ STA. 222+33.55
3:1
3:1
EXIST GRND OFFSET 35' SOUTH OF SH 121 ℄
STA = 225+00.00
EL = 647.44'
ex = 0.10'
K = 125
L = 100.00'
(+)1.4047 %
(+)1.4047%
(+)0.9192%
VPC 236+25.00 EL. = 663.24'
FM 2933/CR 418/CL SH 121
236+82.26
VPT 237+25.00 EL. = 664.40'
STA = 236+75.00
EL = 663.94'
ex = -0.06'
K = 206
L = 100.00'
200+00
205+00
210+00
215+00
220+00
225+00
230+00
235+00
240+00


UNINCORPORATED
CITY OF MELISSA
GAUS DWAIN D ETUX CAROLINE
UNINCORPORATED
CITY OF MELISSA
NAVIGATORS MELISSA CROSSING LLC
GAUS DWAIN D ETUX CAROLINE
NORTH TEXAS MUNICIPAL WATER DISTRICT
HARLAN PROPERTIES INC
HARLAN PROPERTIES INC
℄ SH 121 STA 281+51.48 =
℄ LANDFILL ENTRANCE STA 10+00.00
SIGNALIZED INTERSECTION
345' TURN LANE
100' TAPER
EXIST. ROW
PROP. ROW
245+00
250+00
255+00
TEXAS 121
260+00
265+00
270+00
275+00
280+00
285+00
10+00
HJR INVESTMENTS LTD
HJR INVESTMENTS LTD
TC INVESTMENTS
TC INVESTMENTS
VITA JOHN
MCKINNEY LUMBER & HARDWARE CO INC
NORTH TEXAS MUNICIPAL WATER DISTRICT
100' TAPER
345' TURN LANE
R 80'
R 80'
45'
560' ACCELERATION LANE
200' TAPER
POT 6+35.00
LANDFILL ENTRANCE
EXIST/PROP
1 - 42" RCP
TO BE EXTENED
SH 121 STA. 284+39.93
EXIST/PROP
2 - 5' x 3' MBC
TO BE EXTENDED
SH 121 STA. 263+75.92

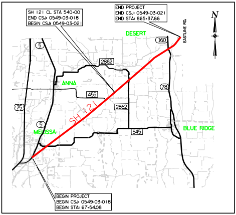

EXISTING GROUND
TIE TO EXISTING EL. =690.72
STA = 7+63.18 EL. = 689.69
VPC 9+52.00 EL. = 687.37'
VPC 9+80.00 EL. = 687.93'
688.33
700
690
680
(-)1.60%
(-)2.60%
(+)1.00%
(+)2.00%
PROP PGL
STA = 8+80.00
EL = 686.65'
ex = 0.63'
K = 39
L = 140.00'
10+00
LANDFILL ENTRANCE
690.70 690.71
688.73 689.85
687.17 689.05
688.33 689.10
10+00
STA = 251+50.00
EL = 677.50'
ex = -0.32'
K = 66
L = 130.00'
(+)0.9192%
(-)1.0625%
VPC 250+85.00 EL. = 676.90'
VPT 252+15.00 EL. = 676.81'
VPC 261+50.00 EL. = 666.87'
STA = 262+50.00
EL = 665.81'
ex = 0.62'
K = 80
L = 200.00'
VPT 263+50.00 EL. = 667.25'
(-)1.0625%
(+)1.4366%
2-5'x3' MBC
FL 660.0
STA = 267+75.00
EL = 673.35'
ex = -0.05'
K = 230
L = 100.00'
(+)1.4366%
(+)1.0017%
VPC 267+25.00 EL. = 672.64'
VPT 268+25.00 EL. = 673.86'
EXIST GRND
@ ℄
PROP PGL
VPC 276+50.00 EL. = 682.12'
VPT 277+50.00 EL. = 683.21'
(+)1.0017%
(+)1.1761%
STA = 277+00.00
EL = 682.62'
ex = 0.02'
K = 574
L = 100.00'
LANDFILL ENTRANCE/CL SH 121
281+52.48
1-42" RCP
FL 684.4
669.69 672.31
670.61 673.25
671.53 673.91
672.44 674.94
673.36 675.67
674.28 676.57
675.20 677.38
676.12 678.06
677.02 678.43
676.95 678.49
675.91 678.02
674.84 677.52
673.78 676.68
672.72 676.11
671.66 675.03
670.59 674.14
669.53 673.48
668.47 672.66
667.41 671.70
666.50 671.20
666.69 671.01
667.97 671.00
669.40 671.69
670.84 672.51
672.28 673.70
673.59 674.84
674.61 676.05
675.61 677.23
676.61 678.41
677.61 679.91
678.61 681.02
679.62 682.16
680.62 683.12
681.62 684.13
682.64 685.14
683.80 686.13
684.97 686.99
686.15 687.81
687.33 688.61
688.50 689.69
689.68 690.97
690.85 692.28
692.03 693.11
693.21 694.30
694.38 695.39
695.56 696.39
245+00
250+00
255+00
260+00
265+00
270+00
275+00
280+00
285+00


UNINCORPORATED
CITY OF MELISSA
KHAMASH FAYEZ AHMED ETAL
MCGUIRE C E & ETAL
DEVEREAUX JULIANNE L
SMITH RAYMOND J & MAGIC
CALVERT MICHAEL L &
MELISSA 419 LTD
JNC PARTNERS LLC
NORTH TEXAS MUNICIPAL WATER DISTRICT
CR 419
CR 416
POT 14+40.16
POT 10+95.48
POT 9+79.03
PT 8+25.45
PC 7+89.76
N 53° 39' 50.76" E
290+00
295+00
300+00
305+00
310+00
315+00
320+00
325+00
100' TAPER
345' TURN LANE
R 30
R 60
PROP. ROW
CITY OF ANNA
SH 121 STA 309+85.79 =
℄ CR 419 STA 10+00.00 =
℄ CR 416 STA 10+00.00
EXIST/PROP
2 - 42" RCP
TO BE EXTENDED
SH 121 STA. 321+48.62
TEXAS 121
CR 419
SH 121
200/400
100/200
13,400/20,800
LEGEND: *
1,000-2012 ADT
1,000-2032 ADT
N

MATCHLINE STA. 327+00
CSJ: 0549-03-018


STA = 293+00.00
EL = 701.44'
ex = -0.10'
K = 128
L = 100.00'
VPC 292+50.00 EL. = 700.85'
VPT 293+50.00 EL. = 701.64'
STA = 296+75.00
EL = 702.92'
ex = -0.13'
K = 94
L = 100.00'
VPC 296+25.00 EL. = 702.73'
VPT 297+25.00 EL. = 702.59'
(+)0.3964%
(-)0.6678%
STA = 300+00.00
EL = 700.75'
ex = -0.09'
K = 135
L = 100.00'
VPC 299+50.00 EL. = 701.09'
VPT 300+50.00 EL. = 700.05'
(-)1.4107%
CR 419/CR 416/CL SH 121
309+85.79
VPC 314+50.00 EL. = 680.30'
VPT 315+50.00 EL. = 678.97'
STA = 315+00.00
EL = 679.59'
ex = 0.02'
K = 589
L = 100.00'
(-)1.2408%
EXIST GRND @ ℄
PROP PGL
2-42" RCP
FL 666.5
VPC 324+25.00 EL. = 668.12'
VPT 326+25.00 EL. = 667.81'
STA = 325+25.00
EL = 666.88'
ex = 0.54'
K = 92
L = 200.00'
(+)0.9375%
EXISTING GROUND
PROP PGL
TIE TO EXISTING EL.=688.65
VPC STA 8+16.00 EL = 687.87
VPT STA 9+24.00 EL = 686.70
STA = 10+00.00 EL = 687.25'
VPC STA 10+90.00 EL = 685.19
VPT STA 12+60.00 EL = 686.52
TIE TO EXISTING EL.=688.20
STA = 13+10.00
EL = 688.02'
ex = -0.33'
K = 38
L = 100.00'
(-)12.5205%
(+)0.3500%
(+)0.7251%
(-)2.4462%
(-)1.4462%
(+)3.0113%
(+)10.3500%
STA = 8+70.00
EL = 686.51'
ex = 0.39'
K = 38
L = 108.00'
STA = 9+24.15
EL = 686.70'
STA = 10+76.14
EL = 685.39'
STA = 11+75.00
EL = 683.96'
ex = 0.95'
K = 38
L = 170.00'
VPC STA 12+60.00 EL = 686.52
VPT STA 13+60.00 EL = 688.20
CR 416 & 419
690
680
670
660
650
10+00
720
710
700
690
680
670
660
650
640
630
620
290+00
295+00
300+00
305+00
310+00
315+00
320+00
325+00

MATCHLINE STA. 327+00
CSJ: 0549-03-018


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
EASTLINE RD.
N
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

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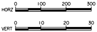
Texas Department of Transportation

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

ROLL 2 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.