Texas Department of Transportation

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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

From: Lawson Road
To: East of Wilson Road (CR 138)

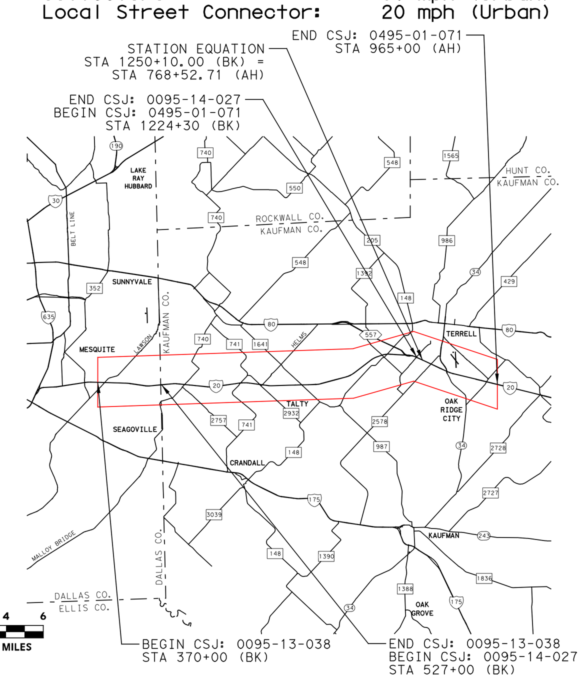
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles

Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

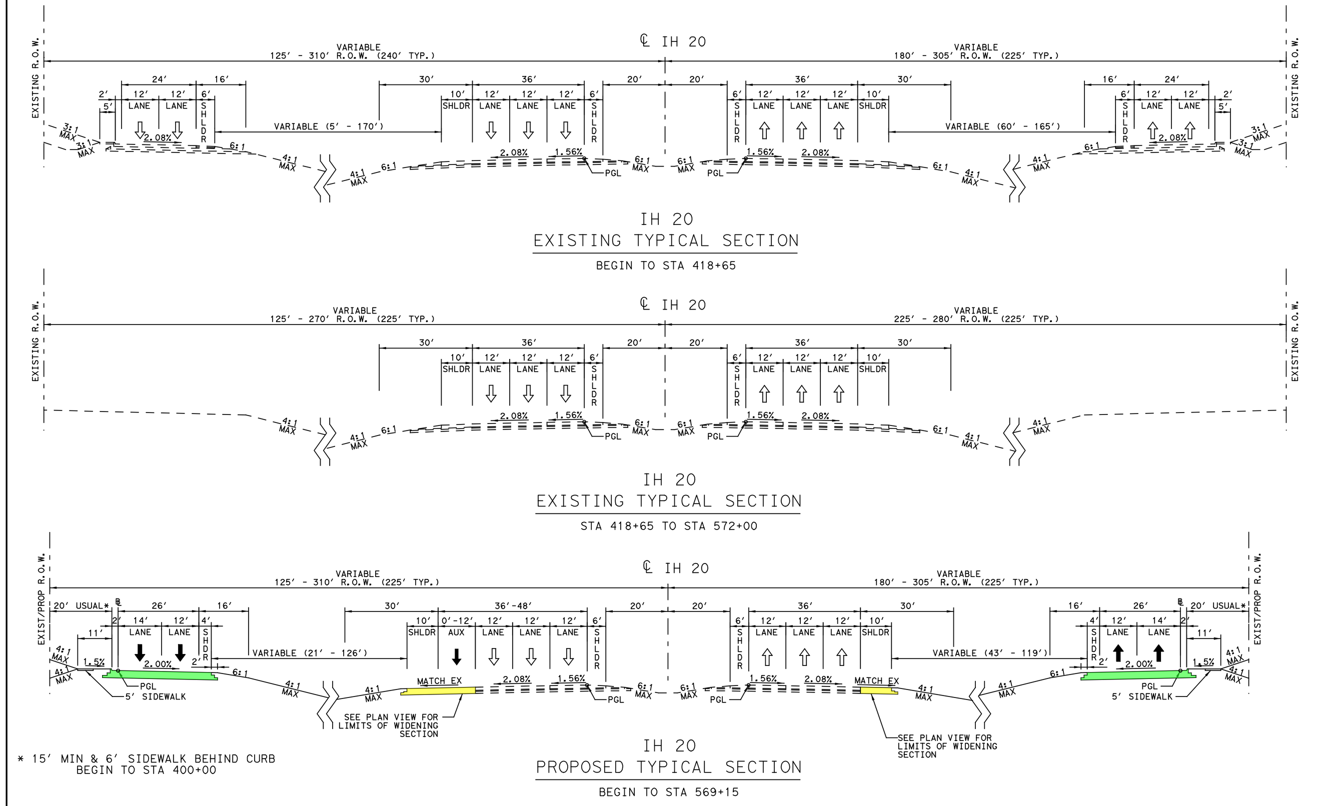
10/31/2019
DATE

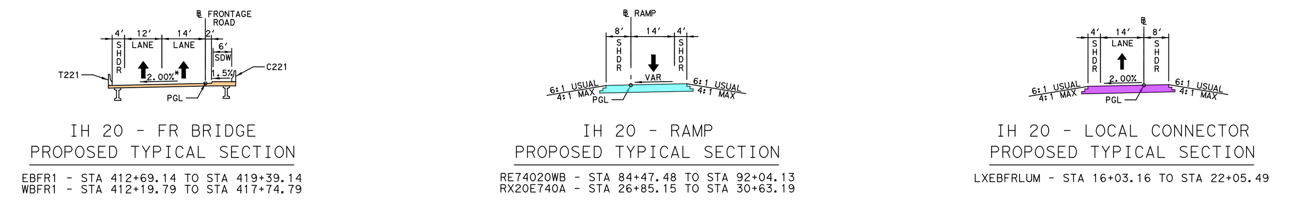
100%
PRELIMINARY, SUBJECT TO CHANGE

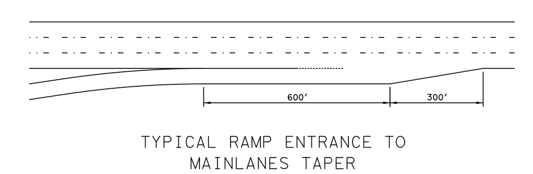
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

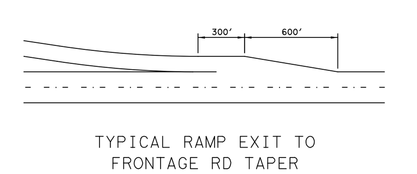
ROLL 1 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400









SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-2.08%	370+00.00	IH20	370+00.00	-2.08%
-2.08%	430+20.00		445+00.00	-2.08%
2.08%	432+70.00			
2.08%	445+00.00			

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	393+20.00	-2.08%	2.08%
	393+30.00	-2.00%	2.00%
	445+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20E740A	26+85.15	2.08%	-2.08%
	28+05.00	-2.00%	2.00%
	30+63.19	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	386+75.00	2.08%	-2.08%
	386+85.00	2.00%	-2.00%
	389+90.00	2.00%	-2.00%
	392+00.00	-2.00%	2.00%
	401+00.00	-2.00%	2.00%
	403+10.00	2.00%	-2.00%
	445+00.00	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RE74020WB	84+47.48	-2.08%	2.08%
	84+55.00	-2.00%	2.00%
	92+04.13	-2.00%	2.00%

CURVE DATA

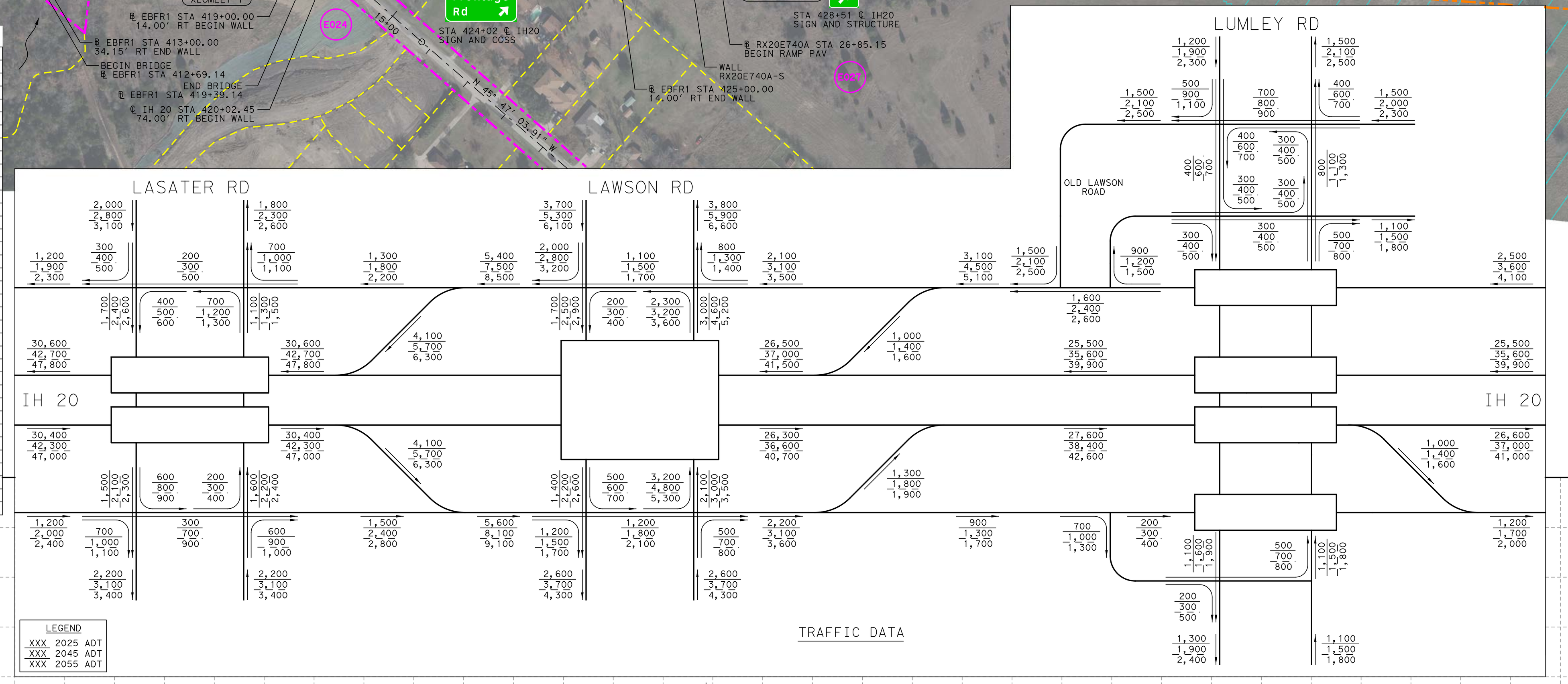
CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-4	6° 08' 22.13" RT	0° 30' 00.00"	614.54'	1,227.90'	11,459.16'	S 86° 49' 43.60" E	S 80° 41' 21.47" E	438+79.48	432+64.94	444+92.84
EBFR1-2	3° 29' 14.73" LT	1° 59' 59.47"	87.22'	174.38'	2,865.00'	S 83° 20' 28.86" E	S 86° 49' 43.60" E	355+77.81	354+90.59	356+64.98
EBFR1-3	5° 16' 49.15" RT	1° 59' 59.47"	132.11'	264.04'	2,865.00'	S 86° 49' 43.60" E	S 81° 32' 54.45" E	373+09.31	371+77.20	374+41.24
EBFR1-4	13° 44' 00.97" LT	1° 59' 59.47"	345.02'	686.73'	2,865.00'	S 81° 32' 54.45" E	N 84° 43' 04.58" E	380+60.87	377+15.85	384+02.58
EBFR1-5	8° 27' 11.82" RT	1° 59' 59.47"	211.73'	422.70'	2,865.00'	N 84° 43' 04.58" E	S 86° 49' 43.60" E	387+52.66	385+40.93	389+63.62
EBFR1-6	3° 10' 47.39" LT	1° 59' 59.47"	79.52'	159.00'	2,865.00'	S 86° 49' 43.60" E	N 89° 59' 29.01" E	397+99.31	397+19.79	398+78.79
EBFR1-7	3° 10' 47.39" RT	1° 59' 59.47"	79.52'	159.00'	2,865.00'	N 89° 59' 29.01" E	S 86° 49' 43.60" E	407+90.80	407+11.28	408+70.28
EBFR1-8	5° 00' 00.00" RT	2° 59' 59.20"	83.39'	166.68'	1,910.00'	S 86° 49' 43.60" E	S 81° 49' 43.60" E	424+41.69	423+58.30	425+24.97
EBFR1-9	5° 00' 00.00" LT	2° 59' 59.20"	83.39'	166.68'	1,910.00'	S 81° 49' 43.60" E	S 86° 49' 43.60" E	428+31.69	427+48.30	429+14.98
EBFR1-10	6° 08' 22.13" RT	0° 30' 28.59"	604.93'	1,208.70'	11,280.00'	S 86° 49' 43.60" E	S 80° 41' 21.47" E	438+62.56	432+57.63	444+66.33
WBFR1-1	3° 31' 03.50" LT	0° 59' 59.73"	175.95'	351.79'	5,730.00'	S 87° 06' 16.11" E	N 89° 22' 40.38" E	363+16.60	361+40.65	364+92.44
WBFR1-2	6° 44' 36.88" RT	0° 59' 59.73"	337.59'	674.41'	5,730.00'	N 89° 22' 40.38" E	S 83° 52' 42.74" E	375+08.20	371+70.60	378+45.01
WBFR1-3	2° 57' 00.86" LT	0° 59' 59.73"	147.56'	295.05'	5,730.00'	S 83° 52' 42.74" E	S 86° 49' 43.60" E	389+85.62	388+38.06	391+33.11
WBFR1-4	8° 20' 48.71" RT	2° 59' 59.20"	139.37'	278.25'	1,910.00'	S 86° 49' 43.60" E	S 78° 28' 54.89" E	403+26.40	401+87.02	404+65.27
WBFR1-5	8° 20' 48.71" LT	1° 59' 59.47"	209.06'	417.37'	2,865.00'	S 78° 28' 54.89" E	S 86° 49' 43.60" E	409+32.11	407+23.05	411+40.42
WBFR1-6	2° 14' 18.61" LT	1° 59' 59.47"	55.97'	111.93'	2,865.00'	S 86° 49' 43.60" E	S 89° 04' 02.21" E	421+07.78	420+51.80	421+63.74
WBFR1-7	8° 22' 40.74" RT	0° 30' 28.59"	826.17'	1,649.40'	11,280.00'	S 89° 04' 02.21" E	S 80° 41' 21.47" E	438+28.44	430+02.27	446+51.67
XLUMLEY-1	14° 15' 19.69" RT	3° 00' 00.00"	238.82'	475.18'	1,909.86'	N 45° 20' 04.61" W	N 31° 04' 44.92" W	19+22.77	16+83.94	21+59.12
XLUMLEY-2	12° 22' 40.01" LT	3° 45' 00.00"	165.68'	330.07'	1,527.89'	N 32° 13' 17.41" W	N 44° 35' 57.42" W	26+12.94	24+47.26	27+77.33
XLUMLEY-3	22° 35' 50.49" LT	14° 00' 00.00"	81.77'	161.41'	409.26'	N 44° 35' 57.42" W	N 67° 11' 47.91" W	29+64.90	28+83.13	30+44.54
RE74020WB-1	5° 00' 00.00" LT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	S 86° 49' 43.60" E	N 88° 10' 16.40" E	81+48.87	79+00.00	83+97.42
RE74020WB-2	5° 00' 00.00" RT	5° 27' 24.27"	45.84'	91.63'	1,050.00'	N 88° 10' 16.40" E	S 86° 49' 43.60" E	95+71.29	95+25.45	96+17.08
RX20E740A-1	5° 00' 00.00" RT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	S 86° 49' 43.60" E	S 81° 49' 43.60" E	22+48.87	20+00.00	24+97.42
RX20E740A-2	5° 00' 00.00" LT	5° 27' 24.27"	45.84'	91.63'	1,050.00'	S 81° 49' 43.60" E	S 86° 49' 43.60" E	32+92.66	32+46.82	33+38.45
LXEBFRLUM-1	36° 18' 04.74" LT	17° 06' 11.58"	109.82'	212.25'	335.00'	S 50° 31' 20.82" E	S 86° 49' 25.56" E	17+09.82	16+00.00	18+12.25

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
E001	DALLAS CITY OF	13818 S BELTLINE RD
E002	BURKLOW ROY	13800 LASATER RD
E003	BURKLOW ROY	500 LAWSON RD
E004	BURKLOW ROY	500 LAWSON RD
E005	BURKLOW ROY	500 LAWSON RD
E006	BURKLOW ROY	500 LAWSON RD
E007	BURKLOW ROY	500 LAWSON RD
E008	BURKLOW ROY	500 LAWSON RD
E009	BURKLOW ROY	500 LAWSON RD
E010	BURKLOW ROY	500 LAWSON RD
E011	BURKLOW ROY	500 LAWSON RD
E012	BURKLOW ROY	500 LAWSON RD
E013	BURKLOW ROY	500 LAWSON RD
E014	BURKLOW ROY	500 LAWSON RD
E015	BURKLOW ROY	500 LAWSON RD
E016	BURKLOW ROY	500 LAWSON RD
E017	BURKLOW ROY ET AL	14600 IH 20
E018	DEASON ROBERT J	3501 MCKENZIE RD
E019	BACK JONATHAN R	3511 MCKENZIE RD
E020	MESQUITE CITY OF	4600 E LAWSON RD
E021	JERGER MRS ERNEST L	4600 LAWSON RD
E022	CSN FAMILY LP	5800 SHANNON RD
E023	BASS CAROLYN LUCAS	5800 SHANNON RD
E024	HAGAN HILL HOMEOWNERS ASSOC INC	50 HAGAN HILL PKWY
E025	FLURD CORPORATION	1551 IH 20
E026	PERTHUIS ADOLPH &	6050 LUMLEY RD
E027	FLURD CORPORATION	1401 IH 20

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W001	INGRAM WADE T TR ET AL	4800 LASATER RD
W002	TYNES JENENE M &	992 GREENWOOD DR
W003	TYNES JENENE M &	991 GREENWOOD DR
W004	TYNES JENENE M &	108 WOODHILL DR
W005	STEALEY GRETCHEN B	112 WOODHILL DR
W006	TYNES JENENE M &	113 REDWOOD DR
W007	TYNES JENENE M &	117 REDWOOD DR
W008	MEDINA CONCEPCION	123 REDWOOD DR
W009	VALDEZ JOHN J & SAN JUANA	127 REDWOOD DR
W010	CISNEROS ARLENE &	130 REDWOOD DR
W011	CHIK ERIC K	134 REDWOOD DR
W012	GLORIA JOSE ALFREDO II &	138 REDWOOD DR
W013	RAY LINDA G	202 REDWOOD DR
W014	CANTRELL ROY	201 WOODGROVE DR
W015	BROWNING SHARRON G M	205 WOODGROVE DR
W016	RODRIGUEZ ARMANDO JR	208 WOODGROVE DR
W017	TYNES JENENE M &	9930 AUTUMN WOOD DR
W018	TYNES JENENE M &	9929 AUTUMN WOOD DR
W019	TYNES JENENE M &	9928 AUTUMN WOOD DR
W020	TYNES JENENE M &	9999 AUTUMN WOOD DR
W021	TYNES JENENE M &	9999 AUTUMN WOOD DR
W022	TYNES JENENE M &	9999 AUTUMN WOOD DR
W023	TYNES JENENE M &	9999 RIPPLEWOOD DR
W024	TYNES JENENE M &	9999 RIPPLEWOOD DR
W025	TYNES JENENE M &	9999 RIPPLEWOOD DR
W026	TYNES JENENE M &	9999 RIPPLEWOOD DR
W027	TYNES JENENE M &	9999 RIPPLEWOOD DR
W028	MESQUITE CITY OF	4300 LAWSON RD
W029	AYERSDICARO BETH M &	651 OLD LAWSON RD
W030	AYERS RONALD D &	4550 OLD LAWSON RD
W031	TURNER DALE R &	5757 LUMLEY RD
W032	POTTER CEMETERY	5841 LUMLEY RD
W033	MESQUITE CITY OF	5500 LUMLEY RD
W034	MESQUITE CITY OF	15515 IH 20
W035	FLURD CORPORATION	1400 IH 20



LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY APPRAISAL DISTRICTS (JULY 2017).
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAY LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DENIAL LIMITS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL.
6. DIMENSIONS ARE TO EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE MAPS 48113C0530K, 48113C0535K, 48257C0150D, 48257C0155D, 48257C0175D, 48257C0200D, 48257C0185D, AND 48257C0225D.
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.

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Dallas District Engineer
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Dallas District

Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

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CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
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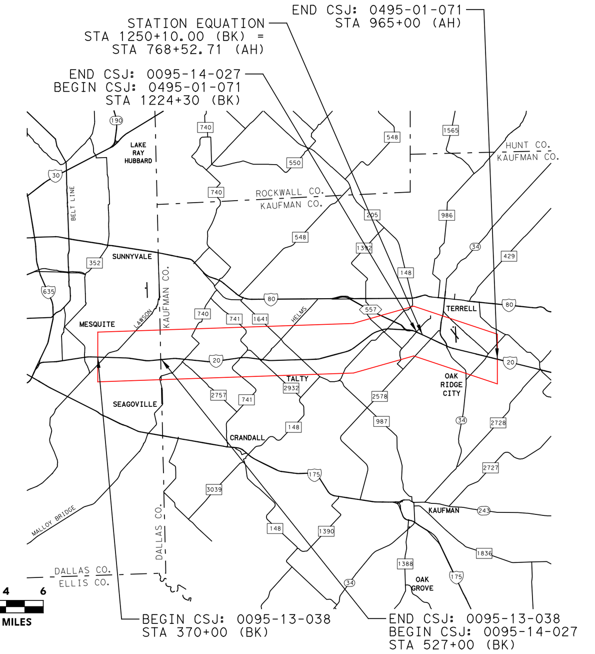
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



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ROLL 2 OF 30

HDR
Firm Registration No. F-754
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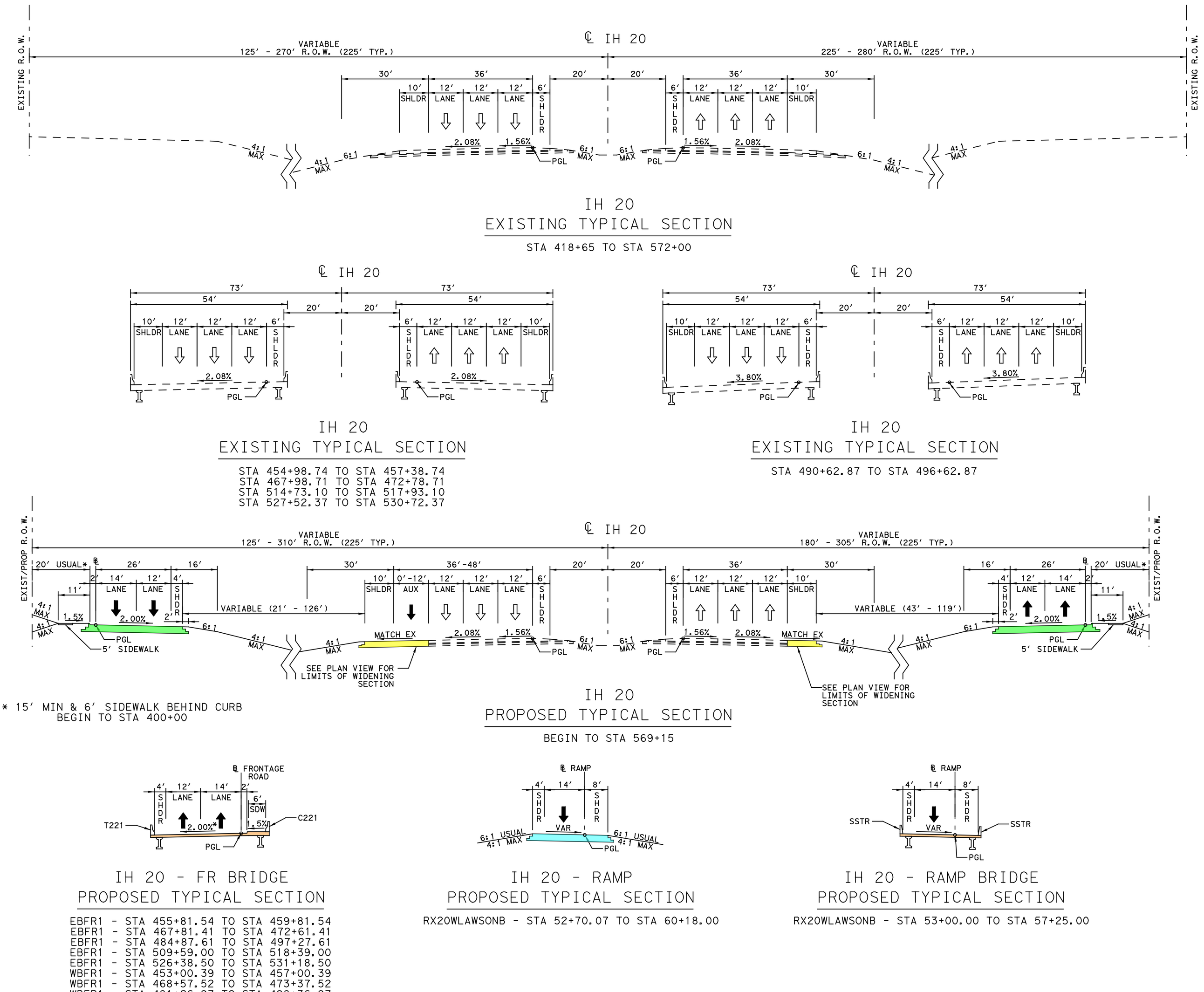


CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-5	12° 45' 41.87" LT	1° 00' 00.00"	640.73'	1,276.16'	5,729.58'	S 80° 41' 21.47" E	N 86° 32' 56.66" E	490+38.77	483+98.04	496+74.20
EBFR1-11	12° 45' 41.87" LT	0° 59' 59.73"	640.78'	1,276.26'	5,730.00'	S 80° 41' 21.47" E	N 86° 32' 56.66" E	488+92.30	482+51.52	495+27.78
WBFR1-7	8° 22' 40.74" RT	0° 30' 28.59"	826.17'	1,649.40'	11,280.00'	S 89° 04' 02.21" E	S 80° 41' 21.47" E	438+28.44	430+02.27	446+51.67
WBFR1-8	12° 45' 41.87" LT	0° 35' 59.84"	1,067.97'	2,127.10'	9,550.00'	S 80° 41' 21.47" E	N 86° 32' 56.66" E	492+61.37	481+93.41	503+20.50
RX20E740B-1	5° 00' 00.00" RT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	N 86° 32' 56.66" E	S 88° 27' 03.34" E	36+48.87	34+00.00	38+97.42
RX20WLAWSONB-1	2° 50' 00.00" LT	5° 27' 24.27"	25.97'	51.92'	1,050.00'	S 80° 41' 21.47" E	S 77° 51' 21.47" E	49+25.97	49+00.00	49+51.92
RX20WLAWSONB-2	2° 50' 00.00" LT	1° 00' 18.68"	140.96'	281.87'	5,700.00'	S 77° 51' 21.47" E	S 80° 41' 21.47" E	67+87.14	66+46.18	69+28.05

SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
2.08%	445+00.00	IH20	445+00.00	-2.08%
2.08%	446+25.00		481+05.00	-2.08%
-2.08%	448+45.00		484+80.00	3.80%
-2.08%	483+70.00		495+50.00	3.80%
-3.80%	484+80.00		499+25.00	-2.08%
-3.80%	496+33.00		535+00.00	-2.08%
-2.08%	497+58.00			
-2.08%	535+00.00			

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	445+00.00	-2.00%	2.00%
	535+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	445+00.00	2.00%	-2.00%
	535+00.00	2.00%	-2.00%

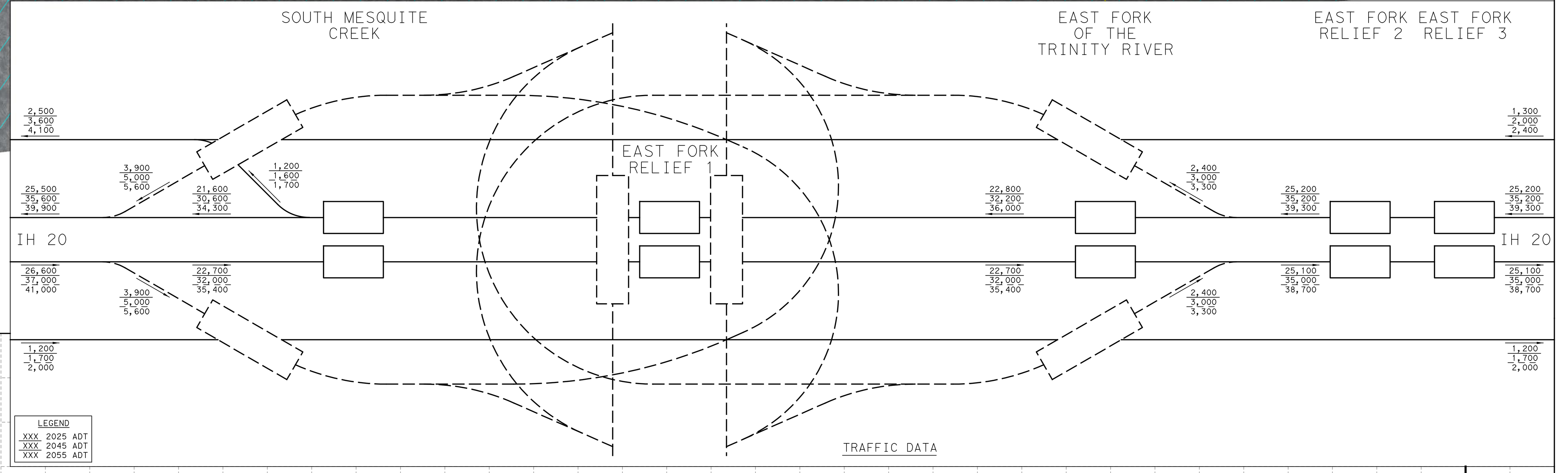
CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20WLAWSONB	52+70.07	2.00%	-2.00%
	59+00.00	2.00%	-2.00%
	60+18.00	-2.08%	2.08%

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
E027	FLURD CORPORATION	1401 IH 20
E028	8975 FARM TO MARKET RD PROP LLC	3000 LAWSON RD
E029	8975 FARM TO MARKET RD PROP LLC	IH 20

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W035	FLURD CORPORATION	1400 IH 20
W036	MESQUITE CITY OF	1150 IH 20
W037	BARREL RANCH LLC	2000 LAWSON RD
W038	BARREL RANCH LLC	CO RD 200
W039	BARREL RANCH LLC	IH 20



LEGEND

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- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY APPRAISAL DISTRICTS (JULY 2017).
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAY LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DENIAL LIMITS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL.
6. DIMENSIONS ARE TO EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE MAPS 48113C0530K, 48113C0535K, 48257C0150D, 48257C0155D, 48257C0175D, 48257C0200D, 48257C0185D, AND 48257C0225D.
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.

Texas Department of Transportation
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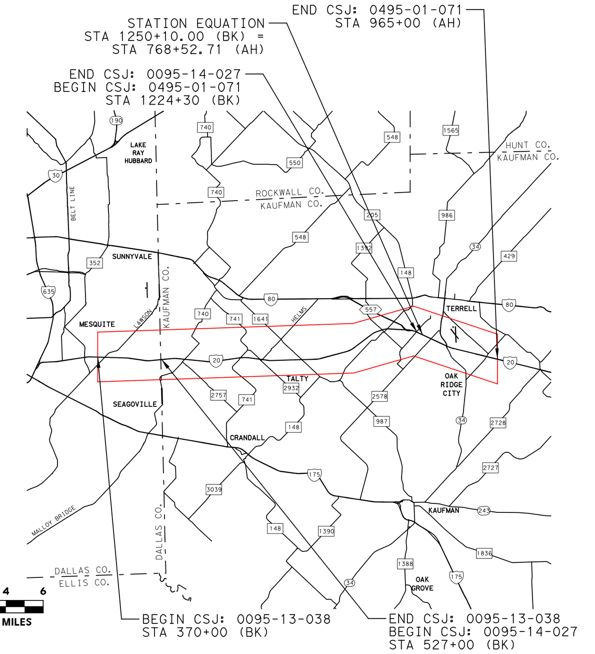
Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Mainlane = Interstate
Frontage Road = Major Collector
Design Speed
Mainlanes: 70 mph
Ramps: 50 mph
Direct Connectors: 40-50 mph
Turnarounds: 15 mph
Frontage Roads: 40 mph (Urban)
SPUR 557 Frontage Road: 30 mph (Urban)
Arterials: 40 mph (Urban)
Collectors: 30 mph (Urban)
Local Street Connector: 20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:
JASON A. RICHTER 114508
ALEXANDER S. KEMP 133019
10/31/2019
100% PRELIMINARY, SUBJECT TO CHANGE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ROLL 2 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation
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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)

STATION EQUATION STA 1250+10.00 (BK) = STA 768+52.71 (AH)
END CSJ: 0495-01-071 STA 965+00 (AH)
END CSJ: 0095-14-027 BEGIN CSJ: 0495-01-071 STA 1224+30 (BK)
BEGIN CSJ: 0095-13-038 STA 370+00 (BK)
END CSJ: 0095-13-038 BEGIN CSJ: 0095-14-027 STA 527+00 (BK)

SCALE IN MILES

Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

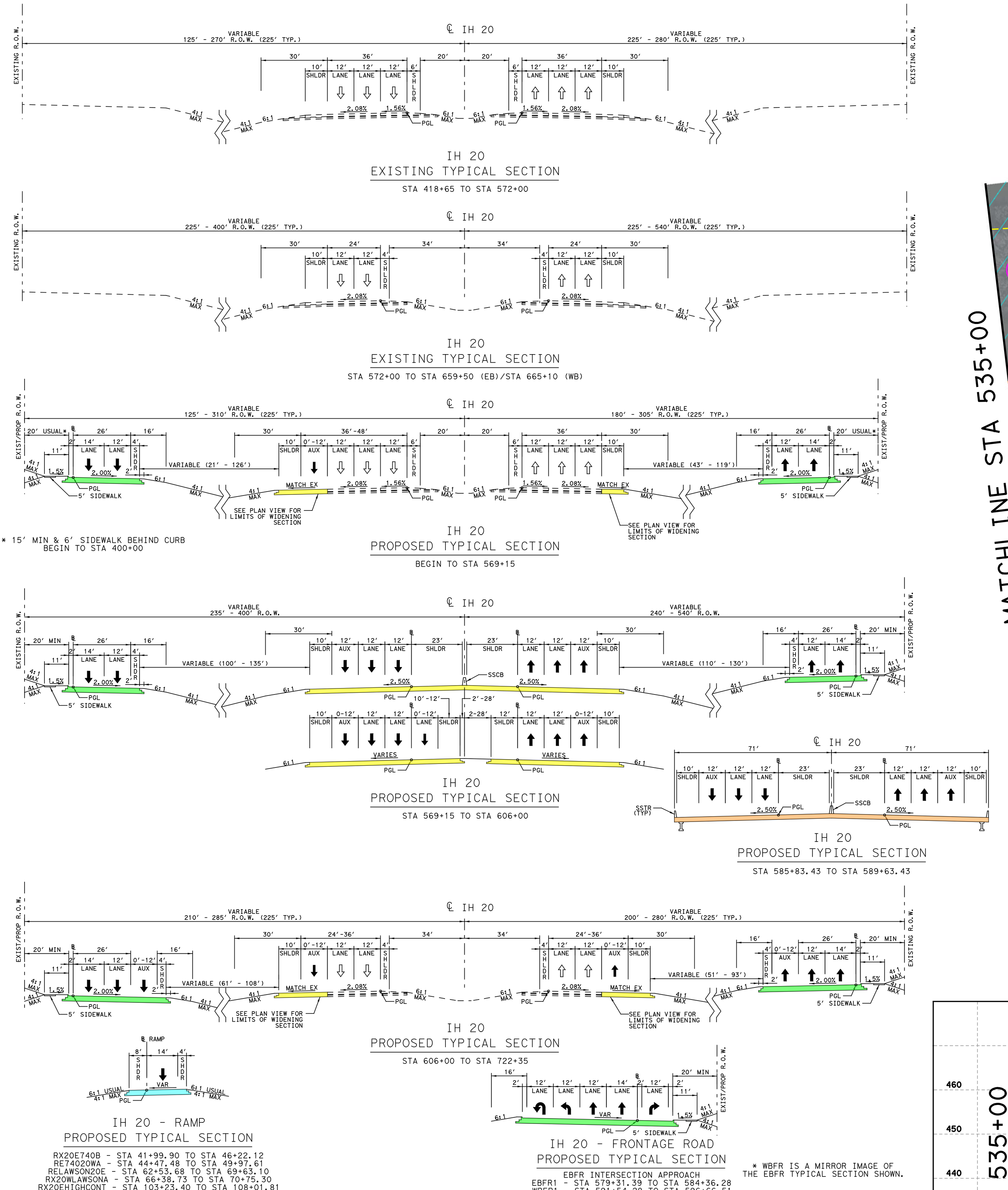
DATE: 10/31/2019

100% PRELIMINARY, SUBJECT TO CHANGE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 3 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400



IH 20 - RAMP
PROPOSED TYPICAL SECTION

RX20E740B - STA 41+99.90 TO STA 46+22.12
RE74020WA - STA 44+47.48 TO STA 49+97.61
RELAWSON20E - STA 62+53.68 TO STA 69+63.10
RX20WLAWSONA - STA 66+38.73 TO STA 70+75.30
RX20EHIGHCONT - STA 103+23.40 TO STA 108+01.81
REHIGHCONT20W - STA 104+86.08 TO STA 110+24.67

IH 20 - FRONTAGE ROAD
PROPOSED TYPICAL SECTION

EBFR INTERSECTION APPROACH
EBFR1 - STA 579+31.39 TO STA 584+36.28
WBFR1 - STA 591+54.28 TO STA 596+66.51

* WBFR IS A MIRROR IMAGE OF THE EBFR TYPICAL SECTION SHOWN.

LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
ROLL 3 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation

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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer

IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Roads	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connectors	20 mph (Urban)

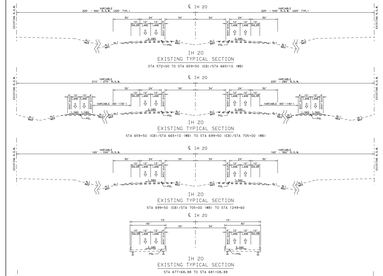
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019

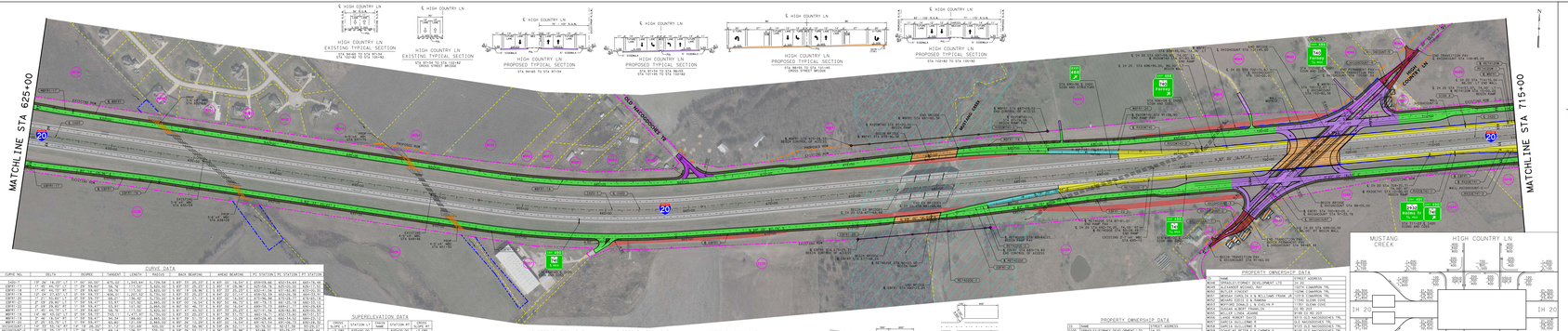
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:
JASON R. BOACHER | 142018 | P.E. NUMBER
ALEXANDER G. KEMP | 139213 | P.E. NUMBER
10/31/2019
DATE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 4 OF 30

100% PRELIMINARY SUBJECT TO CHANGE

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400





CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	P.C. STATION	P.I. STATION	P.T. STATION
CURV1	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	625+00.76	626+58.33	626+17.33
CURV2	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	626+17.33	627+75.90	627+34.90
CURV3	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	627+34.90	628+93.47	628+52.47
CURV4	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	628+52.47	630+11.04	629+70.04
CURV5	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	629+70.04	631+28.61	630+87.61
CURV6	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	630+87.61	632+46.18	632+05.18
CURV7	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	632+05.18	633+63.75	633+22.75
CURV8	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	633+22.75	634+81.32	634+40.32
CURV9	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	634+40.32	635+98.89	635+57.89
CURV10	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	635+57.89	637+16.46	636+75.46
CURV11	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	636+75.46	638+34.03	637+93.03
CURV12	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	637+93.03	639+51.60	639+10.60
CURV13	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	639+10.60	640+69.17	640+28.17
CURV14	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	640+28.17	641+86.74	641+45.74
CURV15	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	641+45.74	643+04.31	642+63.31
CURV16	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	642+63.31	644+21.88	643+80.88
CURV17	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	643+80.88	645+39.45	644+98.45
CURV18	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	644+98.45	646+57.02	646+16.02
CURV19	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	646+16.02	647+74.59	647+33.59
CURV20	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	647+33.59	648+92.16	648+51.16
CURV21	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	648+51.16	650+09.73	649+68.73
CURV22	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	649+68.73	651+27.30	650+86.30
CURV23	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	650+86.30	652+44.87	652+03.87
CURV24	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	652+03.87	653+62.44	653+21.44
CURV25	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	653+21.44	654+80.01	654+39.01
CURV26	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	654+39.01	655+97.58	655+56.58
CURV27	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	655+56.58	657+15.15	656+74.15
CURV28	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	656+74.15	658+32.72	658+31.72
CURV29	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	658+31.72	659+90.29	659+49.29
CURV30	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	659+49.29	661+07.86	660+66.86
CURV31	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	660+66.86	662+25.43	661+84.43
CURV32	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	661+84.43	663+43.00	663+02.00
CURV33	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	663+02.00	664+60.57	664+19.57
CURV34	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	664+19.57	665+78.14	665+37.14
CURV35	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	665+37.14	666+95.71	666+54.71
CURV36	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	666+54.71	668+13.28	667+72.28
CURV37	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	667+72.28	669+30.85	668+89.85
CURV38	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	668+89.85	670+48.42	670+47.42
CURV39	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	670+47.42	672+05.99	671+64.99
CURV40	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	671+64.99	673+23.56	672+82.56
CURV41	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	672+82.56	674+41.13	674+00.13
CURV42	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	674+00.13	675+58.70	675+17.70
CURV43	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	675+17.70	676+76.27	676+35.27
CURV44	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	676+35.27	677+93.84	677+52.84
CURV45	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	677+52.84	679+11.41	678+70.41
CURV46	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	678+70.41	680+28.98	679+87.98
CURV47	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	679+87.98	681+46.55	681+05.55
CURV48	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	681+05.55	682+64.12	682+23.12
CURV49	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	682+23.12	683+81.69	683+40.69
CURV50	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	683+40.69	684+99.26	684+58.26
CURV51	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	684+58.26	686+16.83	685+75.83
CURV52	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	685+75.83	687+34.40	686+93.40
CURV53	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	686+93.40	688+51.97	688+10.97
CURV54	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	688+10.97	689+69.54	689+28.54
CURV55	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	689+28.54	690+87.11	690+46.11
CURV56	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	690+46.11	692+04.68	691+63.68
CURV57	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	691+63.68	693+22.25	692+81.25
CURV58	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	692+81.25	694+39.82	694+38.82
CURV59	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	694+38.82	695+97.39	695+96.39
CURV60	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	695+96.39	697+54.96	697+53.96
CURV61	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	697+53.96	699+12.53	699+11.53
CURV62	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	699+11.53	700+70.10	700+69.10
CURV63	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	700+69.10	702+27.67	702+26.67
CURV64	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	702+26.67	703+85.24	703+84.24
CURV65	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	703+84.24	705+42.81	705+41.81
CURV66	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	705+41.81	706+99.38	706+98.38
CURV67	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	706+98.38	708+56.95	708+55.95
CURV68	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	708+55.95	710+14.52	710+13.52
CURV69	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	710+13.52	711+72.09	711+71.09
CURV70	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	711+71.09	713+29.66	713+28.66
CURV71	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	713+28.66	714+87.23	714+86.23
CURV72	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	714+86.23	716+44.80	716+43.80
CURV73	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	716+43.80	718+02.37	718+01.37
CURV74	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	718+01.37	719+59.94	719+58.94
CURV75	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	719+58.94	721+17.51	721+16.51
CURV76	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	721+16.51	722+75.08	722+74.08
CURV77	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	722+74.08	724+32.65	724+31.65
CURV78	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	724+31.65	725+90.22	725+89.22
CURV79	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	725+89.22	727+47.79	727+46.79
CURV80	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	727+46.79	729+05.36	729+04.36
CURV81	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	729+04.36	730+62.93	730+61.93
CURV82	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	730+61.93	732+20.50	732+19.50
CURV83	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	732+19.50	733+78.07	733+77.07
CURV84	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	733+77.07	735+35.64	735+34.64
CURV85	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	735+34.64	736+93.21	736+92.21
CURV86	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	736+92.21	738+50.78	738+49.78
CURV87	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	738+49.78	740+08.35	740+07.35
CURV88	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	740+07.35	741+65.92	741+64.92
CURV89	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	741+64.92	743+23.49	743+22.49
CURV90	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	743+22.49	744+81.06	744+80.06
CURV91	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	744+80.06	746+38.63	746+37.63
CURV92	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	746+37.63	747+96.20	747+95.20
CURV93	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	747+95.20	749+53.77	749+52.77
CURV94	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	749+52.77	751+11.34	751+10.34
CURV95	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	751+10.34	752+68.91	752+67.91
CURV96	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	752+67.91	754+26.48	754+25.48
CURV97	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	754+25.48	755+84.05	755+83.05
CURV98	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	755+83.05	757+41.62	757+40.62
CURV99	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	757+40.62	758+99.19	758+98.19
CURV100	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	758+98.19	760+56.76	760+55.76
CURV101	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	760+55.76	762+14.33	762+13.33
CURV102	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	762+13.33	763+71.90	763+70.90
CURV103	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	763+70.90	765+29.47	765+28.47
CURV104	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	765+28.47	766+87.04	766+86.04
CURV105	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	766+86.04	768+44.61	768+43.61
CURV106	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	768+43.61	770+02.18	770+01.18
CURV107	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	770+01.18	771+59.75	771+58.75
CURV108	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	771+58.75	773+17.32	773+16.32
CURV109	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	773+16.32	774+74.89	774+73.89
CURV110	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	774+73.89	776+32.46	776+31.46
CURV111	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	776+31.46	777+90.03	777+89.03
CURV112	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	777+89.03	779+47.60	779+46.60
CURV113	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	779+46.60	781+05.17	781+04.17
CURV114	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	781+04.17	782+62.74	782+61.74
CURV115	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	782+61.74	784+20.31	784+19.31
CURV116	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	784+19.31	785+77.88	785+76.88
CURV117	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	785+76.88	787+35.45	787+34.45
CURV118	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	787+34.45	788+93.02	788+92.02
CURV119	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	788+92.02	790+50.59	790+49.59
CURV120	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	790+49.59	792+08.16	792+07.16
CURV121	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	792+07.16	793+65.73	793+64.73
CURV122	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	793+64.73	795+23.30	795+22.30
CURV123	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	795+22.30	796+80.87	796+79.87
CURV124	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	796+79.87	798+38.44	798+37.44
CURV125	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	798+37.44	799+96.01	799+95.01
CURV126	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	799+95.01	801+53.58	801+52.58
CURV127	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	801+52.58	803+11.15	803+10.15
CURV128	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	803+10.15	804+68.72	804+67.72
CURV129	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	804+67.72	806+26.29	806+25.29
CURV130	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	806+25.29	807+83.86	807+82.86
CURV131	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 83° 27' 25.4" E	S 68° 41' 00.0" E	807+82.86	809+41.43	809+40.43
CURV132	14° 46' 25.4"	14° 29' 39.0"	59.76	117.57	4,000.00	S 68° 41' 00.0" E	S 83° 27' 25.4" E	809+40.43	811+00.00	810+99.00

SUPERELEVATION DATA

CURVE	STATION	CROSS SLOPE	STATION	CROSS SLOPE
		2.00%	625+00.00	2.00%
		3.00%	625+50.00	3.00%
		4.00%	625+75.00	4.00%
		5.00%	626+00.00	5.00%
CURV1	626+17.33	5.00%	626+58.33	5.00%
		4.00%	626+83.33	4.00%
		3.00%	627+34.90	3.00%
		2.00%	627+75.90	2.00%

SUPERELEVATION DATA

CURVE	STATION	CROSS SLOPE	STATION	CROSS SLOPE
		2.00%	628+52.47	2.00%
		3.00%	628+77.47	3.00%
		4.00%	629+70.04	4.00%
		5.00%	630+87.61	5.00%
CURV2	627+34.90	5.00%	627+75.90	5.00%
		4.00%	627+84.90	4.00%
		3.00%	628+52.47	3.00%
		2.00%	630+11.04	2.00%

SUPERELEVATION DATA

CURVE	STATION	CROSS SLOPE	STATION	CROSS SLOPE

Texas Department of Transportation

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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer

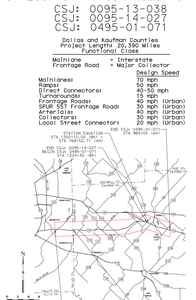
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length 20.390 Miles
Functional Class

Mainlane • Interstate
Frontage Road • Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Roads	30 mph (Urban)
Arterials:	40 mph (Urban)
Cross Streets:	30 mph (Urban)
Local Street Connectors	20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019

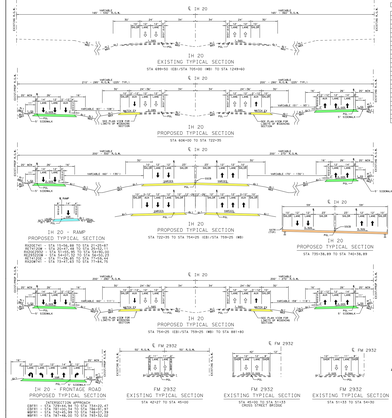
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:
JASON R. BOACHER 14004
PE LICENSE NUMBER
ALEXANDER S. KEMP 139513
PE LICENSE NUMBER
10/31/2019
DATE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

100% PRELIMINARY SUBJECT TO CHANGE

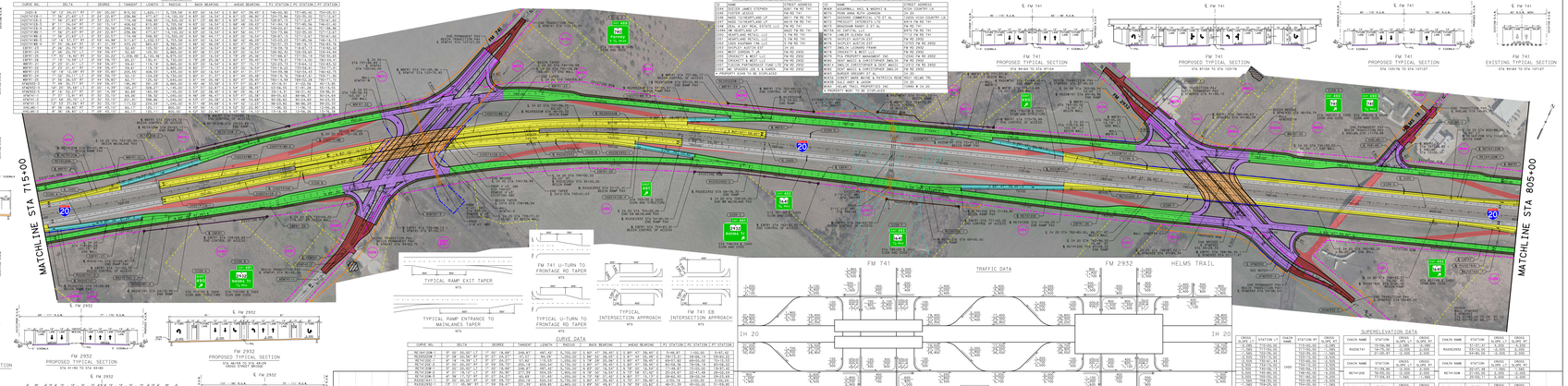
ROLL 5 OF 30

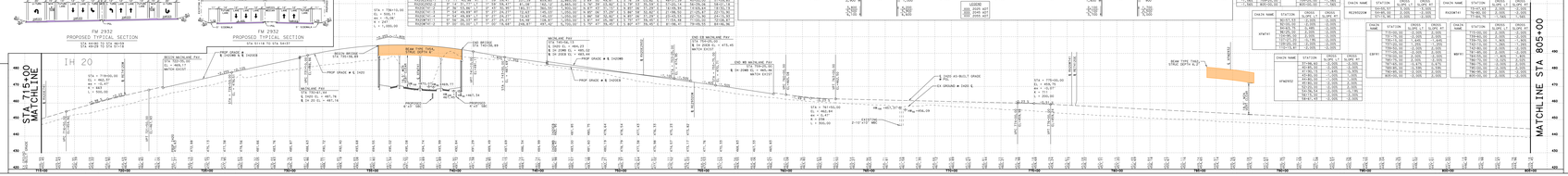
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400



LEGEND
- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- CURB RAMPS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROLLED ACCESS
- PROPOSED DRAINAGE EASEMENT
- PROPOSED TEMP RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES
1. EXISTING FEATURES WERE NOT FIELD-VERIFIED. BASED ON TNRIS ORTHO-ONLY AERIAL SURVEY PROVIDED IN AUGUST 2014 BY TEXAS DEPARTMENT OF TRANSPORTATION.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION WAS OBTAINED FROM DALLAS AND KAUFMAN COUNTY TAX ROLLS AND TXDOT RECORDS.
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAYS, INCLUDING TYPE, LOCATION, AND DIMENSIONS, MAY CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DOCKS LENGTH ARE DETERMINED PER TXDOT DOCK DESIGN STANDARDS.
6. DIMENSIONS AND TYPE OF PAVEMENT OR SIDEWALK REMOVAL ARE ESTIMATED ONLY. WILL VARY UNLESS NOTED OTHERWISE.
7. ROTATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED BEYOND THE PROPOSED RIGHT-OF-WAY/EASEMENT LINES WILL BE REMOVED UNLESS NOTED OTHERWISE.
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II UNLESS NOTED OTHERWISE.
10. APPROVAMBIT FOR YEAR FLOODPLAIN LIMITS ARE BASED ON FEMA FIRM PANELS 48397C0045J, 48397C0055J, 48113C0195J, 48113C0205J, 48397C0035J, 48397C0045J, 48397C0055J, AND 48113C0195J.
11. CONDITIONAL DRAINAGE (SMALL) STUDY AREA NOT SHOWN AND WILL BE DEVELOPED AT THE PDP PHASE OF THE PROJECT.
12. PROJECT DRAINAGE SUB STUDY WILL BE DEVELOPED AT THE PDP PHASE.





Texas Department of Transportation

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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer

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To: East of Wilson Road (CR 138)

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Cross Streets:	30 mph (Urban)
Local Street Connectors	20 mph (Urban)

Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:
JASON R. BOACHER 14004
PE LICENSE NUMBER
ALEXANDER S. KEMP 139513
PE LICENSE NUMBER
10/31/2019
DATE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

100% PRELIMINARY SUBJECT TO CHANGE

ROLL 5 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation

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Dallas District

Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

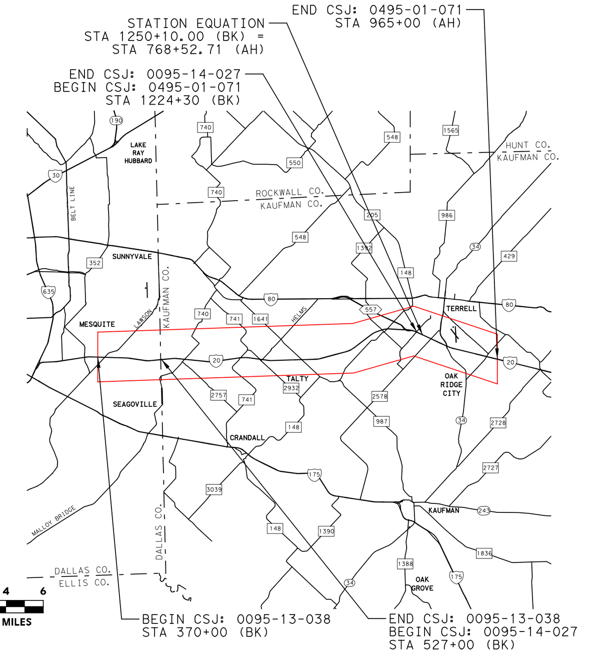
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

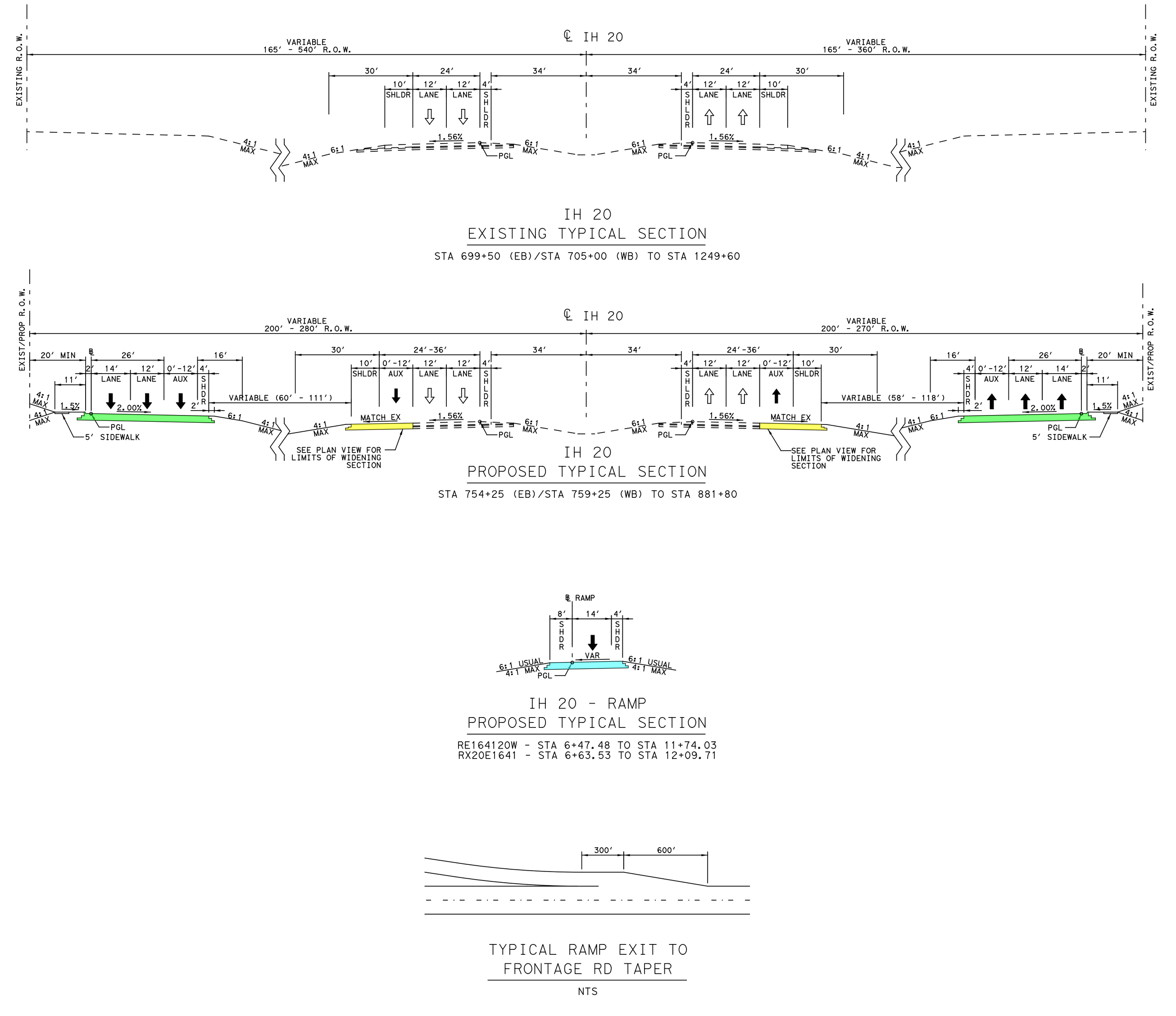
10/31/2019
DATE

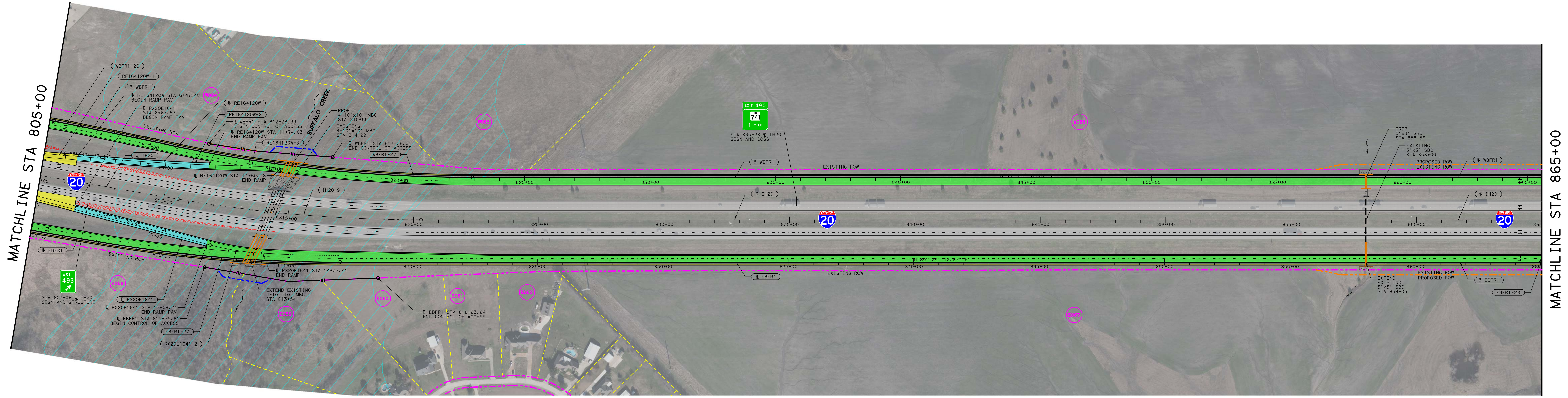
100%
PRELIMINARY, SUBJECT TO CHANGE

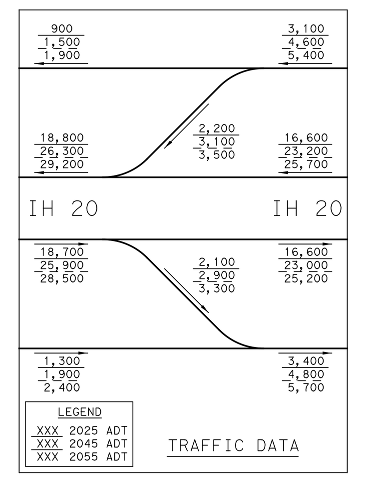
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 6 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400







SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-1.56%	805+00.00	IH20	805+00.00	-1.56%
-1.56%	809+00.00		809+00.00	-1.56%
-3.80%	811+40.00		811+40.00	3.80%
-3.80%	819+55.00		819+55.00	3.80%
-1.56%	821+95.00		821+95.00	-1.56%
-1.56%	865+00.00		865+00.00	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20E1641	6+63.53	1.56%	-1.56%
	7+65.00	-2.00%	2.00%
	12+09.71	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RE164120W	6+47.48	-1.56%	1.56%
	7+50.00	2.00%	-2.00%
	11+74.03	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	805+00.00	-2.00%	2.00%
	865+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	805+00.00	2.00%	-2.00%
	865+00.00	2.00%	-2.00%

CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-9	9° 43' 07.68" LT	1° 00' 00.00"	487.11'	971.88'	5,729.58'	S 80° 47' 39.45" E	N 89° 29' 12.87" E	815+45.49	810+58.38	820+30.26
EBFR1-27	9° 43' 07.68" LT	0° 59' 59.73"	487.14'	971.95'	5,730.00'	S 80° 47' 39.45" E	N 89° 29' 12.87" E	812+28.32	807+41.18	817+13.13
EBFR1-28	1° 02' 22.23" RT	0° 59' 59.73"	51.98'	103.96'	5,730.00'	N 89° 29' 12.87" E	S 89° 28' 24.89" E	865+52.96	865+00.97	866+04.93
WBFR1-26	2° 08' 13.70" RT	1° 59' 59.47"	53.44'	106.86'	2,865.00'	S 80° 47' 39.45" E	S 78° 39' 25.75" E	806+61.07	806+07.63	807+14.50
WBFR1-27	11° 51' 21.38" LT	0° 59' 59.73"	594.97'	1,185.68'	5,730.00'	S 78° 39' 25.75" E	N 89° 29' 12.87" E	817+02.45	811+07.49	822+93.17
RE164120W-1	5° 00' 00.00" LT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	S 80° 47' 39.45" E	S 85° 47' 39.45" E	3+48.87	1+00.00	5+97.42
RE164120W-2	3° 53' 55.81" LT	0° 43' 30.95"	268.89'	537.58'	7,900.00'	S 85° 47' 39.45" E	S 89° 41' 35.26" E	10+66.31	7+97.42	13+34.99
RE164120W-3	6° 49' 51.71" RT	5° 27' 24.27"	62.67'	125.19'	1,050.00'	S 89° 41' 35.26" E	S 82° 51' 43.55" E	13+97.66	13+34.99	14+60.18
RX20E1641-2	11° 37' 26.96" LT	5° 27' 24.27"	106.88'	213.02'	1,050.00'	S 75° 47' 39.45" E	S 87° 25' 06.40" E	13+31.26	12+24.38	14+37.41

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
E058	MC SPADDEN JOE E & KAREN	FM RD 2932
E059	CRAIG DONALD RAY & AUDREY ANN	12424 MUSTANG CIR
E060	SHERRELL STEVE	12400 MUSTANG CIR
E061	HURD DORIS	12382 MUSTANG CIR
E062	CASTILLO TEODORO & GOMEZ MARIA E	12356 MUSTANG CIR
E063	MAHER PROPERTIES ONE	IH 20

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W084	HELMS TRAIL PROPERTIES INC	10990 W IH 20
W085	MONROE DORIS D & MONROE JAMES B	IH 20
W086	WHALEY HELEN M	IH 20

LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY APPRAISAL DISTRICTS (JULY 2017).
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAY LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DENIAL LIMITS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL.
6. DIMENSIONS ARE TO EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE MAPS 48113C0530K, 48113C0535K, 48257C0150D, 48257C0155D, 48257C0175D, 48257C0200D, 48257C0185D, AND 48257C0225D.
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.

Texas Department of Transportation
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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
ROLL 6 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation

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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

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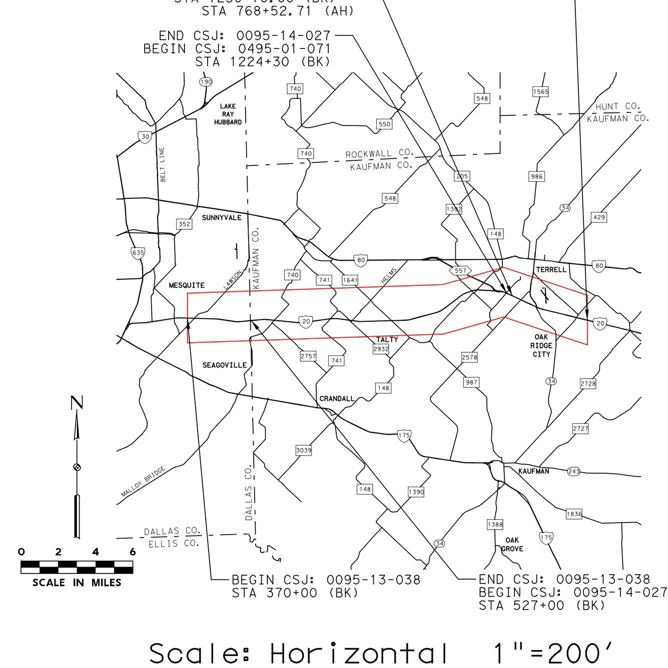
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

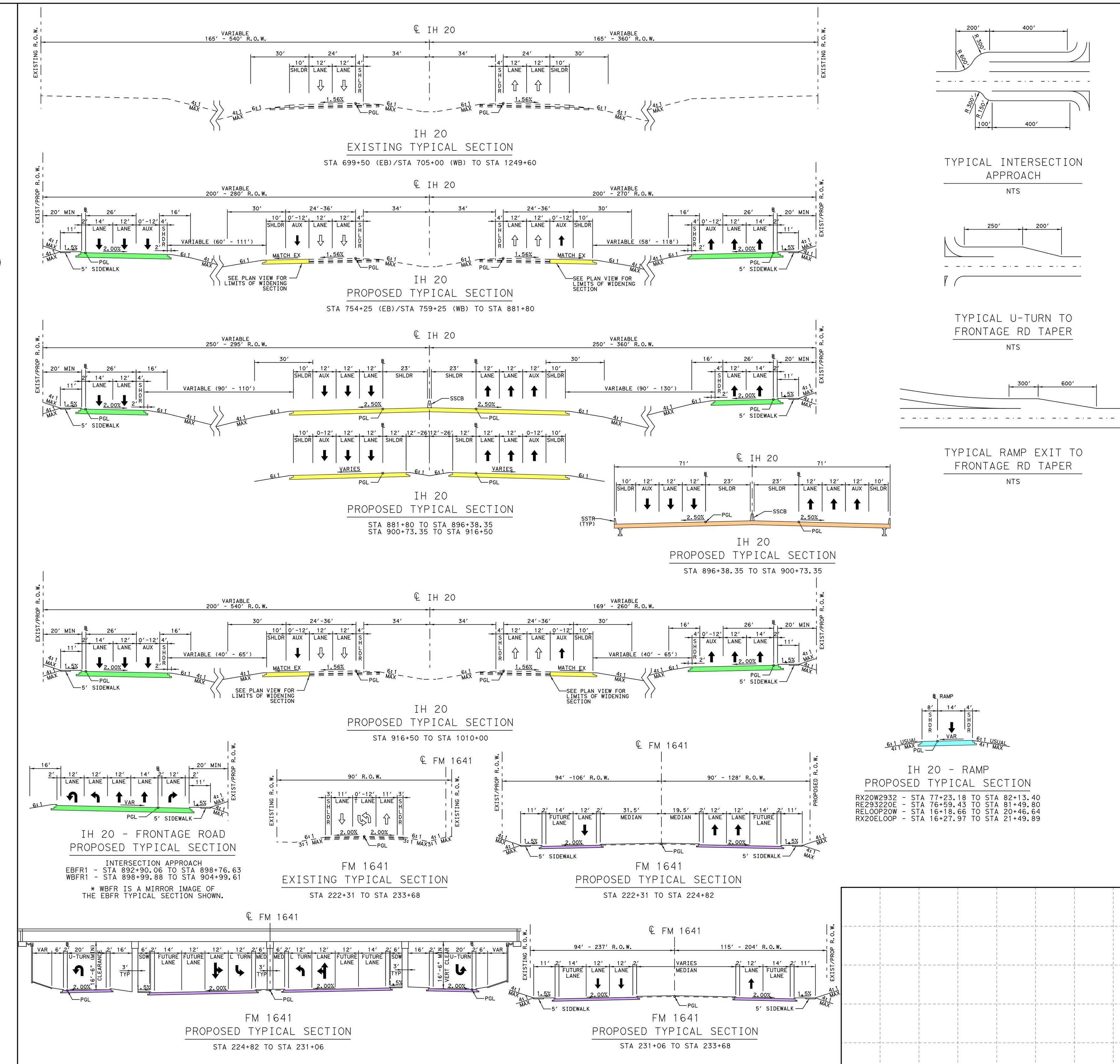
10/31/2019
DATE

100% PRELIMINARY, SUBJECT TO CHANGE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 7 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400



LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
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11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
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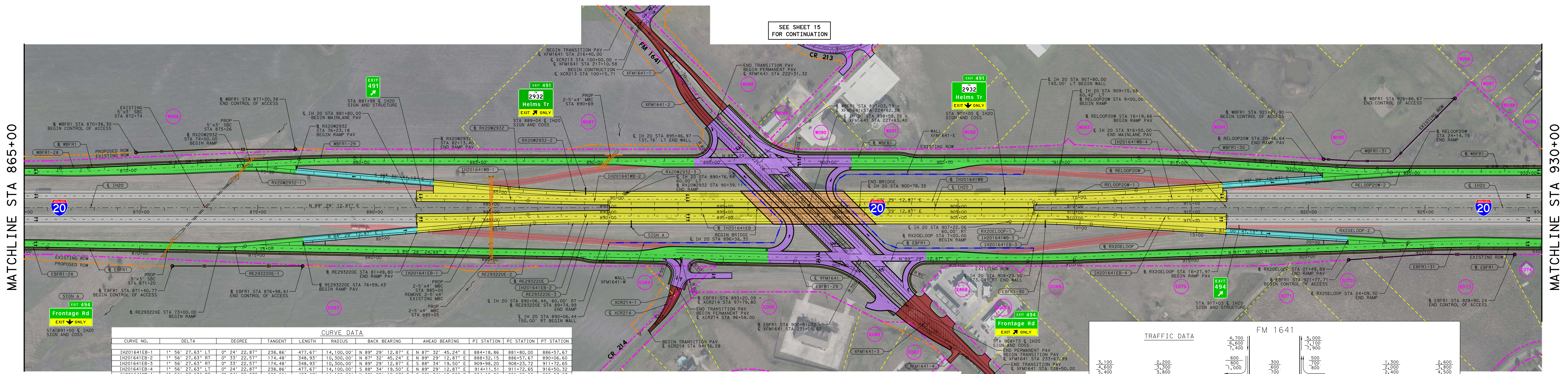
SEE SHEET 15 FOR CONTINUATION



CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH201641EB-1	1° 56' 27.63" LT	0° 24' 22.87"	238.86'	477.67'	14,100.00'	N 89° 29' 12.87" E	N 87° 32' 45.24" E	884+18.86	881+80.00	886+57.67
IH201641EB-2	1° 56' 27.63" RT	0° 33' 22.57"	174.48'	348.93'	10,300.00'	N 87° 32' 45.24" E	N 89° 29' 12.87" E	888+32.15	886+57.67	890+06.60
IH201641EB-3	1° 56' 27.63" RT	0° 33' 22.57"	174.48'	348.93'	10,300.00'	N 89° 29' 12.87" E	S 88° 34' 19.50" E	909+98.20	908+23.72	911+72.65
IH201641EB-4	1° 56' 27.63" LT	0° 24' 22.87"	238.86'	477.67'	14,100.00'	S 88° 34' 19.50" E	N 89° 29' 12.87" E	914+11.51	911+72.65	916+50.32
IH201641WB-1	1° 56' 27.63" RT	0° 24' 22.87"	238.86'	477.67'	14,100.00'	N 89° 29' 12.87" E	S 88° 34' 19.50" E	884+18.86	881+80.00	886+57.67
IH201641WB-2	1° 56' 27.63" LT	0° 33' 22.57"	174.48'	348.93'	10,300.00'	S 88° 34' 19.50" E	N 89° 29' 12.87" E	888+32.15	886+57.67	890+06.60
IH201641WB-3	1° 56' 27.63" LT	0° 33' 22.57"	174.48'	348.93'	10,300.00'	N 89° 29' 12.87" E	N 87° 32' 45.24" E	909+98.20	908+23.72	911+72.65
IH201641WB-4	1° 56' 27.63" RT	0° 24' 22.87"	238.86'	477.67'	14,100.00'	N 87° 32' 45.24" E	N 89° 29' 12.87" E	914+11.51	911+72.65	916+50.32
EBFR1-28	1° 02' 22.23" RT	0° 59' 59.73"	51.98'	103.96'	5,730.00'	N 89° 29' 12.87" E	S 89° 28' 24.89" E	865+52.96	865+00.97	866+04.93
EBFR1-29	1° 02' 22.23" LT	0° 59' 59.73"	51.98'	103.96'	5,730.00'	S 89° 28' 24.89" E	N 89° 29' 12.87" E	898+60.22	898+08.24	899+12.20
EBFR1-30	1° 59' 11.96" LT	0° 59' 59.73"	99.35'	198.68'	5,730.00'	N 89° 29' 12.87" E	N 87° 30' 00.91" E	909+04.50	908+05.15	910+03.83
EBFR1-31	1° 59' 11.96" RT	0° 59' 59.73"	99.35'	198.68'	5,730.00'	N 87° 30' 00.91" E	N 89° 29' 12.87" E	926+35.26	925+35.91	927+34.59
WBFR1-28	2° 23' 04.23" LT	1° 59' 59.47"	59.63'	119.23'	2,865.00'	N 89° 29' 12.87" E	N 87° 06' 08.64" E	867+72.13	867+12.51	868+31.74
WBFR1-29	2° 23' 04.23" RT	0° 59' 59.73"	119.25'	238.47'	5,730.00'	N 87° 06' 08.64" E	N 89° 29' 12.87" E	878+53.70	877+34.45	879+72.92
WBFR1-30	3° 27' 35.64" RT	0° 59' 59.73"	173.06'	346.02'	5,730.00'	N 89° 29' 12.87" E	S 87° 03' 11.49" E	915+05.49	913+32.43	916+78.45
WBFR1-31	3° 27' 35.64" LT	1° 59' 59.47"	86.53'	173.01'	2,865.00'	S 87° 03' 11.49" E	N 89° 29' 12.87" E	922+67.61	921+81.08	923+54.09
XCR214-1	45° 43' 32.31" LT	16° 51' 06.12"	143.36'	271.34'	340.00'	N 45° 12' 45.19" E	N 0° 30' 47.12" W	96+51.43	95+08.07	97+79.41
XFM1641-1	11° 58' 38.10" RT	5° 00' 14.39"	120.11'	239.35'	1,145.00'	S 45° 54' 07.06" E	S 33° 55' 28.96" E	218+91.50	217+71.38	220+10.74
XFM1641-2	11° 32' 56.99" LT	5° 00' 14.39"	115.79'	230.80'	1,145.00'	S 33° 55' 28.96" E	S 45° 28' 25.95" E	221+26.53	220+10.74	222+41.54
XFM1641-3	8° 45' 00.00" LT	5° 00' 14.39"	87.60'	174.86'	1,145.00'	S 45° 28' 25.95" E	S 54° 13' 25.95" E	234+58.03	233+70.43	235+45.29
XFM1641-4	8° 45' 00.00" RT	5° 00' 14.39"	87.60'	174.86'	1,145.00'	S 54° 13' 25.95" E	S 45° 28' 25.95" E	236+32.89	235+45.29	237+20.15
RE293220E-1	6° 02' 22.23" RT	5° 27' 24.27"	55.39'	110.68'	1,050.00'	S 89° 28' 24.89" E	N 84° 29' 12.87" E	73+55.39	73+00.00	74+10.68
RE293220E-2	3° 12' 33.18" RT	1° 00' 18.68"	159.67'	319.26'	5,700.00'	N 84° 29' 12.87" E	N 87° 41' 46.05" E	84+94.59	83+34.92	86+54.18
RE293220E-3	1° 47' 26.82" RT	0° 33' 29.59"	160.41'	320.80'	10,264.00'	N 87° 41' 46.05" E	N 89° 29' 12.87" E	88+14.60	86+54.18	89+74.99
RELOOP20W-1	3° 29' 02.60" LT	1° 00' 18.68"	173.36'	346.61'	5,700.00'	N 88° 58' 15.48" E	N 85° 29' 12.87" E	10+73.36	9+00.00	12+46.61
RELOOP20W-2	4° 00' 00.00" RT	5° 27' 24.27"	36.67'	73.30'	1,050.00'	N 85° 29' 12.87" E	N 89° 29' 12.87" E	23+78.12	23+41.45	24+14.75
RX20ELOOP-1	3° 30' 00.00" RT	1° 00' 18.68"	174.15'	348.19'	5,700.00'	N 89° 29' 12.87" E	S 87° 00' 47.13" E	8+74.15	7+00.00	10+48.19
RX20ELOOP-2	5° 29' 11.96" LT	5° 27' 24.27"	50.31'	100.55'	1,050.00'	S 87° 00' 47.13" E	N 87° 30' 00.91" E	23+59.07	23+08.76	24+09.30
RX20W2932-1	7° 23' 04.23" RT	5° 27' 24.27"	67.76'	135.33'	1,050.00'	N 87° 06' 08.64" E	S 85° 30' 47.13" E	74+67.76	74+00.00	75+35.33
RX20W2932-2	4° 57' 49.32" LT	1° 00' 18.68"	247.06'	493.81'	5,700.00'	S 85° 30' 47.13" E	N 89° 31' 23.56" E	87+85.86	85+38.80	90+32.61
RX20W2932-3	0° 02' 10.68" LT	0° 33' 29.60"	3.25'	6.50'	10,264.00'	N 89° 31' 23.56" E	N 89° 29' 12.87" E	90+35.86	90+32.61	90+39.11

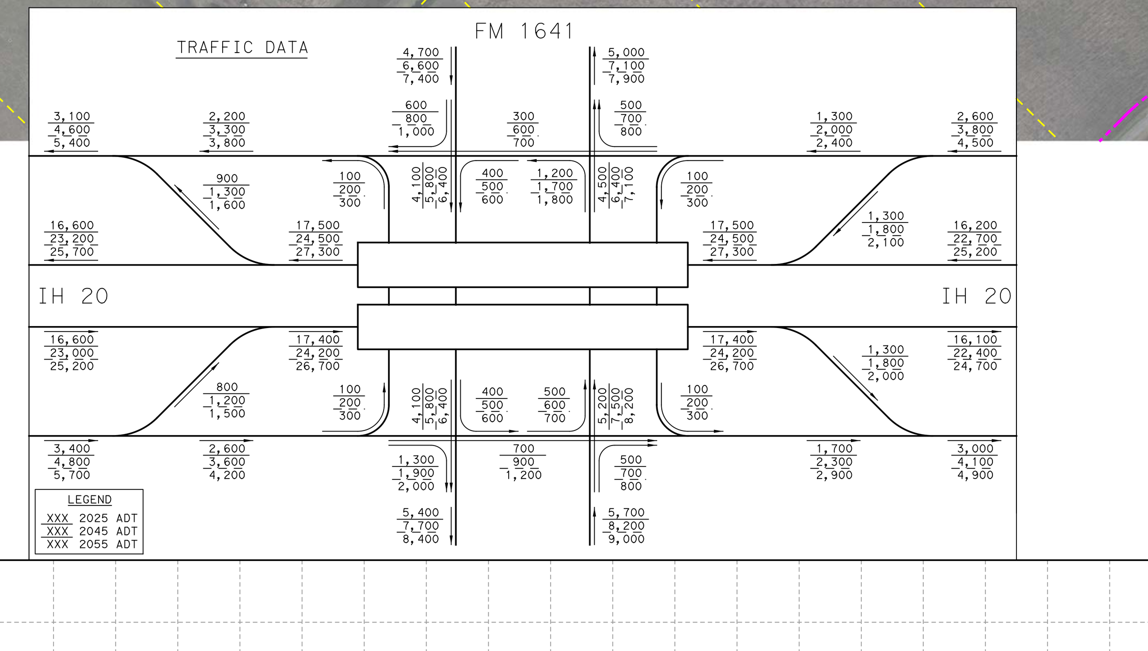
PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
E063	MAHER PROPERTIES ONE	IH 20
E064	MAHER PROPERTIES ONE	IH 20
E065	NEW LIFE FELLOWSHIP CHURCH	FM RD 1641
E066	CHAVEZ DANNY	FM RD 1641
E067	RODRIGUEZ RAUL & HERENDIDA	1443 W ALAMOSA DR
E068	TATCO PROPERTIES LLC	9520 FM RD 1641
E068A	ALMO INVESTMENT LTD	9680 FM RD 1641
E069	ALMO INVESTMENT LTD	FM RD 1641
E070	ALMO INVESTMENT LTD	FM RD 1641
E071	LAW GARY Z & JUDY	9197 CO RD 216
E072	MYERS DONNA MAE	CO RD 216
E073	CORONA ANSELMO	CO RD 216
E074	FUHRMAN SCOTT	9271 CO RD 216

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W086	WHALEY HELEN M	IH 20
W087	WHALEY HELEN M	IH 20
W088	GMC LLC	FM RD 1641
W089	ST MARTIN CATHOLIC CHURCH	9772 FM RD 1641
W090	ST MARTIN CATHOLIC CHURCH	9470 CO RD 213
W091	ROMAN CATHOLIC DIOCESE DALLAS	CO RD 213
W092	CROSSROADS BIBLE CHURCH	IH 20
W093	CROSSROADS BIBLE CHURCH	9664 CO RD 213
W094	STEPHENS PATRICIA ANN	CO RD 213
W095	THOMAS PHILIP & MYRA	CO RD 213
W096	JOHNSON CLYDE & PAULA	15248 DELANEY LN
W097	SHEPHERD PLACE HOMES INC	15260 DELANEY LN
W098	PAAUWE ENGELBERTUS J & ELIZABETH A	15272 DELANEY LN
W099	PAYTON ERIC D & LATOYA C PAYTON	15284 DELANEY LN

TRAFFIC DATA



SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-1.56%	865+00.00	IH20	865+00.00	-1.56%
-1.56%	881+80.00		881+80.00	-1.56%
-2.50%	882+40.00		882+40.00	-2.50%
-2.50%	915+90.00		915+90.00	-2.50%
-1.56%	916+50.00		916+50.00	-1.56%
-1.56%	930+00.00		930+00.00	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RE293220E	76+59.43	-2.00%	2.00%
	80+45.00	-2.00%	2.00%
	81+49.80	1.60%	-1.60%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20ELOOP	16+27.97	1.56%	-1.56%
	17+30.00	-2.00%	2.00%
	21+49.89	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20W2932	76+23.18	2.00%	-2.00%
	80+85.00	2.00%	-2.00%
	82+13.40	-2.50%	2.50%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RELOOP20W	16+18.66	-1.82%	1.82%
	17+30.00	2.00%	-2.00%
	20+46.64	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	865+00.00	-2.00%	2.00%
	898+85.00	-2.00%	2.00%
	899+60.00	-1.00%	1.00%
	901+85.00	-1.00%	1.00%
	902+60.00	-2.00%	2.00%
	930+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	865+00.00	2.00%	-2.00%
	894+20.00	2.00%	-2.00%
	896+10.00	-0.67%	0.67%
	898+35.00	-0.28%	0.28%
	900+00.00	2.00%	-2.00%
	930+00.00	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
XFM1641	216+39.52	-2.00%	-2.00%
	219+60.00	-2.00%	-2.00%
	222+31.32	-2.00%	0.55%
	223+85.00	-2.00%	2.00%
	232+05.00	-2.00%	2.00%
	233+67.99	-2.00%	0.47%
	236+30.00	-2.00%	-2.00%
	238+48.65	-2.00%	-2.00%

Texas Department of Transportation
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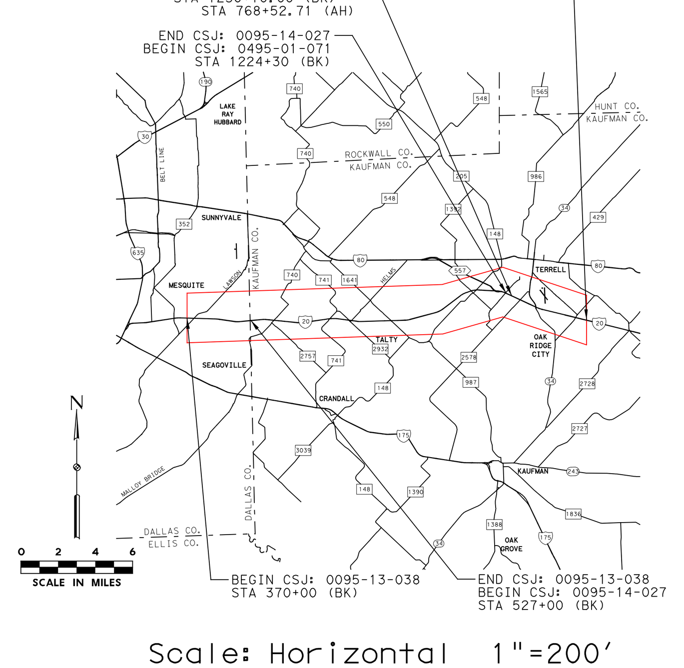
Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Mainlane = Interstate
Frontage Road = Major Collector
Design Speed
Mainlanes: 70 mph
Ramps: 50 mph
Direct Connectors: 40-50 mph
Turnarounds: 15 mph
Frontage Roads: 40 mph (Urban)
SPUR 557 Frontage Road: 30 mph (Urban)
Arterials: 40 mph (Urban)
Collectors: 30 mph (Urban)
Local Street Connector: 20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:
JASON A. RICHTER 114508
ALEXANDER S. KEMP 133019
10/31/2019
100% PRELIMINARY, SUBJECT TO CHANGE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ROLL 7 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

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Dallas District

Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20
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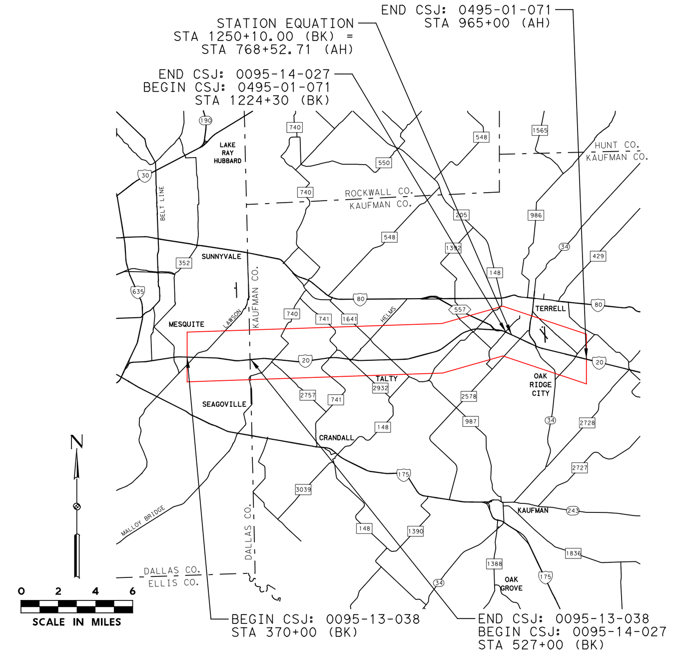
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



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OCTOBER 2019

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JASON A. RICHTER	114508
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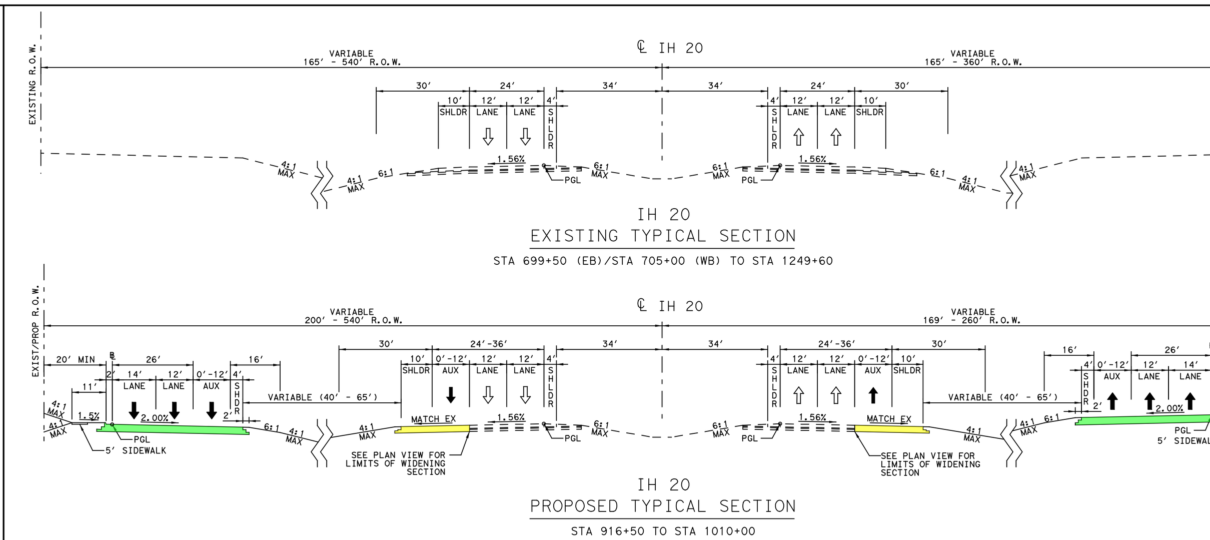
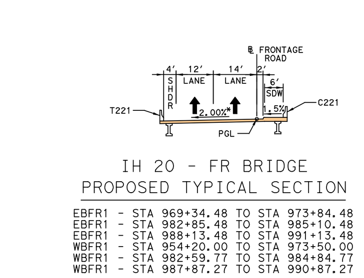
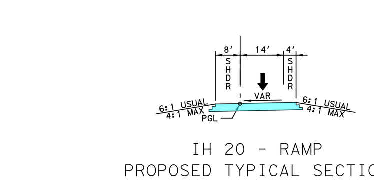
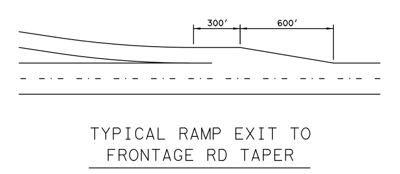
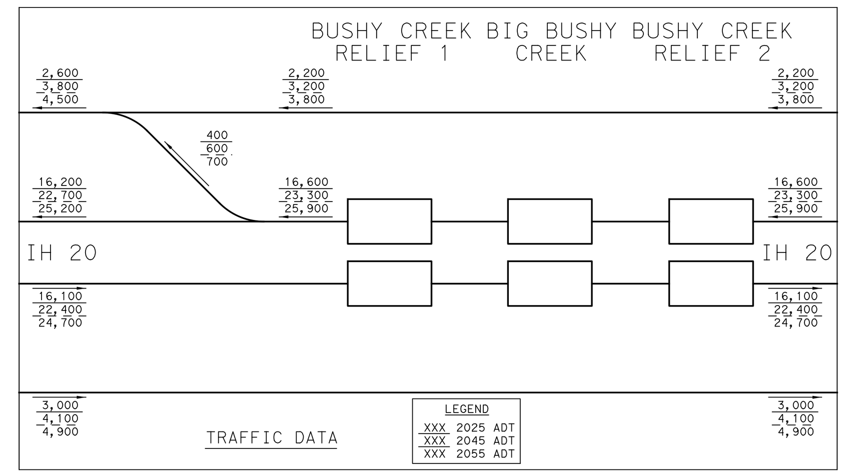








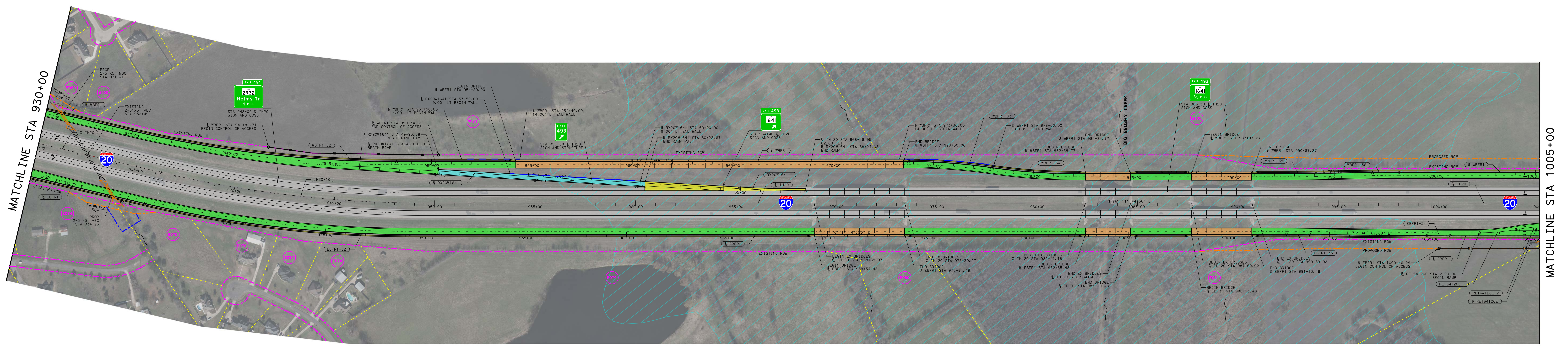


LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY APPRAISAL DISTRICTS (JULY 2017).
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAY LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DENIAL LIMITS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL.
6. DIMENSIONS ARE TO EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE MAPS 48113C0530K, 48113C0535K, 48257C0150D, 48257C0155D, 48257C0175D, 48257C0200D, 48257C0185D, AND 48257C0225D.
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.



CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-10	13° 17' 28.37" LT	1° 00' 00.00"	667.56'	1,329.12'	5,729.58'	N 89° 29' 12.87" E	N 76° 11' 44.50" E	942+89.94	936+22.39	949+51.51
EBFR1-32	13° 17' 28.37" LT	0° 59' 59.73"	667.61'	1,329.22'	5,730.00'	N 89° 29' 12.87" E	N 76° 11' 44.50" E	942+59.66	935+92.06	949+21.28
EBFR1-33	0° 34' 22.58" RT	0° 29' 59.87"	57.30'	114.60'	11,460.00'	N 76° 11' 44.50" E	N 76° 46' 07.08" E	993+44.32	992+87.02	994+01.62
EBFR1-34	0° 34' 22.58" LT	0° 29' 59.87"	57.30'	114.60'	11,460.00'	N 76° 46' 07.08" E	N 76° 11' 44.50" E	1000+44.36	999+87.06	1001+01.65
WBFR1-32	13° 17' 28.37" LT	0° 59' 59.73"	667.61'	1,329.22'	5,730.00'	N 89° 29' 12.87" E	N 76° 11' 44.50" E	941+64.18	934+96.57	948+25.79
WBFR1-33	8° 17' 55.70" RT	1° 59' 59.47"	207.85'	414.97'	2,865.00'	N 76° 11' 44.50" E	N 84° 29' 40.21" E	975+83.72	973+75.87	977+90.84
WBFR1-34	8° 17' 55.70" LT	1° 59' 59.47"	207.85'	414.97'	2,865.00'	N 84° 29' 40.21" E	N 76° 11' 44.50" E	979+98.69	977+90.84	982+05.81
WBFR1-35	0° 58' 27.88" LT	0° 44' 59.80"	64.97'	129.93'	7,640.00'	N 76° 11' 44.50" E	N 75° 13' 16.62" E	993+42.14	992+77.18	994+07.11
WBFR1-36	0° 58' 27.88" RT	0° 44' 59.80"	64.97'	129.93'	7,640.00'	N 75° 13' 16.62" E	N 76° 11' 44.50" E	997+53.76	996+88.80	998+18.73
RE164120E-1	10° 00' 54.42" LT	5° 27' 24.27"	92.00'	183.54'	1,050.00'	N 76° 11' 44.50" E	N 66° 10' 50.08" E	2+92.00	2+00.00	3+83.54
RE164120E-2	10° 00' 54.42" LT	5° 27' 24.27"	92.00'	183.54'	1,050.00'	N 66° 10' 50.08" E	N 76° 11' 44.50" E	4+75.54	3+83.54	5+67.07
RX20W1641-1	3° 20' 28.10" LT	1° 00' 18.68"	166.24'	332.39'	5,700.00'	N 79° 32' 12.60" E	N 76° 11' 44.50" E	66+57.93	64+91.69	68+24.08

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
E074	FUHRMAN SCOTT	9271 CO RD 216
E075	F & H BUILDERS LLC	9101 CLEAVER LN
E076	MC CRACKEN LEONARD C & GINA S	9050 CLEAVER LN
E077	BRAZILE MARY H ET AL	9004 CLEAVER LN
E078	SLUDER ROLAND D JR & KELLY A	8976 CLEAVER LN
E079	HAVEN ROBERT & JENNIFER	8700 CLEAVER LN
E080	HAVEN ROBERT & JENNIFER	IH 20
E081	AP DUPONT LIMITED PARTNERSHIP	IH 20

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W099	PAYTON ERIC D & LATOYA C PAYTON	15284 DELANEY LN
W100	NEXXUS HOMES INC	19000 BAILEY LN
W101	PAGE RALPH SR ESTATE	9445 CO RD 213A
W102	AP DUPONT LIMITED PARTNERSHIP	CO RD 305

SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-1.56%	930+00.00	IH20	930+00.00	-1.56%
-1.56%	934+60.00		934+60.00	-1.56%
-3.80%	937+00.00		937+00.00	3.80%
-3.80%	948+70.00		948+70.00	3.80%
-1.56%	951+10.00		951+10.00	-1.56%
-1.56%	1005+00.00		1005+00.00	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20W1641	49+93.58	2.00%	-2.00%
	59+20.00	2.00%	-2.00%
	60+22.67	-1.56%	1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	930+00.00	-2.00%	2.00%
	1005+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	930+00.00	2.00%	-2.00%
	1005+00.00	2.00%	-2.00%

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Project Length: 20.390 Miles
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Frontage Road = Major Collector
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Direct Connectors: 40-50 mph
Turnarounds: 15 mph
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Collectors: 30 mph (Urban)
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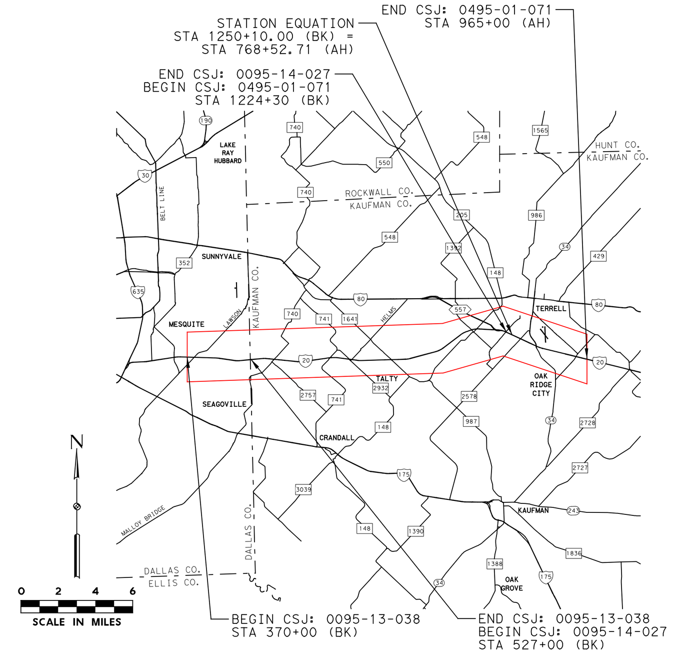

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ALEXANDER S. KEMP 133019
NAME P.E. NUMBER
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Frontage Roads:	40 mph (Urban)
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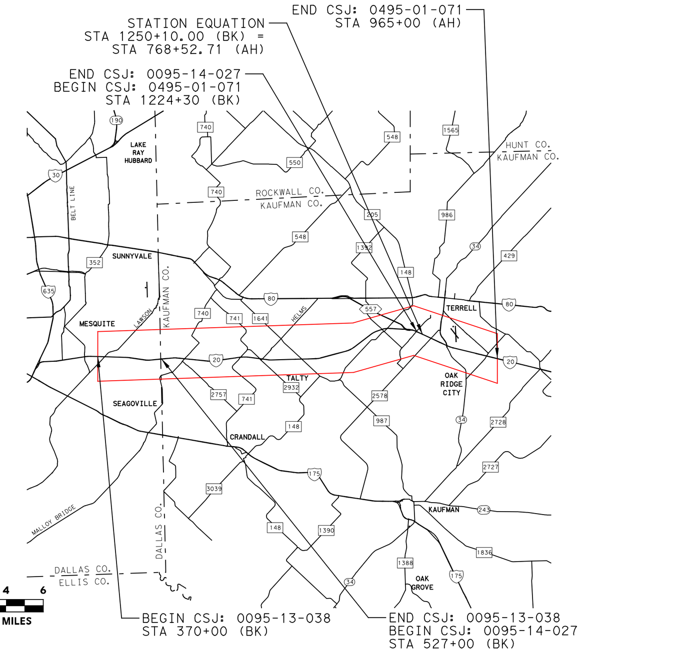

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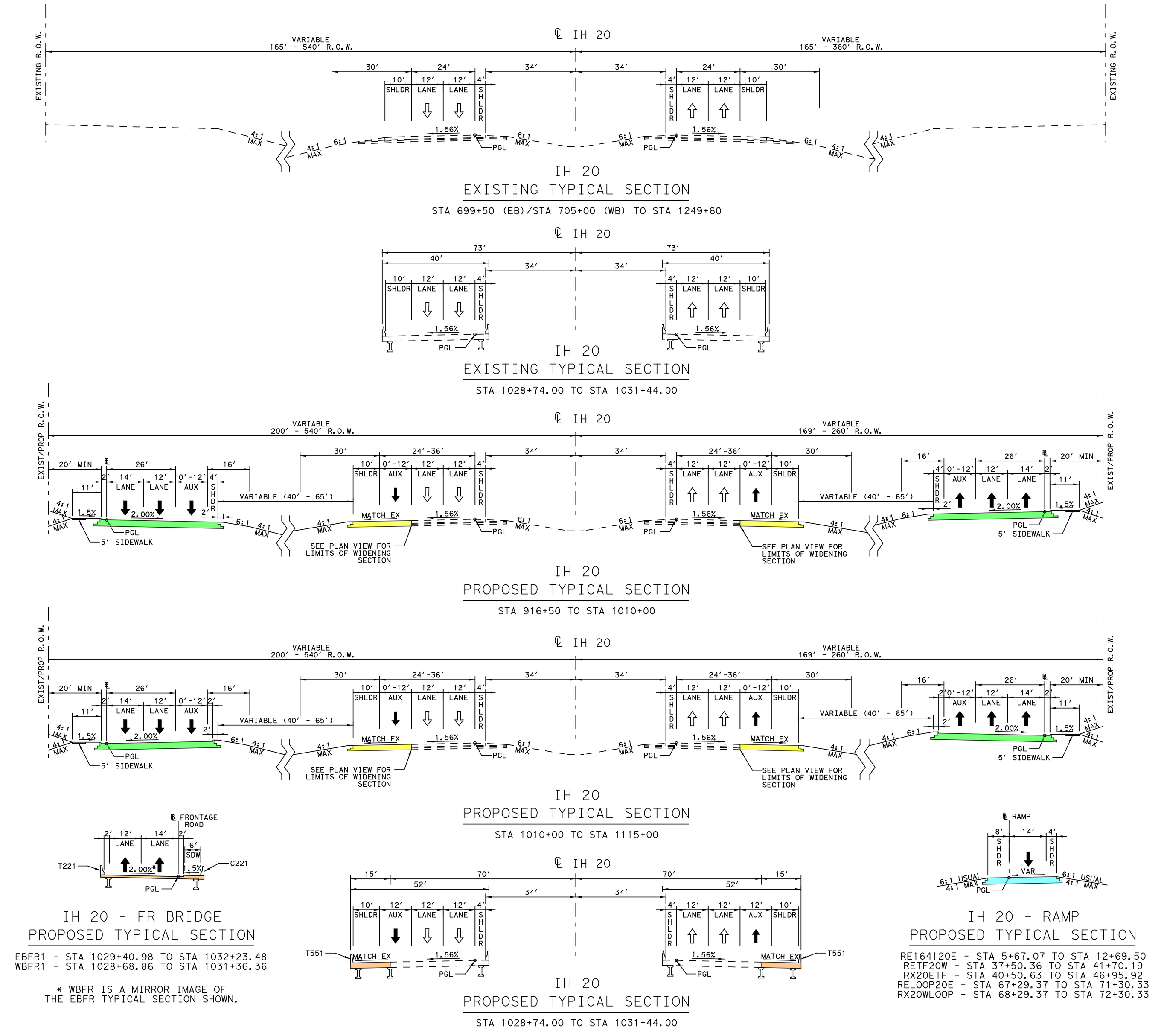

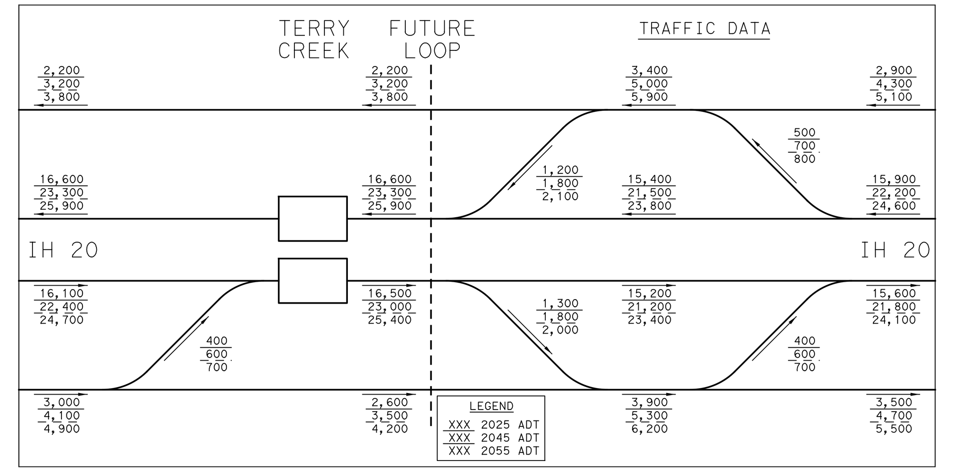

LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
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- PROPOSED RIGHT-OF-WAY
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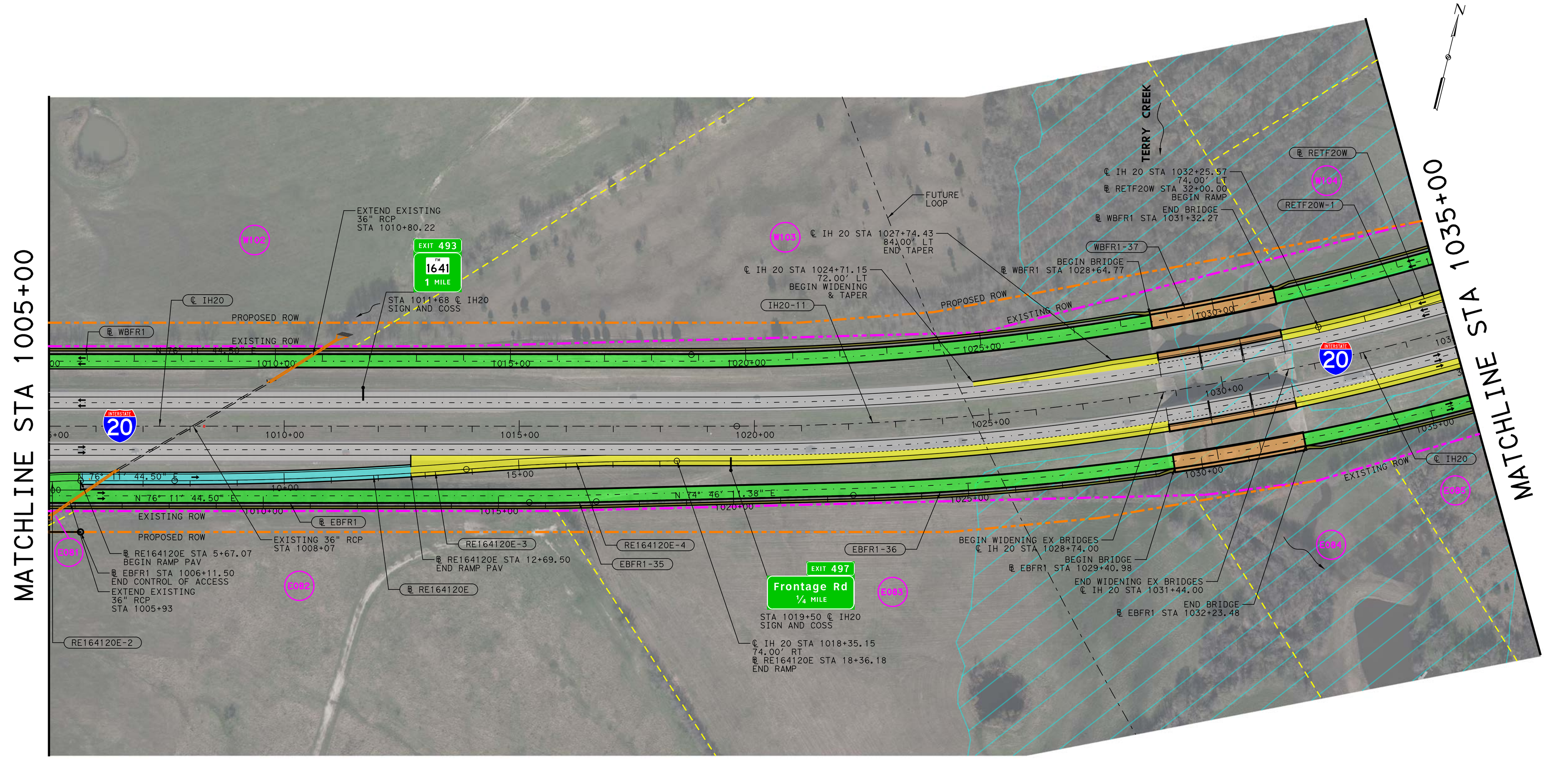

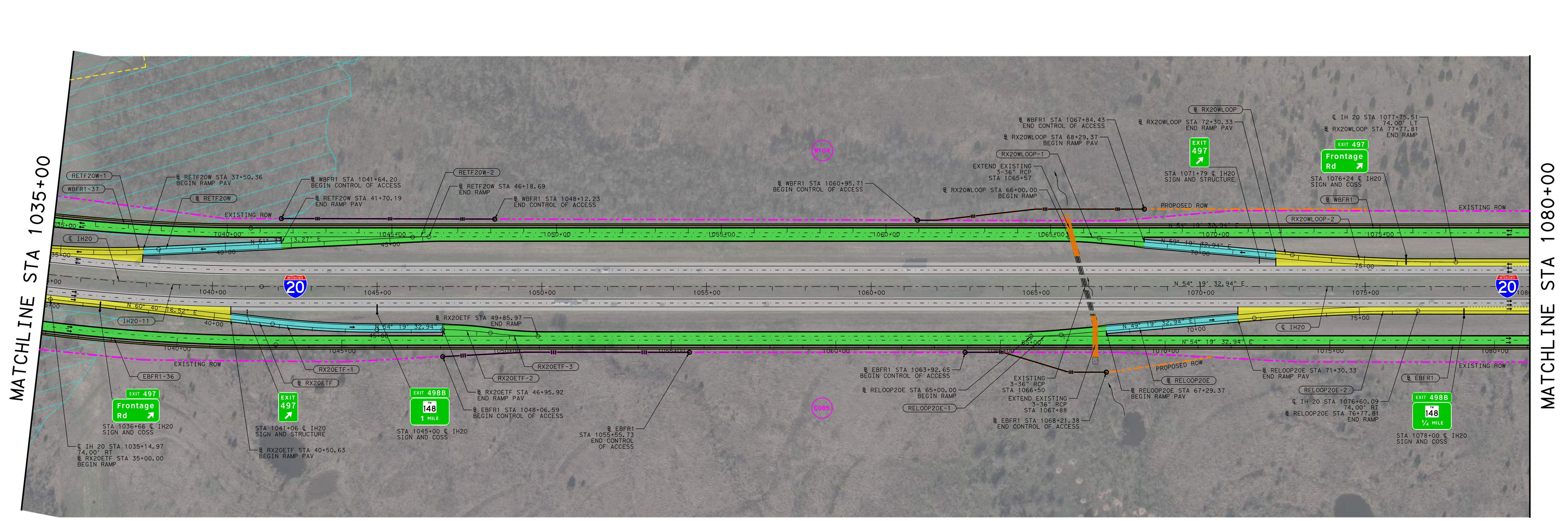

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W102	AP DUPONT LIMITED PARTNERSHIP	CO RD 305
W103	AP DUPONT LIMITED PARTNERSHIP	IH 20
W104	AP TERRELL LIMITED PARTNERSHIP	IH 20

ID	NAME	STREET ADDRESS
E081	AP DUPONT LIMITED PARTNERSHIP	IH 20
E082	AP DUPONT LIMITED PARTNERSHIP	FM RD 148
E083	JUNGJOHANN MILOWE E	FM RD 148
E084	BATES JAMES E & KATHY	9625 N FM RD 148
E085	TERRELL 1132 LLC	FM RD 148

CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-11	21° 52' 11.56" LT	1° 00' 00.00"	1,106.97'	2,186.99'	5,729.58'	N 76° 11' 44.50" E	N 54° 19' 32.94" E	1030+69.50	1019+62.53	1041+49.52
EBFR1-35	1° 25' 33.12" LT	0° 59' 59.73"	71.30'	142.60'	5,730.00'	N 76° 11' 44.50" E	N 74° 46' 11.38" E	1016+37.00	1015+65.70	1017+08.29
EBFR1-36	20° 26' 38.44" LT	0° 59' 59.73"	1,033.26'	2,044.55'	5,730.00'	N 74° 46' 11.38" E	N 54° 19' 32.94" E	1032+88.29	1022+55.03	1042+99.58
WBFR1-37	21° 52' 11.56" LT	0° 59' 59.73"	1,107.05'	2,187.15'	5,730.00'	N 76° 11' 44.50" E	N 54° 19' 32.94" E	1029+91.60	1018+84.56	1040+71.71
RE164120E-2	10° 00' 54.42" RT	5° 27' 24.27"	92.00'	183.54'	1,050.00'	N 66° 10' 50.08" E	N 76° 11' 44.50" E	4+75.54	3+83.54	5+67.07
RE164120E-3	4° 30' 14.63" LT	0° 43' 30.95"	310.67'	621.03'	7,900.00'	N 76° 11' 44.50" E	N 71° 41' 29.87" E	10+77.75	7+67.07	13+88.10
RE164120E-4	4° 30' 14.63" RT	1° 00' 18.68"	224.16'	448.08'	5,700.00'	N 71° 41' 29.87" E	N 76° 11' 44.50" E	16+12.25	13+88.10	18+36.18
RELOOP20E-1	5° 00' 00.00" LT	5° 27' 24.27"	45.84'	91.63'	1,050.00'	N 54° 19' 32.94" E	N 49° 19' 32.94" E	65+45.84	65+00.00	65+91.63
RELOOP20E-2	5° 00' 00.00" RT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	N 49° 19' 32.94" E	N 54° 19' 32.94" E	74+29.26	71+80.39	76+77.81
RETF20W-1	11° 56' 41.72" LT	1° 59' 59.47"	299.73'	597.29'	2,865.00'	N 63° 33' 54.99" E	N 51° 37' 13.27" E	34+99.73	32+00.00	37+97.29
RETF20W-2	2° 42' 19.68" RT	5° 27' 24.27"	24.79'	49.58'	1,050.00'	N 51° 37' 13.27" E	N 54° 19' 32.94" E	45+93.90	45+69.11	46+18.69
RX20ETF-1	6° 20' 43.58" LT	1° 59' 59.47"	158.81'	317.30'	2,865.00'	N 60° 40' 16.52" E	N 54° 19' 32.94" E	43+37.43	41+78.62	44+95.92
RX20ETF-2	7° 54' 49.89" RT	5° 27' 24.27"	72.63'	145.03'	1,050.00'	N 54° 19' 32.94" E	N 62° 14' 22.83" E	47+68.55	46+95.92	48+40.95
RX20ETF-3	7° 54' 49.89" LT	5° 27' 24.27"	72.63'	145.03'	1,050.00'	N 62° 14' 22.83" E	N 54° 19' 32.94" E	49+13.58	48+40.95	49+85.97
RX20WLOOP-1	5° 00' 00.00" RT	5° 27' 24.27"	45.84'	91.63'	1,050.00'	N 54° 19' 32.94" E	N 59° 19' 32.94" E	66+45.84	66+00.00	66+91.63
RX20WLOOP-2	5° 00' 00.00" LT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	N 59° 19' 32.94" E	N 54° 19' 32.94" E	75+29.26	72+80.39	77+77.81

SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-1.56%	1005+00.00	IH20	1005+00.00	-1.56%
-1.56%	1019+35.00		1017+60.00	-1.56%
-3.80%	1020+60.00		1020+60.00	3.80%
-3.80%	1040+50.00		1040+50.00	3.80%
-1.56%	1041+75.00		1043+50.00	-1.56%
-1.56%	1080+00.00		1080+00.00	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	1005+00.00	-2.00%	2.00%
	1008+00.00	-2.00%	2.00%
	1010+00.00	2.00%	-2.00%
	1080+00.00	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR1	1005+00.00	2.00%	-2.00%
	1008+00.00	2.00%	-2.00%
	1010+00.00	-2.00%	2.00%
	1080+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RE164120E	5+67.07	-2.00%	2.00%
	11+65.00	-2.00%	2.00%
	12+69.50	1.56%	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RELOOP20E	67+29.37	2.00%	-2.00%
	71+10.00	2.00%	-2.00%
	71+30.33	1.56%	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20WLOOP	68+29.37	-2.00%	2.00%
	72+10.00	-2.00%	2.00%
	72+30.33	-1.56%	1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20ETF	40+50.63	-3.80%	3.80%
	44+50.00	-3.80%	3.80%
	46+15.00	2.00%	-2.00%
	46+95.92	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RETF20W	37+50.36	-3.80%	3.80%
	38+05.00	-2.00%	2.00%
	41+70.19	-2.00%	2.00%

Texas Department of Transportation
Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
ROLL 9 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

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Texas Department of Transportation

Dallas District

Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

From: Lawson Road
To: East of Wilson Road (CR 138)

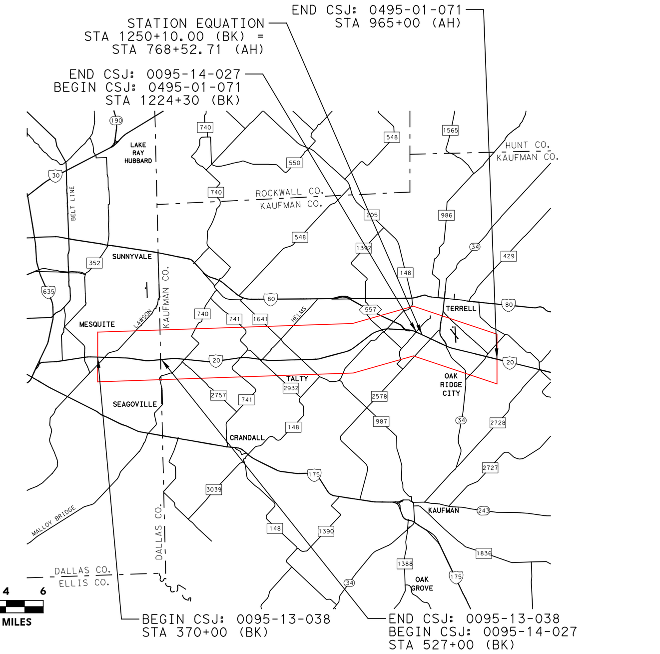
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles

Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

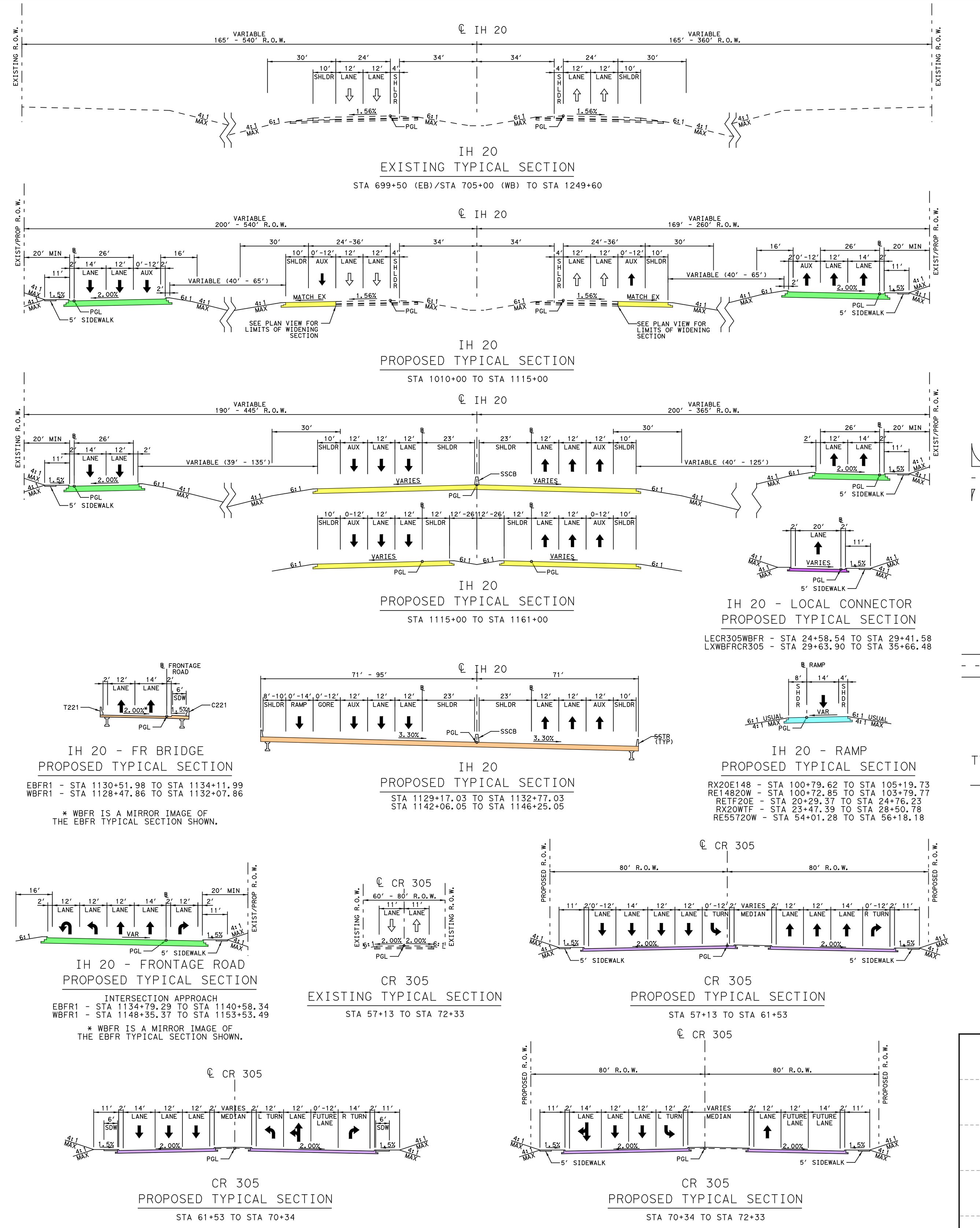
10/31/2019
DATE

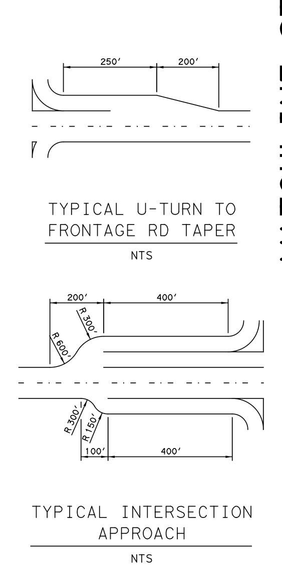
100%
PRELIMINARY, SUBJECT TO CHANGE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 10 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400





CURVE DATA

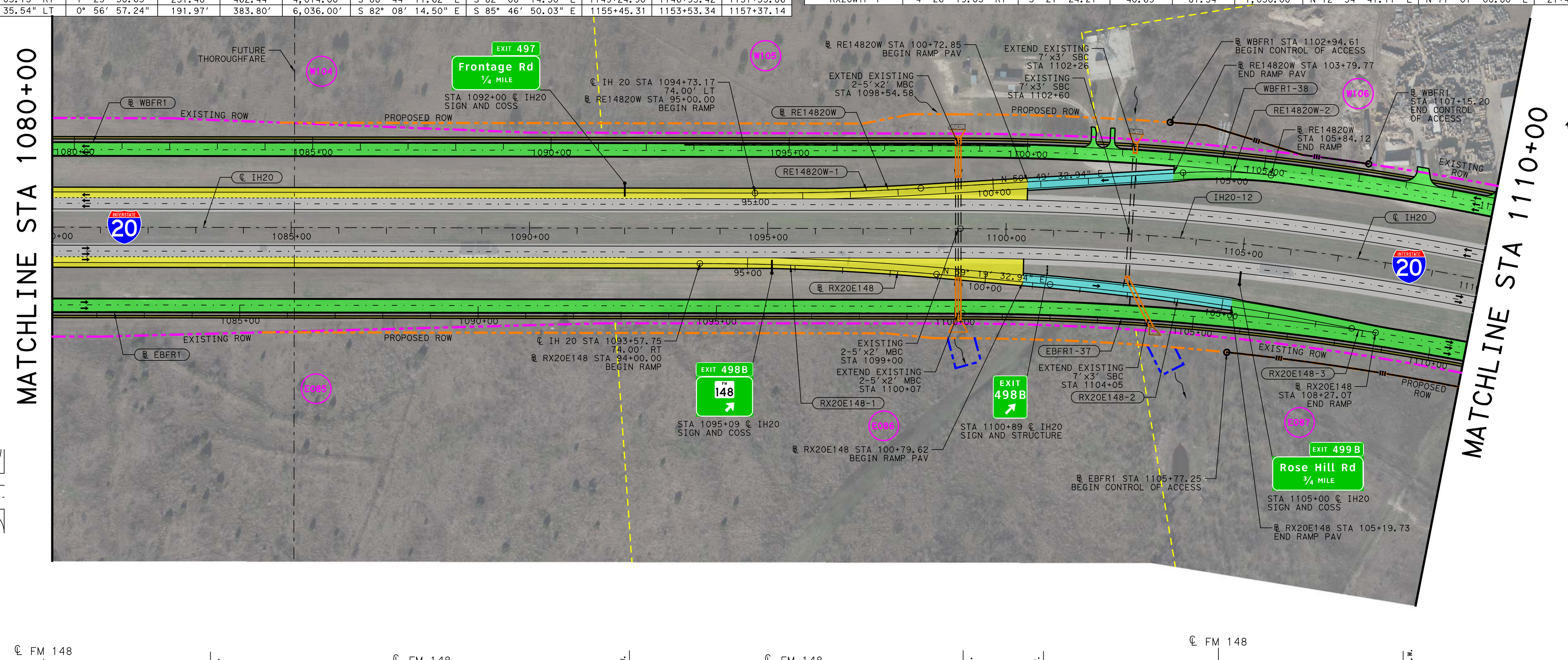
CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-12	18° 15' 08.83" RT	1° 00' 00.00"	920.42'	1,825.25'	5,729.58'	N 54° 19' 32.94" E	N 72° 34' 41.77" E	1108+24.86	1099+04.44	1117+29.68
IH20-13	21° 37' 38.94" RT	1° 00' 00.00"	1,094.40'	2,162.75'	5,729.58'	N 72° 34' 41.77" E	S 85° 47' 39.29" E	1140+74.89	1129+80.49	1151+43.23
IH20148EB-1	1° 05' 39.09" RT	1° 00' 24.04"	54.35'	108.69'	5,691.58'	N 70° 16' 53.22" E	N 71° 22' 32.31" E	1115+54.35	1115+00.00	1116+08.69
IH20148EB-2	1° 12' 09.46" RT	0° 40' 55.53"	88.16'	176.31'	8,400.00'	N 71° 22' 32.31" E	N 72° 34' 41.77" E	1123+35.47	1122+47.31	1124+23.62
IH20148EB-3	22° 52' 48.48" RT	1° 00' 15.14"	1,154.60'	2,278.43'	5,705.58'	N 72° 34' 41.77" E	S 84° 32' 29.75" E	1141+33.71	1129+79.11	1152+57.54
IH20148WB-1	3° 59' 49.61" RT	1° 10' 09.49"	170.99'	341.84'	4,900.00'	N 70° 16' 53.22" E	N 74° 16' 42.83" E	1116+70.99	1115+00.00	1118+41.84
IH20148WB-2	1° 42' 01.06" LT	0° 24' 22.87"	209.23'	418.43'	14,100.00'	N 74° 16' 42.83" E	N 72° 34' 41.77" E	1122+17.47	1120+08.24	1124+26.67
IH20148WB-3	20° 11' 42.48" RT	0° 59' 44.98"	1,024.62'	2,027.97'	5,753.58'	N 72° 34' 41.77" E	S 87° 13' 35.75" E	1140+06.77	1129+82.16	1150+10.13
EBFR1-37	18° 15' 08.83" RT	0° 59' 59.73"	920.49'	1,825.38'	5,730.00'	N 54° 19' 32.94" E	N 72° 34' 41.77" E	1109+35.74	1100+15.25	1118+40.63
EBFR1-38	14° 45' 15.49" RT	3° 59' 33.85"	185.79'	369.53'	1,435.00'	N 72° 34' 41.77" E	N 87° 19' 57.26" E	1135+32.59	1133+46.79	1137+16.32
EBFR1-39	6° 52' 23.45" RT	1° 59' 59.47"	172.05'	343.68'	2,865.00'	N 87° 19' 57.26" E	S 85° 47' 39.29" E	1153+29.88	1151+57.83	1155+01.51
WBFR1-38	18° 15' 08.83" RT	0° 59' 59.73"	920.49'	1,825.38'	5,730.00'	N 54° 19' 32.94" E	N 72° 34' 41.77" E	1107+76.39	1098+55.90	1116+81.28
WBFR1-39	18° 41' 00.61" RT	3° 59' 33.85"	236.06'	467.94'	1,435.00'	N 72° 34' 41.77" E	S 88° 44' 17.62" E	1140+60.97	1138+24.90	1142+92.84
WBFR1-40	6° 36' 03.13" RT	1° 25' 38.63"	231.48'	462.44'	4,014.00'	S 88° 44' 17.62" E	S 82° 08' 14.50" E	1149+24.90	1146+93.42	1151+55.86
WBFR1-41	3° 38' 35.54" LT	0° 56' 57.24"	191.97'	383.80'	6,036.00'	S 82° 08' 14.50" E	S 85° 46' 50.03" E	1155+45.31	1153+53.34	1157+37.14

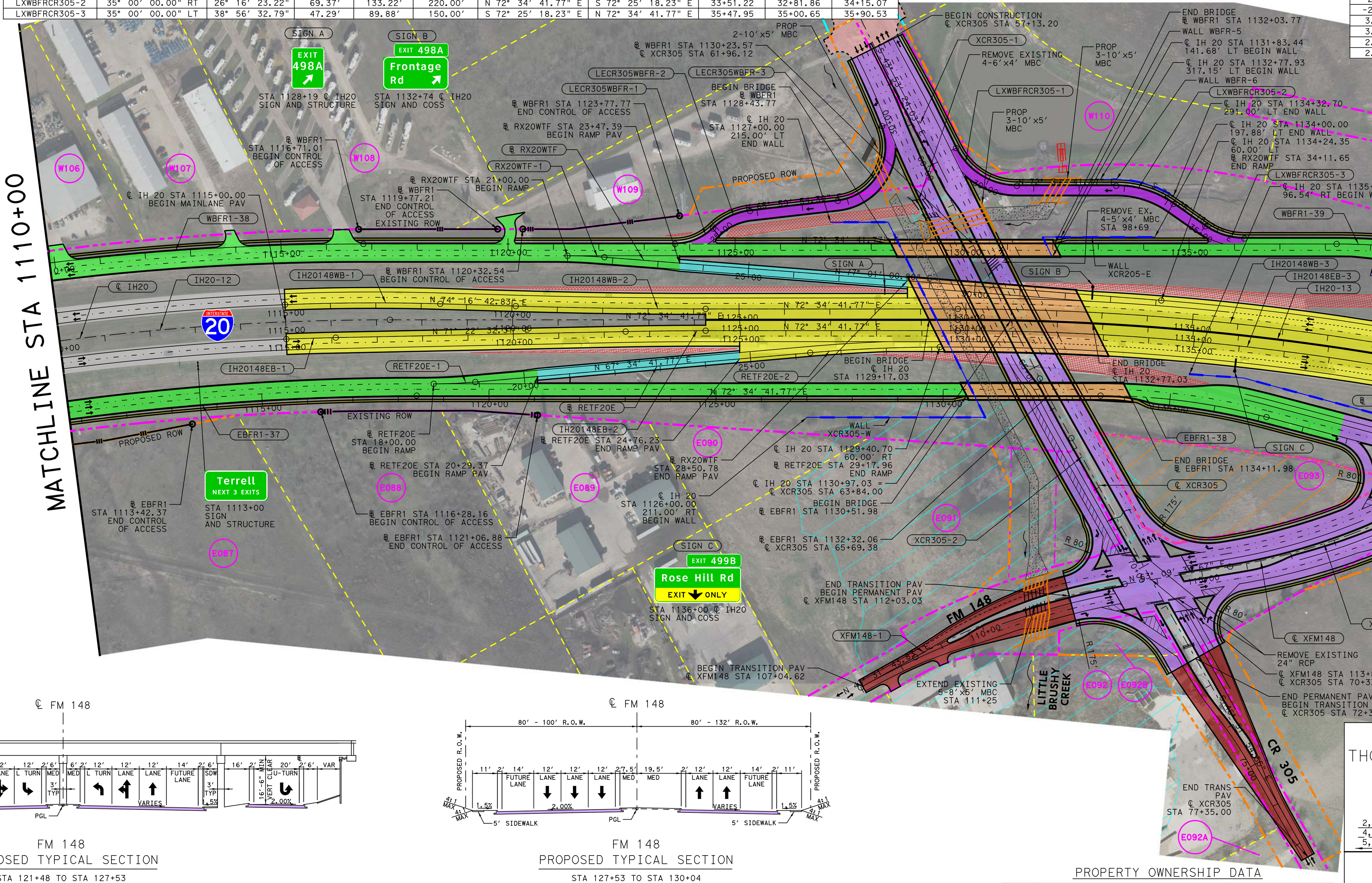
CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
XCR305-1	1° 54' 20.76" RT	5° 12' 31.35"	18.30'	36.59'	1,100.00'	S 45° 47' 44.79" E	S 43° 53' 24.03" E	51+04.43	50+86.13	51+22.72
XCR305-2	2° 58' 30.52" LT	1° 59' 59.47"	74.40'	148.77'	2,865.00'	S 43° 53' 24.03" E	S 46° 51' 54.55" E	66+01.53	65+27.13	66+75.89
XFM148-1	19° 37' 50.83" RT	4° 00' 00.05"	247.81'	490.77'	1,432.39'	N 43° 31' 43.83" E	N 63° 09' 34.67" E	110+84.90	108+37.08	113+27.85
XFM148-2	20° 05' 06.56" LT	4° 00' 00.05"	253.67'	502.13'	1,432.39'	N 63° 09' 34.67" E	N 43° 04' 28.11" E	118+17.07	115+63.40	120+65.53
RE14820W-1	3° 30' 00.00" LT	1° 00' 18.68"	174.15'	348.19'	5,700.00'	N 54° 19' 32.94" E	N 50° 49' 32.94" E	96+74.15	95+00.00	98+48.19
RE14820W-2	10° 05' 33.27" RT	5° 27' 24.27"	92.72'	184.96'	1,050.00'	N 50° 49' 32.94" E	N 60° 55' 06.21" E	104+91.88	103+99.16	105+84.12
RE55720W-1	2° 38' 47.61" LT	0° 43' 30.95"	182.49'	364.91'	7,900.00'	S 88° 08' 51.68" E	N 89° 12' 20.71" E	50+82.49	49+00.00	52+64.91
RETF20E-1	5° 00' 00.00" LT	5° 27' 24.27"	45.84'	91.63'	1,050.00'	N 72° 34' 41.77" E	N 67° 34' 41.77" E	18+45.84	18+00.00	18+91.63
RETF20E-2	5° 00' 00.00" RT	1° 44' 58.16"	142.99'	285.80'	3,275.00'	N 67° 34' 41.77" E	N 72° 34' 41.77" E	27+75.16	26+32.17	29+17.96
RX20E148-1	5° 00' 00.00" RT	1° 00' 18.68"	248.87'	497.42'	5,700.00'	N 54° 19' 32.94" E	N 59° 19' 32.94" E	96+48.87	94+00.00	98+97.42
RX20E148-2	6° 26' 01.16" RT	1° 00' 18.68"	320.36'	640.04'	5,700.00'	N 59° 19' 32.94" E	N 65° 45' 34.10" E	104+56.74	101+36.38	107+76.43
RX20E148-3	2° 45' 47.32" LT	5° 27' 24.27"	25.32'	50.64'	1,050.00'	N 65° 45' 34.10" E	N 62° 59' 46.78" E	108+01.75	107+76.43	108+27.07
RX20EROSEHILL-1	7° 49' 51.35" RT	1° 44' 58.16"	224.16'	447.61'	3,275.00'	N 89° 52' 29.36" E	S 82° 17' 39.29" E	49+24.16	47+00.00	51+47.61
RX20WTF-1	4° 26' 19.03" RT	5° 27' 24.27"	40.69'	81.34'	1,050.00'	N 72° 34' 41.77" E	N 77° 01' 00.80" E	21+40.69	21+00.00	21+81.34

CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
LECR305WBFR-1	44° 10' 32.26" LT	47° 44' 47.34"	48.70'	92.52'	120.00'	N 72° 34' 41.77" E	N 28° 24' 09.51" E	24+48.70	24+00.00	24+92.52
LECR305WBFR-2	37° 35' 44.79" RT	40° 55' 32.00"	47.65'	91.86'	140.00'	N 28° 24' 09.51" E	N 65° 59' 54.30" E	25+40.18	24+92.52	25+84.39
LECR305WBFR-3	105° 35' 11.33" LT	47° 44' 47.34"	158.06'	221.14'	120.00'	N 65° 59' 54.30" E	N 39° 35' 17.04" W	29+37.17	27+79.11	30+00.25
LXWBFRCR305-1	63° 31' 54.20" LT	38° 56' 32.79"	92.88'	163.14'	150.00'	S 43° 53' 24.03" E	N 72° 34' 41.77" E	29+92.88	29+00.00	30+63.14
LXWBFRCR305-2	35° 00' 00.00" RT	26° 16' 23.22"	69.37'	133.22'	220.00'	N 72° 34' 41.77" E	S 72° 25' 18.23" E	33+51.22	32+81.86	34+15.07
LXWBFRCR305-3	35° 00' 00.00" LT	38° 56' 32.79"	47.29'	89.88'	150.00'	S 72° 25' 18.23" E	N 72° 34' 41.77" E	35+47.95	35+00.65	35+90.53

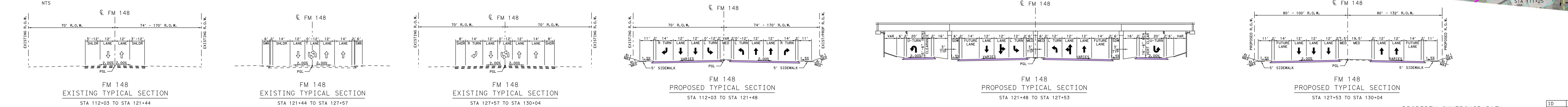




SUPERELEVATION DATA

CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-1.56%	1080+00.00	IH20	1080+00.00	-1.56%
-1.56%	1097+00.00		1098+75.00	-1.56%
3.80%	1100+00.00		1100+00.00	-3.80%
3.80%	1117+65.00		1116+10.00	-3.80%
-2.50%	1121+45.00		1117+10.00	-2.50%
-2.50%	1124+80.00		1127+30.00	-2.50%
3.30%	1128+30.00		1128+30.00	-3.30%
3.30%	1153+00.00		1153+00.00	-3.30%
2.40%	1153+90.00		1154+00.00	-2.50%
2.40%	1155+00.00		1155+00.00	-2.50%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20E148	100+79.62	3.80%	-3.80%
	101+35.00	2.00%	-2.00%
	105+19.73	2.00%	-2.00%
RE14820W	100+72.85	3.80%	-3.80%
	102+40.00	-2.00%	2.00%
	103+79.77	-2.00%	2.00%
RETF20E	20+29.37	2.00%	-2.00%
	24+60.00	2.00%	-2.00%
	24+76.23	2.50%	-2.50%
RX20WTF	23+47.39	-2.00%	2.00%
	27+00.00	-2.00%	2.00%
	28+50.78	3.30%	-3.30%
XCR305	57+13.20	-2.00%	-2.00%
	66+10.00	-2.00%	-2.00%
	69+63.44	-1.06%	1.06%
	71+16.65	-1.06%	1.06%
	72+32.76	-1.31%	0.26%
	75+60.00	-2.00%	-2.00%
	77+32.76	-2.00%	-2.00%
XFM148	107+04.62	-2.00%	-2.00%
	108+55.00	-2.00%	-2.00%
	112+03.03	1.28%	-2.00%
	112+80.00	2.00%	-2.00%
	122+45.00	2.00%	-2.00%
	126+60.00	-2.00%	2.00%
	128+50.00	-2.00%	2.00%
	130+03.76	-2.00%	0.55%
	132+75.00	-2.00%	-2.00%
	132+83.88	-2.00%	-2.00%
EBFR1	1080+00.00	2.00%	-2.00%
	1140+75.00	2.00%	-2.00%
	1141+00.00	1.78%	-1.78%
	1143+15.00	1.78%	-1.78%
	1143+30.00	2.00%	-2.00%
	1155+00.00	2.00%	-2.00%
WBFR1	1080+00.00	-2.00%	2.00%
	1145+25.00	-2.00%	2.00%
	1145+80.00	-0.96%	0.96%
	1147+80.00	-0.77%	0.77%
	1150+40.00	2.00%	-2.00%
	1154+62.47	2.00%	-2.00%



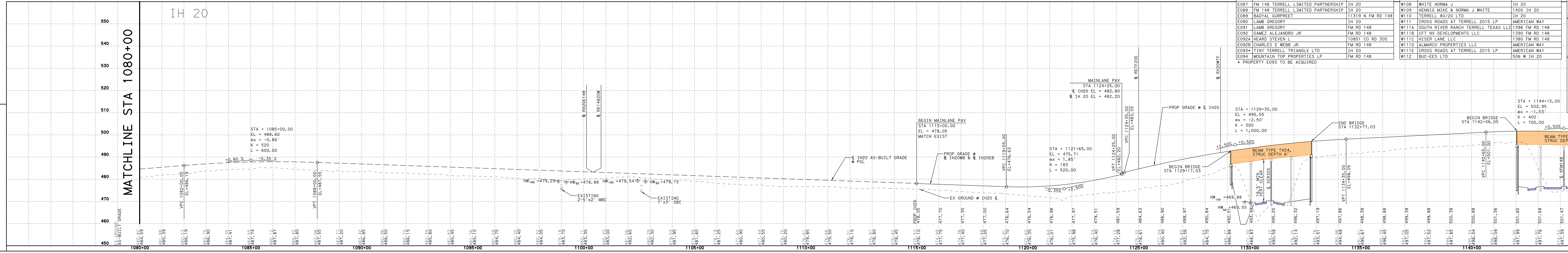
PROPERTY OWNERSHIP DATA

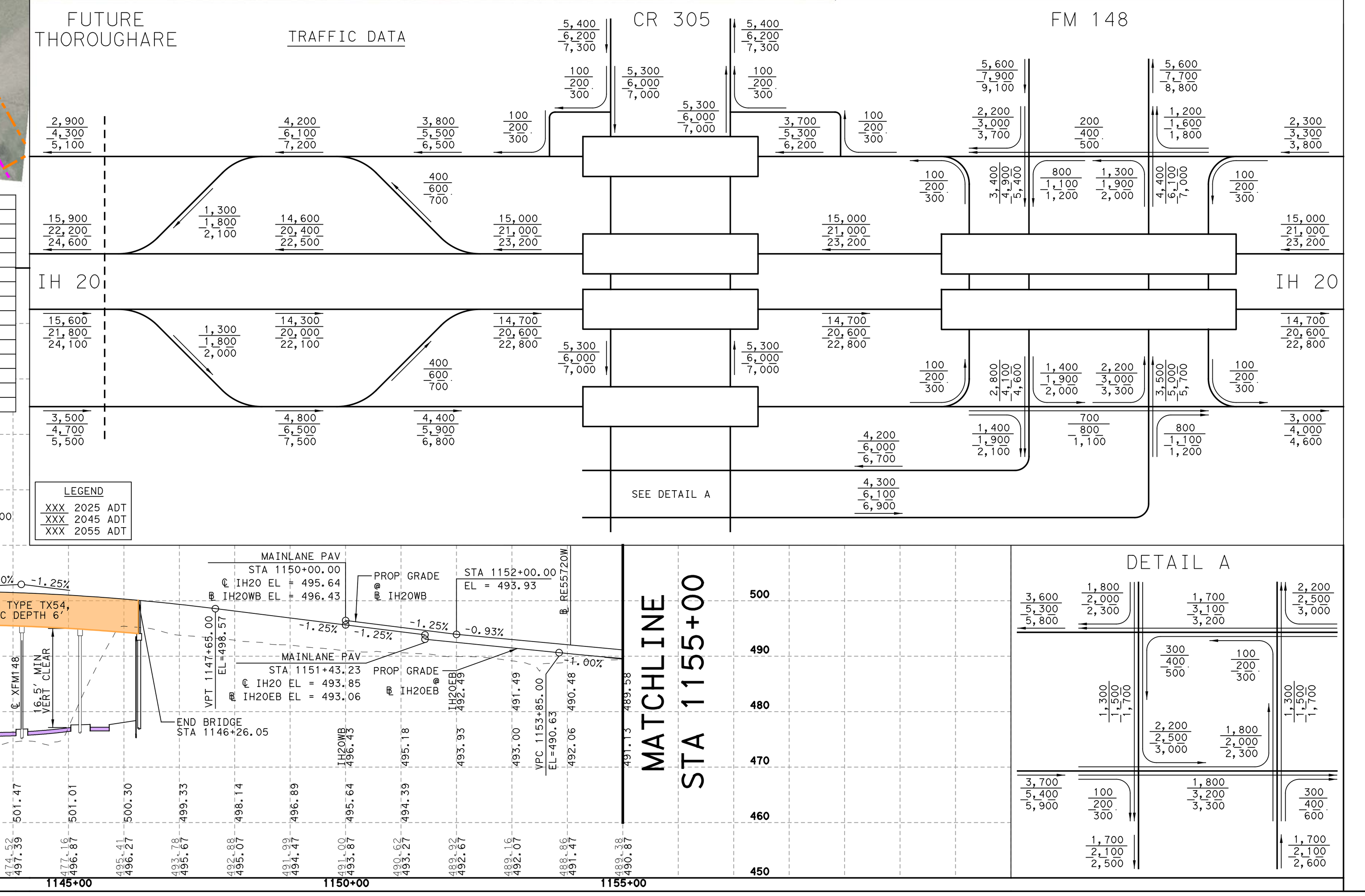
ID	NAME	STREET ADDRESS
E085	TERRELL 1132 LLC	FM RD 148
E086	TERRELL 1132 LLC	FM RD 148
E087	FM 148 TERRELL LIMITED PARTNERSHIP	IH 20
E088	FM 148 TERRELL LIMITED PARTNERSHIP	IH 20
E089	BADYAL GURPREET	11319 N FM RD 148
E090	LAMB GREGORY	IH 20
E091	LAMB GREGORY	FM RD 148
E092	GAMEZ ALEJANDRO JR	FM RD 148
E092A	HEARD STEVEN L	10851 CO RD 305
E092B	CHARLES E WEBB JR	FM RD 148
E093*	TINY TERRELL TRIANGLE LTD	IH 20
E094	MOUNTAIN TOP PROPERTIES LP	FM RD 148

* PROPERTY E093 TO BE ACQUIRED

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W104	AP TERRELL LIMITED PARTNERSHIP	IH 20
W105	AP TERRELL LIMITED PARTNERSHIP	IH 20
W106	ZEMAG FAMILY LP & GAMEZ ALEJANDRO	1500 CHAMPION RD
W107	CLARK MARY E	1482 CHAMPION RD
W108	WHITE NORMA J	IH 20
W109	HENNIG MIKE & NORMA J WHITE	1400 IH 20
W110	TERRELL 80/20 LTD	IH 20
W111	CROSS ROADS AT TERRELL 2015 LP	AMERICAN WAY
W111A	SOUTH RIVER RANCH TERRELL TEXAS LLC	1396 FM RD 148
W111B	CFT NV DEVELOPMENTS LLC	1390 FM RD 148
W111C	HISER LANE LLC	1380 FM RD 148
W111D	ALMARCO PROPERTIES LLC	AMERICAN WAY
W111E	CROSS ROADS AT TERRELL 2015 LP	AMERICAN WAY
W112	BUC-EES LTD	506 W IH 20





LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES

1. EXISTING FEATURES WERE NOT FIELD SURVEYED. SCHEMATICS ARE BASED UPON AERIAL SURVEYS PROVIDED IN AUGUST 2016 AND RECORD PLANS.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. OWNERSHIP INFORMATION SHOWN ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY APPRAISAL DISTRICTS (JULY 2017).
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAY LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE. FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
5. ACCESS DENIAL LIMITS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL.
6. DIMENSIONS ARE TO EDGE OF PAVEMENT OR NOMINAL FACE OF CURB, RAIL, BARRIER, OR WALL (UNLESS NOTED OTHERWISE).
7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II (UNLESS NOTED OTHERWISE).
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED UPON FEMA FLOOD INSURANCE MAPS 48113C0530K, 48113C0535K, 48257C0150D, 48257C0155D, 48257C0175D, 48257C0200D, 48257C0185D, AND 48257C0225D.
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.

Texas Department of Transportation
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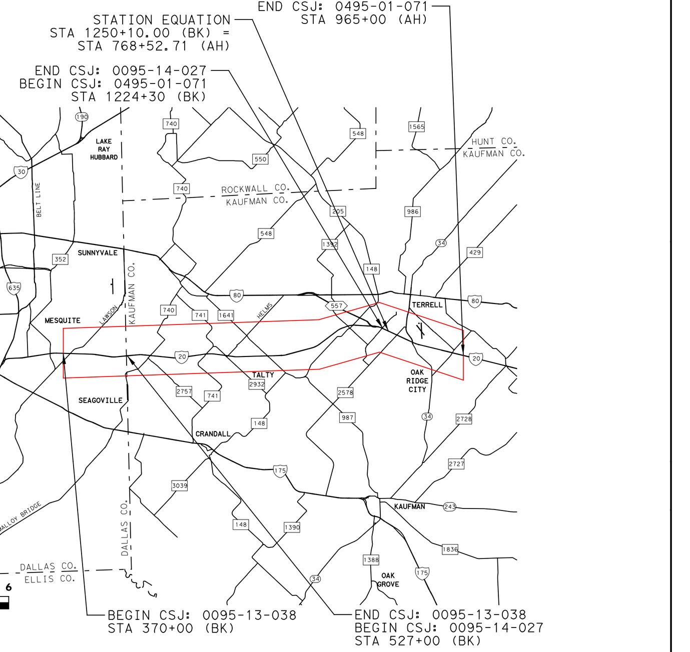
Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Mainlane = Interstate
Frontage Road = Major Collector
Design Speed
Mainlanes: 70 mph
Ramps: 50 mph
Direct Connectors: 40-50 mph
Turnarounds: 15 mph
Frontage Roads: 40 mph (Urban)
SPUR 557 Frontage Road: 30 mph (Urban)
Arterials: 40 mph (Urban)
Collectors: 30 mph (Urban)
Local Street Connector: 20 mph (Urban)



Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
PRELIMINARY SUBJECT TO REVISIONS
SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:
JASON A. RICHTER 114508
ALEXANDER S. KEMP 133019
10/31/2019 DATE
100% PRELIMINARY, SUBJECT TO CHANGE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ROLL 10 OF 30
HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation

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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer

IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane + Interstate
Frontage Road + Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Roads	35 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connectors	20 mph (Urban)

Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PRELIMINARY UNDER THE DIRECT SUPERVISION OF:
JASON R. BOUCHER — LICENSE P.E. NUMBER
ALEXANDER S. KEMP — LICENSE P.E. NUMBER
10/31/2019
DATE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

100% PRELIMINARY SUBJECT TO CHANGE

ROLL 11 OF 30

HDR
HDR Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

EXISTING TYPICAL SECTION
STA 684+00 (SB) TO STA 687+00 (SB)
STA 684+00 (NB) TO STA 724+00

IH 20 - FROM ROAD
PROPOSED TYPICAL SECTION
STA 687+00 (SB) TO STA 724+00

IH 20 - CONNECTOR
PROPOSED TYPICAL SECTION
DISTRIBUTOR - STA 719+00.00 TO STA 720+15.13

IH 20 - RAMP
PROPOSED TYPICAL SECTION
PROPOSED TO EXISTING GORE TO TIE RETAILER - 1-LN RAMP TO TIE RETAILER - 1-LN RAMP TO TIE RETAILER - 1-LN RAMP TO TIE RETAILER - 2-LN RAMP TO TIE RETAILER - 2-LN RAMP TO TIE RETAILER
STA 1+00.00 TO STA 19+00.00
STA 1+00.00 TO STA 19+00.00
STA 1+00.00 TO STA 19+00.00
STA 1+00.00 TO STA 19+00.00
STA 1+00.00 TO STA 19+00.00
STA 1+00.00 TO STA 19+00.00

IH 20 - FR BRIDGE
PROPOSED TYPICAL SECTION
STA 1+00.00 TO STA 19+00.00

IH 20
PROPOSED TYPICAL SECTION
STA 1+00.00 (NB)(SB) TO STA 1+00.00 (SB)

Texas Department of Transportation

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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer

IH 20
DESIGN SCHEMATIC
From: Lawson Road
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Dallas and Kaufman Counties
Project Length: 20.390 Miles
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Mainlane • Interstate
Frontage Road • Major Collector

	Design Speed
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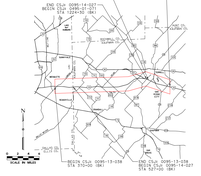
Collectors:	30 mph (Urban)
Local Street Connectors	30 mph (Urban)



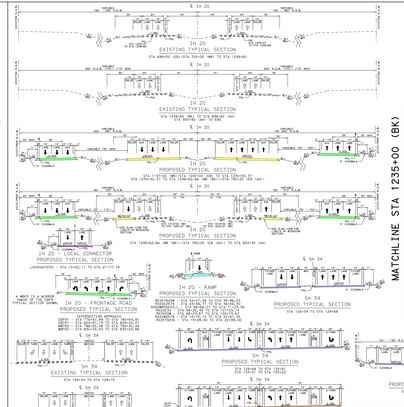
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019

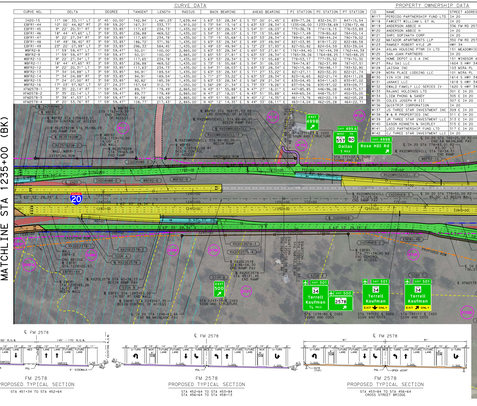
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF
JASON R. BOATER 11/2019
PE LICENSE NUMBER
ALEXANDER S. KEMP 11/2019
PE LICENSE NUMBER
10/31/2019
DATE
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

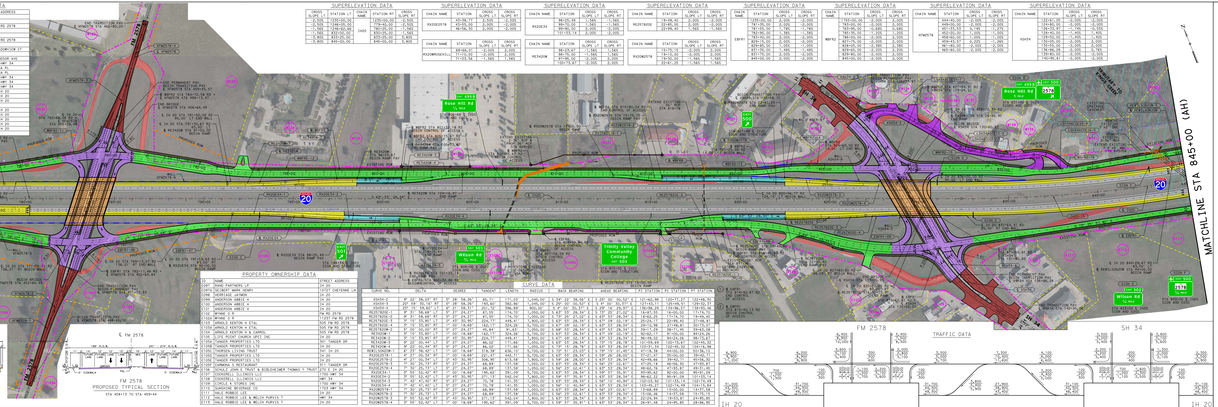
100% PRELIMINARY SUBJECT TO CHANGE

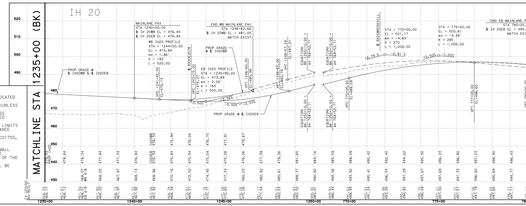
ROLL 12 OF 30

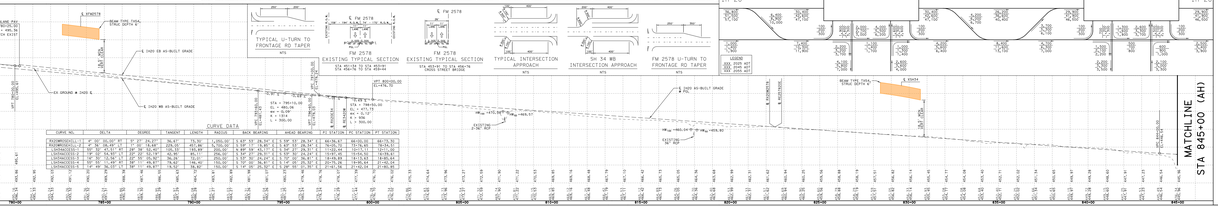
HDR
HDR Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400











LEGEND
- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- TRAILS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- PROPOSED RIGHT-OF-WAY
- PROPERTY LINES
- RETAINING WALLS

NOTES
1. EXISTING FEATURES WERE NOT FIELD VERIFIED. BASE MAP WAS PREPARED USING AERIAL SURVEYS PROVIDED IN AUGUST 2014 AND FIELD REVIEWED.
2. PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY.
3. UNOFFICIAL INFORMATION WAS ON SCHEMATIC OBTAINED FROM DALLAS AND KAUFMAN COUNTY GIS DATA AND FIELD REVIEW.
4. ADA RAMPS, SIDEWALKS, AND DRIVEWAYS, ADJACENT TO THE PROJECT WILL BE REVISED TO CHANGE, FINAL LOCATIONS TO BE DETERMINED DURING THE FINAL DESIGN PHASE OF THIS PROJECT.
5. ACCESS DRIVE LINETS ARE DETERMINED PER TXDOT ACCESS MANAGEMENT MANUAL DIMENSIONS ARE TO FRONT OF PAVEMENT, OR WALL, UNLESS NOTED OTHERWISE. ALL WALL, UNLESS NOTED OTHERWISE.
6. ALL DIMENSIONS ARE TO FACE OF WALL UNLESS NOTED OTHERWISE.
7. ALL ROTATIONS AXIS OF ROTATION IS ABOUT THE PIVOT.
8. EXISTING PAVEMENT AND BRIDGES LOCATED BEYOND THE PROPOSED RIGHT-OF-WAY RECONSTRUCTION WILL BE REMOVED UNLESS NOTED OTHERWISE.
9. CURBS ON FRONTAGE ROADS AND CROSS STREETS ARE TYPE II UNLESS NOTED OTHERWISE.
10. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE SHOWN ON THE PROJECT PLANS BASED ON MAPS 48113C0205H, 48113C0206H, 48113C0207H, 48113C0209H, 48113C0210H, 48257C0205G, 48257C0215G, AND 48257C0220G.
11. THE FLOODPLAIN LIMITS SHOWN ARE FEMA STUDY LIMITS AND NOT SHOWN AND WILL BE REVISED AS PART OF THE FINAL DESIGN PHASE.
12. PROJECT APPROACH SLAB DETAILS WILL BE DEVELOPED AT THE PSAR PHASE.

Texas Department of Transportation
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Dallas District
Mohamed K. Burr, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
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To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
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Mainlane • Interstate
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Mainlanes: 70 mph
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Collectors: 30 mph (Urban)
Local Street Connectors 30 mph (Urban)
Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'
OCTOBER 2019
PRELIMINARY
SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF
JASON R. BOATER 11/2019
ALEXANDER S. KEMP 11/2019
10/31/2019
NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
100% PRELIMINARY SUBJECT TO CHANGE
ROLL 12 OF 30
HDR
HDR Firm Registration No. F-754
17111 Preston Road, Suite 300
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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

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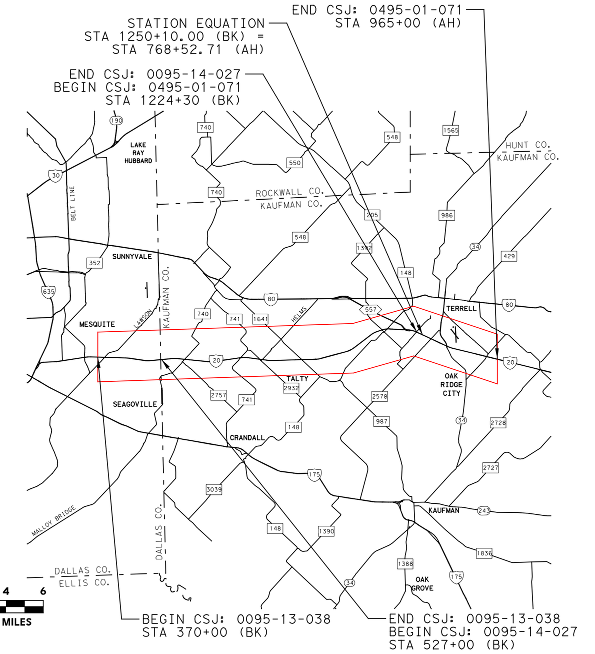

Scale: Horizontal 1"=200'
Scale: Vertical 1"=20'

OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

10/31/2019
DATE

100%
PRELIMINARY,
SUBJECT TO CHANGE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 13 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
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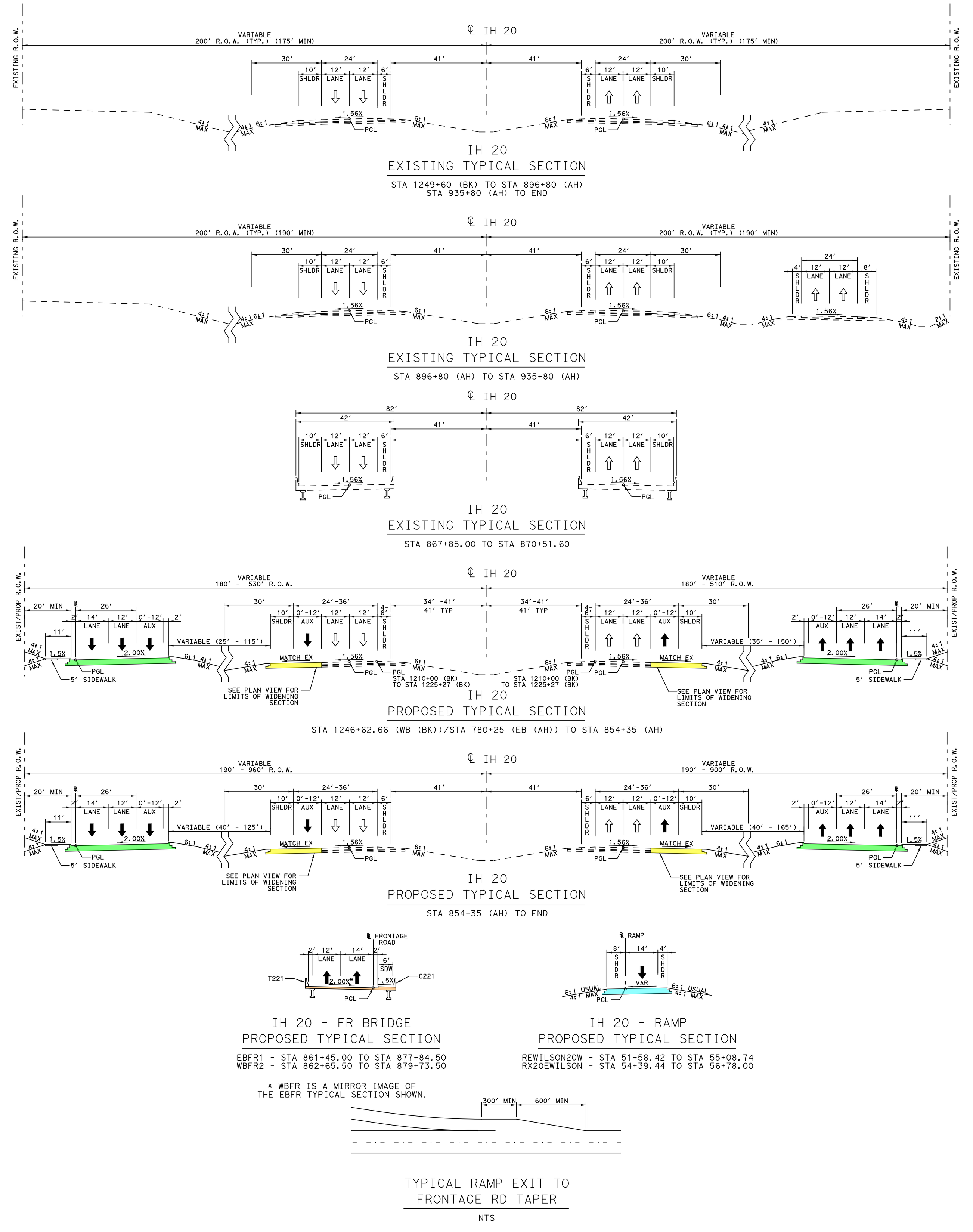

LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
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- BRIDGES
- CROSS STREETS/LOCAL ROADS
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NOTES

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7. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
8. EXISTING PAVEMENT AND BRIDGES LOCATED WITHIN LIMITS OF PROPOSED RECONSTRUCTION WILL BE REMOVED (UNLESS NOTED OTHERWISE).
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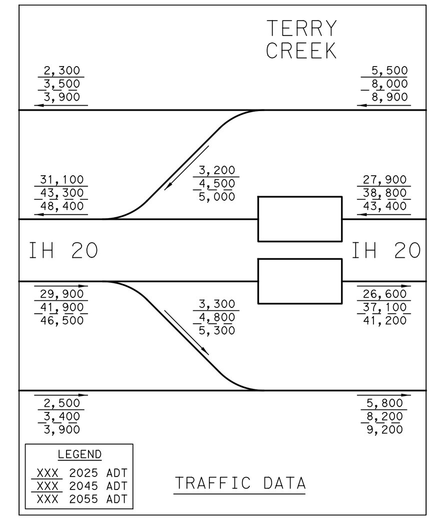
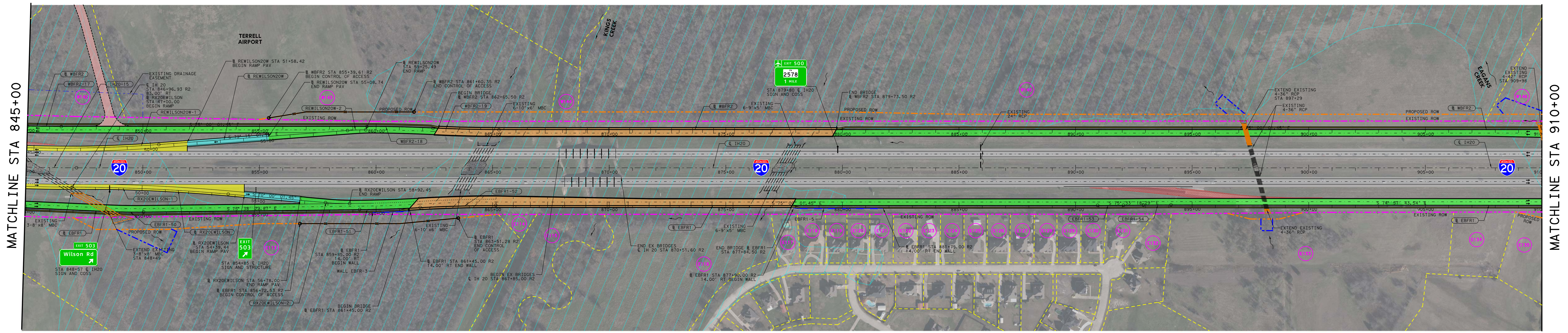
11. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE PS&E PHASE OF THE PROJECT.
12. BRIDGE APPROACH SLAB LIMITS WILL BE DEVELOPED AT THE PS&E PHASE.

PROPERTY OWNERSHIP DATA

ID	NAME	STREET ADDRESS
W142	CJ THREE STAR INVESTMENT LLC	IH 20
W143	CITY OF TERRELL	IH 20
W144	ONCOR ELECTRIC DELIVERY COMPANY	IH 20
W145	TERRELL ECONOMIC DEVELOPMENT	IH 20
W146	TERRELL ECONOMIC DEVELOPMENT	IH 20

ID	NAME	STREET ADDRESS
E113	HALE ROBBIE LEE & WELCH PURVIS T	IH 20
E114	MC CRARY HOLDINGS I LLC	IH 20
E115	ONCOR ELECTRIC DELIVERY COMPANY	HWY 34
E116	PARK AREA	KINGS CREEK DR
E117	KINSWORTHY BRIAN & MOLLIE	411 KINGS CREEK DR
E118	WAMPLER WILLIAM M & JANNA	415 KINGS CREEK DR
E119	DITTA ROCHELL C	419 KINGS CREEK DR
E120	SNOWTON JOEL J & DIANA D	501 KINGS CREEK DR
E121	DYE CLAUDINE & ANNA M DYE & RAY DYE	505 KINGS CREEK DR
E122	HALL MICHAEL H & ROBIN J	509 KINGS CREEK DR
E123	KEENAN DONNELLE	513 KINGS CREEK DR
E124	JORDAN JONI	517 KINGS CREEK DR
E125	WALKER BARBARA	521 KINGS CREEK DR
E126	SAFADAGO GARY & MASEL L	525 KINGS CREEK DR
E127	CAMACHO MANUEL	529 KINGS CREEK DR
E128	ASHER BOBBY	533 KINGS CREEK DR
E129	STIVERS ALVIN JR & CLAUDIA A	537 KINGS CREEK DR
E130	GRANT TAURUS & COZZETTA	541 KINGS CREEK DR
E131	WILLIAMS TIMOTHY W & SUSAN L	601 KINGS CREEK DR
E132	BELEW BARBARA	605 KINGS CREEK DR
E133	NLA ASSETS LLC	IH 20
E134	CONAWAY & SONS LLC	IH 20
E135	HENDERSON CO JR COLLEGE	IH 20





CURVE DATA

CURVE NO.	DELTA	DEGREE	TANGENT	LENGTH	RADIUS	BACK BEARING	AHEAD BEARING	PI STATION	PC STATION	PT STATION
IH20-15	11° 06' 33.11" LT	0° 45' 00.00"	742.94'	1,481.23'	7,639.44'	S 63° 53' 28.34" E	S 75° 00' 01.45" E	839+77.26	832+34.31	847+15.54
EBFR1-50	3° 14' 24.94" LT	1° 59' 59.47"	81.03'	162.02'	2,865.00'	S 72° 23' 57.93" E	S 75° 38' 22.87" E	849+21.71	848+40.68	850+02.70
EBFR1-51	2° 36' 10.02" LT	0° 59' 59.73"	130.17'	260.30'	5,730.00'	S 75° 38' 22.87" E	S 78° 14' 32.90" E	860+59.04	859+28.87	861+89.17
EBFR1-52	3° 14' 31.45" RT	0° 59' 59.73"	162.16'	324.23'	5,730.00'	S 78° 14' 32.90" E	S 75° 00' 01.45" E	863+51.33	861+89.17	865+13.40
EBFR1-53	0° 33' 16.84" LT	0° 29' 59.87"	55.47'	110.94'	11,460.00'	S 75° 00' 01.45" E	S 75° 33' 18.29" E	891+50.00	890+94.53	892+05.47
EBFR1-54	0° 35' 34.75" RT	0° 29' 59.87"	59.30'	118.61'	11,460.00'	S 75° 33' 18.29" E	S 74° 57' 43.54" E	893+50.01	892+90.71	894+09.31
WBFR2-17	1° 26' 42.18" LT	0° 59' 59.73"	72.26'	144.52'	5,730.00'	S 73° 33' 19.26" E	S 75° 00' 01.45" E	845+77.81	845+05.55	846+50.07
WBFR2-18	2° 49' 56.62" RT	0° 59' 59.73"	141.66'	283.26'	5,730.00'	S 75° 00' 01.45" E	S 72° 10' 04.83" E	861+02.36	859+60.70	862+43.96
WBFR2-19	2° 49' 56.62" LT	0° 59' 59.73"	141.66'	283.26'	5,730.00'	S 72° 10' 04.83" E	S 75° 00' 01.45" E	863+85.62	862+43.96	865+27.22
REWILSON20W-1	6° 23' 38.42" LT	1° 00' 18.68"	318.38'	636.10'	5,700.00'	S 72° 51' 23.03" E	S 79° 15' 01.45" E	47+18.38	44+00.00	50+36.10
REWILSON20W-2	4° 15' 00.00" RT	5° 27' 24.27"	38.96'	77.89'	1,050.00'	S 79° 15' 01.45" E	S 75° 00' 01.45" E	58+86.56	58+47.60	59+25.49
RX20EWILSON-1	4° 51' 37.67" RT	0° 43' 30.95"	335.28'	670.17'	7,900.00'	S 74° 51' 39.12" E	S 70° 00' 01.45" E	50+35.28	47+00.00	53+70.17
RX20EWILSON-2	5° 38' 21.43" LT	5° 27' 24.27"	51.71'	103.35'	1,050.00'	S 70° 00' 01.45" E	S 75° 38' 22.87" E	58+40.82	57+89.11	58+92.45

SUPERELEVATION DATA

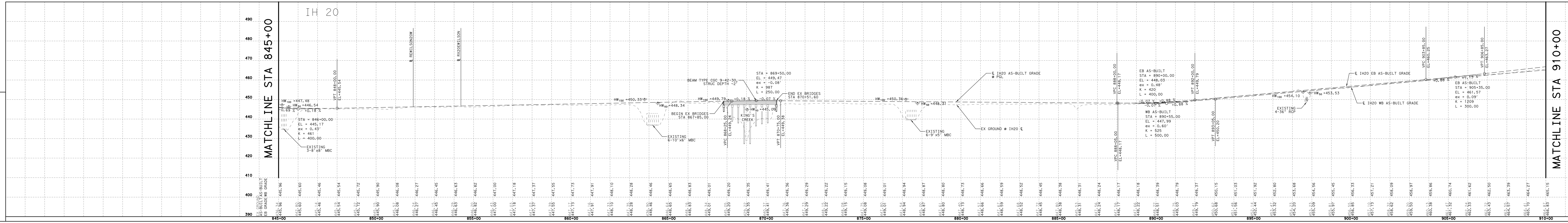
CROSS SLOPE LT	STATION LT	CHAIN NAME	STATION RT	CROSS SLOPE RT
-3.80%	845+00.00	IH20	845+00.00	3.80%
-3.80%	846+25.00		846+25.00	3.80%
-1.56%	847+50.00		849+25.00	-1.56%
-1.56%	910+00.00		910+00.00	-1.56%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
EBFR1	845+00.00	2.00%	-2.00%
	910+00.00	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
WBFR2	845+00.00	-2.00%	2.00%
	910+00.00	-2.00%	2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
RX20EWILSON	54+39.44	1.56%	-1.56%
	54+55.00	2.00%	-2.00%
	56+78.00	2.00%	-2.00%

CHAIN NAME	STATION	CROSS SLOPE LT	CROSS SLOPE RT
REWILSON20W	51+58.42	-1.56%	1.56%
	51+75.00	-2.00%	2.00%
	55+08.74	-2.00%	2.00%



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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Mainlane = Interstate
Frontage Road = Major Collector
Design Speed
Mainlanes: 70 mph
Ramps: 50 mph
Direct Connectors: 40-50 mph
Turnarounds: 15 mph
Frontage Roads: 40 mph (Urban)
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Arterials: 40 mph (Urban)
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Local Street Connector: 20 mph (Urban)
Scale: Horizontal 1"=200'
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OCTOBER 2019
PRELIMINARY
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JASON A. RICHTER 114508
ALEXANDER S. KEMP 133019
10/31/2019
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NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
ROLL 13 OF 30
HDR
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972.960.4400

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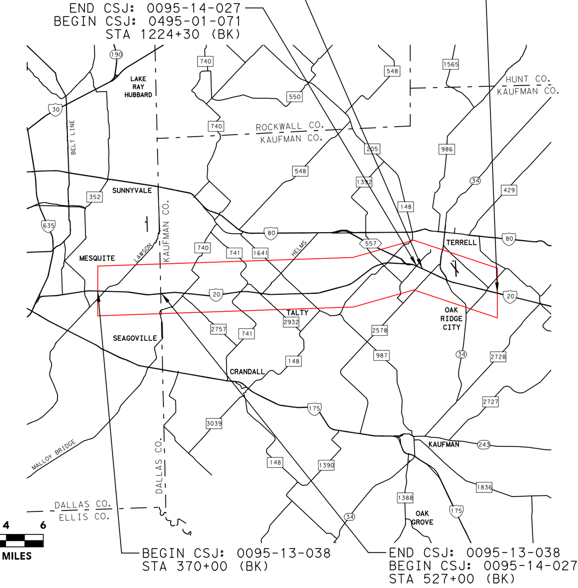

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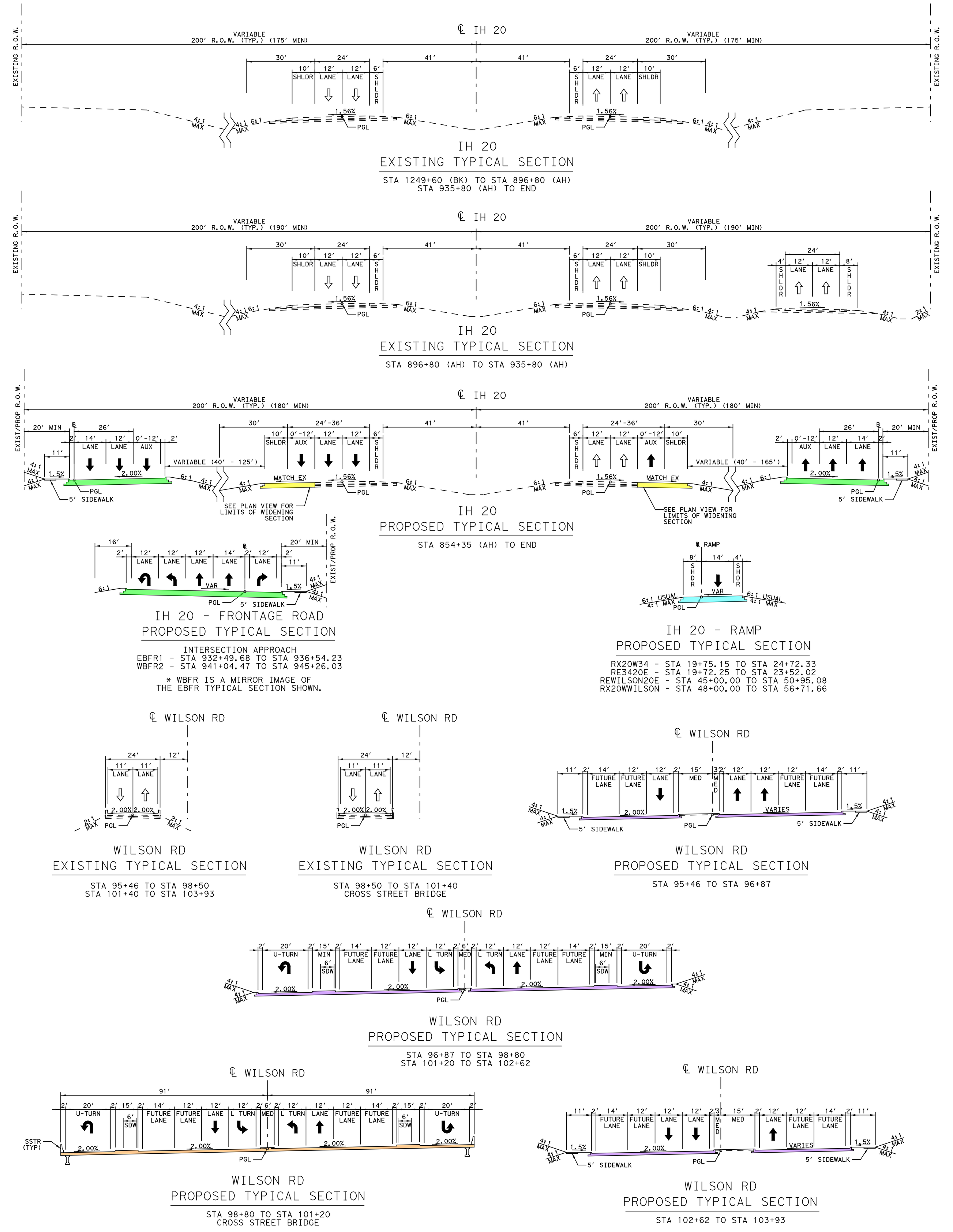

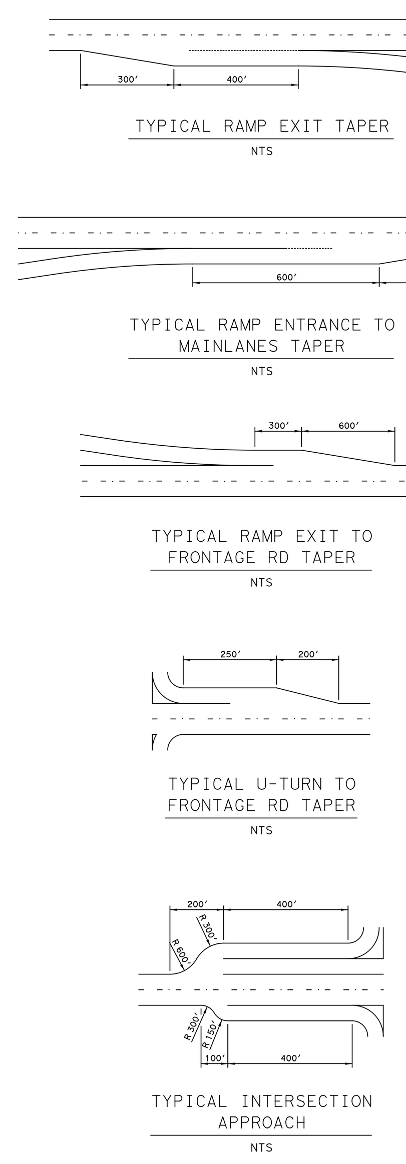

LEGEND

- FLOODPLAIN
- PAVEMENT REMOVAL
- PAVEMENT REMOVAL BY OTHERS
- MAINLANES
- FRONTAGE ROADS
- RAMPS
- BRIDGES
- CROSS STREETS/LOCAL ROADS
- LOCAL STREET CONNECTOR
- TRANSITIONS
- SIDEWALKS
- BY OTHERS
- PROPOSED RIGHT-OF-WAY
- PROPOSED RIGHT-OF-WAY BY OTHERS
- CONTROL OF ACCESS
- PROPOSED DRAINAGE EASEMENT
- EXISTING RIGHT-OF-WAY
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- RETAINING WALLS

NOTES

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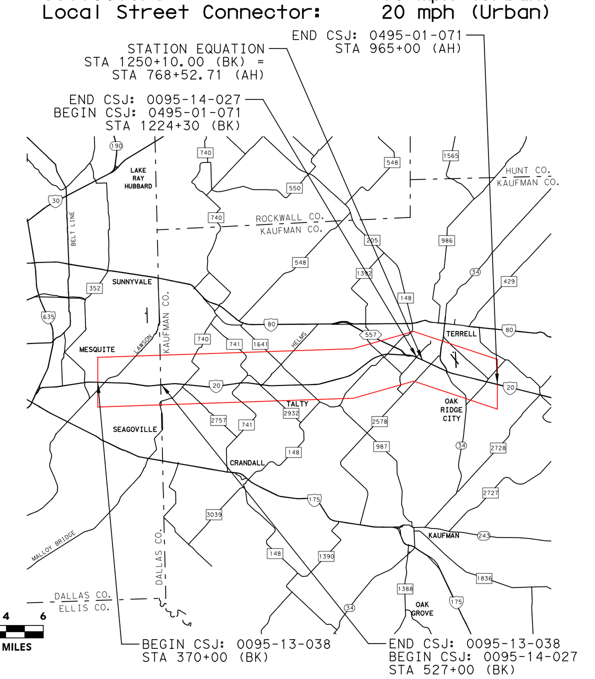

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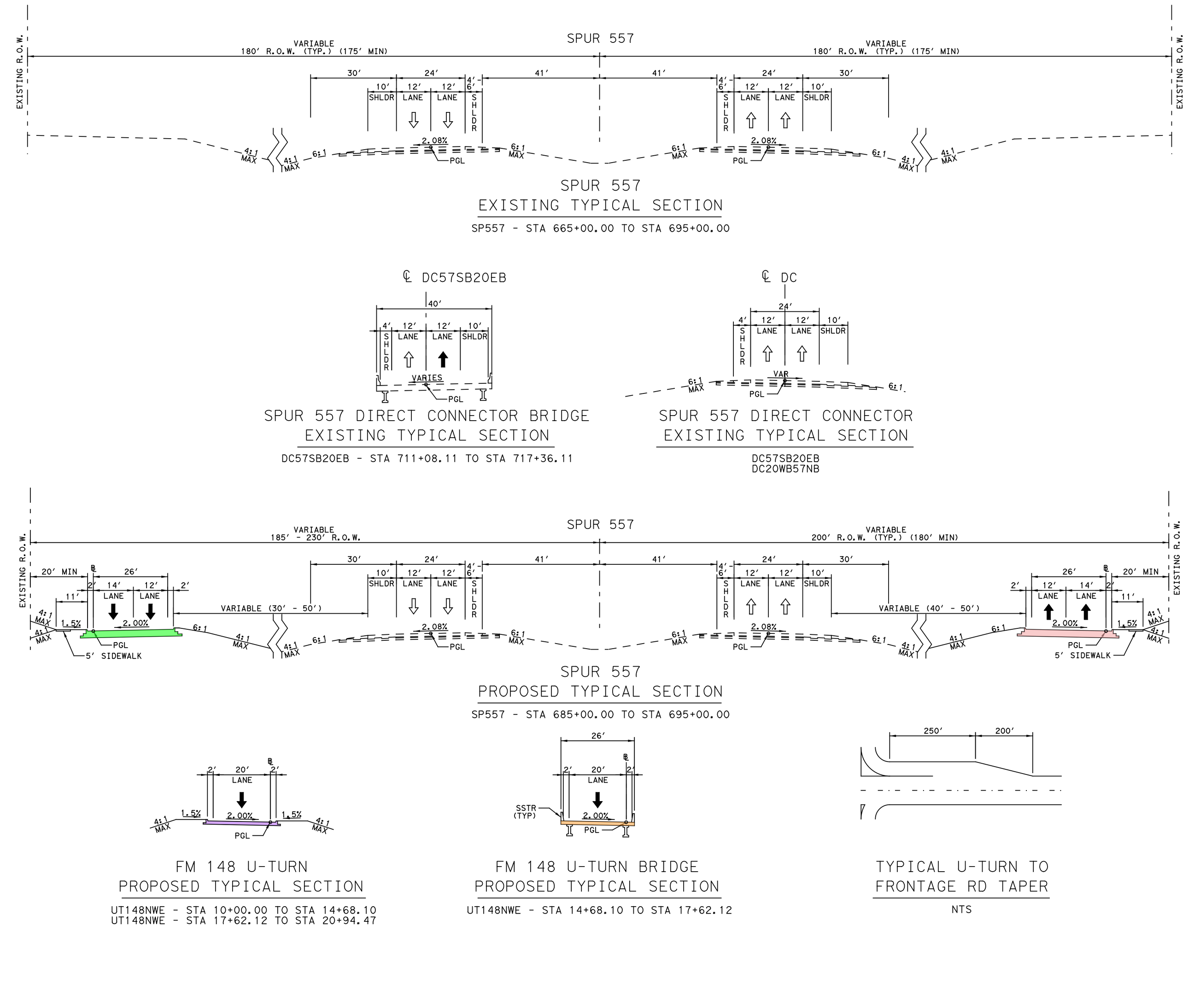

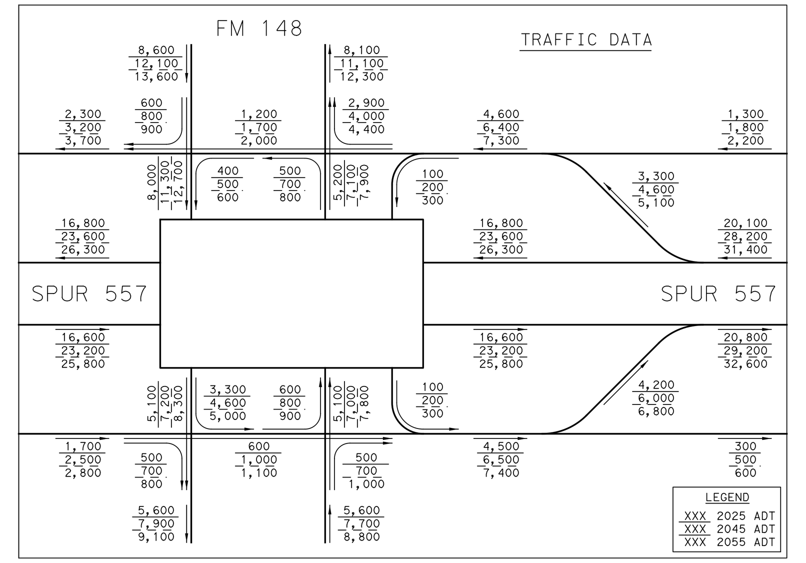

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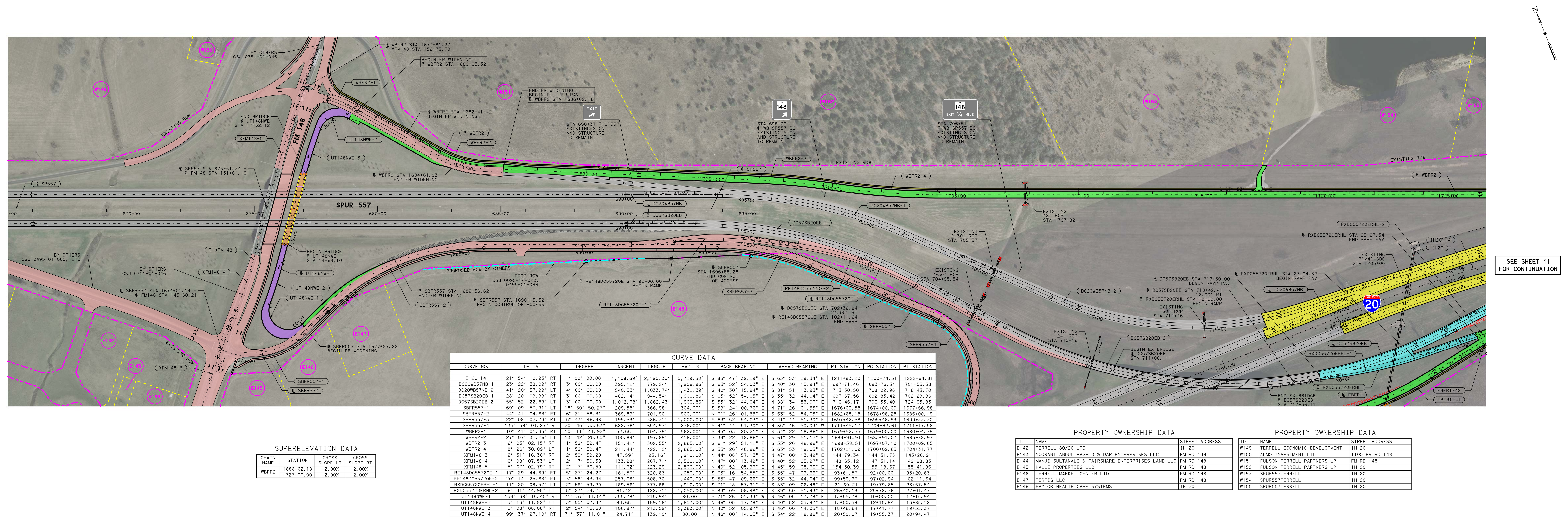

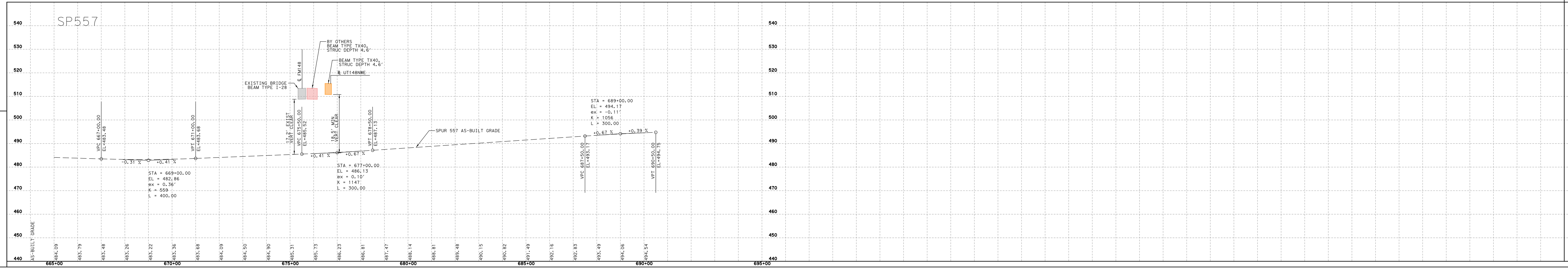

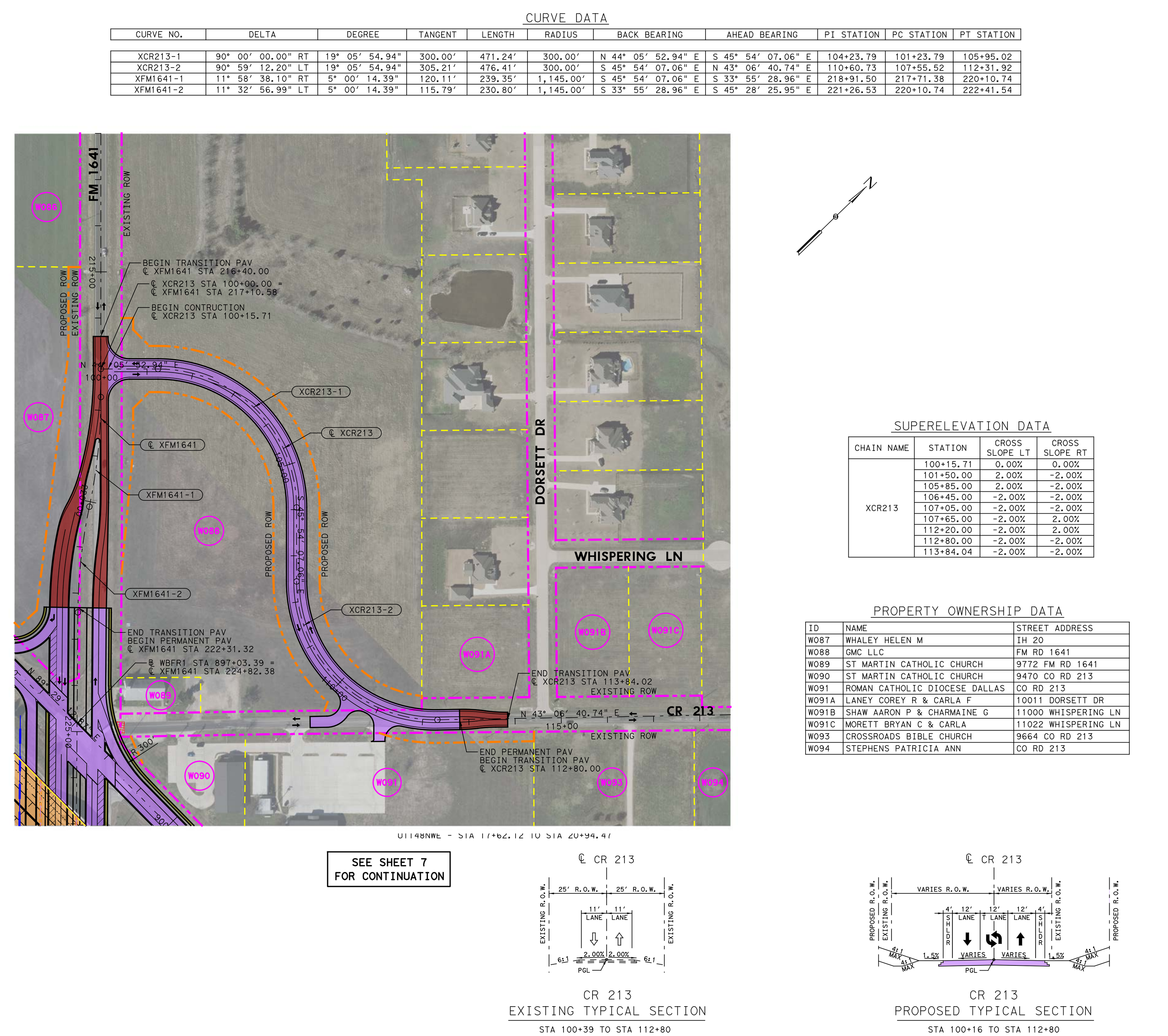

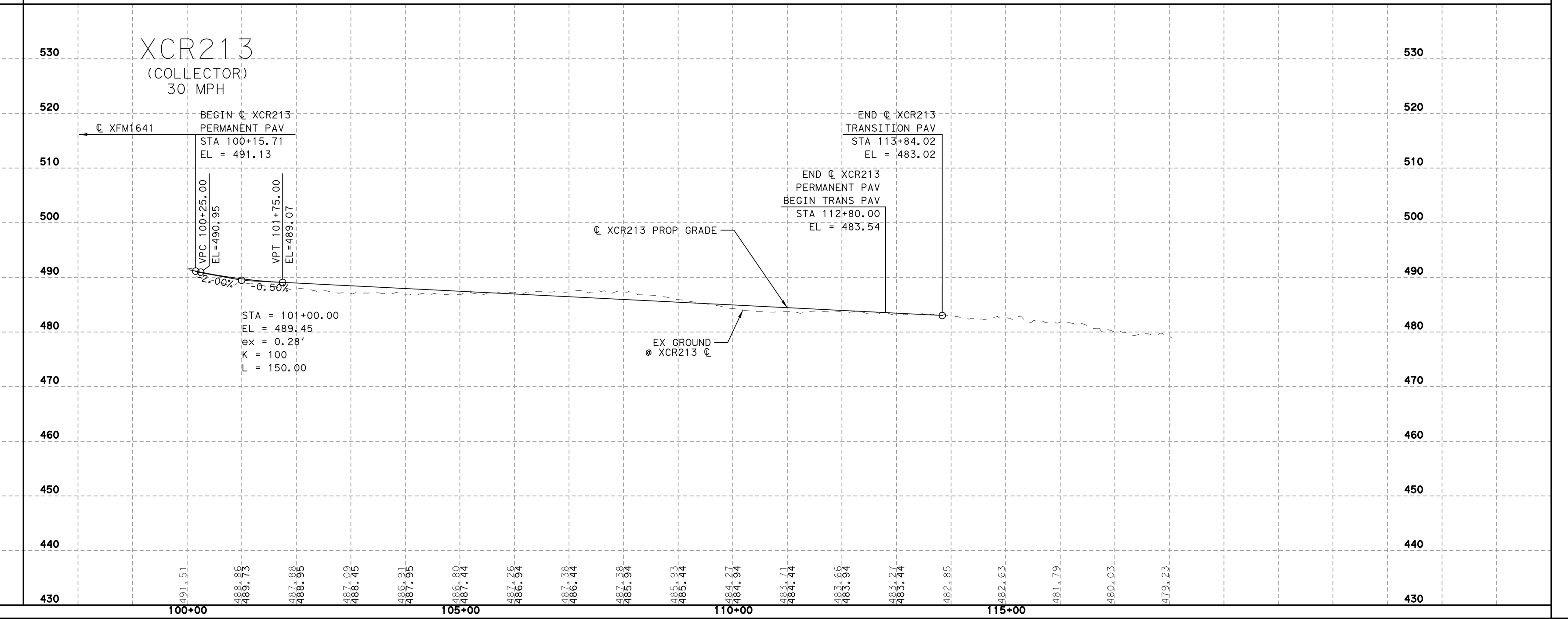

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Dallas District Engineer
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CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
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Design Speed
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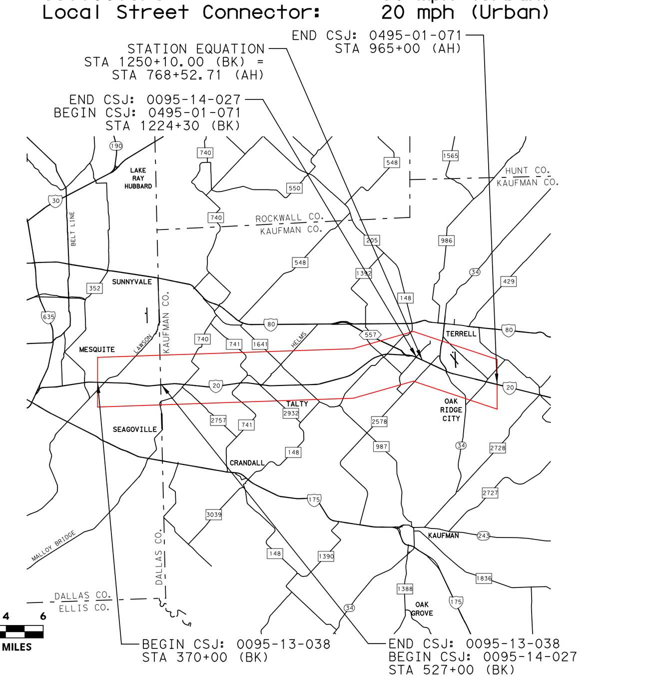

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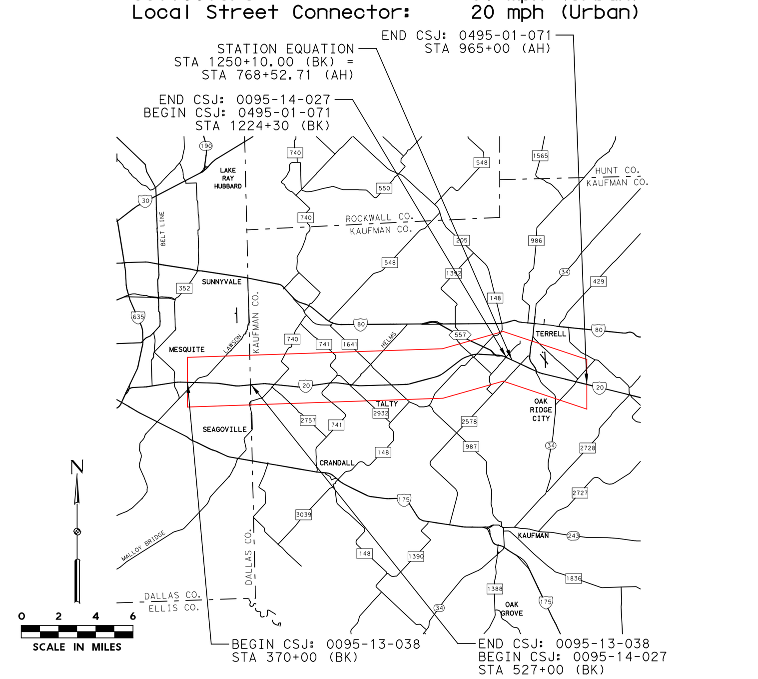

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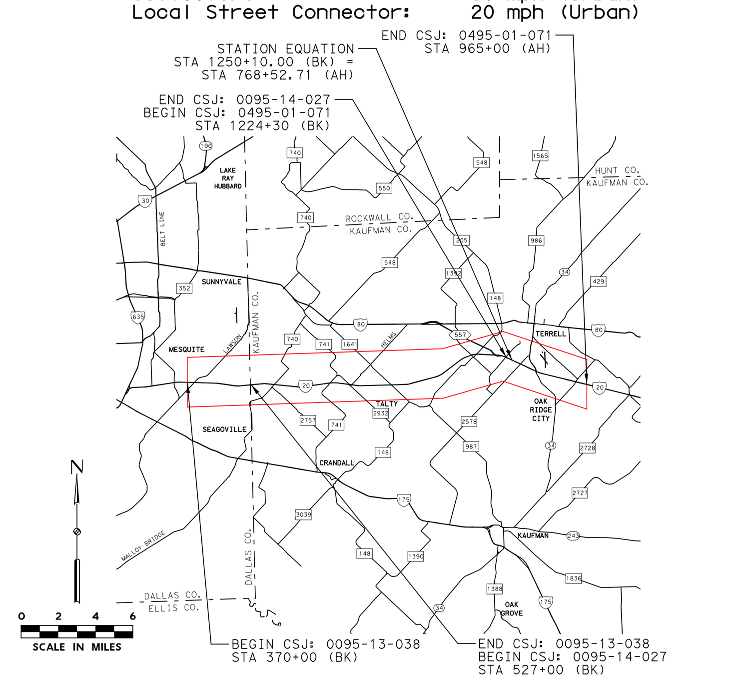

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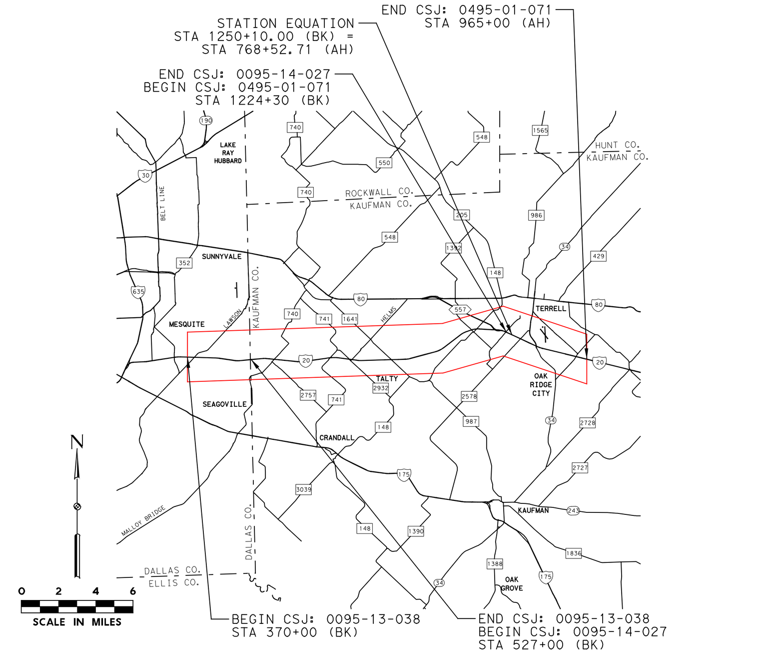

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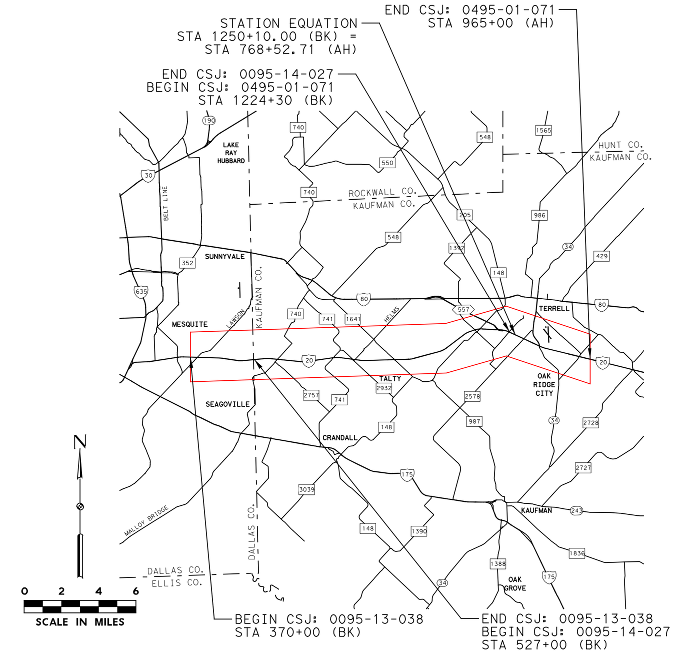

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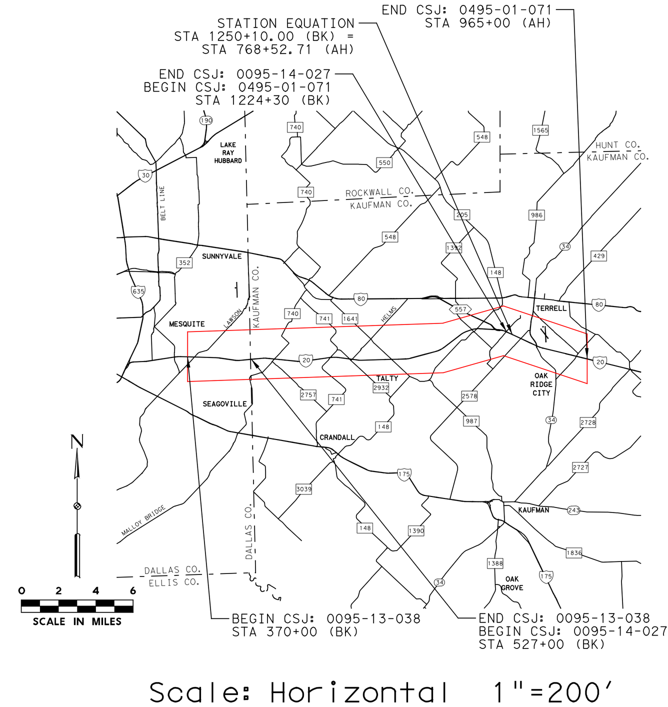

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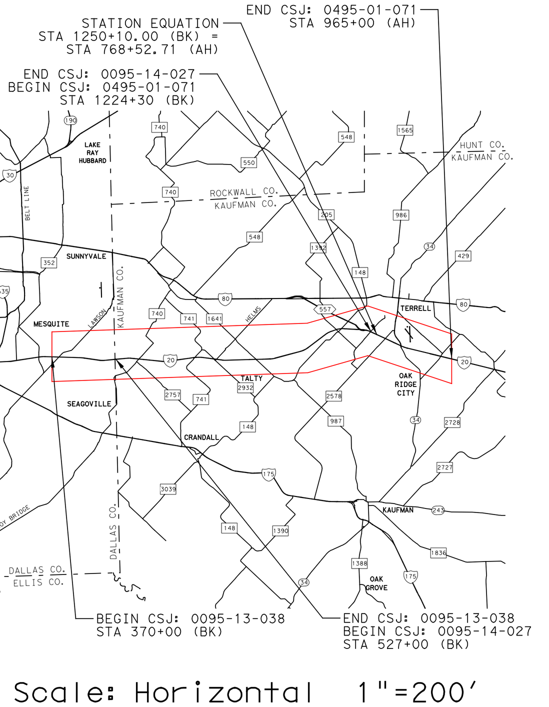

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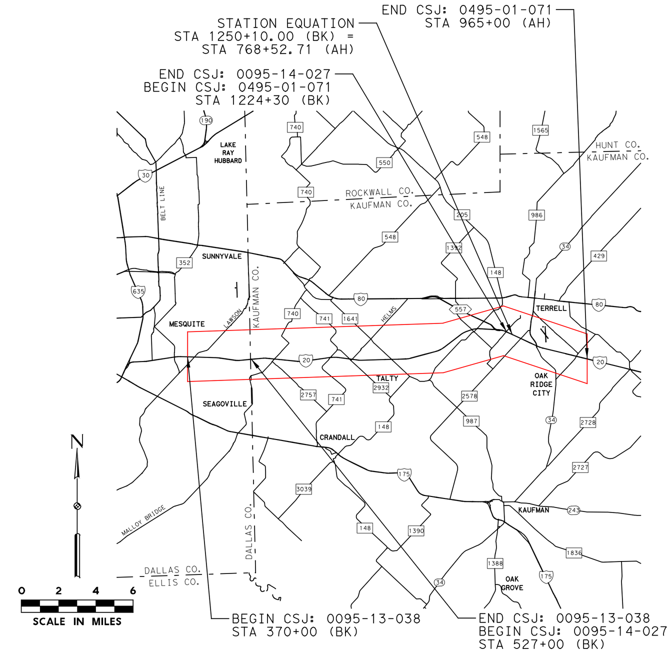
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



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OCTOBER 2019

PRELIMINARY
SUBJECT TO REVISIONS

SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

10/31/2019
DATE

100%
PRELIMINARY,
SUBJECT TO CHANGE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

ROLL 19 OF 30

HDR
Firm Registration No. F-754
17111 Preston Road, Suite 300
Dallas, Texas 75248
972.960.4400

Texas Department of Transportation
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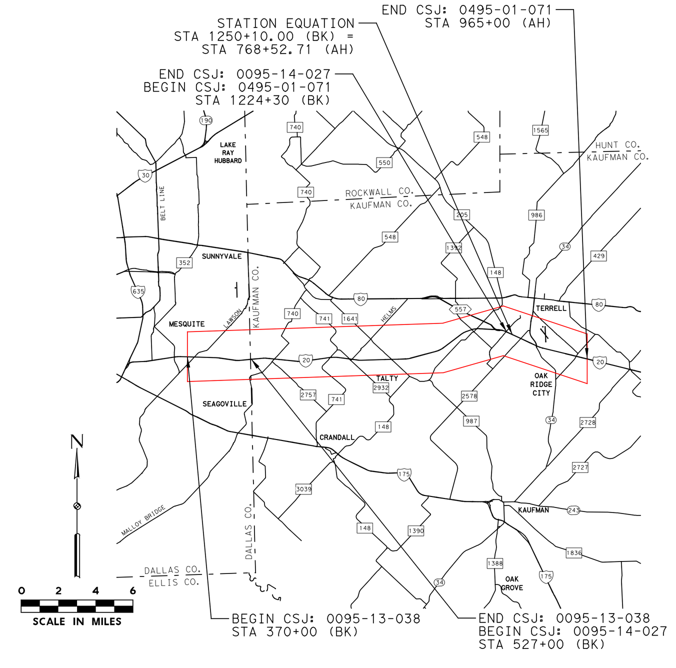
Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)
CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071
Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class
Mainlane = Interstate
Frontage Road = Major Collector
Design Speed
Mainlanes: 70 mph
Ramps: 50 mph
Direct Connectors: 40-50 mph
Turnarounds: 15 mph
Frontage Roads: 40 mph (Urban)
SPUR 557 Frontage Road: 30 mph (Urban)
Arterials: 40 mph (Urban)
Collectors: 30 mph (Urban)
Local Street Connector: 20 mph (Urban)



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ALEXANDER S. KEMP 133019
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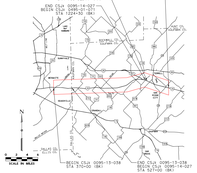

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OCTOBER 2019

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SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:

JASON A. KOUCHER — 140108
NAME — P.E. NUMBER

ALEXANDER S. KEMP — 139313
NAME — P.E. NUMBER

10/31/2019
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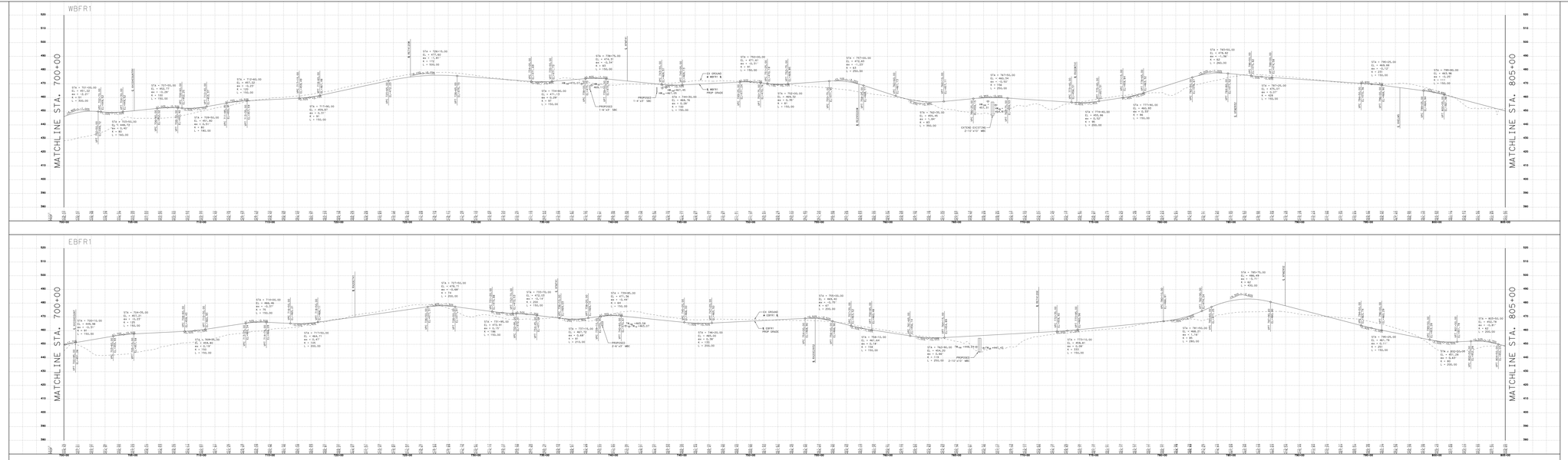

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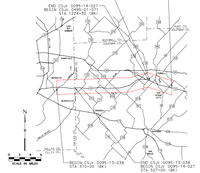

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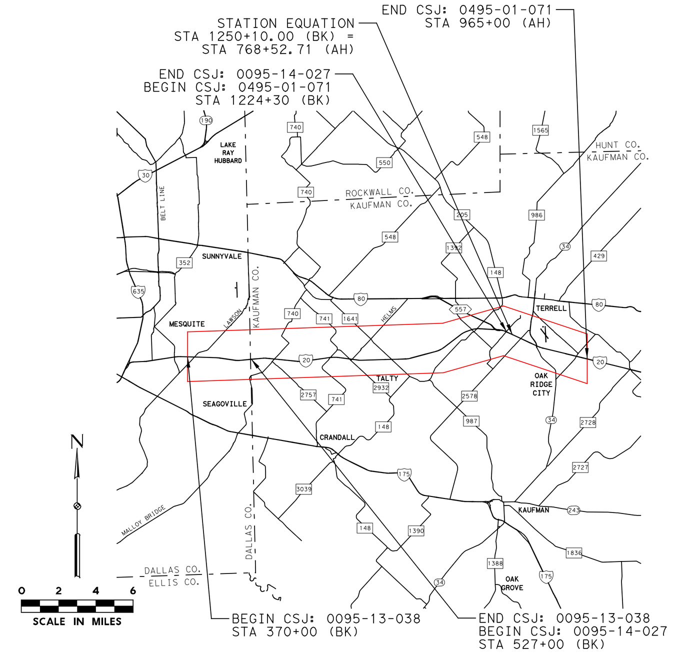

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JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

DATE: 10/31/2019

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ROLL 21 OF 30

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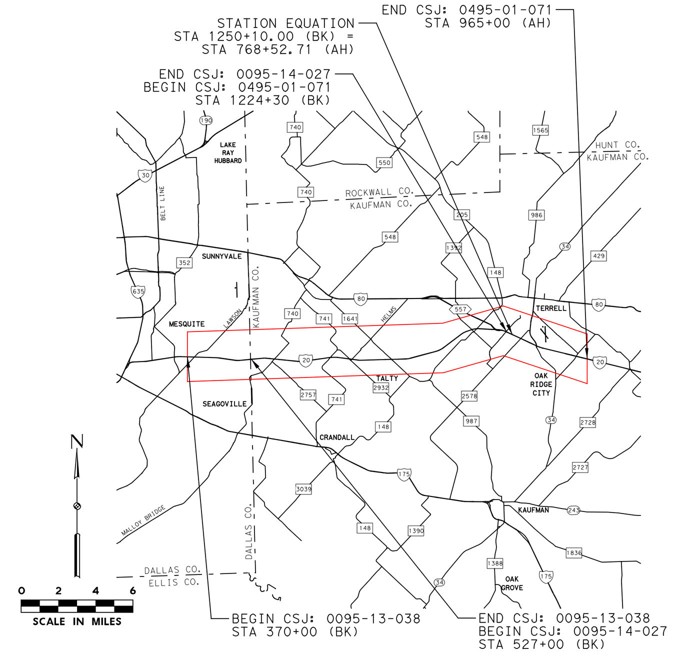

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ROLL 22 OF 30

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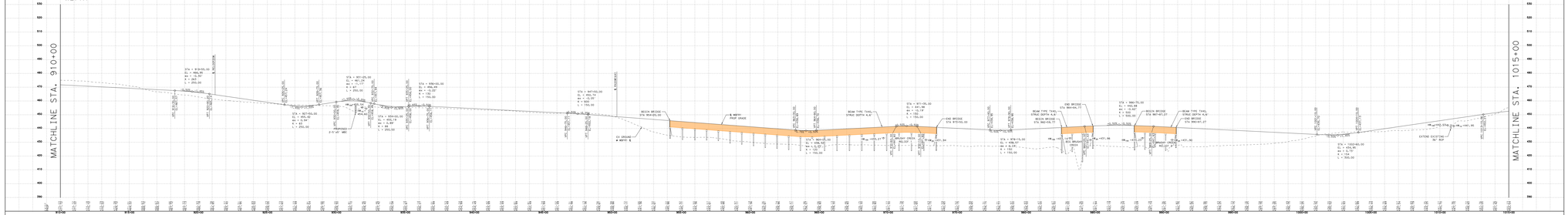
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MATCHLINE STA. 1015+00
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Dallas District
Mohamed K. Bur, P.E.
Dallas District Engineer

IH 20

DESIGN SCHEMATIC

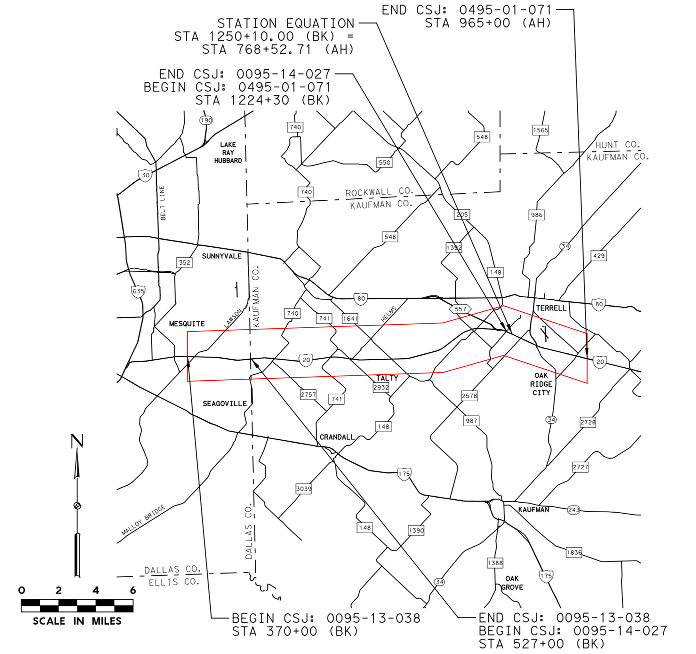
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	40-50 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR 557 Frontage Road:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connector:	20 mph (Urban)



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SCHEMATIC PREPARED BY OR UNDER THE DIRECT SUPERVISION OF:

NAME	P.E. NUMBER
JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

10/31/2019
DATE

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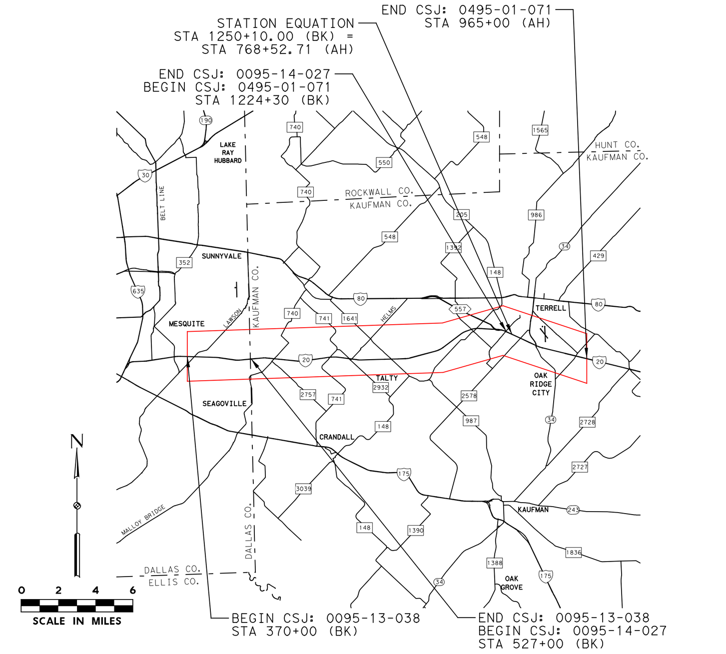

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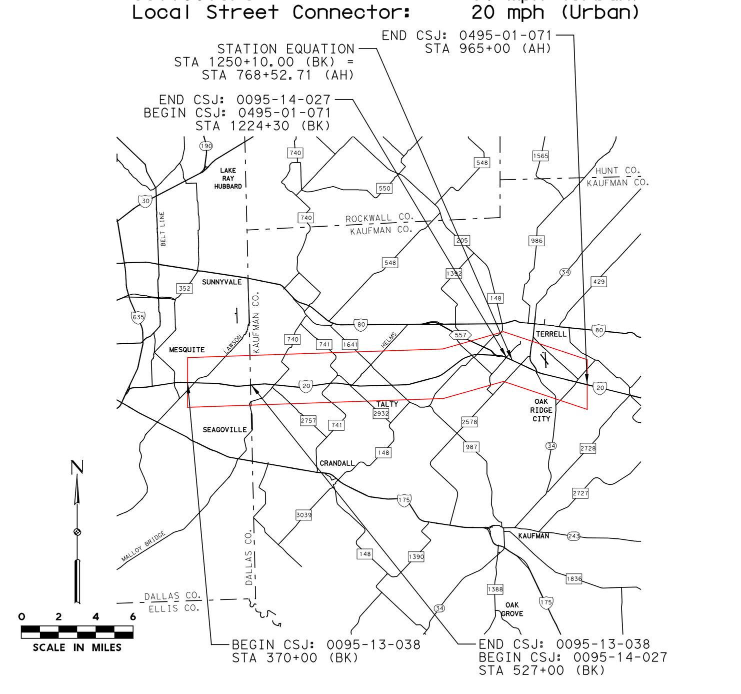

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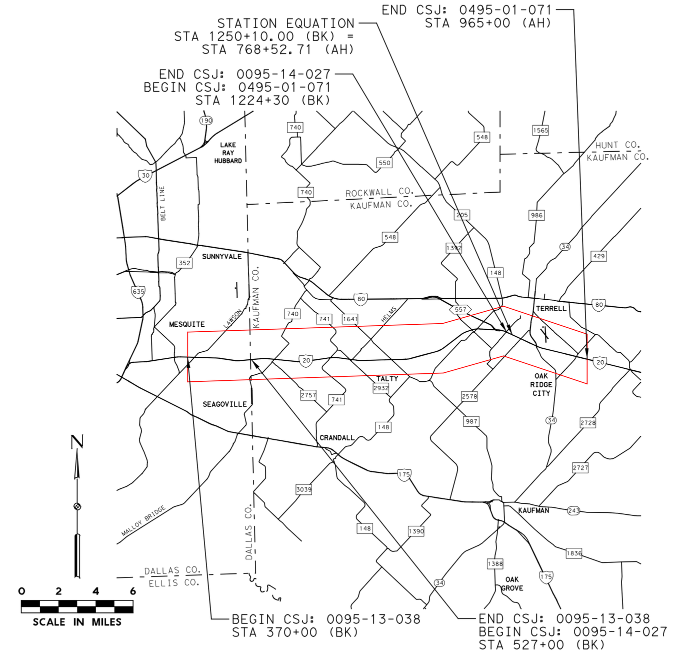

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To: East of Wilson Road (CR 138)
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CSJ: 0095-14-027
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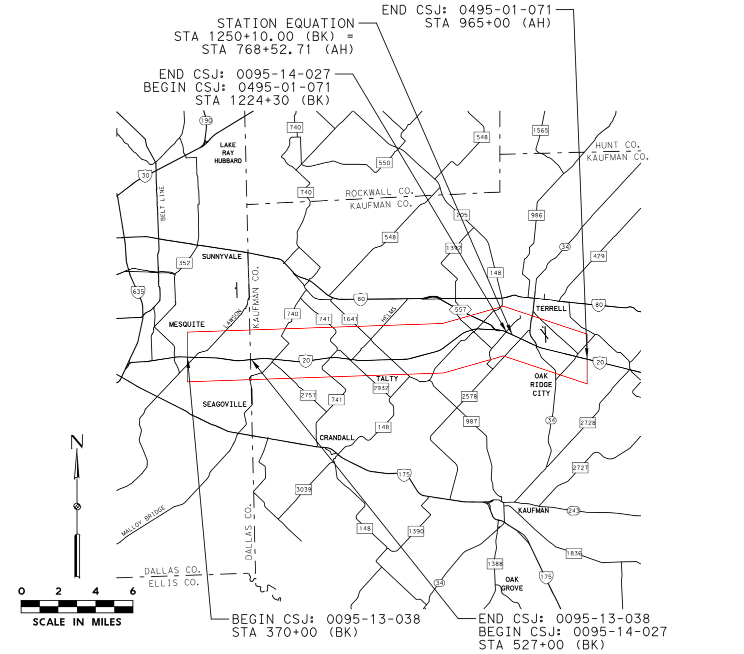

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Dallas and Kaufman Counties
Project Length: 20.390 Miles

Functional Class

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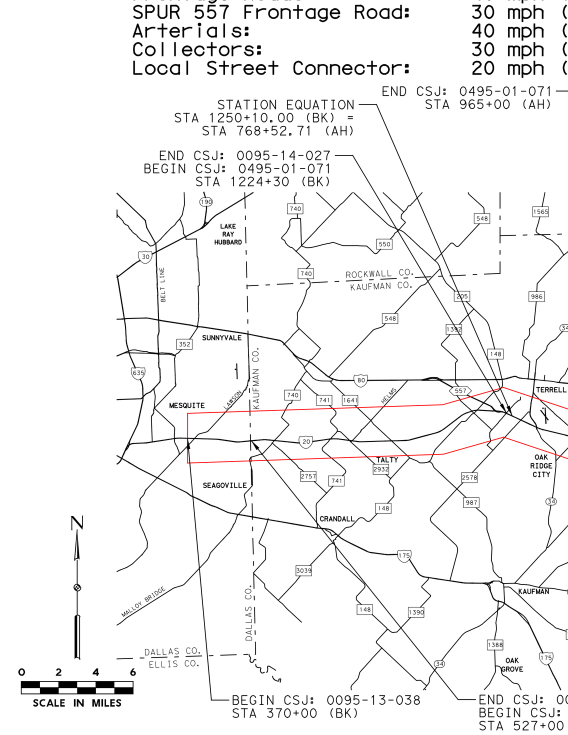

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JASON A. RICHTER	114508
ALEXANDER S. KEMP	133019

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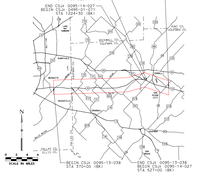

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SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:
JASON R. BUCHER — 14608 — TEXAS
NAME — P.E. NUMBER — STATE
ALEXANDER L. KEMP — 139313 — TEXAS
NAME — P.E. NUMBER — STATE
10/31/2019
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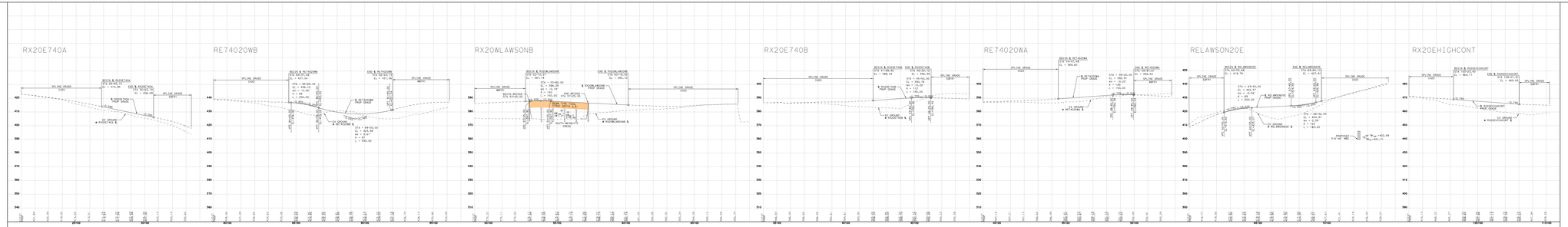

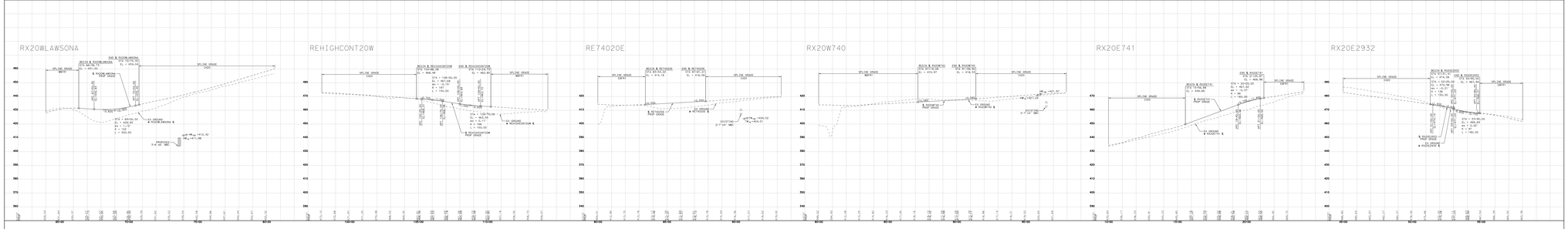

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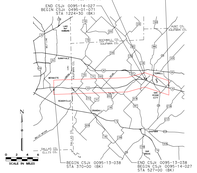

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NAME — P.E. NUMBER — STATE
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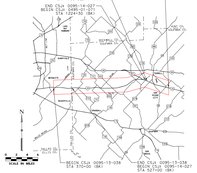

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SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:

JASON R. BUCHER — 140108
NAME — P.E. NUMBER

ALEXANDER S. KEMP — 139313
NAME — P.E. NUMBER

10/31/2019
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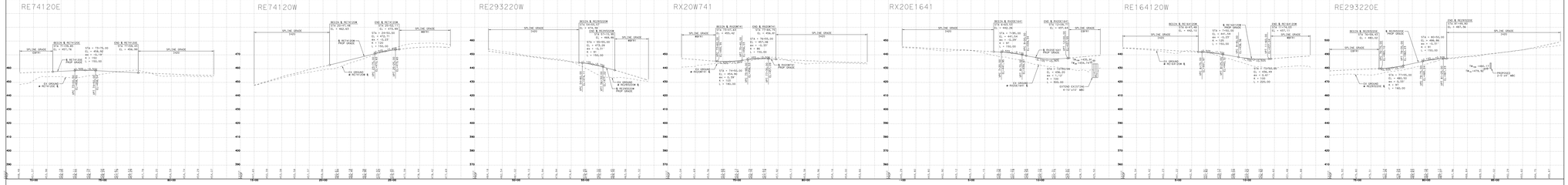

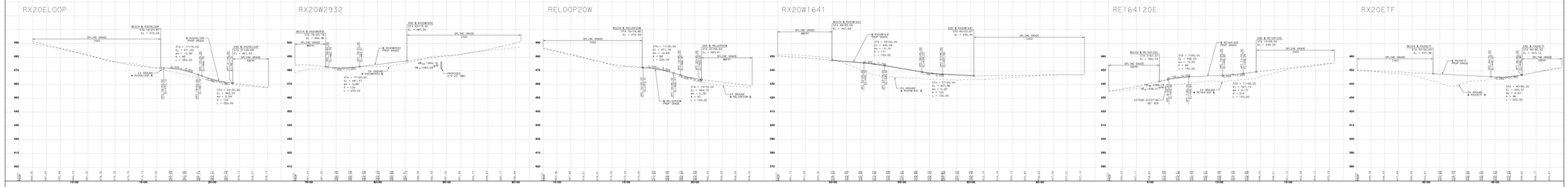

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Dallas District

Mohamed K. Burr, P.E.
Dallas District Engineer

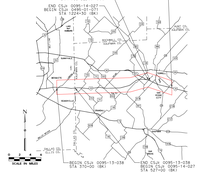
IH 20
DESIGN SCHEMATIC
From: Lawson Road
To: East of Wilson Road (CR 138)

CSJ: 0095-13-038
CSJ: 0095-14-027
CSJ: 0495-01-071

Dallas and Kaufman Counties
Project Length: 20.390 Miles
Functional Class

Mainlane = Interstate
Frontage Road = Major Collector

	Design Speed
Mainlanes:	70 mph
Ramps:	50 mph
Direct Connectors:	30 mph
Turnarounds:	15 mph
Frontage Roads:	40 mph (Urban)
SPUR DDT Frontage Roads:	30 mph (Urban)
Arterials:	40 mph (Urban)
Collectors:	30 mph (Urban)
Local Street Connectors:	20 mph (Urban)



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OCTOBER 2019

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SUBJECT TO REVISIONS
SCHEMATIC PREPARED UNDER THE DIRECT SUPERVISION OF:

JASON R. BUCHER — 140108
NAME — P.E. NUMBER

ALEXANDER S. KEMP — 139313
NAME — P.E. NUMBER

10/31/2019
DATE

NOT INTENDED FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES

100% PRELIMINARY SUBJECT TO CHANGE

ROLL 28 OF 30

HDR
Firm Registration No. F-754
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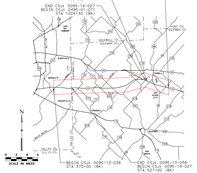

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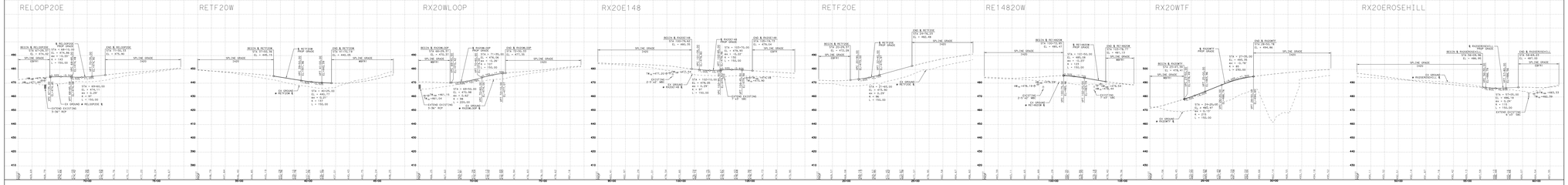

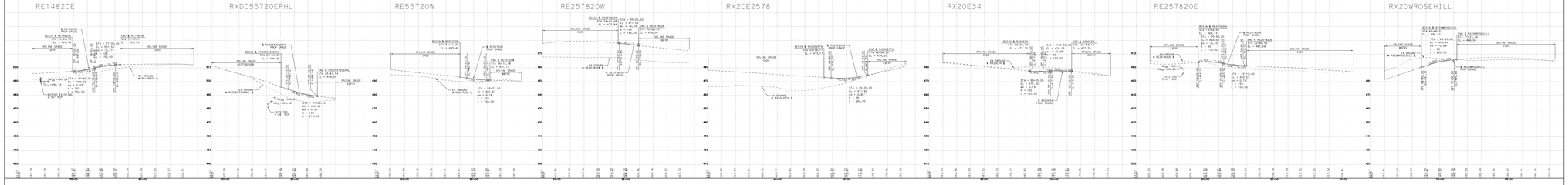

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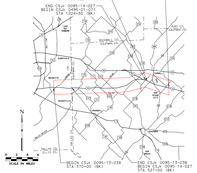

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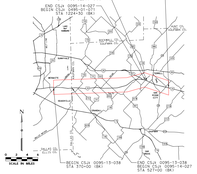

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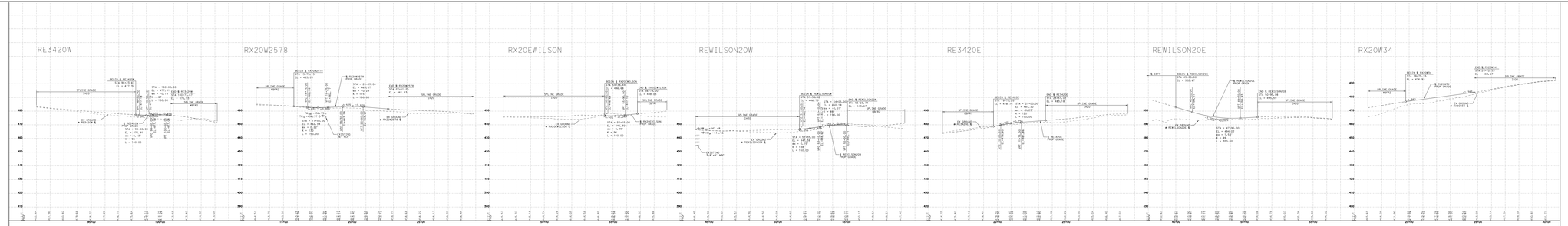

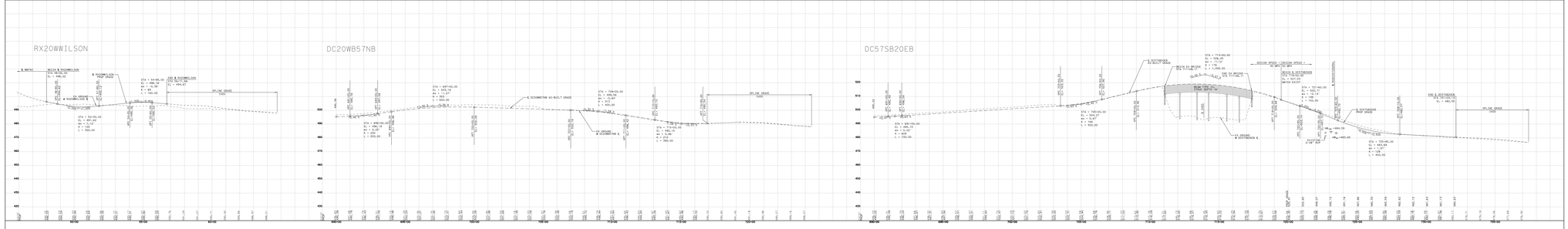

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