Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. VEARIAN, P.E
DESIGN ENGINEER

ROLL 1: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINAL SUBMITTAL
(ALL PRIOR TO FURNISHED FOR INFORMATION ONLY)
CSJ: 2849-01-014
LIMITS: FROM COLLIN COUNTY LINE NORTH TO NORTH OF FM 455
LENGTH: 5.135 MILES
CSJ: 2849-02-042
LIMITS: FROM NORTH OF FM 455 IN COLLIN COUNTY TO SOUTH OF FM 423 IN DENTON COUNTY
EXCEPTION: FROM 200FT OF SH 121 NORTH OF SH 5AD
LENGTH: 0.865 MILES
CSJ: 2849-03-028
LIMITS: FROM SOUTH OF FM 423 NORTH OF SH 426
LENGTH: 8.470 MILES
TOTAL LENGTH: 14.470 MILES
DESCRIPTION: CONSTRUCT 6-LANE DIVIDED FREEWAY WITH SPEED CHANGE LANES
ROLL 1 OF 1

PROJECT LENGTH 7.432 MILES
BEGIN TIMS: STA 429+00.00 BK = STA 429+00.18 AH
STA 429+00.00 BP = STA 429+00.00 AP
STA 429+00.00 BK = STA 429+01.18 AH
END TIMS: STA 735+00.00 TO STA 835+00.00 (10,000.00')
TRAFFIC DATA: SH 121: 16,000 ADT (2017)
23,900 ADT (2037)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 374+00 TO STA 435+00
2	SH 121: STA 435+00 TO STA 535+00
3	SH 121: STA 535+00 TO STA 635+00
4	SH 121: STA 635+00 TO STA 735+00
5	SH 121: STA 735+00 TO STA 835+00
6	SH 121: STA 835+00 TO STA 935+00
7	SH 121: STA 935+00 TO STA 1035+00
8	CROSSROADS: FM 455NL, FM 455L, FM 2862
9	SH 121: STA 1035+00 TO STA 1135+00

FUNCTIONAL CLASSIFICATION & DESIGN SPEEDS

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH121	RURAL ARTERIAL	75 MPH
SH121/MATCHLINE BK	RURAL ARTERIAL	75 MPH
FM 455, WEST LEG	MINOR ARTERIAL	50 MPH
FM 455, EAST LEG	RURAL COLLECTOR	50 MPH
CR 404	LOCAL	30 MPH
CR 404	LOCAL	30 MPH
CR 404	LOCAL	30 MPH
CR 404	RURAL COLLECTOR	50 MPH
CR 404	LOCAL	30 MPH
CR 404	LOCAL	30 MPH
CR 404	LOCAL	30 MPH
CR 404	LOCAL	30 MPH
CR 404/COUNTY LINE RD*	LOCAL	30 MPH

* UNPAVED COUNTY ROADS
** LOCAL URBAN DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2849-01-015)

NOTES:

1. SH121 ORIGINAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY AERIAL PHOTOGRAPHY AND FIELD SURVEY. ADDITIONAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY FIELD SURVEY. JANUARY 21, 2016.
2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS & LOCAL ROADS: R=40 DRIVEWAYS: R=20
3. MAINE CONTROL OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. CONTROL OF ACCESS WILL BE REVIEWED AND REVISED AT THE DISCRETION OF THE AHJ OFFICE DURING THE DRIVEWAY PERMIT PROCESS.

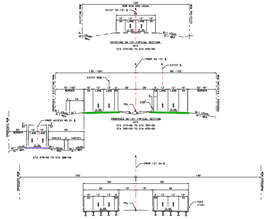
0 50 100 200 300 400
HORIZ SCALE (IN FEET) VERT SCALE (IN FEET)

Stantec
Texas Registered Engineering Firm F-9324
Texas Registered Surveying Firm LSC-0160

FINAL SUBMITTAL
THIS PRINT IS FURNISHED FOR INFORMATION ONLY
PRELIMINARY DESIGN, NOT FOR CONSTRUCTION PURPOSES
SUBJECT TO CHANGE AND MAY NOT BE CONSTRUED AS FINAL

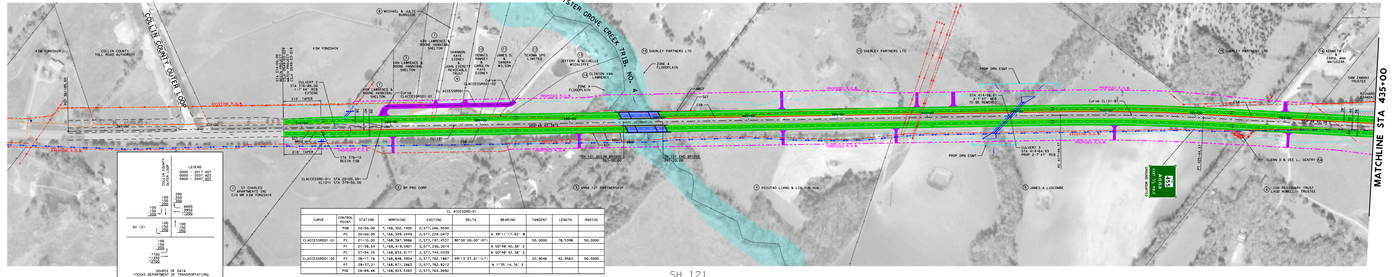
SCHEMATIC PREPARED BY:
JEFFREY L. MEJANES
"TEXAS REGISTERED ENGINEER NUMBER"
CSJ: 2849-01-014
DATE

NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES



PLAN LEGEND

- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED CONTROL ESMT.
- PROPOSED CONTROL OF ACCESS
- EXISTING PROPERTY LINE
- PROPOSED PAVEMENT BASELINE
- PROPOSED PAVEMENT MARKING
- PROPOSED RETAINING WALL
- PROPOSED RETAINING WALL
- PROPOSED RAMP EDGE OF PAVEMENT
- PROPOSED CURB
- PROPOSED CUT & MEET TRANSITION
- LOCAL ROAD BASELINE
- LOCAL ROAD EDGE OF PAVEMENT
- EPI/EMAY EDGE OF PAVEMENT
- PROPOSED CURB
- PROPOSED TRANSITION LIMITS
- PROPOSED FILL LIMITS
- PROPOSED SH 121/PROPOSED RD
- PROPOSED RAMPS
- PROPOSED MAINLANES CROSS ROADS
- PROPOSED LOCAL ROADS
- PROPOSED DRIVEWAYS
- PROPOSED STRUCTURE
- DUPLICATE STRUCTURE
- PROPOSED TRAFFIC FLOW
- EXISTING ELECTRIC METER
- EXISTING ELECTRICAL TRANSFORMER
- EXISTING GAS VALVE
- EXISTING TELEPHONE MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- OUT OF COUNTY
- END OF LINE
- ONCOR DALLAS COUNTY
- OVERHEAD ELECTRICAL
- ATT -OVERHEAD TELEPHONE(
- OREXON COLLIN COUNTY (ELECTRIC)
- TEXAS NEW MEXICO POWER CO
- TEXAS NEW MEXICO
- TEXAS NEW MEXICO POWER CO (ELECTRIC)
- ATT -FIBER OPTIC(
- VERIZON (TELEPHONE)
- N TEXAS MUNICIPAL WATER DIST (WATER)
- N TEXAS MUNICIPAL WATER
- ONCOR (POTELINE)
- ONCOR (POTELINE)
- REMOVE ASPHALT



CL ACCESSRD-01

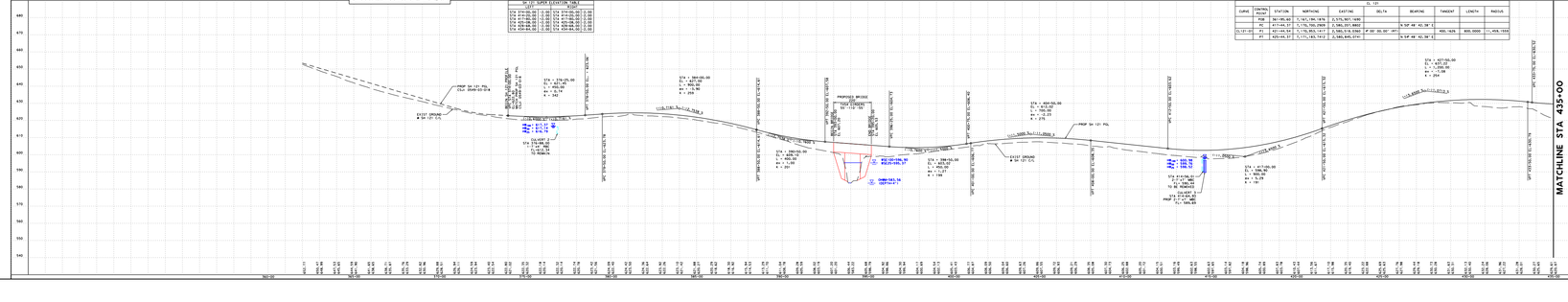
CURVE	CONTROL POINT	STATION	NORTHING	EASTING	DELTA	BEARING	TANGENT	LENGTH	RADIUS
	POB	200+00.00	7,146,500.7405	2,577,266.9984		N 39°11'11.62" W			
	PC	201+00.00	7,146,594.5498	2,577,229.5972					
CL4CCESSRD01-01	PI	211+30.00	7,146,981.9986	2,577,101.4537	90°00'00.00"-RT-		50.0000	78.5398	50.0000
	PT	213+08.53	7,146,973.9401	2,577,256.0874		N 50°48'42.38" E			
	PC	213+84.25	7,146,923.9117	2,577,744.4328		N 50°48'42.38" E			
CL4CCESSRD01-02	PI	217+12.25	7,146,923.9117	2,580,022.4328	27°27'21.67"-LT-		22.9646	43.9567	50.0000
	PT	218+07.81	7,146,937.1966	2,580,921.3461		N 77°16'14.76" E			
	POE	219+09.49	7,146,925.5369	2,581,764.2692					

SH 121 SUPER ELEVATION TABLE

STATION	STATION
STA 374+00.00 (-2.00) STA 374+00.00 (-2.00)
STA 374+00.00 (-2.00) STA 374+00.00 (-2.00)
STA 417+00.00 (-2.00) STA 417+00.00 (-2.00)
STA 417+00.00 (-2.00) STA 417+00.00 (-2.00)
STA 428+00.00 (-2.00) STA 428+00.00 (-2.00)
STA 428+00.00 (-2.00) STA 428+00.00 (-2.00)

CL 121

CURVE	CONTROL POINT	STATION	NORTHING	EASTING	DELTA	BEARING	TANGENT	LENGTH	RADIUS
	POB	367+00.00	7,143,194.1876	2,575,957.1495		N 50°48'42.38" E			
	PC	417+44.57	7,145,700.2989	2,580,207.0882					
CL121-01	PI	421+44.57	7,146,055.1417	2,580,518.0360	8°00'00.00"-RT-		400.1629	800.0000	11,459.1559
	PT	425+44.57	7,171,183.7812	2,580,645.6741		N 54°48'42.38" E			


MATCHLINE STA 435+00
PROPOSED BRIDGE
EXISTING GROUND
SH 121 C/L
PROP SH 121 PGL
EXIST GROUND
SH 121 C/L
STA = 374+00.00
EL = 613.00
Y = 7,146,500.74
X = 2,577
STA = 374+25.00
EL = 613.00
Y = 400.00
X = 26.79
X = 262
STA = 380+00.00
Y = 400.00
X = 262.00
STA = 380+00.00
EL = 613.00
Y = 7,146,500.74
X = 2,577
STA = 400+00.00
EL = 613.00
Y = 400.00
X = 275
STA = 417+00.00
EL = 613.00
Y = 400.00
X = 2,580.00
STA = 417+00.00
EL = 613.00
Y = 7,146,500.74
X = 2,580
STA = 417+00.00
EL = 613.00
Y = 400.00
X = 2,580

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. VEGHAN, P.E.
DISTRICT DESIGN ENGINEER

ROLL 2: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FM 455 (FRANKFORD ROAD)
ALL-WAY STOP
CSJ: 0049-05-049
LIMITS: FROM COLLIN COUNTY LINE (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.05 MILES
CSJ: 0049-04-049
LIMITS: FROM NORTH OF SHERMAN STREET (DENTON COUNTY LINE)
EXCEPTION: FROM COLLIN OF DENTON COUNTY LINE (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.45 MILES
CSJ: 0049-03-048
LIMITS: FROM NORTH OF FM 455 (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.25 MILES
TOTAL LENGTH: 0.80 MILES
DESCRIPTION: CONSTRUCT 4-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

VICINITY MAP

PROJECT LENGTH: 7.637 MILES.
EXISTING: STA 420+00.00 BK = STA 420+89.16 AH
STA 435+00.00 BK = STA 525+00.00 AH
STA 820+00.00 BK = STA 829+01.19 AH
EXISTING: STA 770+00.00 TO STA 809+00.00 (10,000.00')
TRAFFIC DATA: SH 121: 16,000 ADT (2021)
23,900 ADT (2031)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 374+00 TO STA 435+00
2	SH 121: STA 435+00 TO STA 525+00
3	SH 121: STA 525+00 TO STA 614+00
4	SH 121: STA 614+00 TO STA 695+00
5	SH 121: STA 695+00 TO STA 775+00 (CR 509)
6	SH 121: STA 775+00 TO STA 845+57.66
6	CROSSROADS: FM 455N, FM 455S, FM 2962
6	CR 475, CR 507, CR 509, CR 509

FUNCTIONAL CLASSIFICATION & DESIGN SPEEDS

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	70 MPH
FM 455 (FRANKFORD RD)	RURAL COLLECTOR	55 MPH
CR 475 (WEST LEG)	MINOR ARTERIAL	55 MPH
CR 475 (EAST LEG)	RURAL COLLECTOR	55 MPH
CR 507	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	RURAL COLLECTOR	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509 (COUNTY LINE RD)*	LOCAL	55 MPH

* UNPAVED COUNTY ROADS
** DOES NOT MEET DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2849-05-015)

NOTES:

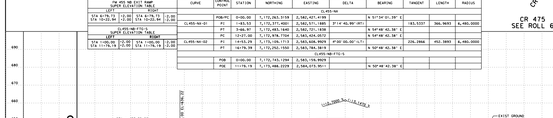
1. SHOT ORIGINAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY AERIAL PHOTOGRAPHY FLOWN BY TEXAS DEPARTMENT OF TRANSPORTATION. ADDITIONAL AREAS WERE OBTAINED BY FIELD SURVEY, JANUARY 01, 2018.
2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS & LOCAL ROADS: R=40 DRIVEWAYS: R=20'
3. MAIN CONTROL OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. CONTROL OF ACCESS WILL BE REVIEWED AND REVISED AT THE DESIGNATION OF THE APPROVED SCHEMATIC THE DRIVEWAY PERMIT PROCESS.

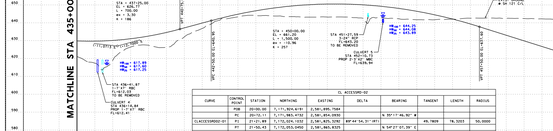
Stantec
TEXAS REGISTERED ENGINEERING FIRM F-9324
1601 ROBINSON AVENUE, SAN ANTONIO, TX 78201
TEL. (210) 881-7960 FAX: (210) 881-7961
WEBSITE: WWW.STANTEC.COM
DATE: (BASE: 08-29-22)

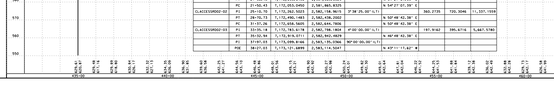
FINAL SUBMITTAL
THIS PROJECT IS FURNISHED FOR INFORMATION ONLY. THE ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR SUBSEQUENT ALTERATIONS OR CHANGES MADE BY OTHERS.

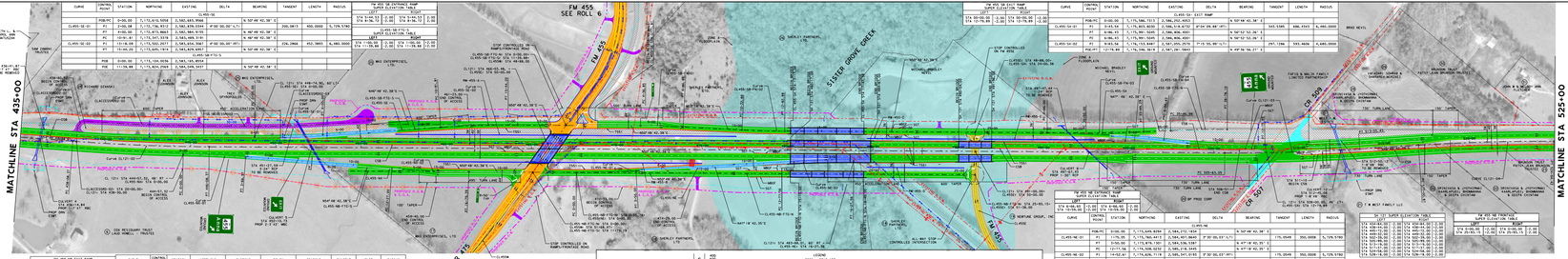
SCHEMATIC PREPARED BY:
JEFFREY D. MESSNER
"TEXAS REGISTERED ENGINEER NUMBER"
(SEAL)
DATE: (BASE: 08-29-22)

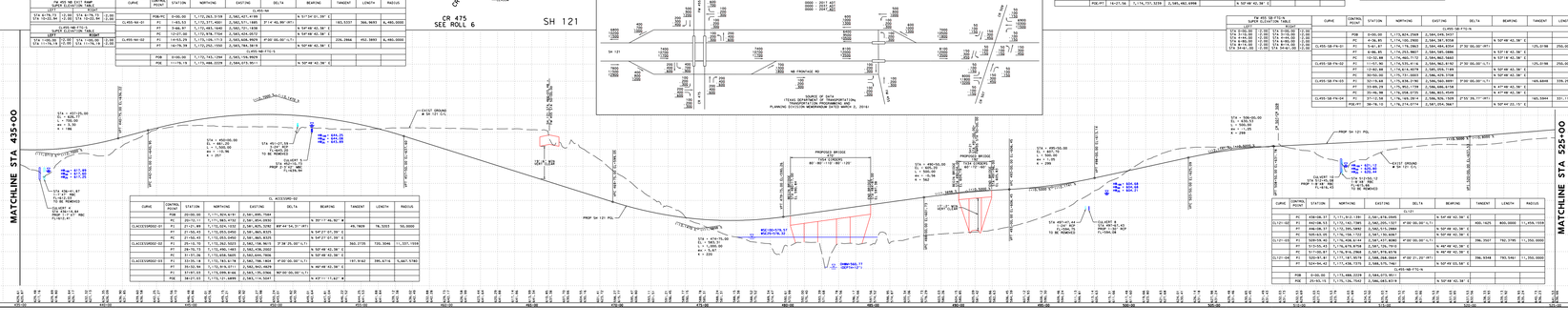
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES











Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. VEGHAN, P.E.
DISTRICT DESIGN ENGINEER

ROLL 2: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FM 455 (FRANKFORD ROAD)
ALL-WAY STOP
CSJ: 0049-05-049
LIMITS: FROM COLLIN COUNTY LINE (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.05 MILES
CSJ: 0049-04-049
LIMITS: FROM NORTH OF SHERMAN STREET (DENTON COUNTY LINE)
EXCEPTION: FROM COLLIN OF DENTON COUNTY LINE (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.45 MILES
CSJ: 0049-03-048
LIMITS: FROM NORTH OF FM 455 (APPROX. 0.5 MILE NORTH OF FM 455)
LENGTH: 0.25 MILES
TOTAL LENGTH: 0.80 MILES
DESCRIPTION: CONSTRUCT 4-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

VICINITY MAP

PROJECT LENGTH: 7.637 MILES.
EXISTING: STA 420+00.00 BK = STA 420+89.16 AH
STA 435+00.00 BK = STA 525+00.00 AH
STA 820+00.00 BK = STA 829+01.19 AH
EXISTING: STA 770+00.00 TO STA 809+00.00 (10,000.00')
TRAFFIC DATA: SH 121: 16,000 ADT (2021)
23,900 ADT (2031)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 374+00 TO STA 435+00
2	SH 121: STA 435+00 TO STA 525+00
3	SH 121: STA 525+00 TO STA 614+00
4	SH 121: STA 614+00 TO STA 695+00
5	SH 121: STA 695+00 TO STA 775+00 (CR 509)
6	SH 121: STA 775+00 TO STA 845+57.66
6	CROSSROADS: FM 455N, FM 455S, FM 2962
6	CR 475, CR 507, CR 509, CR 509

FUNCTIONAL CLASSIFICATION & DESIGN SPEEDS

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	70 MPH
FM 455 (FRANKFORD RD)	RURAL COLLECTOR	55 MPH
CR 475 (WEST LEG)	MINOR ARTERIAL	55 MPH
CR 475 (EAST LEG)	RURAL COLLECTOR	55 MPH
CR 507	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	RURAL COLLECTOR	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509	LOCAL	55 MPH
CR 509 (COUNTY LINE RD)*	LOCAL	55 MPH

* UNPAVED COUNTY ROADS
** DOES NOT MEET DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2849-05-015)

NOTES:

1. SHOT ORIGINAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY AERIAL PHOTOGRAPHY FLOWN BY TEXAS DEPARTMENT OF TRANSPORTATION. ADDITIONAL AREAS WERE OBTAINED BY FIELD SURVEY, JANUARY 01, 2018.
2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS & LOCAL ROADS: R=40 DRIVEWAYS: R=20'
3. MAIN CONTROL OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. CONTROL OF ACCESS WILL BE REVIEWED AND REVISED AT THE DESIGNATION OF THE APPROVED SCHEMATIC THE DRIVEWAY PERMIT PROCESS.

Stantec
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FINAL SUBMITTAL
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SCHEMATIC PREPARED BY:
JEFFREY D. MESSNER
"TEXAS REGISTERED ENGINEER NUMBER"
(SEAL)
DATE: (BASE: 08-29-22)

NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
CAMPBELL & HUNTSVILLE
FM 2862 & SH 121

ROLL 3: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINANCIAL INFORMATION:
CSJ: 0549-03-024
CSJ: 0549-03-026
LIMITS: FROM COLLIN COUNTY LINE (DENTON COUNTY)
TO NORTH OF FM 455
LENGTH: 5.030 MILES
CSJ: 0549-03-021
LIMITS: FROM NORTH OF FM 455 (COLLIN COUNTY LINE)
EXCEPTION: FROM COUNTY LINE TO 0.5 MILES NORTH OF SH 121
LENGTH: 0.500 MILES
CSJ: 0549-03-026
LIMITS: FROM NORTH OF FM 455 TO NORTH OF SH 455
LENGTH: 0.000 MILES
TOTAL LENGTH: 5.530 MILES
DESCRIPTION: CONSTRUCT 4-LANE DIVIDED ARTERIAL WITH SPEED CHANGE LANES
PROJECT NO. 2

PROJECT LENGTH: 7.422 MILES
BEGIN POINT: STA 539+00.00 SH 121 (CSJ 0549-03-024)
END POINT: STA 539+00.00 SH 121 (CSJ 0549-03-021)
EXCEPTIONS: STA 539+00.00 TO STA 609+00.00 (10,000.00')
SHPT/ED DATA: SH 121: 16,000 AST (2031)
20,900 AST (2051)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 374+00 TO STA 435+00
2	SH 121: STA 435+00 TO STA 539+00
3	SH 121: STA 539+00 TO STA 614+00
4	SH 121: STA 614+00 TO STA 695+00
5	SH 121: STA 695+00 TO STA 776+00 (SH 121 SB)
6	SH 121: STA 695+00 TO STA 776+00 (SH 121 NB)
7	CROSSROADS: FM 2862, FM 455, FM 2862
8	FM 2862: FM 455 TO SH 121

FUNCTIONAL CLASSIFICATION & DESIGN SPEED

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	70 MPH
FM 2862 (CAMPBELL RD)	RURAL COLLECTOR	70 MPH
FM 455 (WEST LEG)	MINOR ARTERIAL	70 MPH
FM 455 (EAST LEG)	RURAL COLLECTOR	70 MPH
CR 424	RURAL COLLECTOR	70 MPH
CR 525	LOCAL	70 MPH
CR 526	LOCAL	70 MPH
CR 527	LOCAL	70 MPH
CR 528	LOCAL	70 MPH
CR 529	RURAL COLLECTOR	70 MPH
CR 530	LOCAL	70 MPH
CR 531	LOCAL	70 MPH
CR 532	LOCAL	70 MPH
CR 533	LOCAL	70 MPH
CR 534	LOCAL	70 MPH
CR 535	LOCAL	70 MPH
CR 536	LOCAL	70 MPH
CR 537	RURAL COLLECTOR	70 MPH
CR 538	LOCAL	70 MPH
CR 539	LOCAL	70 MPH
CR 540	LOCAL	70 MPH
CR 541	LOCAL	70 MPH
CR

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES A. VEGHAN, P.E.
DESIGN SECTION DIRECTOR

ROLL 4: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINAL SCHEMATIC
(SCHEMATIC ONLY)
RELEASE FOR:
CSJ: 0049-03-034
LIMITS: FROM COLLIN COUNTY LINE (MCKINNEY) TO NORTH OF FM 455
LENGTH: 5.03 MILES
CSJ: 0049-04-041
LIMITS: FROM NORTH OF FM 455 (MCKINNEY) TO DENTON COUNTY LINE
EXCEPTION: FROM 200FT OF SH 121 NORTH OF FM 455 TO 200FT NORTH OF CR 526
CSJ: 0049-05-038
LIMITS: FROM 200FT NORTH OF CR 526 TO NORTH OF CR 455
LENGTH: 0.20 MILES
TOTAL LENGTH: 5.23 MILES
DESCRIPTION: CONSTRUCT 6-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

ROLL 4 OF 7

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. PEARSON, P.E.
DESIGN SECTION HEADER

ROLL 5: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FROM: SH 121 BEGIN PROJECT
TO: SH 121 END PROJECT
CSJ: 0549-03-024
LIMITS: FROM COLLIN COUNTY LINE NORTH TO NORTH OF FM 455
LENGTH: 5.03 MILES
CSJ: 0549-03-027
LIMITS: FROM NORTH OF FM 455 TO DENTON COUNTY LINE
EXCEPTION: FROM GRADE OF SH 121 NORTH OF FM 455 TO NORTH OF SH 121 BEGIN PROJECT
CSJ: 0549-03-028
LIMITS: FROM DENTON COUNTY LINE NORTH OF SH 420
LENGTH: 0.470 MILES
TOTAL LENGTH: 7.420 MILES
DESCRIPTION: CONSTRUCT 6 LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

ROLL 5 OF 7

VICINITY MAP

PROJECT LENGTH: 7.420 MILES
EQUATIONS: STA 624+00.00 BK = STA 623+89.16 AH
STA 834+86.98 BK = STA 835+00.00 AH
STA 905+00.00 BK = STA 835+01.16 AH
EXCEPTIONS: STA 770+00.00 TO STA 809+00.00 (10,000.00')
TRAFFIC DATA: SH 121: 16,000 ADT (2017)
23,900 ADT (2037)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 574+00 TO STA 455+00
2	SH 121: STA 455+00 TO STA 635+00
3	SH 121: STA 635+00 TO STA 814+00
4	SH 121: STA 814+00 TO STA 995+00
5	SH 121: STA 861+00 BEGIN PROJECT SH 121 TO SH 121: STA 995+00 END PROJECT SH 121
6	SB TRANSITION: FM 455RD, FM 455D, FM 2862
7	NB TRANSITION: FM 455RD, FM 455D, FM 2862

FUNCTIONAL CLASSIFICATION & DESIGN SPEEDS

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	75 MPH
FM 455 (MCKINNEY ST)	RURAL COLLECTOR	55 MPH
FM 455 (WEST LAKE)	MINOR ARTERIAL	55 MPH
FM 455 (EAST LAKE)	RURAL COLLECTOR	55 MPH
CR 635S	LOCAL	30 MPH
CR 635N	LOCAL	30 MPH
CR 635D	LOCAL	30 MPH
CR 635E	LOCAL	30 MPH
CR 635G	RURAL COLLECTOR	55 MPH
CR 635F	LOCAL	30 MPH
CR 635C	LOCAL	30 MPH
CR 635B	LOCAL	30 MPH
CR 635A	LOCAL	30 MPH
CR 635 (COUNTY LINE RD)*	RURAL COLLECTOR	55 MPH
FM 2862	RURAL COLLECTOR	55 MPH

* UNPAVED COUNTY ROADS
** TXDOT URBAN DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2845-01-015)

NOTES:

1. SHOT ORIGINAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY AERIAL PHOTOGRAPHY DATED 2/2/2016. ADDITIONAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY FIELD SURVEY, JANUARY 23, 2018.
2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS & LOCAL ROADS: R=40 DRIVEWAYS: R=20'
3. MAIN CONTROL OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. CONTROL OF ACCESS WILL BE REVISED AND SENT TO THE DISTRICTS OF THE TXDOT OFFICE FOR THE DRIVEWAY PERMIT PROCESS.

Stantec
Texas Registered Engineering Firm F-9324
Texas Registered Surveying Firm 10194224

FINAL SUBMITTAL
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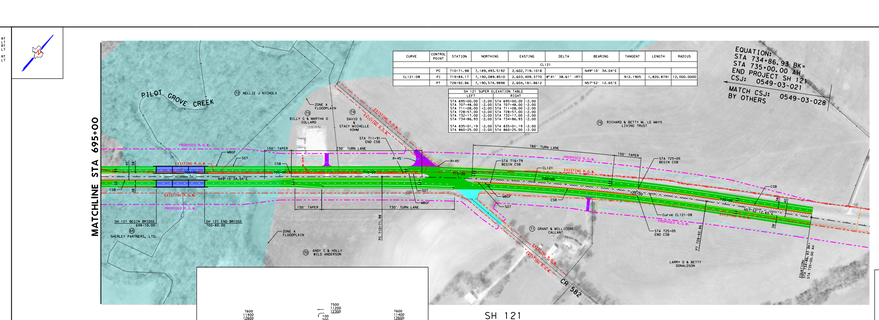
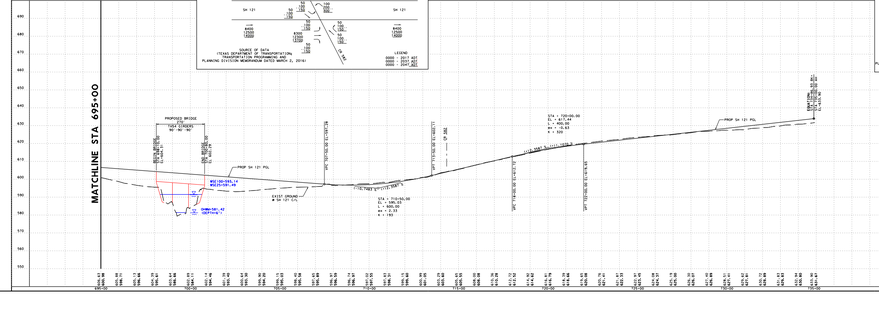
SCHEMATIC PREPARED BY:
JEFFREY S. MCGANN
"STATE REGISTERED ENGINEER NUMBER"
CSJ: 0549-03-024
DATE: 2018

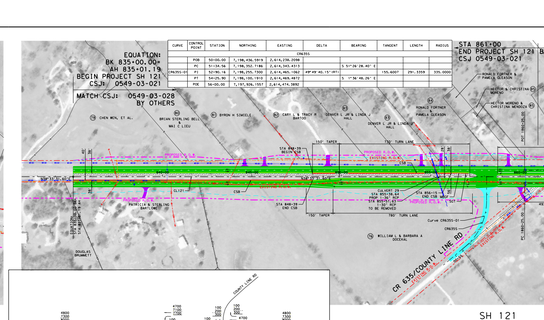
NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES

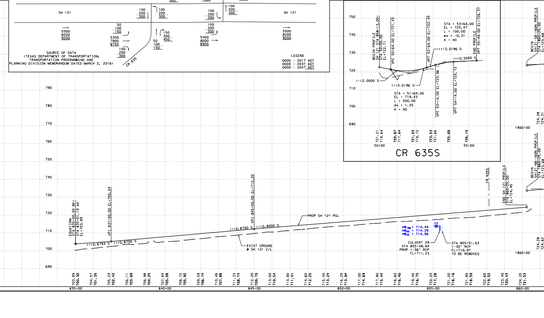
PLAN LEGEND

- EXISTING R.O.W.
- PROPOSED R.O.W.
- PROPOSED CONTROL STMT.
- PROPOSED CONTROL OF ACCESS
- EXISTING PROPERTY LINE
- PROPOSED PAVEMENT BASELINE
- PROPOSED PAVEMENT MARKING
- PROPOSED PAVEMENT MARKING
- PROPOSED RETAINING WALL
- PROPOSED RAMP EDGE OF PAVEMENT
- PROPOSED CURB
- PROPOSED SLT & MBGF TRANSITION
- LOCAL ROAD BASELINE
- LOCAL ROAD EDGE OF PAVEMENT
- EPI/EMAY EDGE OF PAVEMENT
- PROPOSED CURB
- PROPOSED TRANSITION LIMITS
- PROPOSED FILL LIMITS
- PROPOSED SH 121/PROPOSED RD
- PROPOSED RAMPS
- PROPOSED MAINLANE CROSS ROADS
- PROPOSED LOCAL ROADS
- PROPOSED DRIVEWAYS
- PROPOSED STRUCTURE
- DUPLICATE STRUCTURE
- PROPOSED TRAFFIC FLOW
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC TRANSFORMER
- EXISTING TELEPHONE
- EXISTING TELEPHONE MANHOLE
- EXISTING TELEPHONE PEDESTAL
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER METER
- GUY OF GUYED
- END OF LINE
- OVERHEAD COLLIN COOP
- OVERHEAD ELECTRICS
- ATT -OVERHEAD TELEPHONE
- OREXON COLLIN COOP (ELECTRIC)
- TEXAS NEW MEXICO POWER CO
- TEXAS NEW MEXICO
- TEXAS NEW MEXICO POWER CO (ELECTRIC)
- ATT -FIBER OPTIC
- VERIZON (TELEPHONE)
- N TEXAS MUNICIPAL WATER DIST (WATER)
- N TEXAS MUNICIPAL WATER
- ONCOR (POTENTIAL)
- ONCOR (PIPELINE)
- REMOVE ASPHALT









Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. PEARSON, P.E.
DESIGN SECTION HEADER

ROLL 5: SH 121
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FROM: SH 121 BEGIN PROJECT
TO: SH 121 END PROJECT
CSJ: 0549-03-024
LIMITS: FROM COLLIN COUNTY LINE NORTH TO NORTH OF FM 455
LENGTH: 5.03 MILES
CSJ: 0549-03-027
LIMITS: FROM NORTH OF FM 455 TO DENTON COUNTY LINE
EXCEPTION: FROM GRADE OF SH 121 NORTH OF FM 455 TO NORTH OF SH 121 BEGIN PROJECT
CSJ: 0549-03-028
LIMITS: FROM DENTON COUNTY LINE NORTH OF SH 420
LENGTH: 0.470 MILES
TOTAL LENGTH: 7.420 MILES
DESCRIPTION: CONSTRUCT 6 LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

ROLL 5 OF 7

VICINITY MAP

PROJECT LENGTH: 7.420 MILES
EQUATIONS: STA 624+00.00 BK = STA 623+89.16 AH
STA 834+86.98 BK = STA 835+00.00 AH
STA 905+00.00 BK = STA 835+01.16 AH
EXCEPTIONS: STA 770+00.00 TO STA 809+00.00 (10,000.00')
TRAFFIC DATA: SH 121: 16,000 ADT (2017)
23,900 ADT (2037)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 574+00 TO STA 455+00
2	SH 121: STA 455+00 TO STA 635+00
3	SH 121: STA 635+00 TO STA 814+00
4	SH 121: STA 814+00 TO STA 995+00
5	SH 121: STA 861+00 BEGIN PROJECT SH 121 TO SH 121: STA 995+00 END PROJECT SH 121
6	SB TRANSITION: FM 455RD, FM 455D, FM 2862
7	NB TRANSITION: FM 455RD, FM 455D, FM 2862

FUNCTIONAL CLASSIFICATION & DESIGN SPEEDS

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	75 MPH
FM 455 (MCKINNEY ST)	MINOR ARTERIAL	55 MPH
FM 455 (WEST LAKE)	MINOR ARTERIAL	55 MPH
FM 455 (EAST LAKE)	RURAL COLLECTOR	55 MPH
CR 635S	LOCAL	30 MPH
CR 635N	LOCAL	30 MPH
CR 635D	LOCAL	30 MPH
CR 635E	LOCAL	30 MPH
CR 635G	RURAL COLLECTOR	55 MPH
CR 635F	LOCAL	30 MPH
CR 635C	LOCAL	30 MPH
CR 635B	LOCAL	30 MPH
CR 635A	LOCAL	30 MPH
CR 635 (COUNTY LINE RD)*	RURAL COLLECTOR	55 MPH
FM 2862	RURAL COLLECTOR	55 MPH

* UNPAVED COUNTY ROADS
** TXDOT URBAN DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2845-01-015)

NOTES:

1. SHOT ORIGINAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY AERIAL PHOTOGRAPHY DATED 2/2/2016. ADDITIONAL TOPOGRAPHICAL INFORMATION WAS OBTAINED BY FIELD SURVEY, JANUARY 23, 2018.
2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS & LOCAL ROADS: R=40 DRIVEWAYS: R=20'
3. MAIN CONTROL OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. CONTROL OF ACCESS WILL BE REVISED AND SENT TO THE DISTRICTS OF THE TXDOT OFFICE FOR THE DRIVEWAY PERMIT PROCESS.

Stantec
Texas Registered Engineering Firm F-9324
Texas Registered Surveying Firm 10194224

FINAL SUBMITTAL
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SCHEMATIC PREPARED BY:
JEFFREY S. MCGANN
"STATE REGISTERED ENGINEER NUMBER"
CSJ: 0549-03-024
DATE: 2018

NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
HARRIS & FORBES, P.E.
DESIGNED BY: STANTEC

ROLL 6: FM 455, FM 2862 AND SH 160
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINANCIAL ASSIGNMENTS
ALL ACT - 0000
CSJ: 0504-00-034
LIMITS: FROM COLLIN COUNTY LINE NORTH TO NORTH OF FM 455
LENGTH: 0.000 MILES
CSJ: 0504-00-042
LIMITS: FROM NORTH OF FM 455 TO DENTON COUNTY LINE
EXCEPTION: FROM GRADE OF SH 121 NORTH OF SH 160
LENGTH: 0.000 MILES
CSJ: 0504-00-038
LIMITS: FROM NORTH OF FM 455 TO NORTH OF SH 160
LENGTH: 0.000 MILES
TOTAL LENGTH: 7.600 MILES
DESCRIPTION: CONSTRUCT 4-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. DEARING, P.E.
DESIGN ENGINEER

ROLL 7: RAMP AND ACCESS ROAD PROFILES
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINANCIAL PROJECT ID:
CSJ: 0047-00-044
CSJ: 0049-03-034
LIMITS: FROM COLLIN COUNTY LINE NORTHBOUND TO NORTH OF FM 455
LENGTH: 5.03 MILES
CSJ: 0049-03-037
LIMITS: FROM NORTH OF FM 455 NORTHBOUND TO DENTON COUNTY LINE; EXCEPTING THE RAMPS OF SH 121 AT FM 455 NORTH OF SH 121
LENGTH: 2.00 MILES
CSJ: 0049-03-038
LIMITS: FROM NORTH OF FM 455 NORTHBOUND TO NORTH OF SH 121
LENGTH: 0.09 MILES
TOTAL LENGTH: 7.12 MILES
DESCRIPTION: CONSTRUCT 6-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES
ROLL 7 OF 7

VICINITY MAP

PROJECT LENGTH: 7.432 MILES

EBAUTISMO: STA 620+00.00 BK = STA 620+89.18 AH
STA 620+00.00 BK = STA 620+89.18 AH
STA 805+00.00 BK = STA 805+01.35 AH

EXISTSTMO: STA 735+00.00 TO STA 805+00.00 (10,000.00')

TRAFFIC DATA: SH 121: 14,000 ADT (2017)
23,900 ADT (2037)

INDEX OF ROLLS:

ROLL	DESCRIPTION
1	SH 121: STA 374+00 TO STA 435+00
2	SH 121: STA 434+00 TO STA 495+00
3	SH 121: STA 509+00 TO STA 614+00
4	SH 121: STA 614+00 TO STA 695+00
5	SH 121: STA 695+00 TO STA 805+01.35
6	SH 121: STA 805+01.35 (AH) TO STA 940+71.66
6	CROSSROADS: FM 455NB, FM 455SB, FM 2862
7	RAMPS: FM 455 AND FM 2862

FUNCTIONAL CLASSIFICATION & DESIGN SPEED

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
SH 121	RURAL ARTERIAL	75 MPH
FM 455 (EXIST LEG)	RURAL COLLECTOR	55 MPH
FM 455 (NEW LEG)	RURAL COLLECTOR	55 MPH
FM 2862	RURAL COLLECTOR	55 MPH
CLR NX	LOCAL	25 MPH
CLR NE	LOCAL	25 MPH
CLR SE	LOCAL	25 MPH
CLR SX	LOCAL	25 MPH
CLR NW	RURAL COLLECTOR	55 MPH
CLR SW	LOCAL	25 MPH
CLR NB	LOCAL	25 MPH
CLR SB	LOCAL	25 MPH
CLR ACCESS	LOCAL	25 MPH
CLR COUNTY LINE RNC	LOCAL	25 MPH

* UNPAVED COUNTY ROADS
** ALL LOCAL DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2845-01-015)

NOTES:

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2. TYPICAL RADIUS RETURNS, UNLESS OTHERWISE NOTED ON THE PLANS: MAJOR CROSS ROADS 35 (LOCAL ROADS: 25 FT)
DRIVEWAYS: 15'-25'
3. MAIN LANING OF ACCESS IS NOT SHOWN AT THE RAMP LOCATIONS. LANING OF ACCESS WILL BE REVIEWED AND DEVISED AT THE DISTRICTION OF THE APPROVED SCHEMATIC FOR DRIVEWAY PERMIT PROCESS.

0 50 100 200 300 400
HORIZ SCALE: 1IN.=100'

0 5 10 20 30 40
VERT SCALE: 1IN.=10'

Stantec
TEXAS REGISTERED ENGINEERING FIRM F-9324
TEXAS REGISTERED LANDSCAPE ARCHITECT FIRM 2264

FINAL SUBMITTAL
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SCHEMATIC PREPARED BY:
JEFFREY L. MEGANCK
"TEXAS REGISTERED ENGINEER NUMBER"
CEVT 2016

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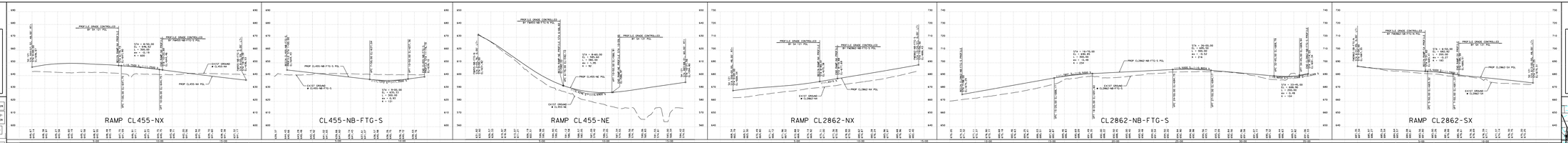

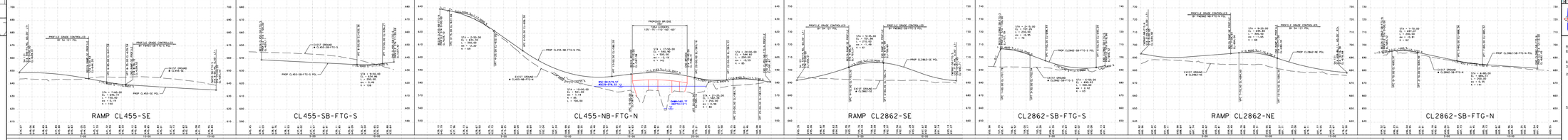

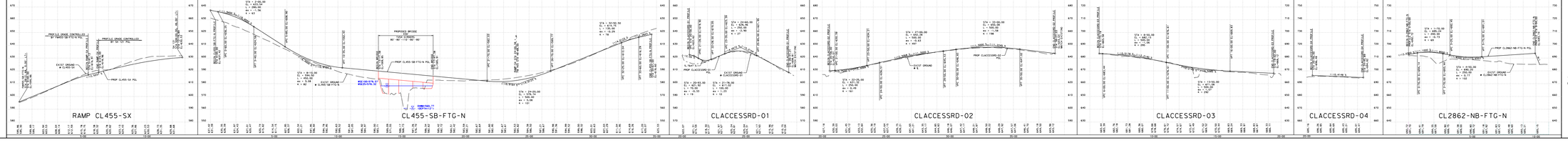

Texas Department of Transportation

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES E. DEARING, P.E.
DESIGN ENGINEER

ROLL 7: RAMP AND ACCESS ROAD PROFILES
PROPOSED SCHEMATIC LAYOUT
STATE HIGHWAY 121

FINANCIAL PROJECT ID:
CSJ: 0047-00-044
CSJ: 0049-03-034
LIMITS: FROM COLLIN COUNTY LINE NORTHBOUND TO NORTH OF FM 455
LENGTH: 5.03 MILES
CSJ: 0049-03-037
LIMITS: FROM NORTH OF FM 455 NORTHBOUND TO DENTON COUNTY LINE; EXCEPTING THE RAMPS OF SH 121 AT FM 455 NORTH OF SH 121
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CSJ: 0049-03-038
LIMITS: FROM NORTH OF FM 455 NORTHBOUND TO NORTH OF FM 455
LENGTH: 0.09 MILES
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DESCRIPTION: CONSTRUCT 6-LANE DIVIDED HIGHWAY WITH SPEED CHANGE LANES
ROLL 7 OF 7

VICINITY MAP

PROJECT LENGTH: 7.432 MILES

EBAUTISMO: STA 620+00.00 BK = STA 620+89.18 AH
STA 620+00.00 BK = STA 620+89.18 AH
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6	SH 121: STA 805+01.35 (AH) TO STA 940+71.66
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7	RAMPS: FM 455 AND FM 2862

FUNCTIONAL CLASSIFICATION & DESIGN SPEED

ROADWAY	FUNCTIONAL CLASSIFICATION	DESIGN SPEED
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FM 455 (NEW LEG)	RURAL COLLECTOR	55 MPH
FM 2862	RURAL COLLECTOR	55 MPH
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CLR NE	LOCAL	25 MPH
CLR SE	LOCAL	25 MPH
CLR SX	LOCAL	25 MPH
CLR NW	RURAL COLLECTOR	55 MPH
CLR SW	LOCAL	25 MPH
CLR NB	LOCAL	25 MPH
CLR SB	LOCAL	25 MPH
CLR ACCESS	LOCAL	25 MPH
CLR COUNTY LINE RNC	LOCAL	25 MPH

* UNPAVED COUNTY ROADS
** ALL LOCAL DESIGN TO MATCH FM 455 SCHEMATIC (CSJ: 2845-01-015)

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0 50 100 200 300 400
HORIZ SCALE: 1IN.=100'

0 5 10 20 30 40
VERT SCALE: 1IN.=10'

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"TEXAS REGISTERED ENGINEER NUMBER"
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