Texas Department of Transportation © 2012			
FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6	C 2075 2 45		1
STATE	DIST.	COUNTY	
TEXAS	TYLER	SMITH	
CONT.	SECT.	JOB	HIGHWAY NO.
2075	02 ETC	045 ETC	SL 323

323Att101d045

FINAL PLANS

DATE CONTRACT LETTING: _____

DATE CONTRACTOR BEGAN WORK: _____

DATE WORK COMPLETED & ACCEPTED: _____

CONTRACTOR: _____

USED ____ OF ____ ALLOTTED DAYS _____

FINAL CONTRACT COST : $ _____

FINAL AS BUILT PLANS

THE CONSTRUCTION WAS PERFORMED UNDER MY SUPERVISION IN ACCORDANCE WITH THE PLANS AND CONTRACT

DATE _____ AREA ENGINEER _____

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT

PROJECT NO. C 2075 2 45

NET LENGTH OF PROJECT = 4,921 FEET 0.932 MILES

CSJ: 2075-01-055	1,558 FT. =	0.295 MI.	WIDEN FOR TURN LANES.
CSJ: 2075-02-045	3,363 FT. =	0.637 MI.	WIDEN AND REPLACE RR UNDERPASS.
NET LENGTH	4,921 FT. =	0.932 MI.	

SMITH COUNTY
SL 323

FROM: 0.295 MILE NORTH OF SH 31 (ELM STREET), SOUTH
TO: 0.600 MILE SOUTH OF SH 31 (SHAW STREET)

CONSTRUCTION OF WIDENING A NON-FREEWAY FACILITY WITH RAILROAD BRIDGE

CONSISTING OF STRUCTURES, GRADING, PLANING, LEVELUP, BASE, OCST, ACP OVERLAY REPLACEMENT OF RAILROAD BRIDGE AND PAVEMENT MARKINGS.

DESIGN SPEED = 35 MPH (LOOP 323)

DESIGN SPEED = 40 MPH (MAIN RR TRACK)
(OPERATING SPEED; VERTICAL GEOMETRY CONFORMS TO V/L REQUIREMENTS OF MAIN TRACK PER UPRR STD 0016)

DESIGN SPEED = 35 MPH (SHOOFLY RR TRACK)

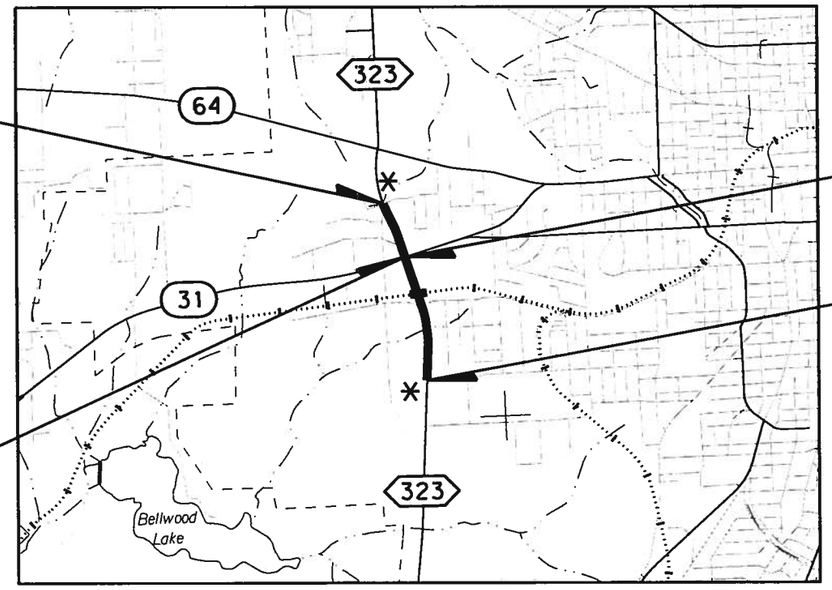
2010 ADT = 29,000 VPD
2030 ADT = 40,600 VPD

INDEX OF SHEETS

1	TITLE SHEET
2	PROJECT LAYOUT
3	UPRR TYPICAL SECTIONS
4-6	UPRR ALIGNMENT DATA
7-10	MAIN TRACK PLAN AND PROFILE
11-12	SHOOFLY TRACK PLAN AND PROFILE
13	MAIN TRACK BRIDGE LAYOUT
14	SHOOFLY TRACK BRIDGE LAYOUT
15-16	BRIDGE CROSS SECTIONS
17-18	BORING LOG DATA
19	CULVERT LAYOUT
19A	POTENTIAL REPLANKING
20-26	RAILROAD CROSS SECTIONS
27	ROADWAY TYPICAL SECTION AT UPRR
28	ROADWAY PLAN AT UPRR
29	ROADWAY PROFILE AT UPRR
30	RETAINING WALL LAYOUTS #2, 3, AND 4
31	RETAINING WALL LAYOUTS #5, 6, 7, 8, AND 9
32-34	RAILROAD REQUIREMENTS FOR BRIDGE CONSTRUCTION
35	PROJECT SPECIFIC RAILROAD COORDINATION

STA. 363+00
BEG PROJECT
CONT. 2075-01-055
TRM 686+1.141

STA. 378+31
END PROJECT
CONT. 2075-01-055
TRM 686+0.846



STA. 378+31
BEG PROJECT
CONT. 2075-02-045
TRM 686+0.846

STA. 412+00
END PROJECT
CONT. 2075-02-045
TRM 686+0.209

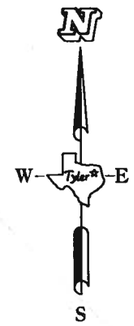


EXHIBIT A

FOR UPRR REVIEW ONLY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
PREPARED UNDER THE SUPERVISION OF MARK A STURROCK, P.E. 72267

* SIGNING IN ACCORDANCE WITH STANDARD BC SHEETS AND PART VI OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

NO EXCEPTIONS
NO EQUATIONS
NO R.R. CROSSINGS ELIMINATED

NOT TO SCALE

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SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, JUNE 1, 2004, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT: SPECIAL LABOR PROVISIONS FOR STATE PROJECTS, (000---2381).

COUNTY SMITH PROJ. NO. C 2075 2 45
HWY. NO. SL 323 LETTING DATE AUGUST 2013
DATE ACCEPTED _____

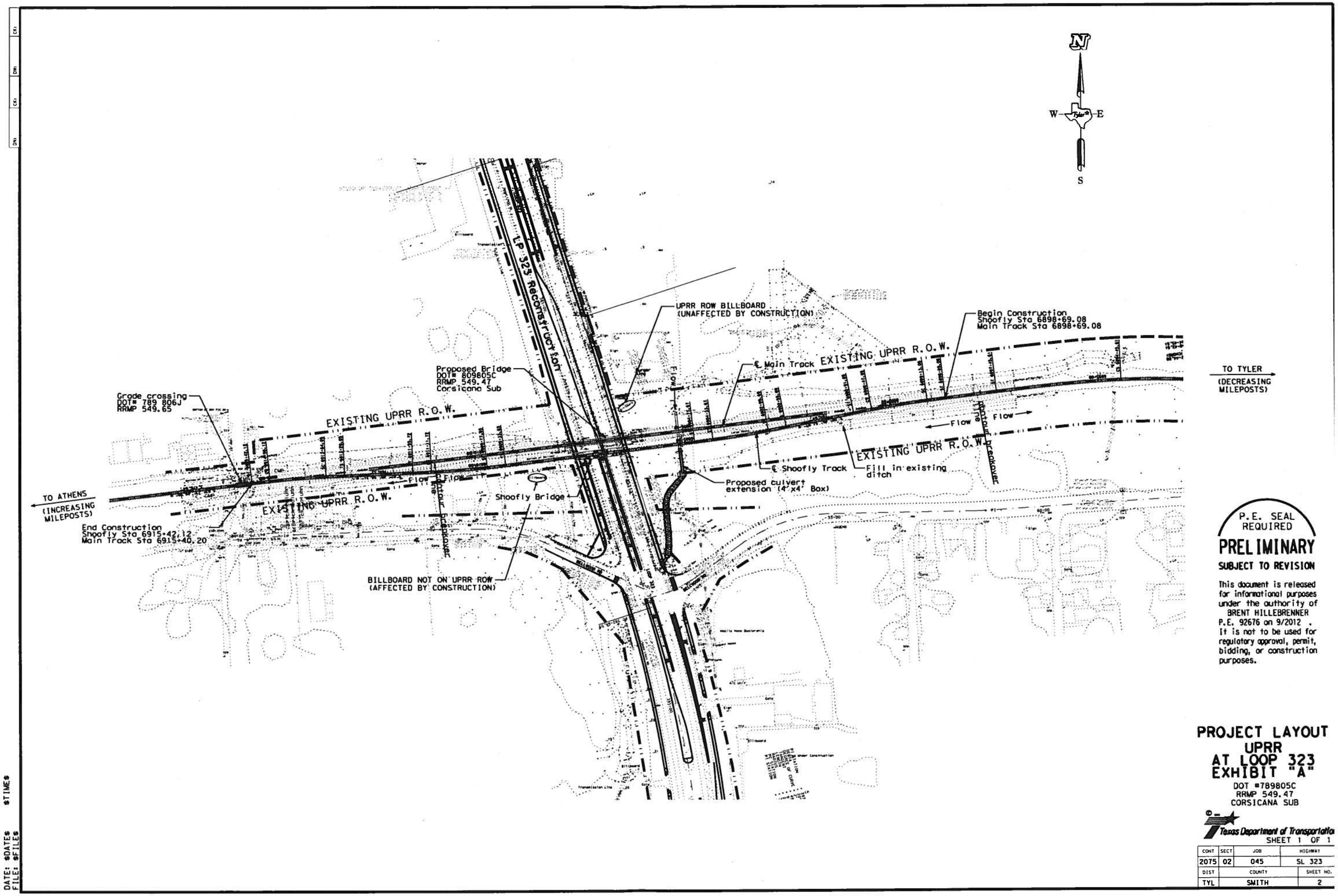
TEXAS DEPARTMENT OF TRANSPORTATION

SUBMITTED FOR LETTING: _____ 20__ — DISTRICT DESIGN ENGINEER

APPROVED FOR LETTING: _____ — DIRECTOR, TRAFFIC OPERATIONS DIVISION

RECOMMENDED FOR LETTING: _____ 20__ — DISTRICT ENGINEER

APPROVED FOR LETTING: _____ — DIRECTOR, DESIGN DIVISION



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PRELIMINARY

SUBJECT TO REVISION

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PROJECT LAYOUT
UPRR
AT LOOP 323
EXHIBIT "A"

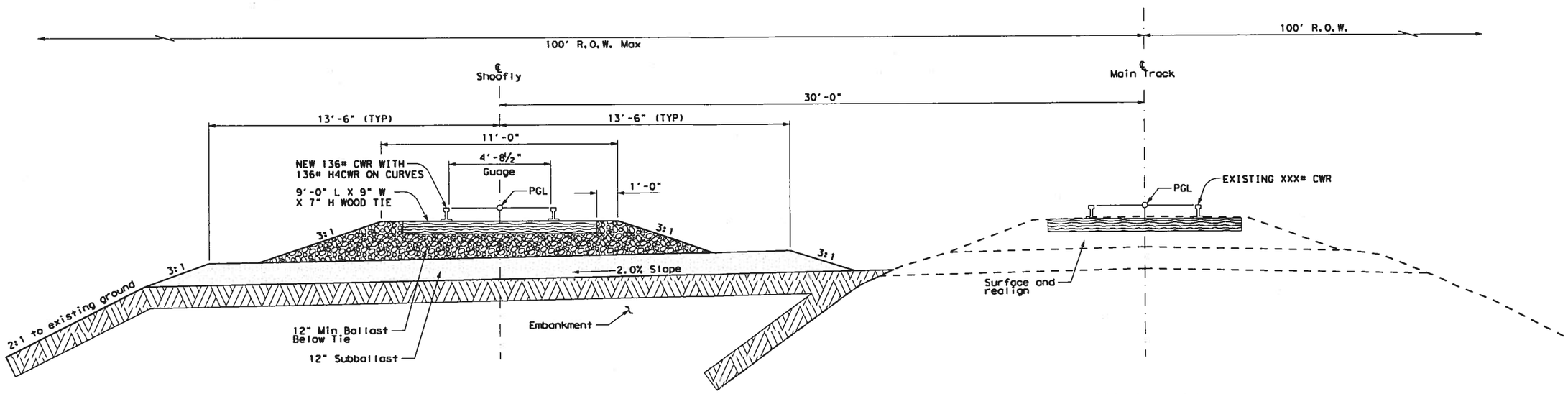
DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation

SHEET 1 OF 1

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	2

DATE: $DATE$ $TIME$
FILE: $FILE$



SHOOFLY

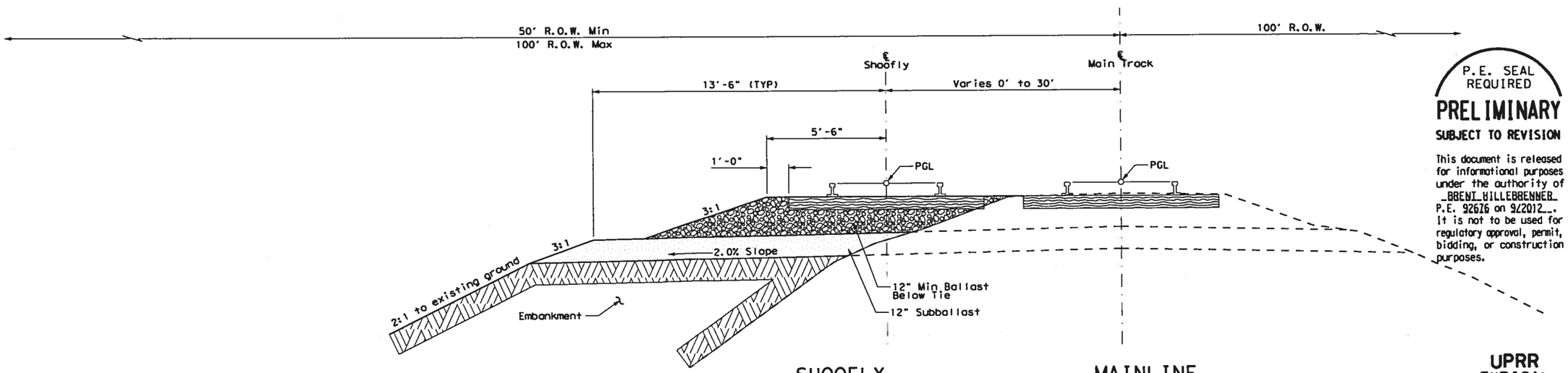
SHOOFLY STA 6904+77.67 TO STA 6909+33.65

MAINLINE

MAINLINE STA 6904+76.71 TO STA 6909+32.69

U.P.R.R.
PROPOSED TYPICAL SECTION

N.T.S.



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SHOOFLY

SHOOFLY STA 6898+69.08 TO STA 6904+77.67
SHOOFLY STA 6909+33.65 TO STA 6915+42.12

MAINLINE

MAINLINE STA 6898+69.08 TO STA 6904+76.71
MAINLINE STA 6909+32.69 TO STA 6915+40.20

U.P.R.R.
PROPOSED TIE-IN TYPICAL SECTION

N.T.S.

UPRR TYPICAL SECTIONS

DOT #789805C
RRMP 549.47
CORSICANA SUB

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SHEET OF

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	3

DATE: $DATE$ $TIME$
FILE: $FILE$

UPRR MAIN

Point 1000 X 2,947,924.1782 Y 6,822,743.5945 Sta 6871+26.75

Course from 1000 to TS EXISTB N 75° 40' 50.2149" W Dist 1,615.8509

Spiral EXISTB Type 1 Spiral Element

**** Chord Definition ****

Angle	4° 29' 58.1495" (LT)	P	1.9628	BK N	75° 40' 50.2149" W
LS	300.0000	K	149.9692	AH N	80° 10' 48.3645" W
R	1,910.0775	LT	200.0646	CB N	77° 10' 49.3162" W
YS	7.8496	ST	100.0588	Defl	1° 29' 59.1012"
XS	299.8150	LC	299.9178	Deg	3° 00' 00.0000"

Spiral Coordinates

Point	X	Y	Station
TS	2,946,358.5284	6,823,143.2378	6887+42.61
PI	2,946,164.6794	6,823,192.7191	6889+42.67
SC	2,946,066.0866	6,823,209.7843	6890+42.61
CC	2,945,740.3196	6,821,327.6919	

Curve Data

Curve EXIST (Chord Definition)

P.I. Station	6892+44.88	X	2,945,866.7752	Y	6,823,244.2827
Delta =	12° 05' 24.1921" (LT)				
Degree =	3° 00' 00.0000"				
Tangent =	202.2750				
Length =	403.0018				
Radius =	1,910.0775				
External =	10.6805				
Long Chord =	402.3005				
Mid. Ord. =	10.6211				
P.C. Station	6890+42.61	X	2,946,066.0866	Y	6,823,209.7843
P.T. Station	6894+45.61	X	2,945,664.6589	Y	6,823,236.2703
C.C.		X	2,945,740.3196	Y	6,821,327.6919
Back = N 80° 10' 48.3645" W					
Ahead = S 87° 43' 47.4435" W					
Chord Bear = N 86° 13' 30.4605" W					

Spiral EXISTA Type 2 Spiral Element

**** Chord Definition ****

Angle	4° 29' 58.1495" (LT)	P	1.9628	BK S	87° 43' 47.4435" W
LS	300.0000	K	149.9692	AH S	83° 13' 49.2940" W
R	1,910.0775	LT	200.0646	CB S	84° 43' 48.3952" W
YS	7.8496	ST	100.0588	Defl	1° 29' 59.1012"
XS	299.8150	LC	299.9178	Deg	3° 00' 00.0000"

Spiral Coordinates

Point	X	Y	Station
CS	2,945,664.6589	6,823,236.2703	6894+45.61
PI	2,945,564.6787	6,823,232.3069	6895+45.67
ST	2,945,366.0089	6,823,208.7237	6897+45.61
CC	2,945,740.3196	6,821,327.6919	

Course from ST EXISTA to 1002 S 83° 13' 49.2940" W Dist 3,476.6449

Point 1002 X 2,941,913.6028 Y 6,822,798.9044 Sta 6932+22.25

UPRR SHOOFLY

Spiral SH001B Type 1 Spiral Element

**** Chord Definition ****

Angle	0° 32' 59.8429" (LT)	P	0.0352	BK S	83° 13' 49.2940" W
LS	44.0000	K	21.9999	AH S	82° 40' 49.4510" W
R	2,292.0130	LT	29.3335	CB S	83° 02' 49.3468" W
YS	0.1408	ST	14.6668	Defl	0° 10' 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30' 00.0000"

Spiral Coordinates

Point	X	Y	Station
TS	2,945,243.3948	6,823,194.1687	6898+69.08
PI	2,945,214.2659	6,823,190.7110	6898+98.41
SC	2,945,199.7186	6,823,188.8424	6899+13.08
CC	2,945,491.7299	6,820,915.5071	

Curve Data

Curve SH001 (Chord Definition)

P.I. Station	6899+80.09	X	2,945,133.2529	Y	6,823,180.3048
Delta =	3° 20' 57.7368" (LT)				
Degree =	2° 30' 00.0000"				
Tangent =	67.0118				
Length =	133.9749				
Radius =	2,292.0130				
External =	0.9794				
Long Chord =	133.9664				
Mid. Ord. =	0.9790				
P.C. Station	6899+13.08	X	2,945,199.7186	Y	6,823,188.8424
P.T. Station	6900+47.05	X	2,945,067.3995	Y	6,823,167.8986
C.C.		X	2,945,491.7299	Y	6,820,915.5071
Back = S 82° 40' 49.4510" W					
Ahead = S 79° 19' 51.7142" W					
Chord Bear = S 81° 00' 20.5826" W					

Spiral SH001A Type 2 Spiral Element

**** Chord Definition ****

Angle	0° 32' 59.8429" (LT)	P	0.0352	BK S	79° 19' 51.7142" W
LS	44.0000	K	21.9999	AH S	78° 46' 51.8713" W
R	2,292.0130	LT	29.3335	CB S	78° 57' 51.8184" W
YS	0.1408	ST	14.6668	Defl	0° 10' 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30' 00.0000"

Spiral Coordinates

Point	X	Y	Station
CS	2,945,067.3995	6,823,167.8986	6900+47.05
PI	2,945,052.9862	6,823,165.1833	6900+61.72
ST	2,945,024.2133	6,823,159.4762	6900+91.05
CC	2,945,491.7299	6,820,915.5071	

Course from ST SH001A to TS SH002B S 78° 46' 51.8713" W Dist 164.6368

Spiral SH002B Type 1 Spiral Element

**** Chord Definition ****

Angle	0° 32' 59.8429" (RT)	P	0.0352	BK S	78° 46' 51.8713" W
LS	44.0000	K	21.9999	AH S	79° 19' 51.7142" W
R	2,292.0130	LT	29.3335	CB S	78° 57' 51.8184" W
YS	0.1408	ST	14.6668	Defl	0° 10' 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30' 00.0000"

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UPRR ALIGNMENT DATA EXHIBIT A

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation

SHEET 1 OF 3

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST	COUNTY		SHEET NO.
TYL	SMITH		4

DATE: $DATE$ $TIME$
FILE: $FILE$

UPRR SHOOFLY

Spiral Coordinates

Point	X	Y	Station
TS	2,944,862.7225	6,823,127.4447	6902+55.69
PI	2,944,833.9496	6,823,121.7377	6902+85.03
SC	2,944,819.5363	6,823,119.0223	6902+99.69
CC	2,944,395.2059	6,825,371.4138	

Curve Data

Curve SH002 (Chord Definition)

P.I. Station	6903+66.70	X	2,944,753.6829	Y	6,823,106.6161
Delta =	3° 20′ 57.7368" (RT)				
Degree =	2° 30′ 00.0000"				
Tangent =	67.0118				
Length =	133.9749				
Radius =	2,292.0130				
External =	0.9794				
Long Chord =	133.9664				
Mid. Ord. =	0.9790				
P.C. Station	6902+99.69	X	2,944,819.5363	Y	6,823,119.0223
P.T. Station	6904+33.67	X	2,944,687.2172	Y	6,823,098.0786
C.C.		X	2,944,395.2059	Y	6,825,371.4138
Back =	S 79° 19′ 51.7142" W				
Ahead =	S 82° 40′ 49.4510" W				
Chord Bear =	S 81° 00′ 20.5826" W				

Spiral SH002A Type 2 Spiral Element

**** Chord Definition ****

Angle	0° 32′ 59.8429" (RT)	P	0.0352	BK S	82° 40′ 49.4510" W
LS	44.0000	K	21.9999	AH S	83° 13′ 49.2940" W
R	2,292.0130	LT	29.3335	CB S	83° 02′ 49.3468" W
YS	0.1408	ST	14.6668	Defl	0° 10′ 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30′ 00.0000"

Spiral Coordinates

Point	X	Y	Station
CS	2,944,687.2172	6,823,098.0786	6904+33.67
PI	2,944,672.6699	6,823,096.2100	6904+48.33
ST	2,944,643.5409	6,823,092.7522	6904+77.67
CC	2,944,395.2059	6,825,371.4138	

Course from ST SH002A to TS SH003B S 83° 13′ 49.2940" W Dist 455.9806

Spiral SH003B Type 1 Spiral Element

**** Chord Definition ****

Angle	0° 32′ 59.8429" (RT)	P	0.0352	BK S	83° 13′ 49.2940" W
LS	44.0000	K	21.9999	AH S	83° 46′ 49.1369" W
R	2,292.0130	LT	29.3335	CB S	83° 24′ 49.2411" W
YS	0.1408	ST	14.6668	Defl	0° 10′ 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30′ 00.0000"

Spiral Coordinates

Point	X	Y	Station
TS	2,944,190.7394	6,823,039.0022	6909+33.65
PI	2,944,161.6104	6,823,035.5444	6909+62.98
SC	2,944,147.0299	6,823,033.9554	6909+77.65
CC	2,943,898.7112	6,825,312.4772	

Curve Data

Curve SH003 (Chord Definition)

P.I. Station	6910+44.71	X	2,944,080.3651	Y	6,823,026.6901
Delta =	3° 21′ 06.3311" (RT)				
Degree =	2° 30′ 00.0000"				
Tangent =	67.0596				
Length =	134.0703				
Radius =	2,292.0130				
External =	0.9808				
Long Chord =	134.0619				
Mid. Ord. =	0.9804				
P.C. Station	6909+77.65	X	2,944,147.0299	Y	6,823,033.9554
P.T. Station	6911+11.72	X	2,944,013.3894	Y	6,823,023.3349
C.C.		X	2,943,898.7112	Y	6,825,312.4772
Back =	S 83° 46′ 49.1369" W				
Ahead =	S 87° 07′ 55.4680" W				
Chord Bear =	S 85° 27′ 22.3024" W				

Spiral SH003A Type 2 Spiral Element

**** Chord Definition ****

Angle	0° 32′ 59.8429" (RT)	P	0.0352	BK S	87° 07′ 55.4680" W
LS	44.0000	K	21.9999	AH S	87° 40′ 55.3109" W
R	2,292.0130	LT	29.3335	CB S	87° 29′ 55.3638" W
YS	0.1408	ST	14.6668	Defl	0° 10′ 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30′ 00.0000"

Spiral Coordinates

Point	X	Y	Station
CS	2,944,013.3894	6,823,023.3349	6911+11.72
PI	2,943,998.7410	6,823,022.6010	6911+26.38
ST	2,943,969.4315	6,823,021.4146	6911+55.72
CC	2,943,898.7112	6,825,312.4772	

Course from ST SH003A to TS SH004B S 87° 40′ 55.3109" W Dist 164.3342

Spiral SH004B Type 1 Spiral Element

**** Chord Definition ****

Angle	0° 32′ 59.8429" (LT)	P	0.0352	BK S	87° 40′ 55.3109" W
LS	44.0000	K	21.9999	AH S	87° 07′ 55.4680" W
R	2,292.0130	LT	29.3335	CB S	87° 29′ 55.3638" W
YS	0.1408	ST	14.6668	Defl	0° 10′ 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30′ 00.0000"

Spiral Coordinates

Point	X	Y	Station
TS	2,943,805.2318	6,823,014.7681	6913+20.05
PI	2,943,775.9223	6,823,013.5817	6913+49.39
SC	2,943,761.2739	6,823,012.8479	6913+64.05
CC	2,943,875.9521	6,820,723.7056	

P.E. SEAL REQUIRED

PRELIMINARY

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UPRR ALIGNMENT DATA EXHIBIT A

DOT #789805C
RRMP 549.47
CORSICANA SUB

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SHEET 2 OF 3

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST	COUNTY		SHEET NO.
TYL	SMITH		5

DATE: $DATE$ $TIME$
FILE: $FILE$

UPRR SHOOFLY

Curve Data

Curve SH004 (Chord Definition)

P.I. Station	6914+31.11	X	2,943,694.2983	Y	6,823,009.4926
Delta =	3° 21′ 06.3311" (LT)				
Degree =	2° 30′ 00.0000"				
Tangent =	67.0596				
Length =	134.0703				
Radius =	2,292.0130				
External =	0.9808				
Long Chord =	134.0619				
Mid. Ord. =	0.9804				
P.C. Station	6913+64.05	X	2,943,761.2739	Y	6,823,012.8479
P.T. Station	6914+98.12	X	2,943,627.6334	Y	6,823,002.2273
C.C.		X	2,943,875.9521	Y	6,820,723.7056
Back =	S 87° 07′ 55.4680" W				
Ahead =	S 83° 46′ 49.1369" W				
Chord Bear =	S 85° 27′ 22.3024" W				

Spiral SH004A Type 2 Spiral Element

**** Chord Definition ****

Angle	0° 32′ 59.8429" (LT)	P	0.0352	BK S	83° 46′ 49.1369" W
LS	44.0000	K	21.9999	AH S	83° 13′ 49.2940" W
R	2,292.0130	LT	29.3335	CB S	83° 24′ 49.2411" W
YS	0.1408	ST	14.6668	Defl	0° 10′ 59.9471"
XS	43.9996	LC	43.9998	Deg	2° 30′ 00.0000"

Spiral Coordinates

Point	X	Y	Station
CS	2,943,627.6334	6,823,002.2273	6914+98.12
PI	2,943,613.0529	6,823,000.6383	6915+12.79
ST	2,943,583.9240	6,822,997.1806	6915+42.12
CC	2,943,875.9521	6,820,723.7056	

SUPERELEVATION SHOOFLY TRACK

CURVE SH001
TS STA 6898+69.08 SUPERELEVATION = 0.0"
SC STA 6899+13.08 SUPERELEVATION = 1.0"
CS STA 6900+47.05 SUPERELEVATION = 1.0"
ST STA 6900+91.05 SUPERELEVATION = 0.0"

CURVE SH002
TS STA 6902+55.69 SUPERELEVATION = 0.0"
SC STA 6902+99.69 SUPERELEVATION = 1.0"
CS STA 6904+33.67 SUPERELEVATION = 1.0"
ST STA 6904+77.67 SUPERELEVATION = 0.0"

CURVE SH003
TS STA 6909+33.65 SUPERELEVATION = 0.0"
SC STA 6909+77.65 SUPERELEVATION = 1.0"
CS STA 6911+11.72 SUPERELEVATION = 1.0"
ST STA 6911+55.72 SUPERELEVATION = 0.0"

CURVE SH004
TS STA 6913+20.05 SUPERELEVATION = 0.0"
SC STA 6913+64.05 SUPERELEVATION = 1.0"
CS STA 6914+98.12 SUPERELEVATION = 1.0"
ST STA 6915+42.12 SUPERELEVATION = 0.0"

P.E. SEAL REQUIRED

PRELIMINARY

SUBJECT TO REVISION

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UPRR ALIGNMENT DATA EXHIBIT A

DOT #789805C
RRMP 549.47
CORSICANA SUB

©2012

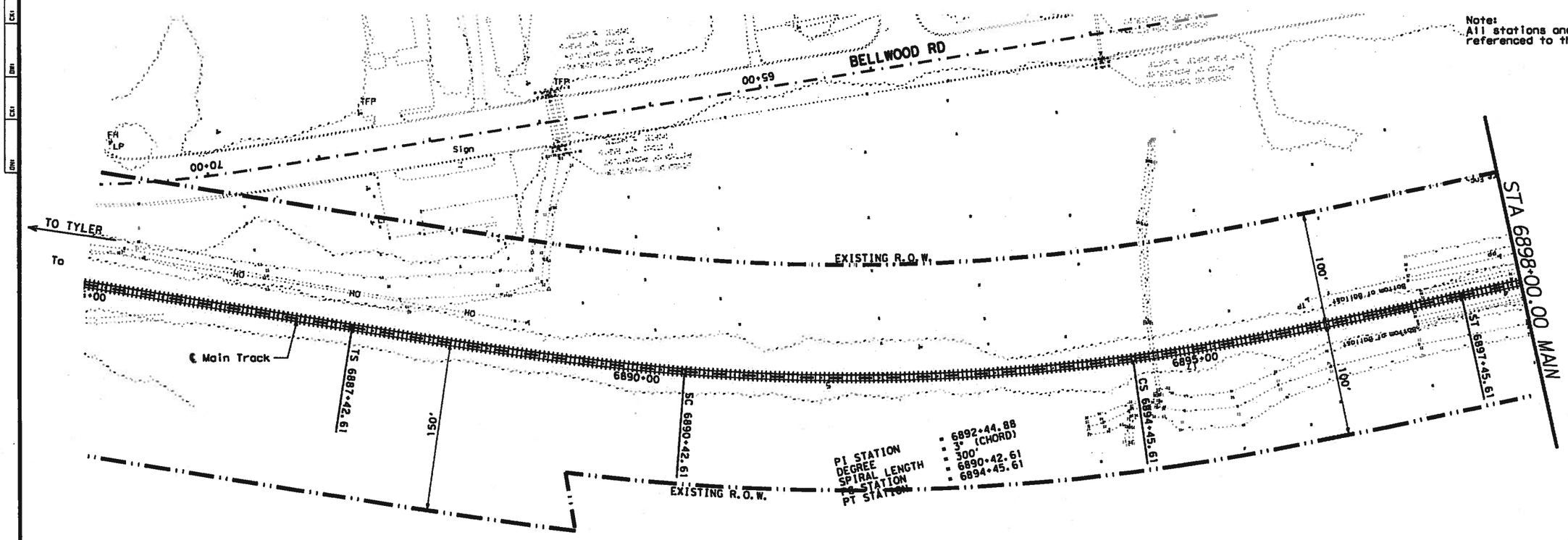
Texas Department of Transportation

SHEET 3 OF 3

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	6

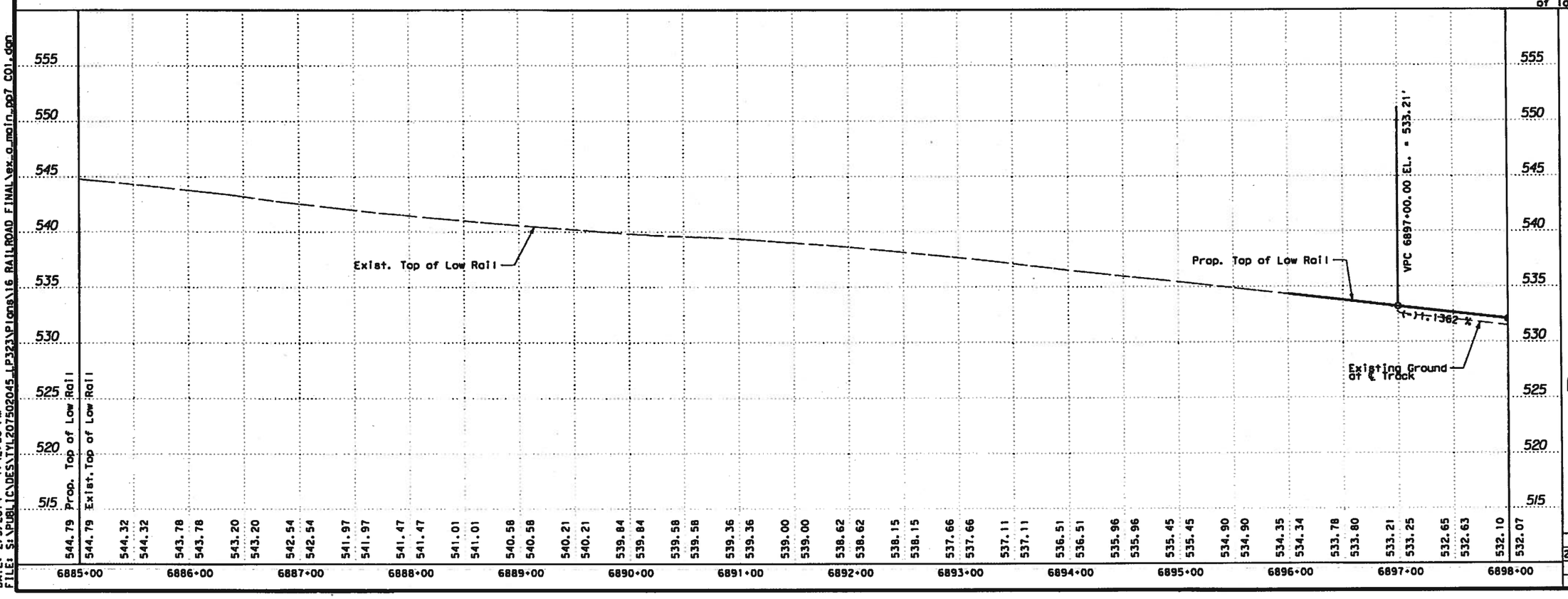
DATE: $DATE$ $TIME$
FILE: $FILE$

Note:
All stations and offsets on this sheet are referenced to the Main Track Alignment



⚠ C.O. Number _____

Rev. 1
Changed all callouts per UPR comments to address division of labor.



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner
2/5/14

PLAN & PROFI
UPRR MAIN TRAC
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE
H: 1" = 100'
V: 1" = 10'

Texas Department of Transpo

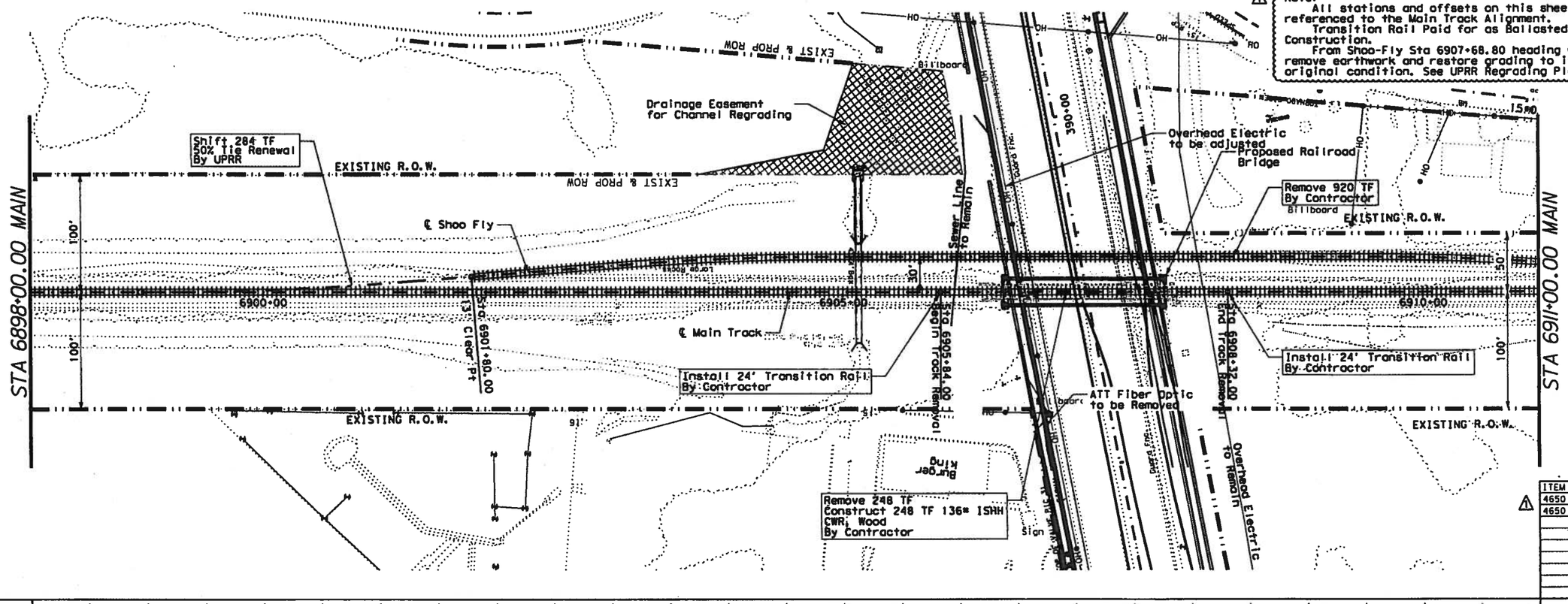
SHEET 1 OF

CONT	SECT	JOB	HIGHW
2075	02	045	SL 3

DIST	COUNTY	SHE
TYL	SMITH	2

DATE: 2/5/2014 1:42:58 PM
FILE: $:\PUBLIC\DES\TYL2075020 45_LP323\Plans\16 RAILROAD FINAL\ex_o_main_pg7 CO1.dgn

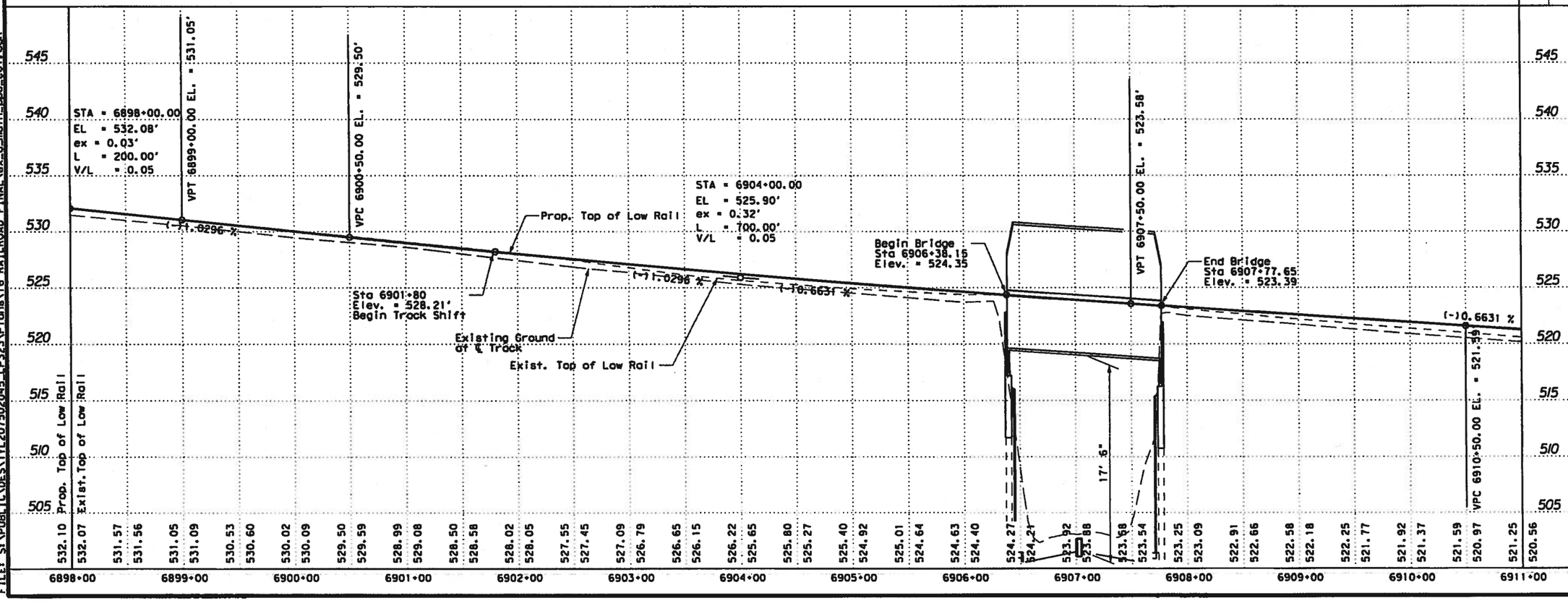
Note:
All stations and offsets on this sheet are referenced to the Main Track Alignment.
Transition Rail Paid for as Ballasted Track Construction.
From Shoo-Fly Sta 6907+68.80 heading west, remove earthwork and restore grading to it's original condition. See UPRR Regrading Plan.



C.O. Number _____

Rev. 1
Changed all callouts per UPRR comments to address division of labor. Revised Sheet Note. Revised Quantities.

ITEM	UNIT	QTY	DESCRIPTION
4650	LF	1168	TRACK REMOVAL
4650	LF	248	BALLASTED TRACK CONST



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner
2/5/14

PLAN & PROFILE
UPRR MAIN TRACK AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE
H: 1" = 100'
V: 1" = 10'

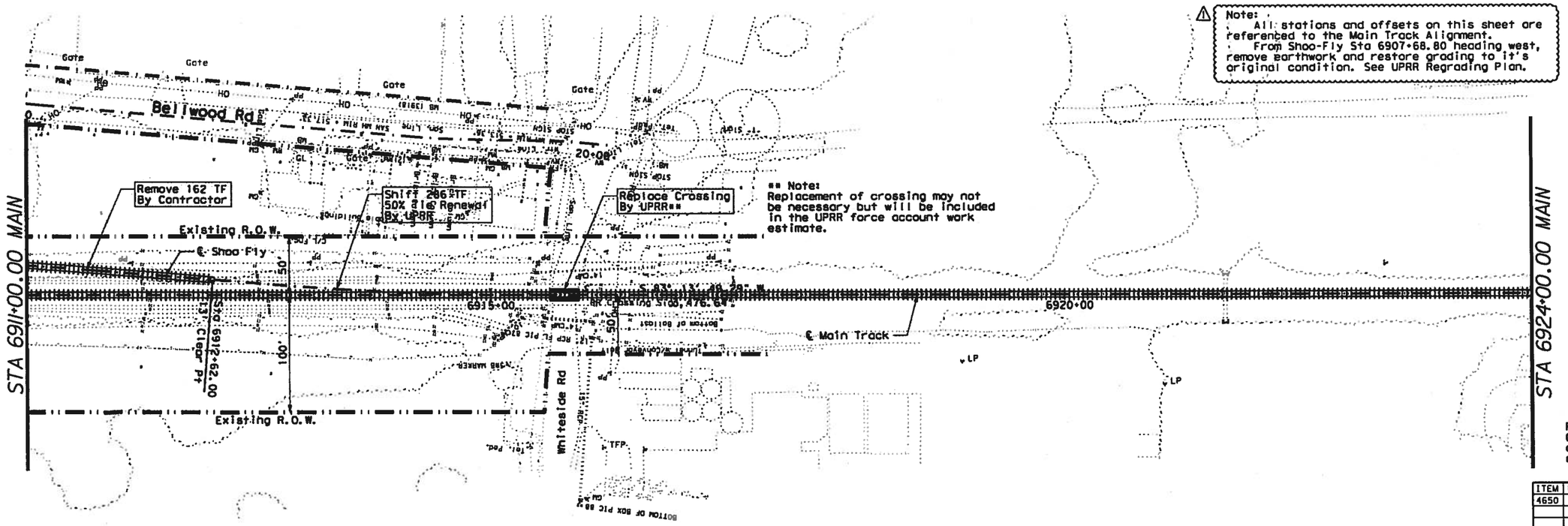
Texas Department of Transportation

SHEET 2 OF 4

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 32
DIST	COUNTY		SHEET
TYL	SMITH		2

DATE: 2/5/2014 1:43:03 PM
FILE: S:\PUBLIC\DES\TYL2075\02045_LP323\Plans\16 RAILROAD FINAL\ex_g_main_pp8_C01.dgn

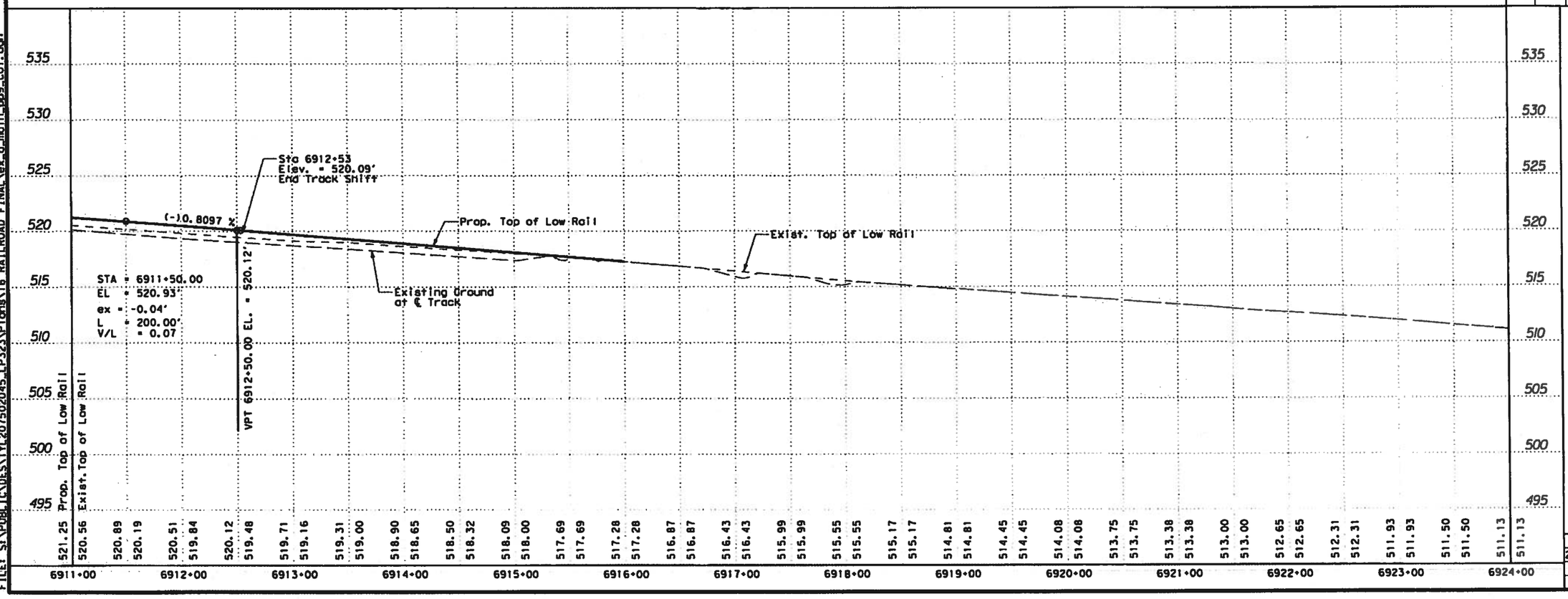
Note:
All stations and offsets on this sheet are referenced to the Main Track Alignment.
From Shoo-Fly Sta 6907+68.80 heading west, remove earthwork and restore grading to it's original condition. See UPRR Regrading Plan.



C.O. Number _____

Rev. 1
Changed all callouts per UPR
comments to address division
of labor. Modified Sheet Not

ITEM	UNIT	QTY.	DESCRIPTION
4650	LF	162	TRACK REMOVAL



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner
2/5/14

PLAN & PROFI
UPRR MAIN TRAC AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE
H: 1" = 100'
V: 1" = 10'

Texas Department of Transpo

SHEET 3 OF 4

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32

DIST	COUNTY	SHE
TYL	SMITH	2

DATE: 2/5/2014 1:43:05 PM
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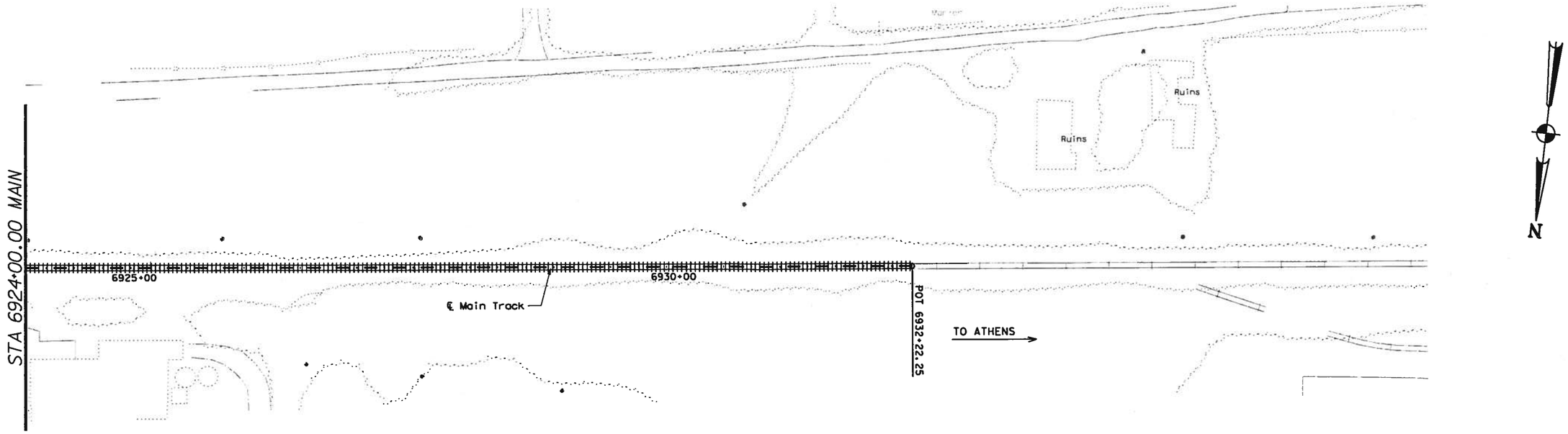

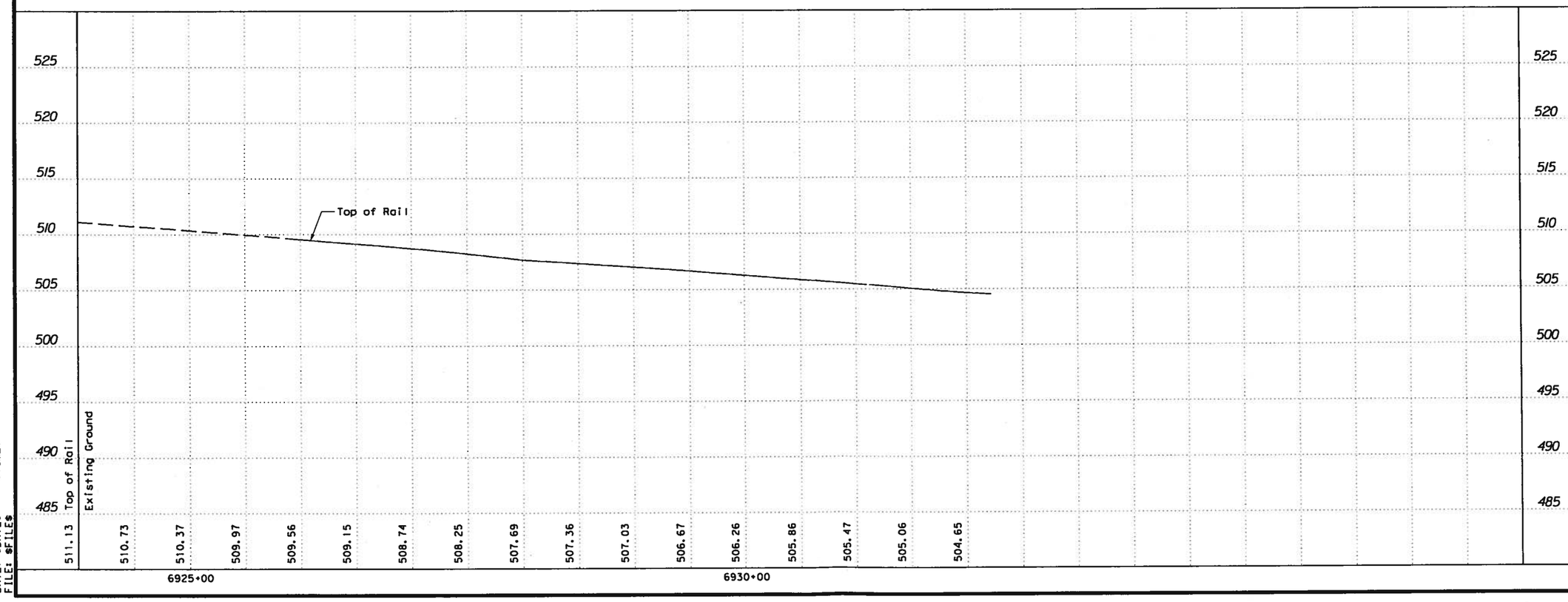

P.E. SEAL REQUIRED

PRELIMINARY

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PLAN & PROFILE

UPRR MAIN TRACK AT LOOP 323 EXHIBIT "A"

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation

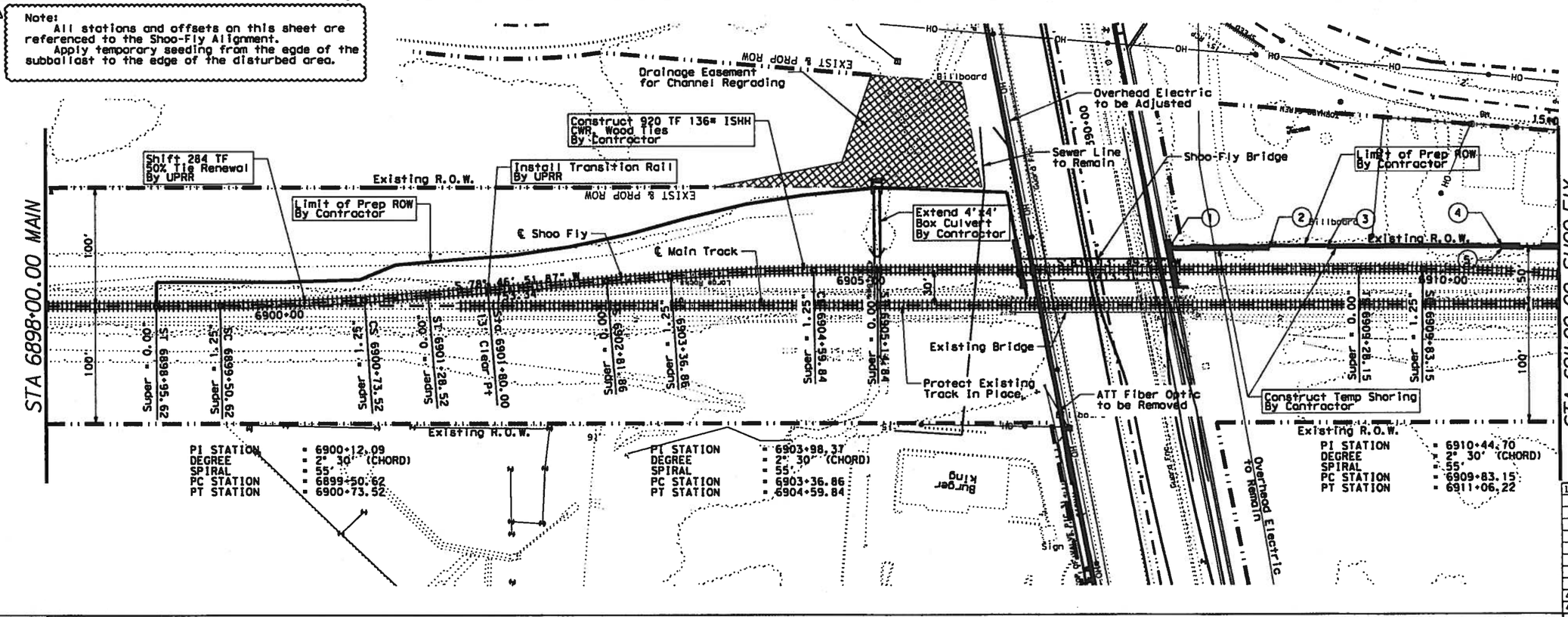
SHEET 4 OF 4

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323

DIST	COUNTY	SHEET NO.
TYL	SMITH	10

DATE: $DATE$ $TIME$
FILE: $FILE$

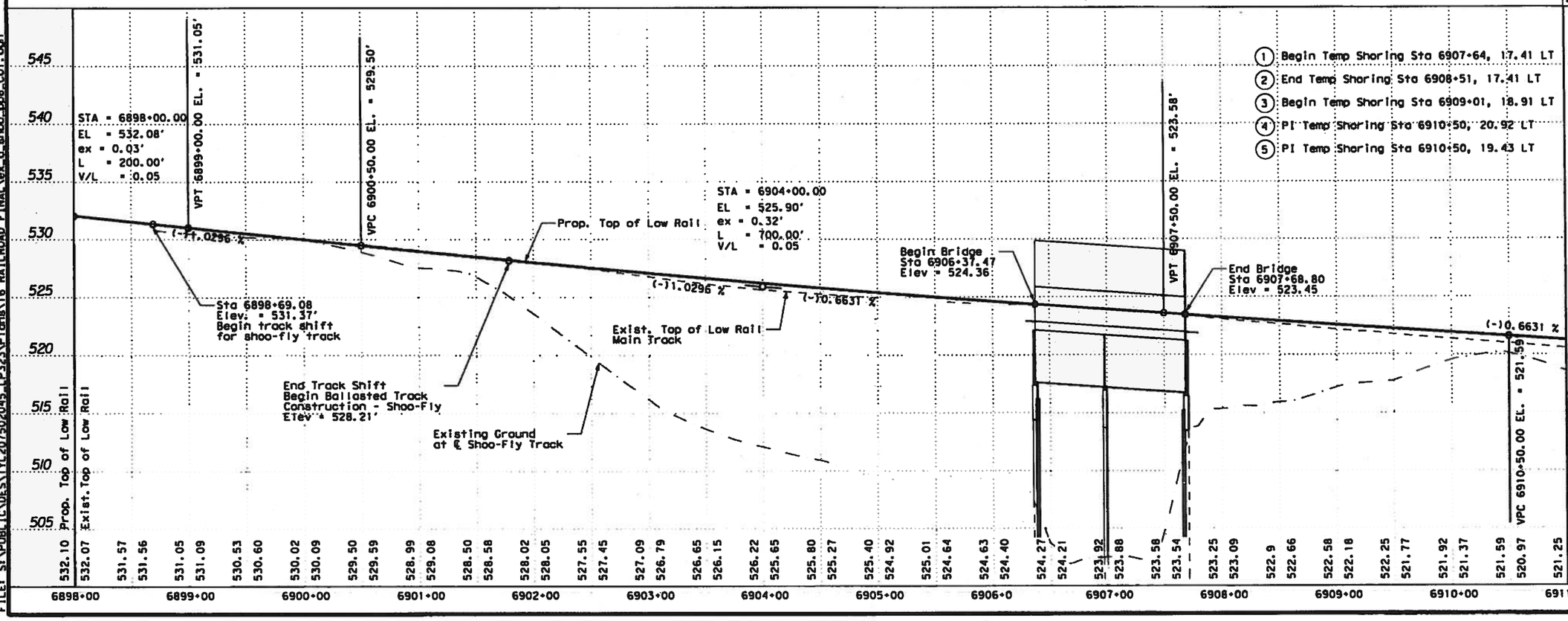
Note:
All stations and offsets on this sheet are referenced to the Shoo-Fly Alignment.
Apply temporary seeding from the egde of the subballast to the edge of the disturbed area.



C.O. Number _____

Rev. 1
Changed all callouts per UPRR comments to address division of labor. Revised Sheet Note.

ITEM	UNIT	QTY	DESCRIPTION
100	AC	1.19	PREPARING ROW
110	CY	742	EXCAVATION
132	CY	13467	EMBANKMENT
164	SY	11781	BROADCAST SEED (TEMP)
164	SY	11781	BROADCAST SEED (TEMP)
164	AC	0.70	STRAW/HAY MULCH
403	SF	921	TEMP SHORING
403	SF	291	TEMP SHORING (RR CANT)
4650	LF	920	BALLASTED TRACK CONST
4650	CY	964	SUBBALLAST



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED PROFESSIONAL ENGINEER
2/5/14

PLAN & PROFI
SHOO-FLY TRAC AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE
H: 1" = 100'
V: 1" = 10'

Texas Department of Transpo
SHEET 1 OF 2

CONT	SECT	JOB	HIGHW
2075	02	045	SL 3
DIST		COUNTY	SHE
TYL		SMITH	2

DATE: 2/5/2014 1:42:52 PM
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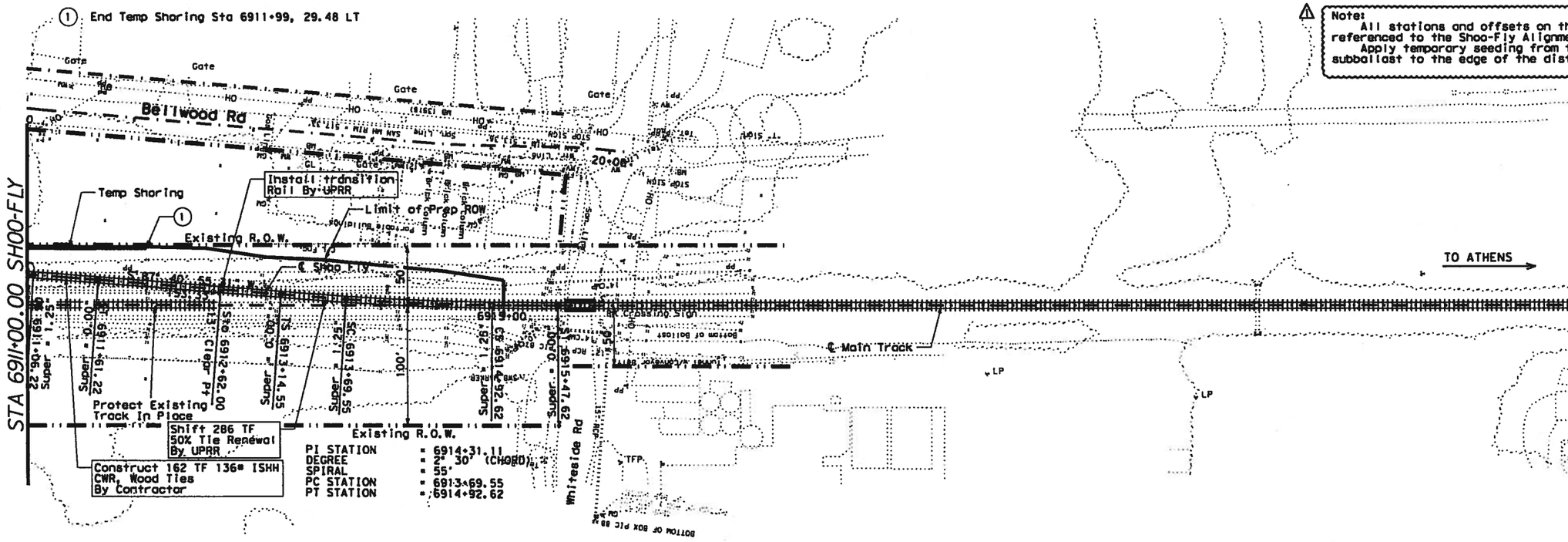
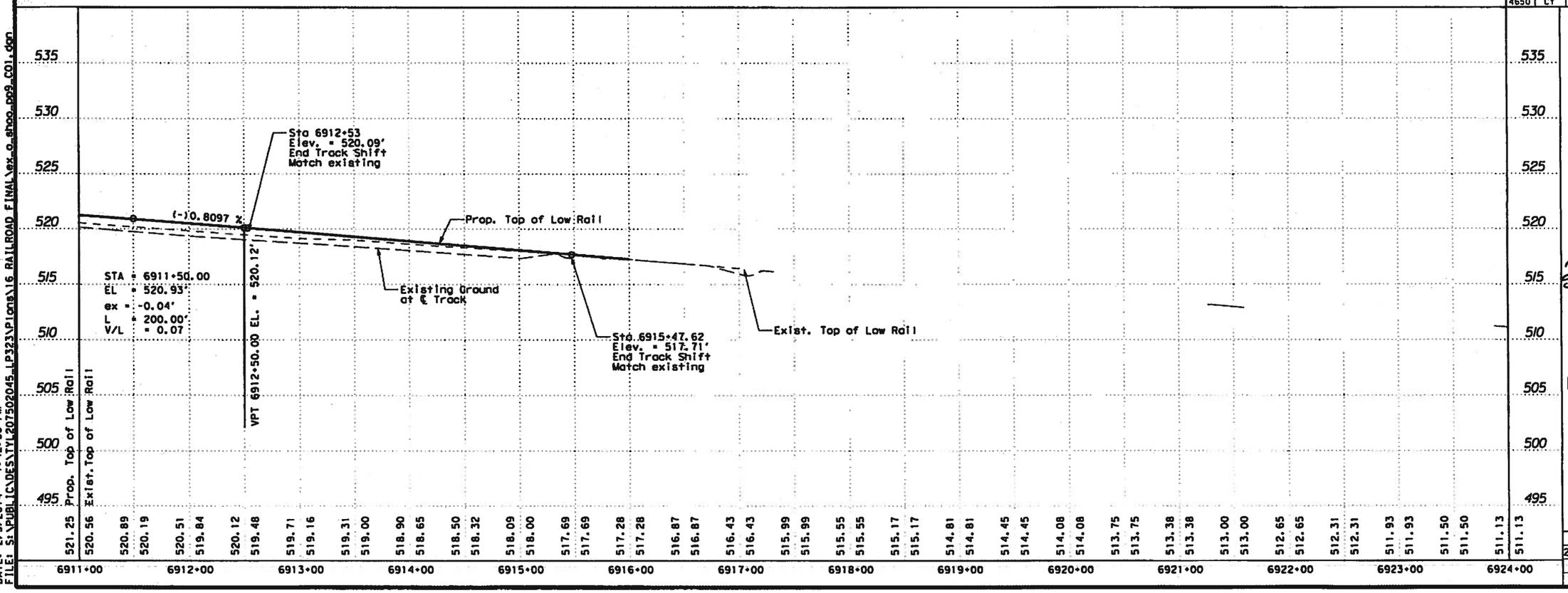


Note:
All stations and offsets on this sheet are referenced to the Shoo-Fly Alignment.
Apply temporary seeding from the egde of the subballast to the edge of the disturbed area.

C.O. Number _____

Rev. 1
Changed all callouts per UPRR comments to address division of labor. Revised Sheet Note. Revised Quantities.

ITEM	UNIT	QTY	DESCRIPTION
100	AC	0.35	PREPARING ROW
110	CY	718	EXCAVATION
132	CY	99	EMBANKMENT
164	SY	3465	BROADCAST SEED (TEMP)
164	SY	3465	BROADCAST SEED (TEMP)
164	AC	0.2	STRAW/HAY MULCH
403	SF	430	TEMP SHORING
403	SF	--	TEMP SHORING (RR CANT)
4650	LF	162	BALLASTED TRACK CONST
4650	CY	252	SUBBALLAST



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER
2/5/14

PLAN & PROFI
SHOO-FLY TRAC
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE
H: 1" = 100
V: 1" = 10'

Texas Department of Transpor
SHEET 2 OF

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	2

DATE: 2/5/2014 1:42:55 PM
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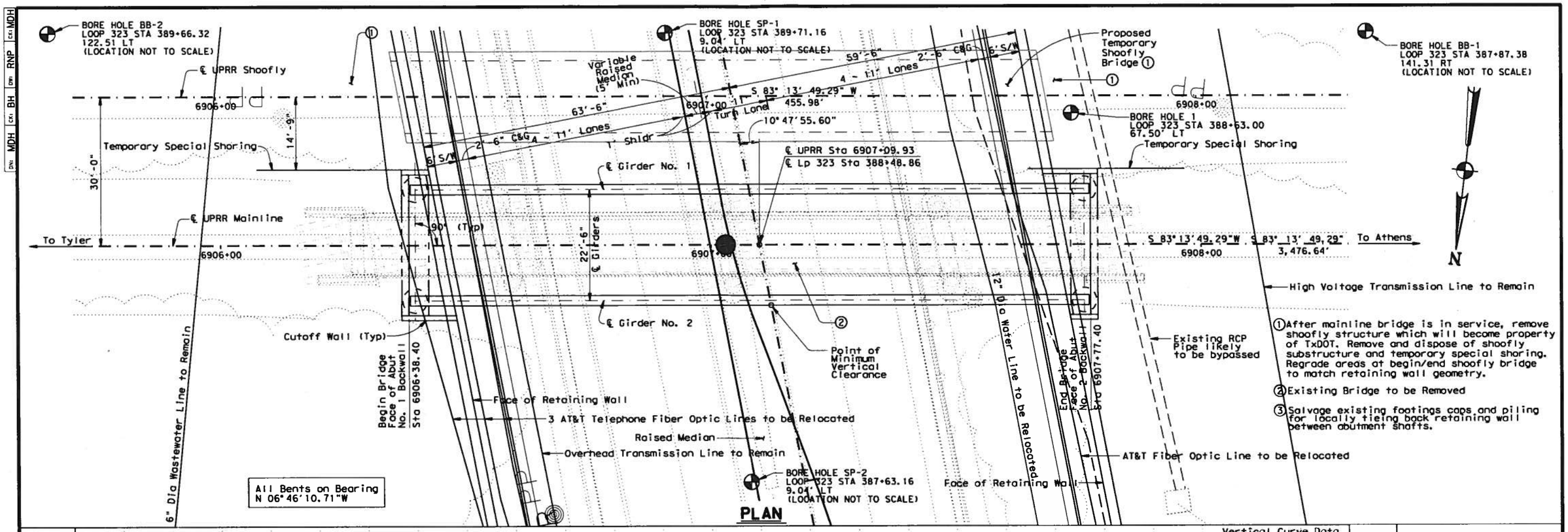
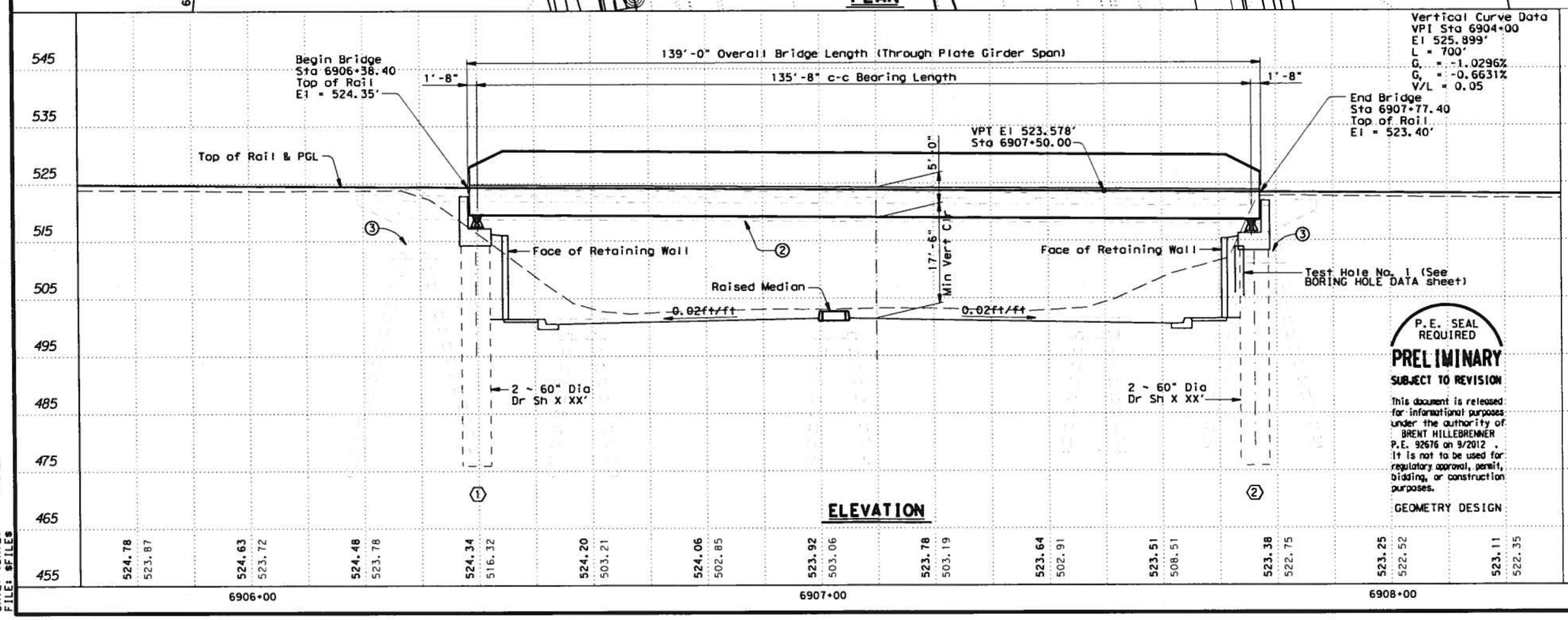


① After mainline bridge is in service, remove shoofly structure which will become property of TxDOT. Remove and dispose of shoofly substructure and temporary special shoring. Regrade areas at begin/end shoofly bridge to match retaining wall geometry.

② Existing Bridge to be Removed

③ Salvage existing footings caps and piling for locally tieing back retaining wall between abutment shafts.



P.E. SEAL REQUIRED
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GEOMETRY DESIGN

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BRIDGE DESIGN

BRIDGE LAYOUT
UPRR UNDERPASS AT LOOP 323 EXHIBIT "A"
DOT #789805C
RRMP 549.47
CORSICANA SUB

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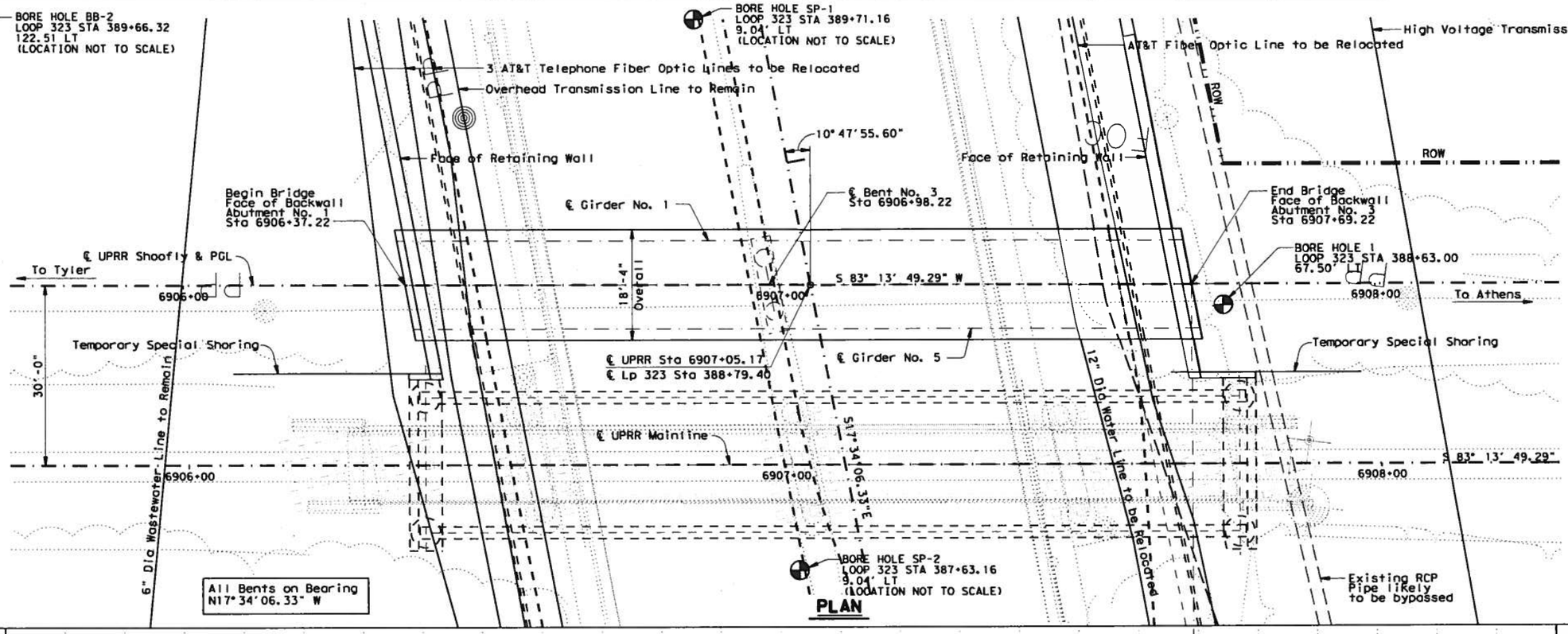
CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	13

DATE: $DATE$ $TIME$
FILE: $FILE$



PLAN

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PRELIMINARY

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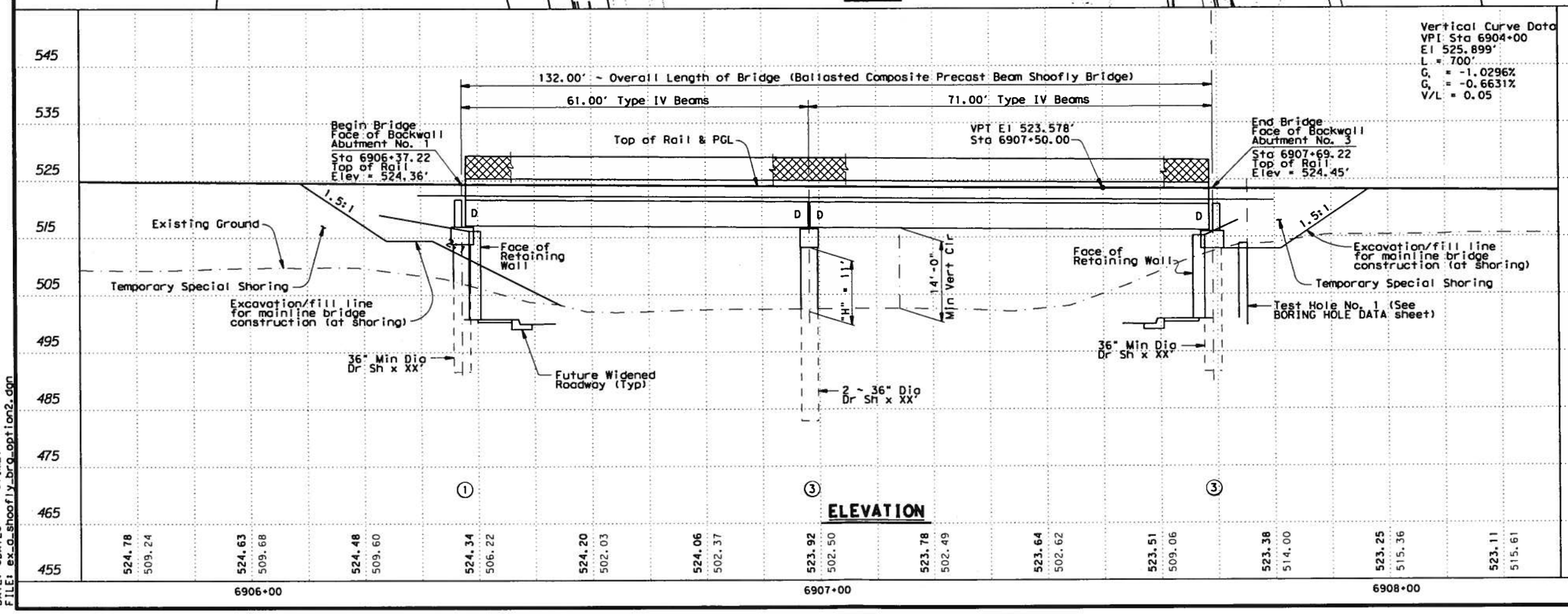
GEOMETRY DESIGN



ELEVATION

20 Trains/Day at 35 mph

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BRIDGE DESIGN

BRIDGE LAYOUT
TEMPORARY SHOOFLY AT LOOP 323 EXHIBIT "A"

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation

SHEET OF

CONT	SECT	JOB	HIGHWAY
2075	02	045	LP323
DIST		COUNTY	SHEET NO.
TYL		SMITH	14

DATE: $DATE$ $TIME$
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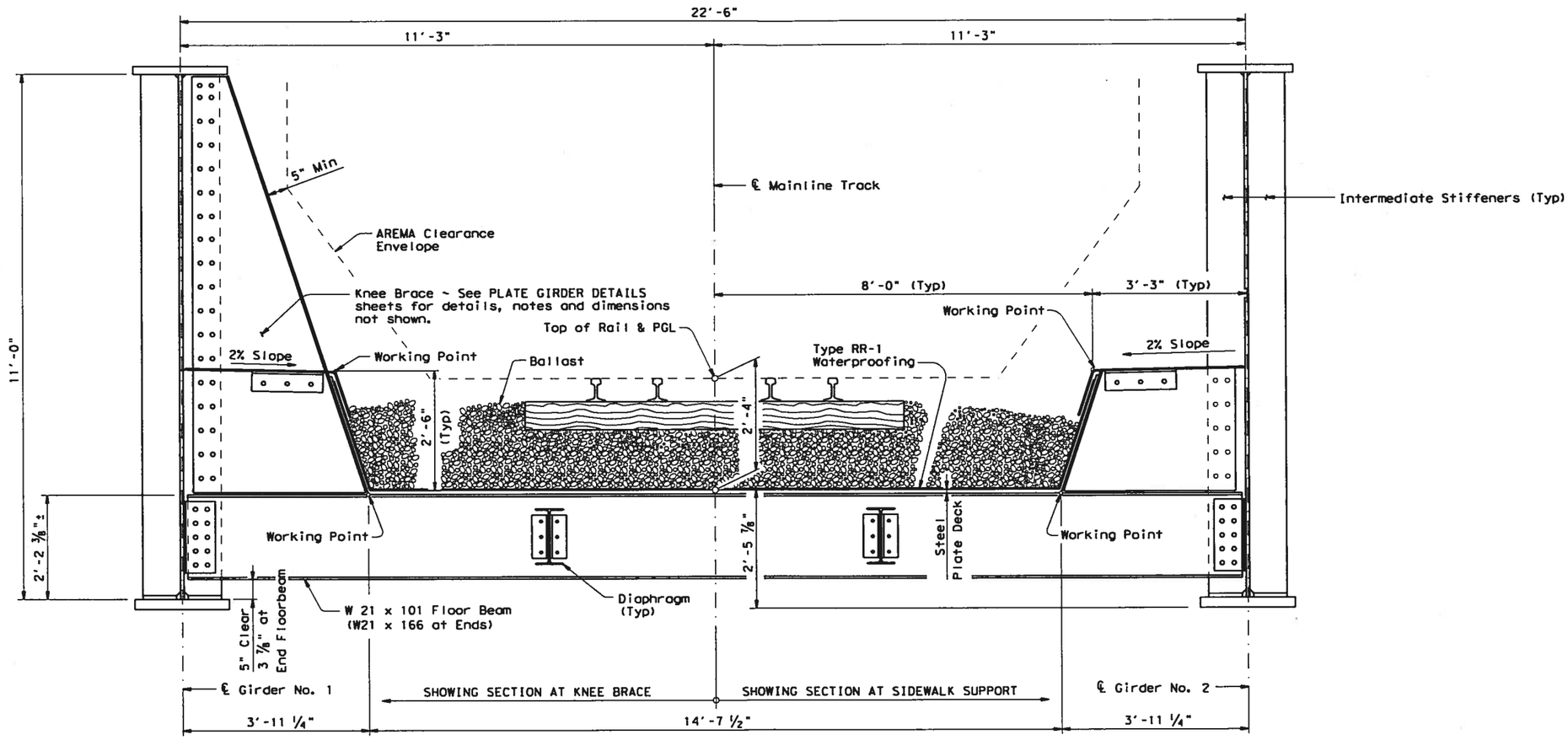

TYPICAL TRANSVERSE SECTION ~ MAINLINE

P.E. SEAL REQUIRED

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SHEET 1 OF 2

Texas Department of Transportation
Bridge Division

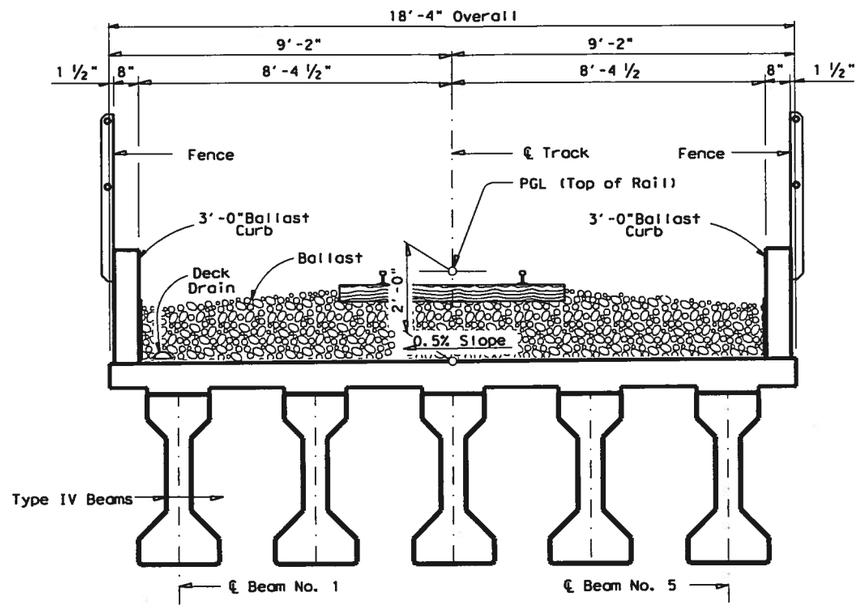
BRIDGE CROSS SECTIONS

UPRR UNDERPASS AT LOOP 323 EXHIBIT "A"

FILE: 70631y01.dgn	DN: MDH	CK:	DW: RNP	CK: MDH	
©TxDOT OCTOBER 2008	DISTRICT	FEDERAL AID PROJECT			SHEET
REVISIONS	TYL				15
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	SMITH		2075	02	045	LP 32

PATH: BRG-RPORTER-1
70631y01.dgn

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63



TYPICAL SECTION

P.E. SEAL REQUIRED

PRELIMINARY

SUBJECT TO REVISION

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SHEET 2 OF 2

Texas Department of Transportation
Bridge Division

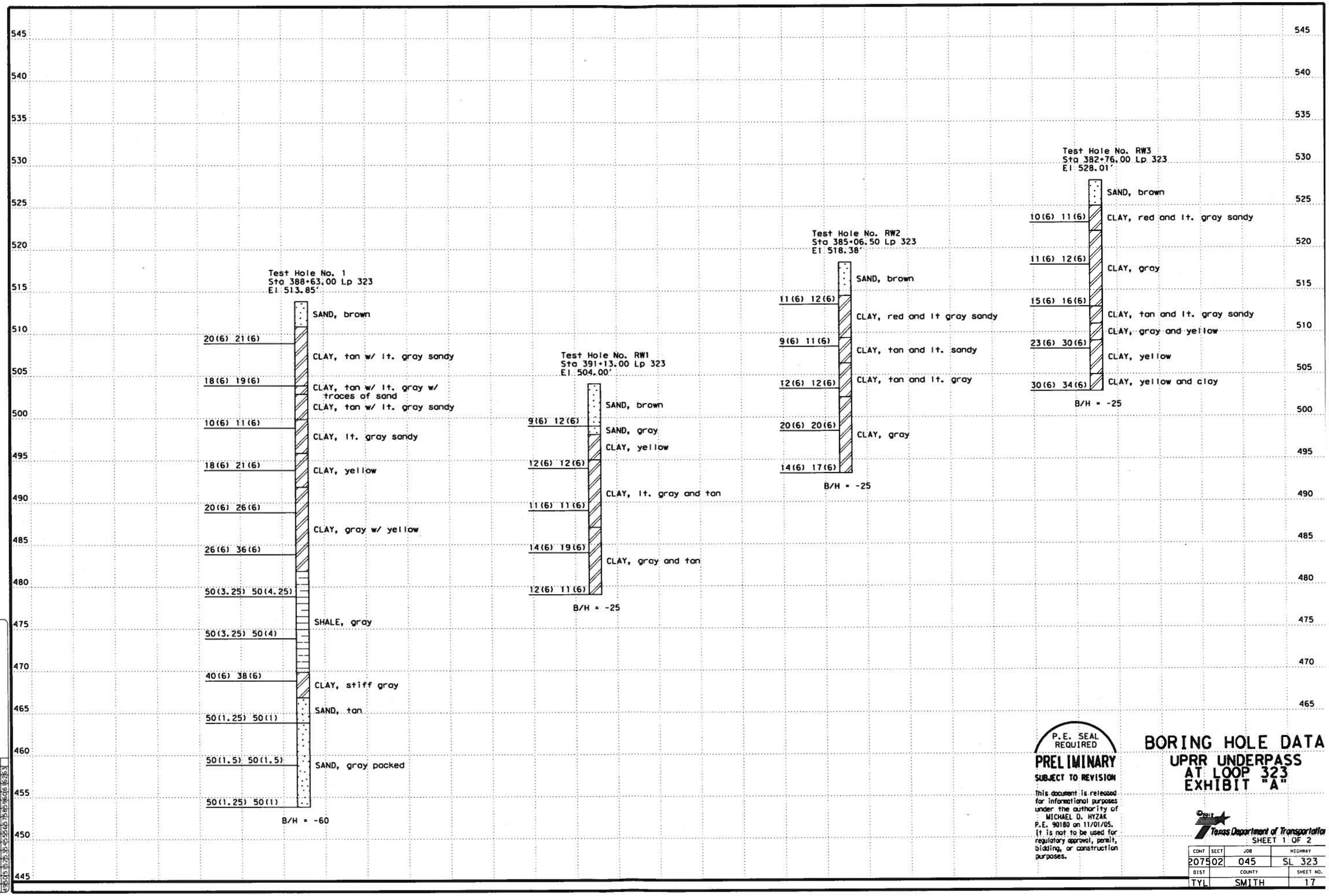
BRIDGE CROSS SECTIONS

TEMPORARY SHOOFLY AT LOOP 323 EXHIBIT "A"

FILE: 70631y01.dgn	DN: MDH	CK:	DW: RNP		CK: MDH	
©TxDOT OCTOBER 2008	DISTRICT	FEDERAL AID PROJECT				SHEET
REVISIONS	TYL					16
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	SMITH		2075	02	045	LP 32

PATH: BRG-RPORTER-1
70631y01.dgn

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63



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BORING HOLE DATA

UPRR UNDERPASS AT LOOP 323 EXHIBIT "A"

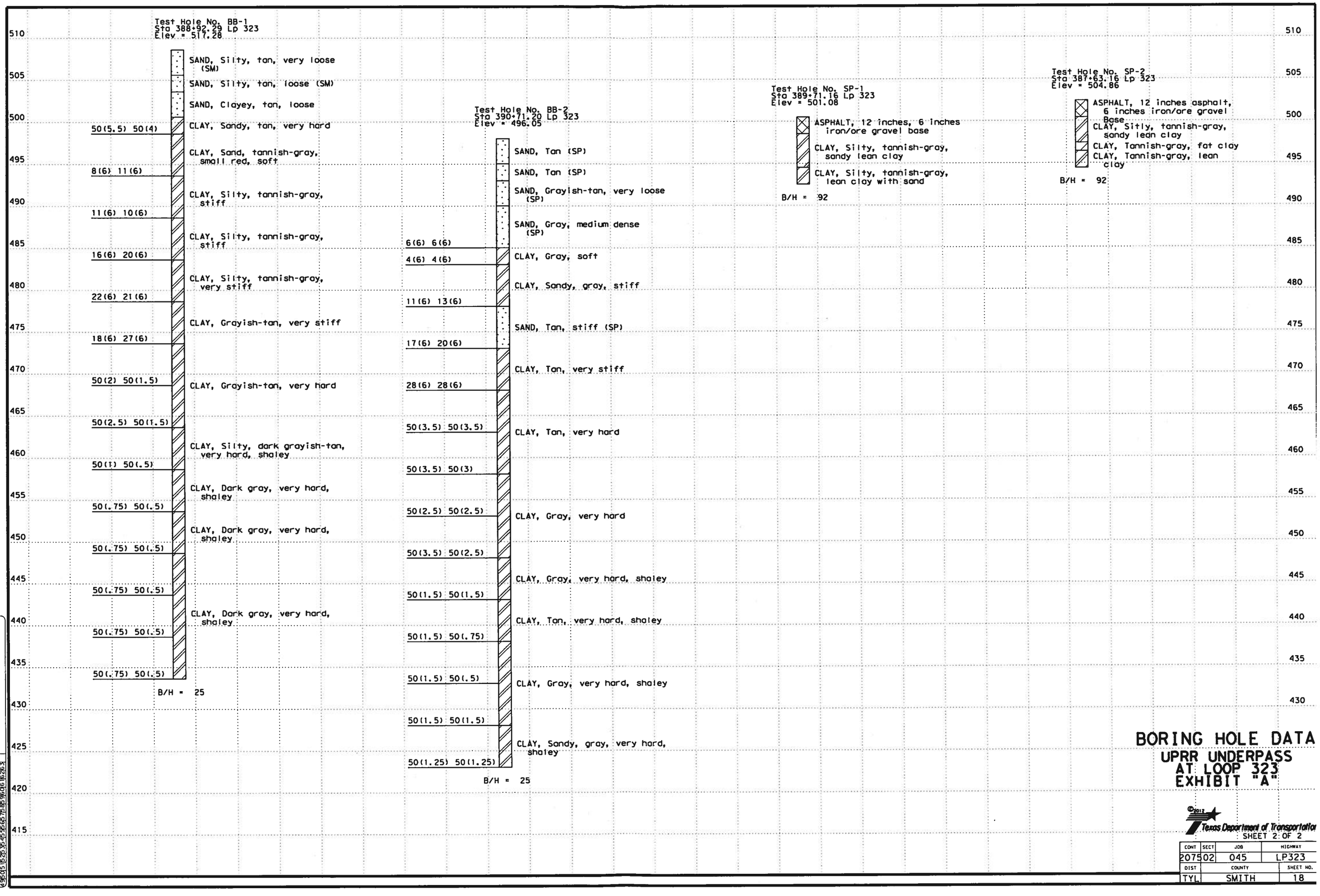
Texas Department of Transportation

SHEET 1 OF 2

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	17

PATH: 7063bd01.dgn

LEVELS DISPLAYED



BORING HOLE DATA
UPRR UNDERPASS AT LOOP 323 EXHIBIT "A"

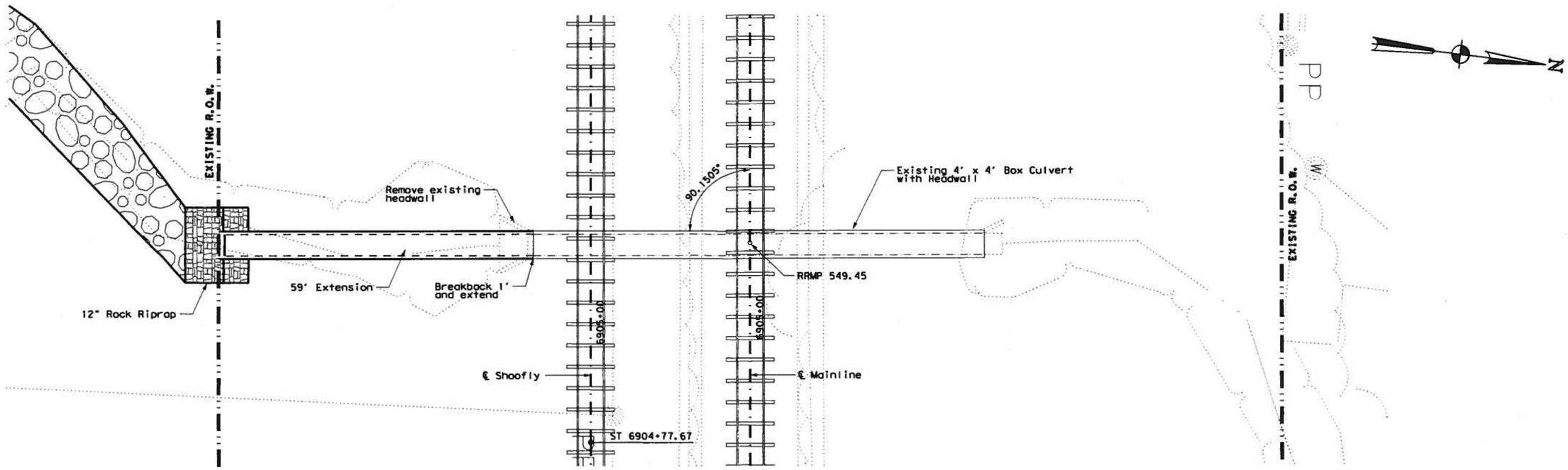
Texas Department of Transportation

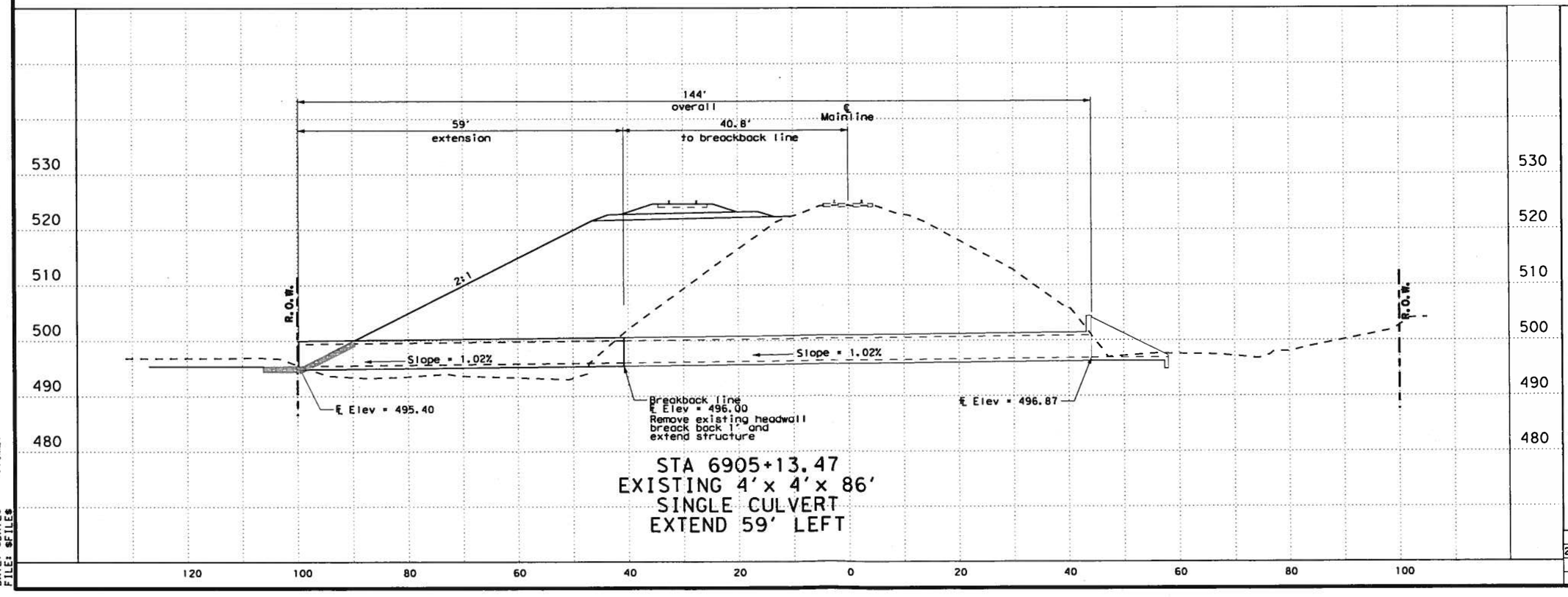
SHEET 2 OF 2

CONT	SECT	JOB	HIGHWAY
2075	02	045	LP323
DIST		COUNTY	SHEET NO.
TYL		SMITH	18

PATH: 7063bd01.dgn

LEVELS DISPLAYED





STA 6905+13.47
EXISTING 4'x 4'x 86'
SINGLE CULVERT
EXTEND 59' LEFT

P.E. SEAL REQUIRED

PRELIMINARY

SUBJECT TO REVISION

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UPRR
CULVERT LAYOUT EXHIBIT A

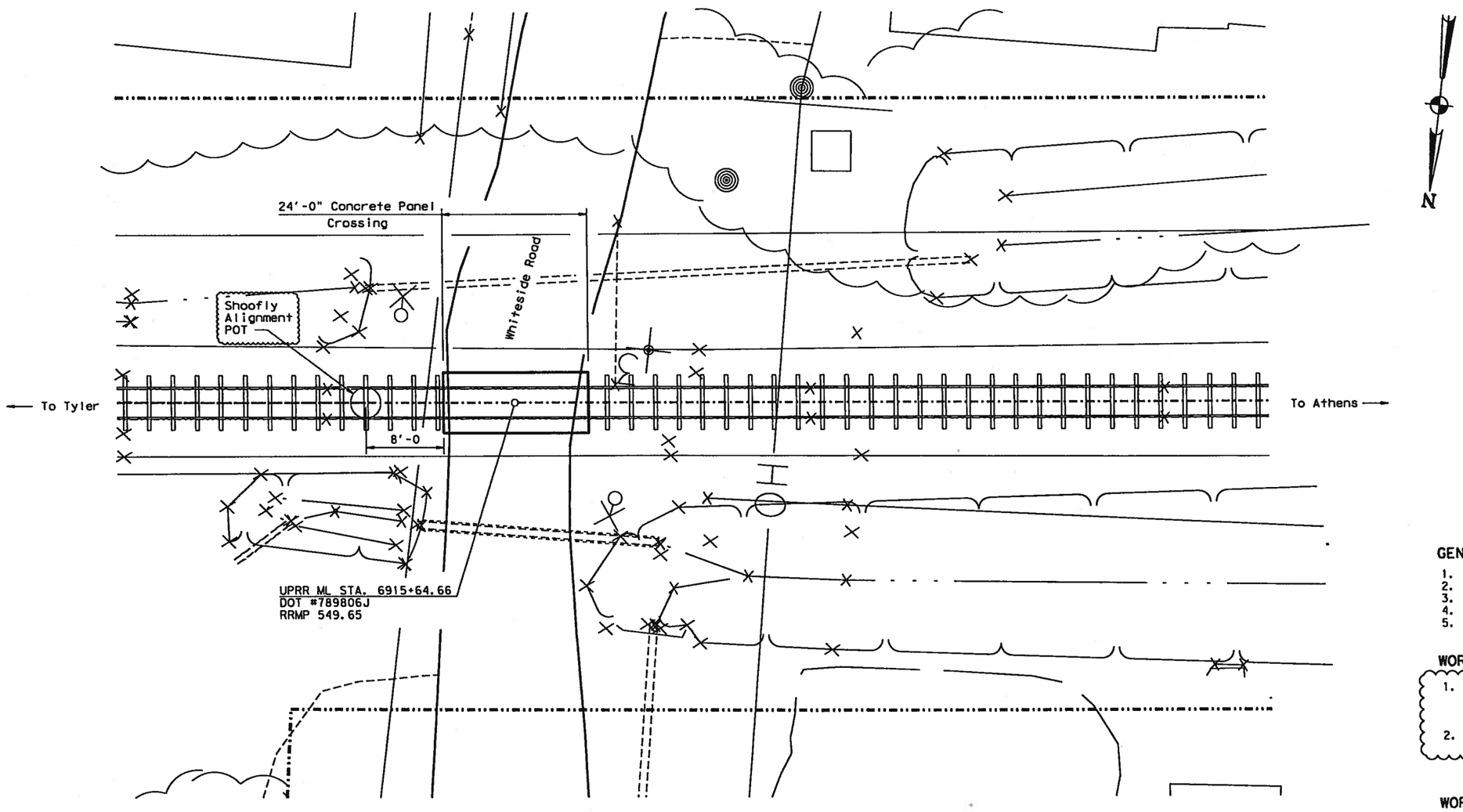
DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation

1 OF 1

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 323
DIST		COUNTY	SHEET NO.
TYL		SMITH	19

DATE: $DATE$ $TIME$
FILE: $FILE$



PLAN

Union Pacific Railroad at Whiteside Road
Tyler, Texas

GENERAL NOTES:

1. Twenty trains per day at 40 MPH.
2. 510 (2007) vehicles per day.
3. Existing concrete crossing.
4. Existing 115 Lb rail.
5. Crossing shall be open at night.

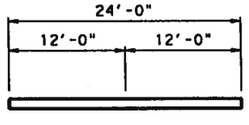
WORK TO BE DONE BY UPRR:

1. Remove and reinstall existing 24' full depth concrete crossing in conjunction with shoofly tie in and removal. Replace or modify panels as necessary for final grade adjustment.
2. Adjust crossing approaches as necessary.

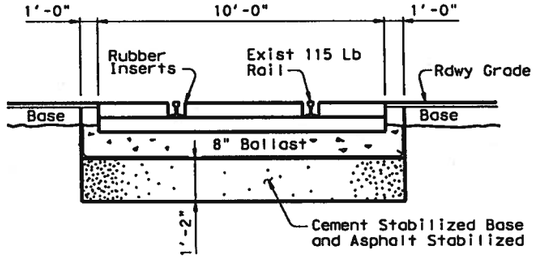
WORK TO BE DONE BY TxDOT CONTRACTOR:

1. Furnish and install traffic control.
2. Furnish and install cement or asphalt stabilized base.
3. Perform any approach grading or pavement modifications needed for the planking removal and installation.

CHANGE ORDER NO. _____



TYPICAL SECTION



RAILROAD SECTION

Note:

No Drainage Adjustment Needed.

STATE OF TEXAS
MICHAEL D. HYZAK
90180
LICENSED
PROFESSIONAL ENGINEER

2/05/14

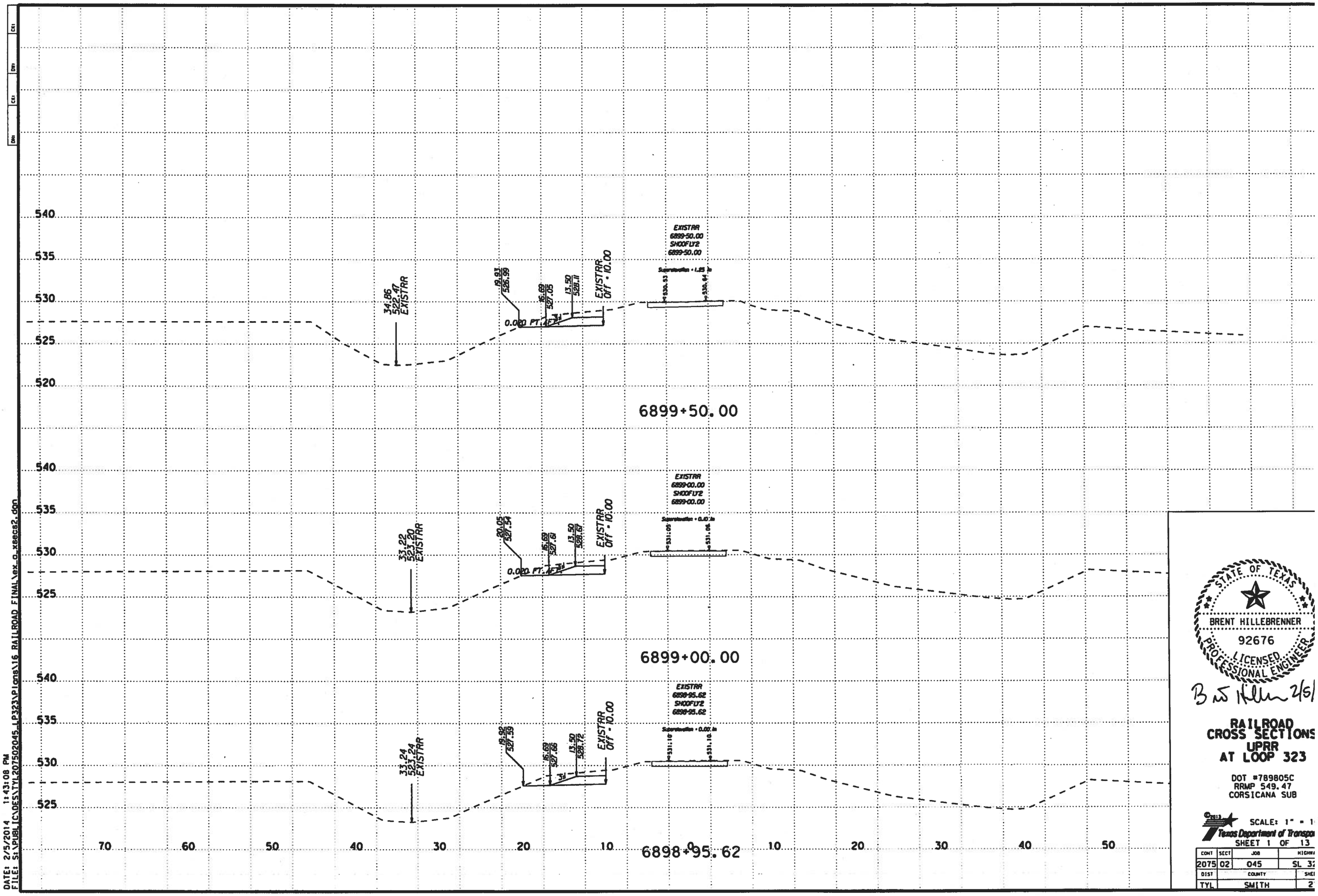
Texas Department of Transportation
Bridge Division

POTENTIAL REPLANKING
SHOO-FLY TRACK
AT LOOP 323

DOT #789806J
RRMP 549.65

FILE: 7063mi05.dgn	DN: MDH	CK: BH	DW: STD	CK:			
© TxDOT NOVEMBER 2012	CONT	SECT	JOB		HIGHWAY		
REVISIONS	2075	02	045		SL 32		
	DIST		COUNTY			SHEET	
	TYL		SMITH			22	

DATE:
FILE:



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/

RAILROAD CROSS SECTIONS
UPRR
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transpo

SCALE: 1" = 1

SHEET 1 OF 13

CONT	SECT	JOB	HIGHW
2075	02	045	SL 32
DIST		COUNTY	SHE
TYL		SMITH	2

DATE: 2/5/2014 12:43:08 PM
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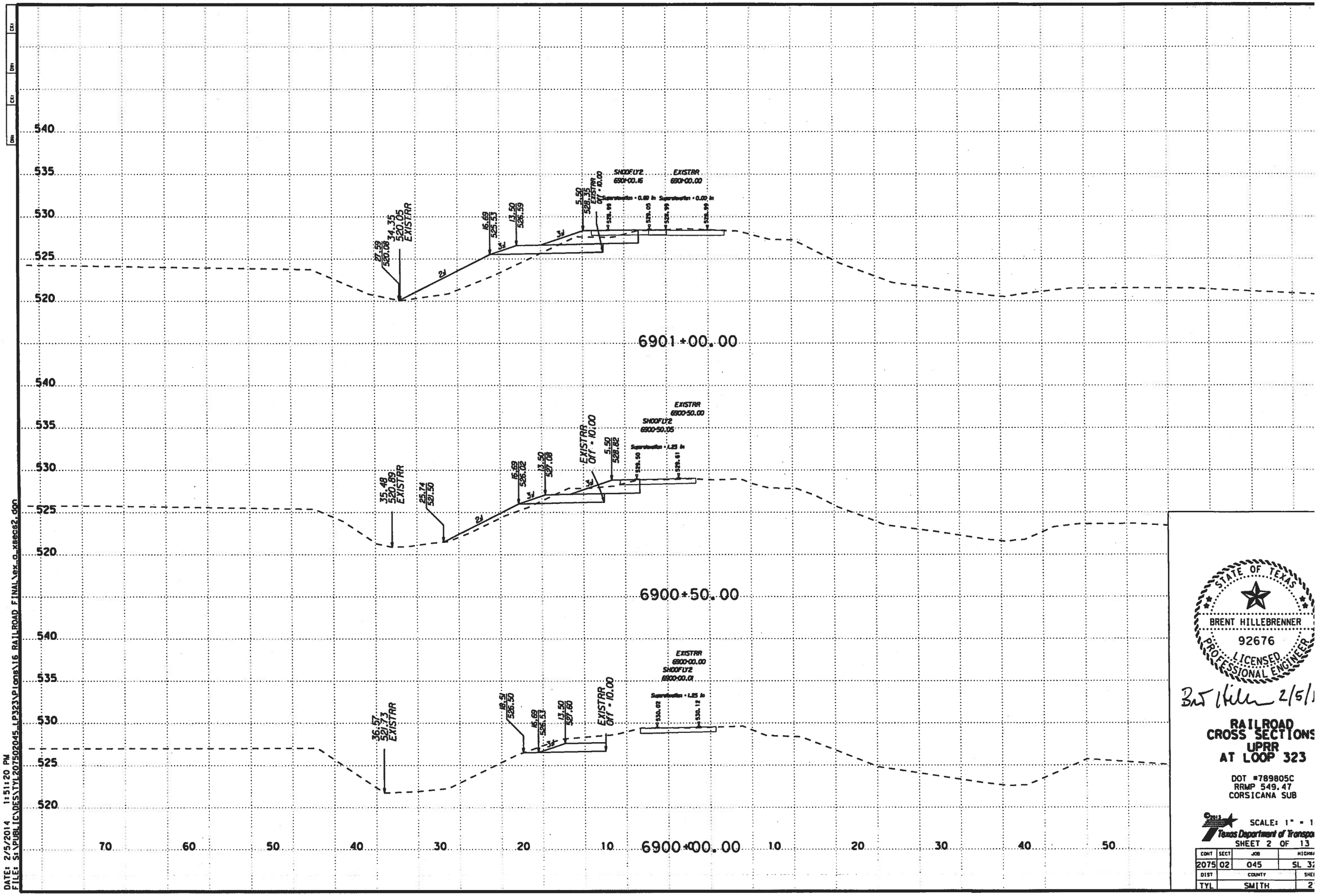

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/1

RAILROAD CROSS SECTIONS
UPRR
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpo

SHEET 2 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHE
TYL		SMITH	2

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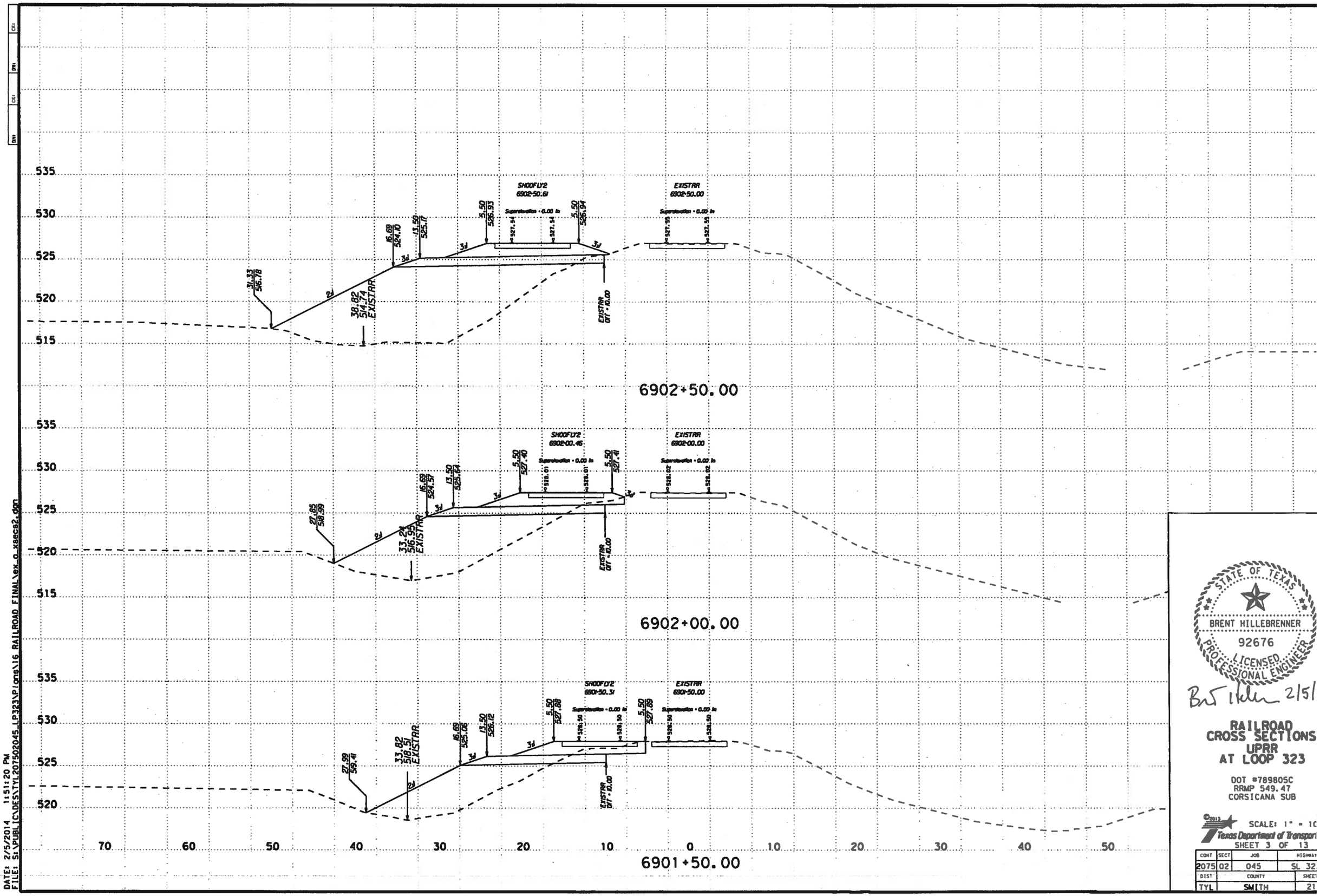

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STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

2/5/

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

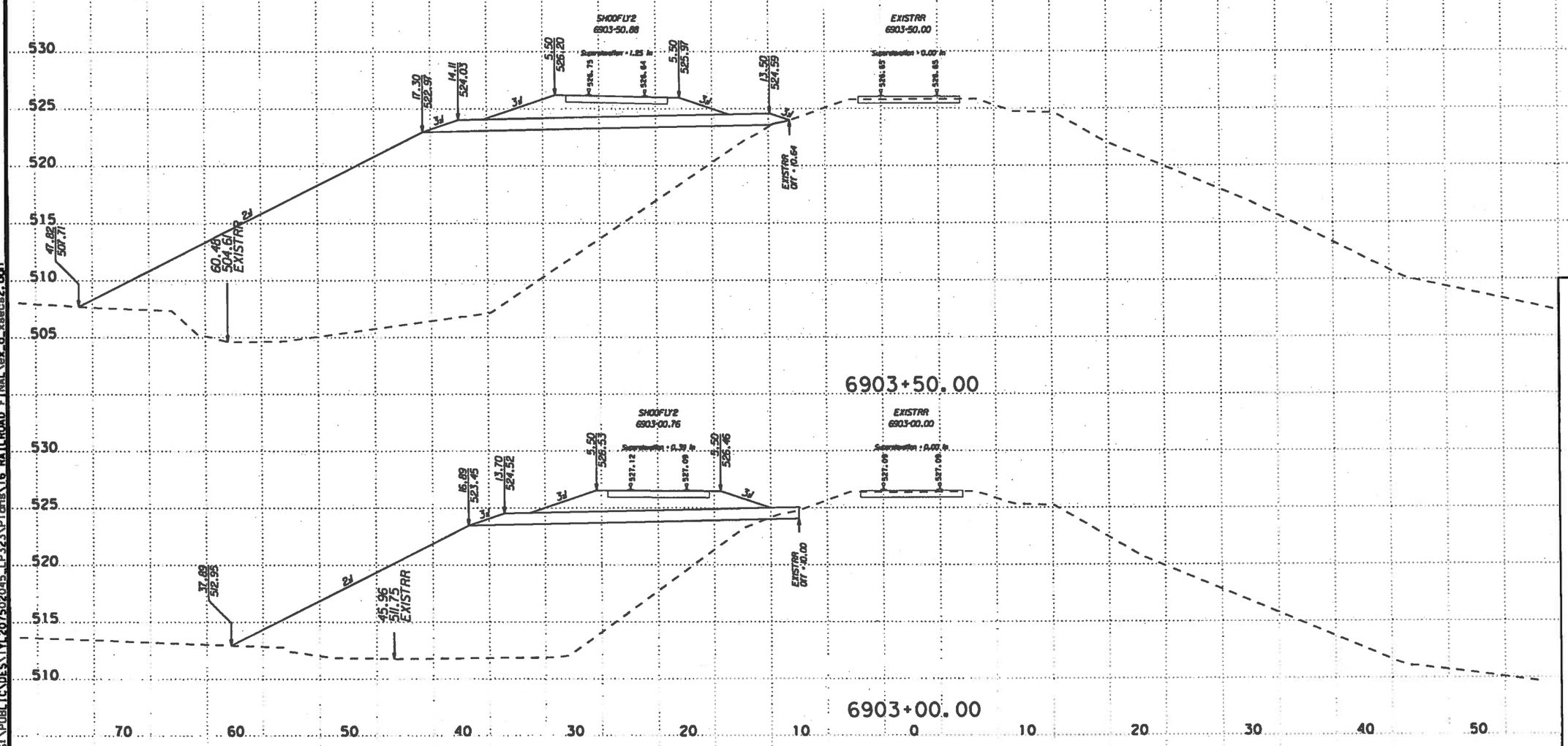
DOT #789805C
RRMP 549.47
CORSICANA SUB

©2013 Texas Department of Transport

SCALE: 1" = 10

SHEET 3 OF 13

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 32
DIST		COUNTY	SHEET
TYL		SMITH	21



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

2/5/1

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpo

SHEET 4 OF 13

CONT	SECT	JOB	HIGHW
2075	02	045	SL 3
DIST		COUNTY	SHE
TYL		SMITH	2

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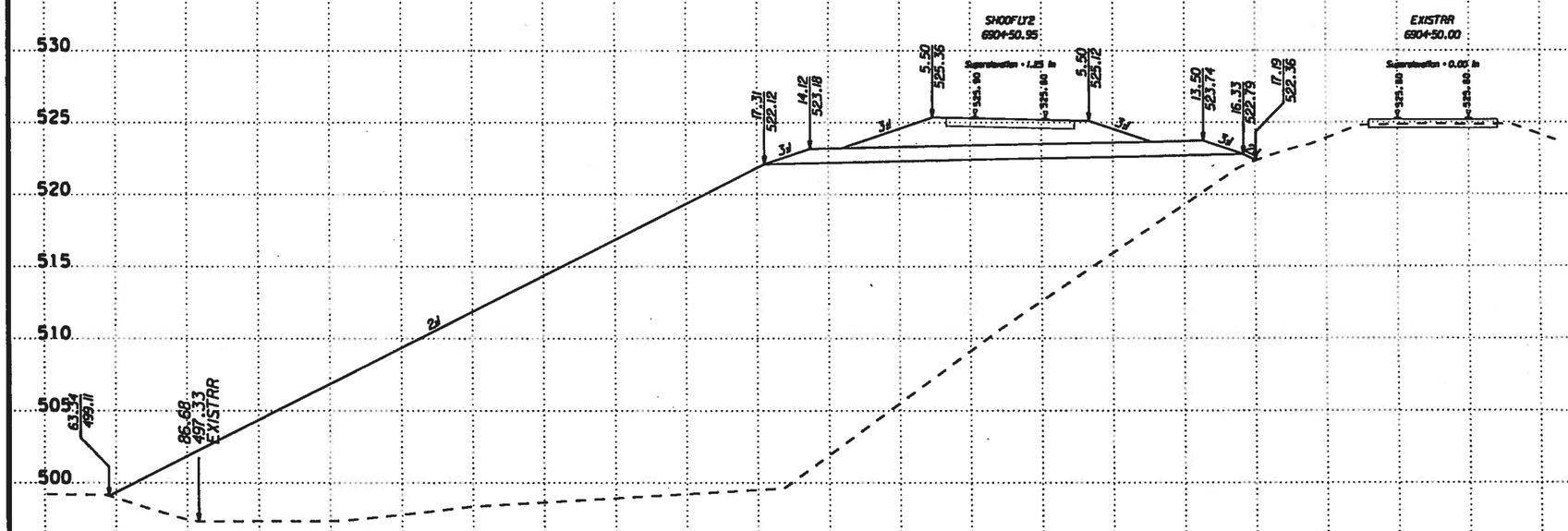

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STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/1

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

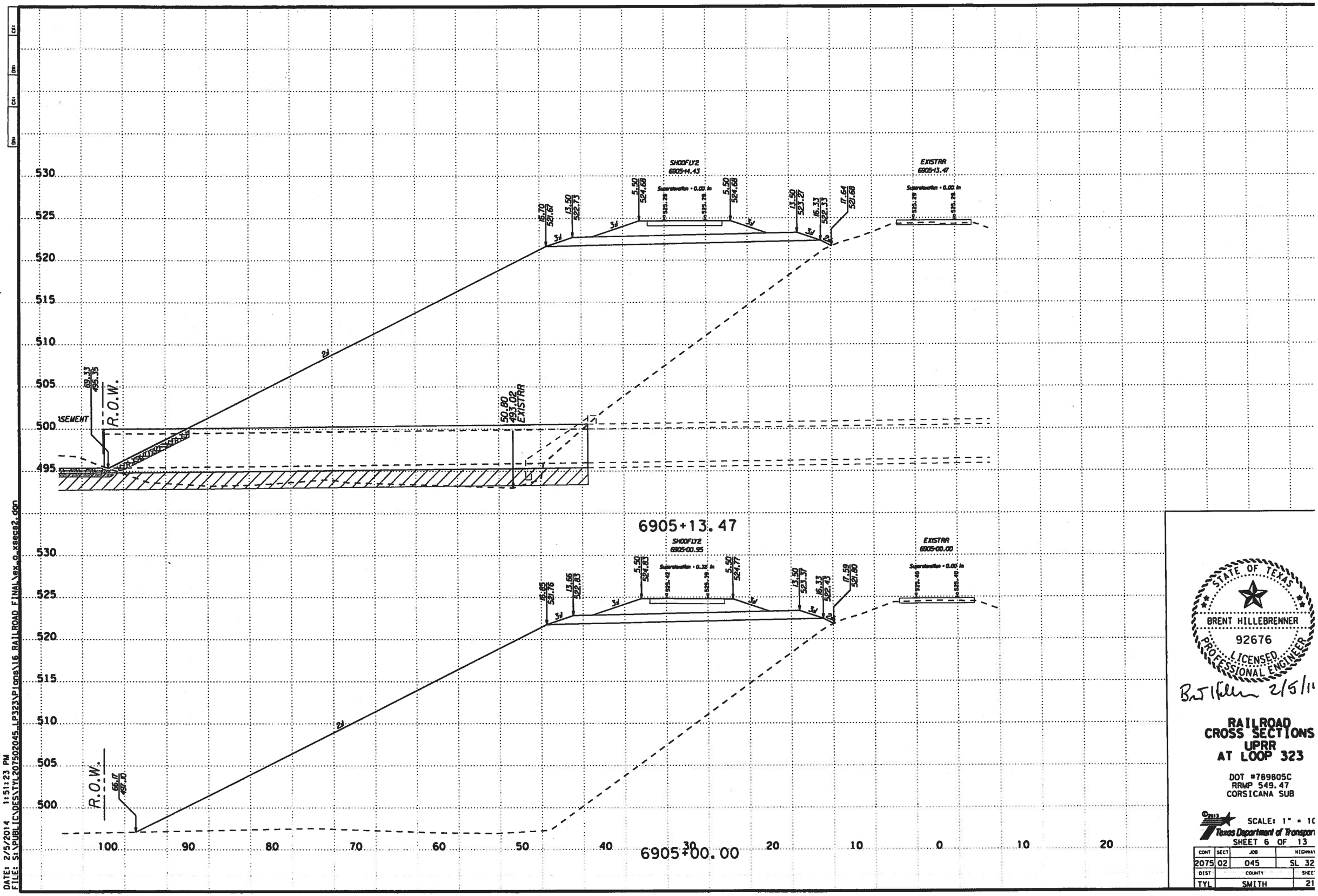
DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpor

SHEET 5 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	21



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/14

RAILROAD CROSS SECTIONS
UPRR
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 10

Texas Department of Transport

SHEET 6 OF 13

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 32
DIST		COUNTY	SHEET
TYL		SMITH	21

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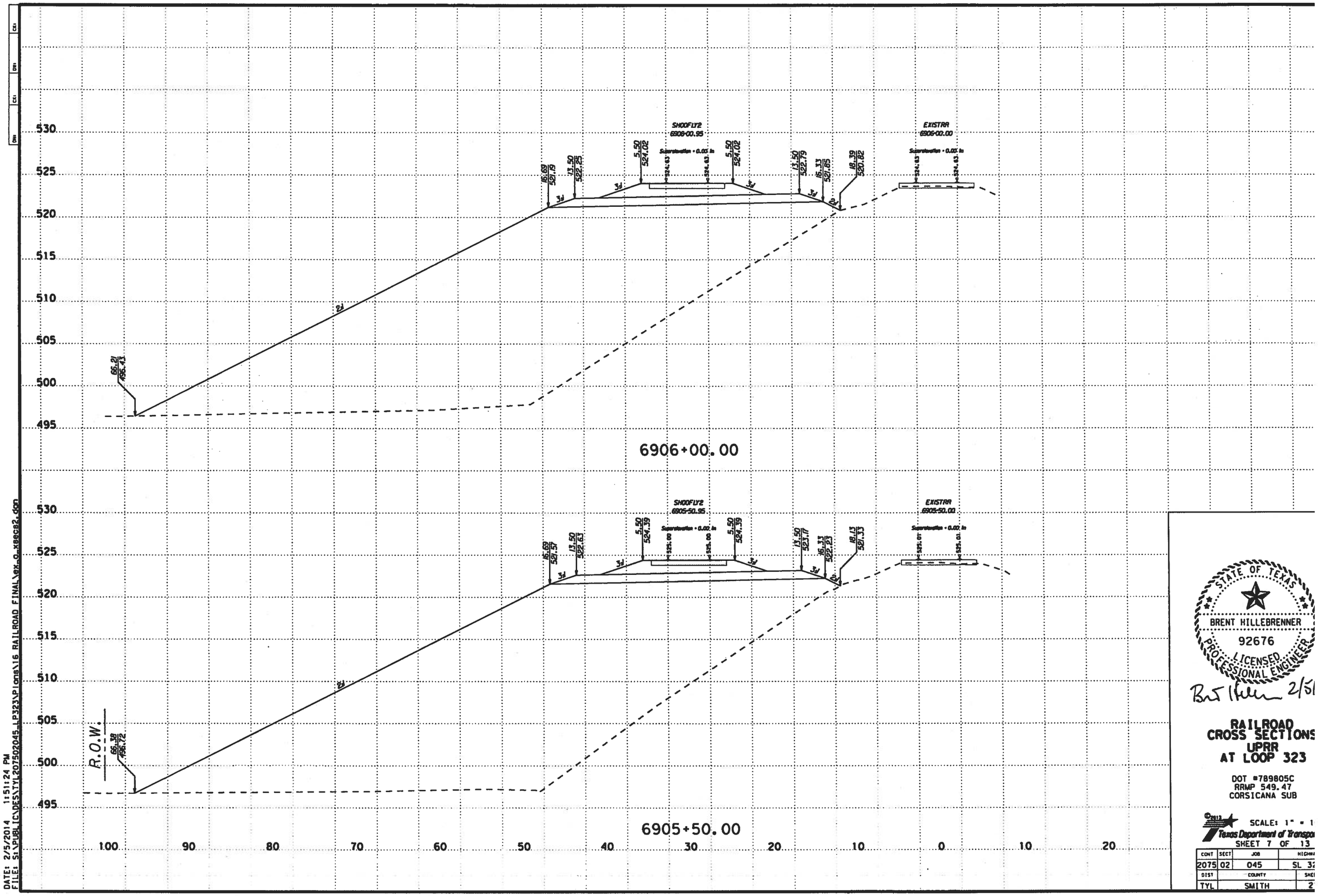

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpo

SHEET 7 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHE
TYL		SMITH	2

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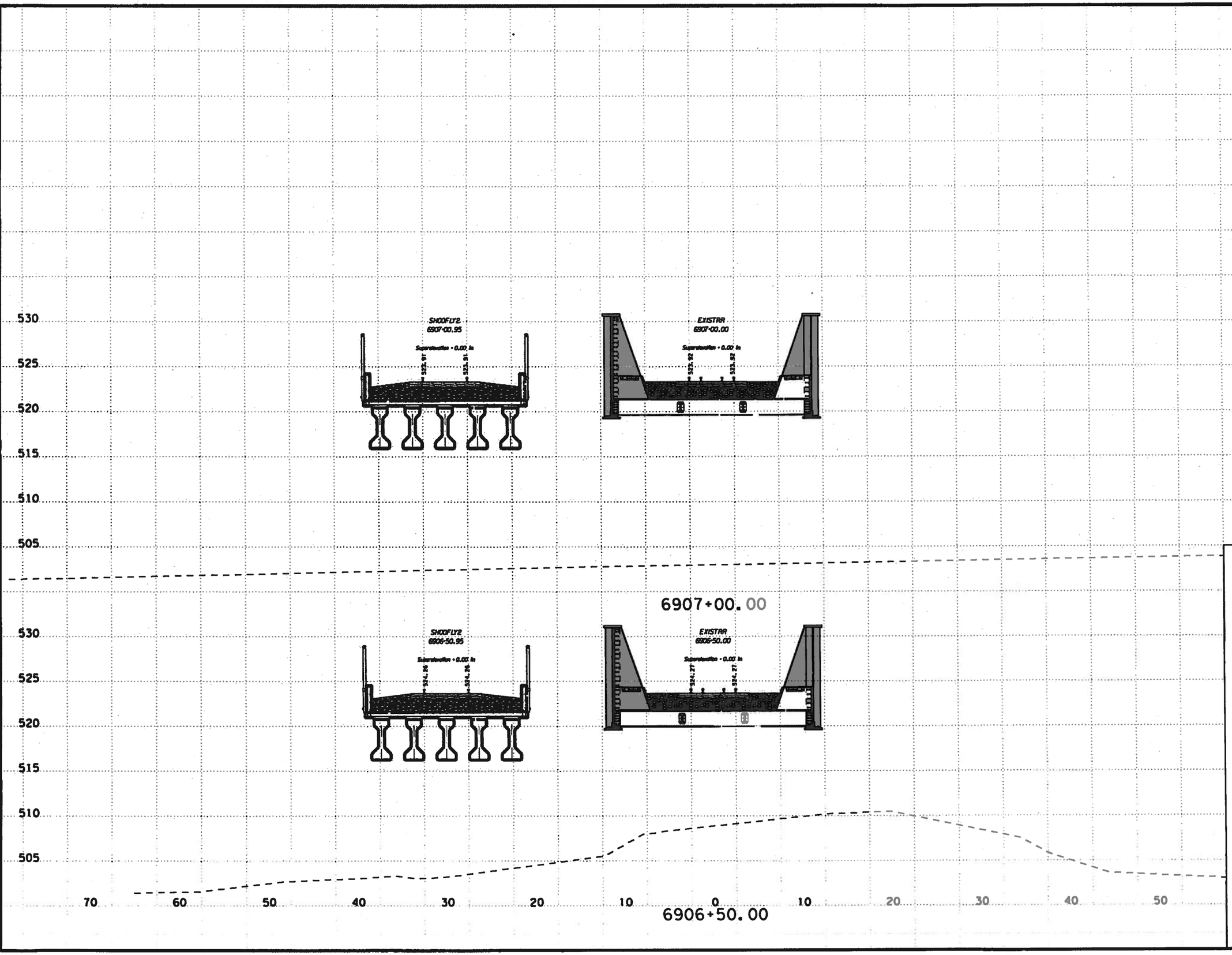

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/6

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transpo

SCALE: 1" = 1

SHEET 8 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	21

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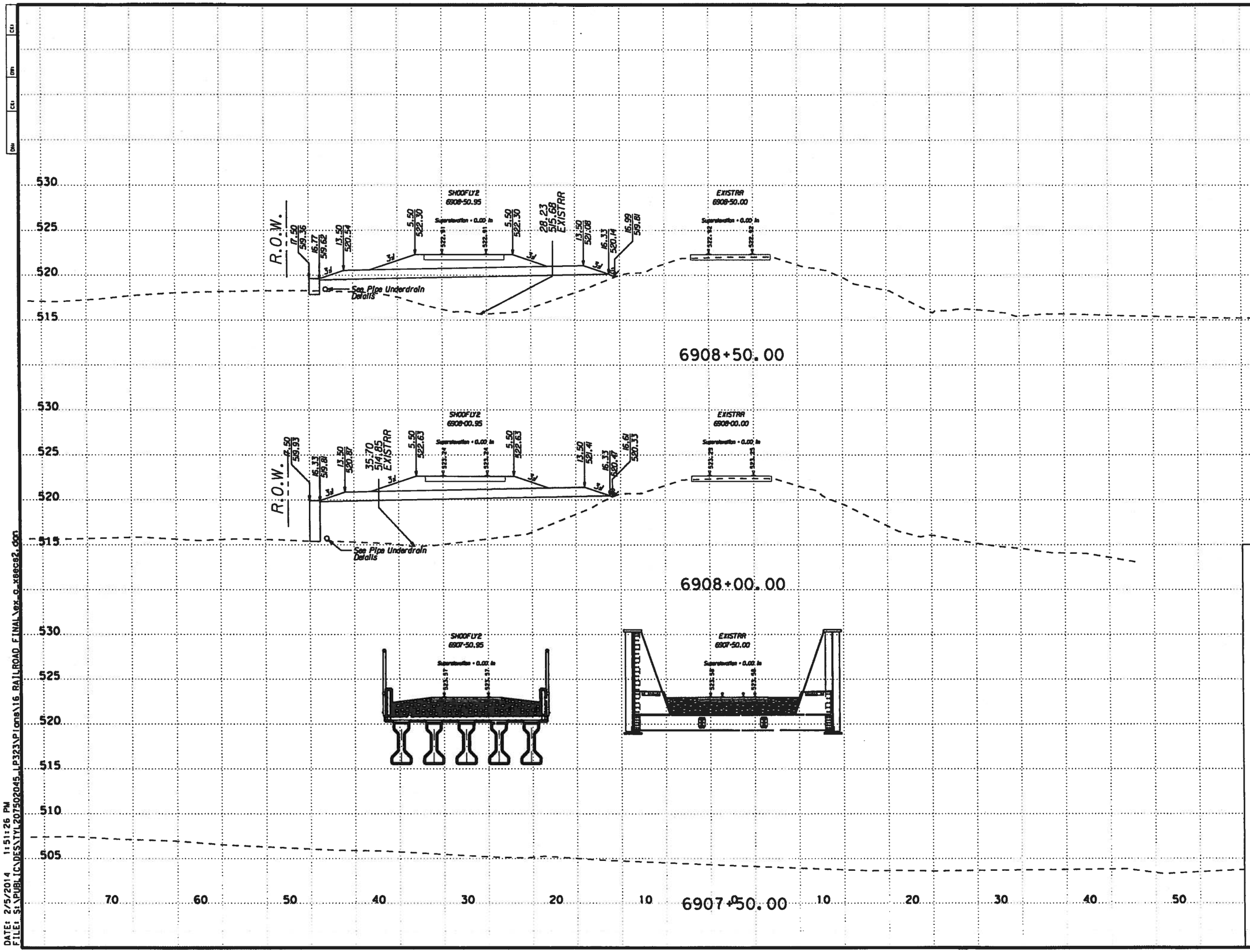

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

BrS Hillen 2/5/1

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpor

SHEET 9 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	21

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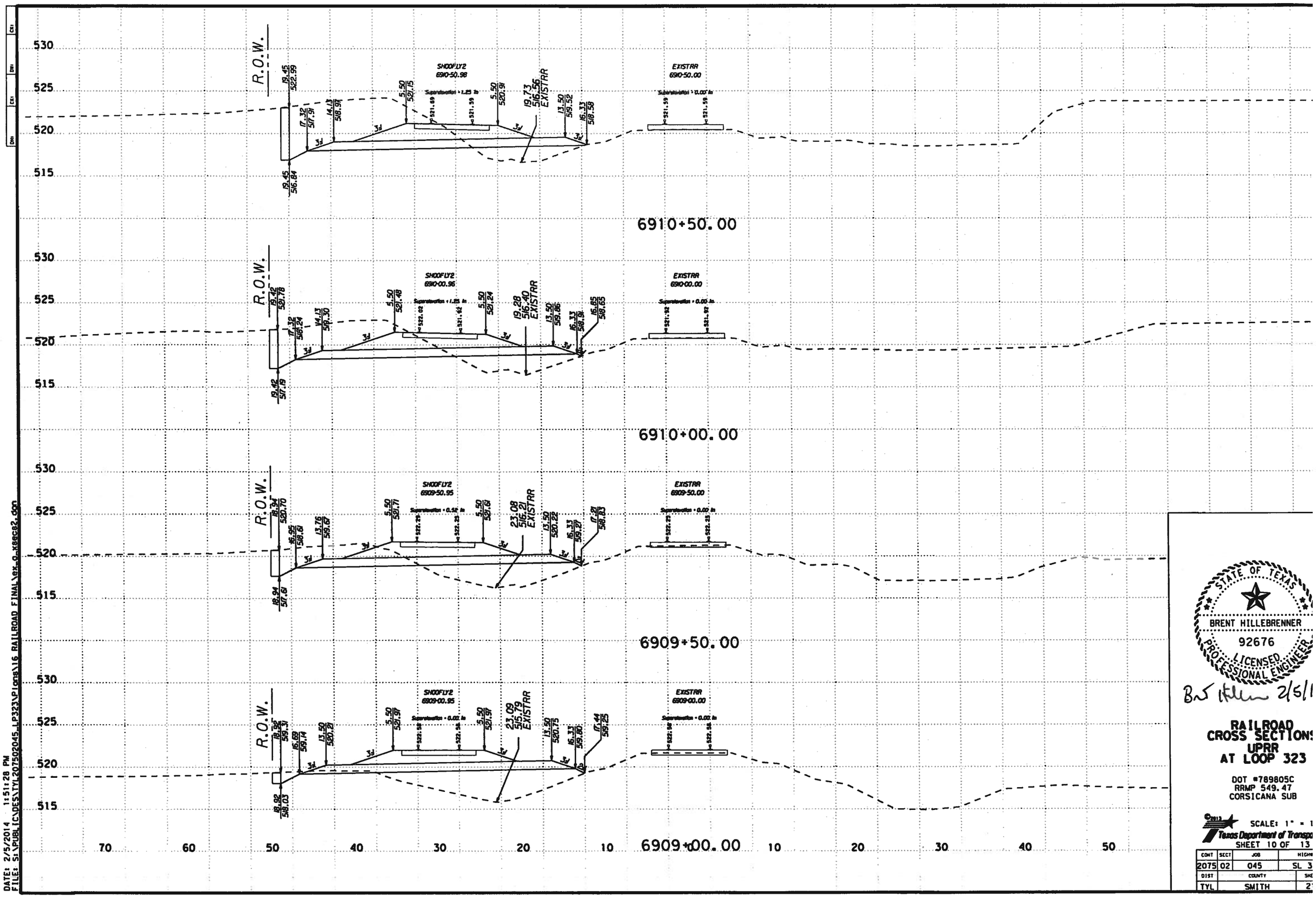

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/1

RAILROAD CROSS SECTIONS
UPRR
AT LOOP 323

DOT #789805C
RRMP 549.47
CORSICANA SUB

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SCALE: 1" = 1

SHEET 10 OF 13

CONT	SECT	JOB	HIGHW
2075	02	045	SL 3
DIST		COUNTY	SHE
TYL		SMITH	2

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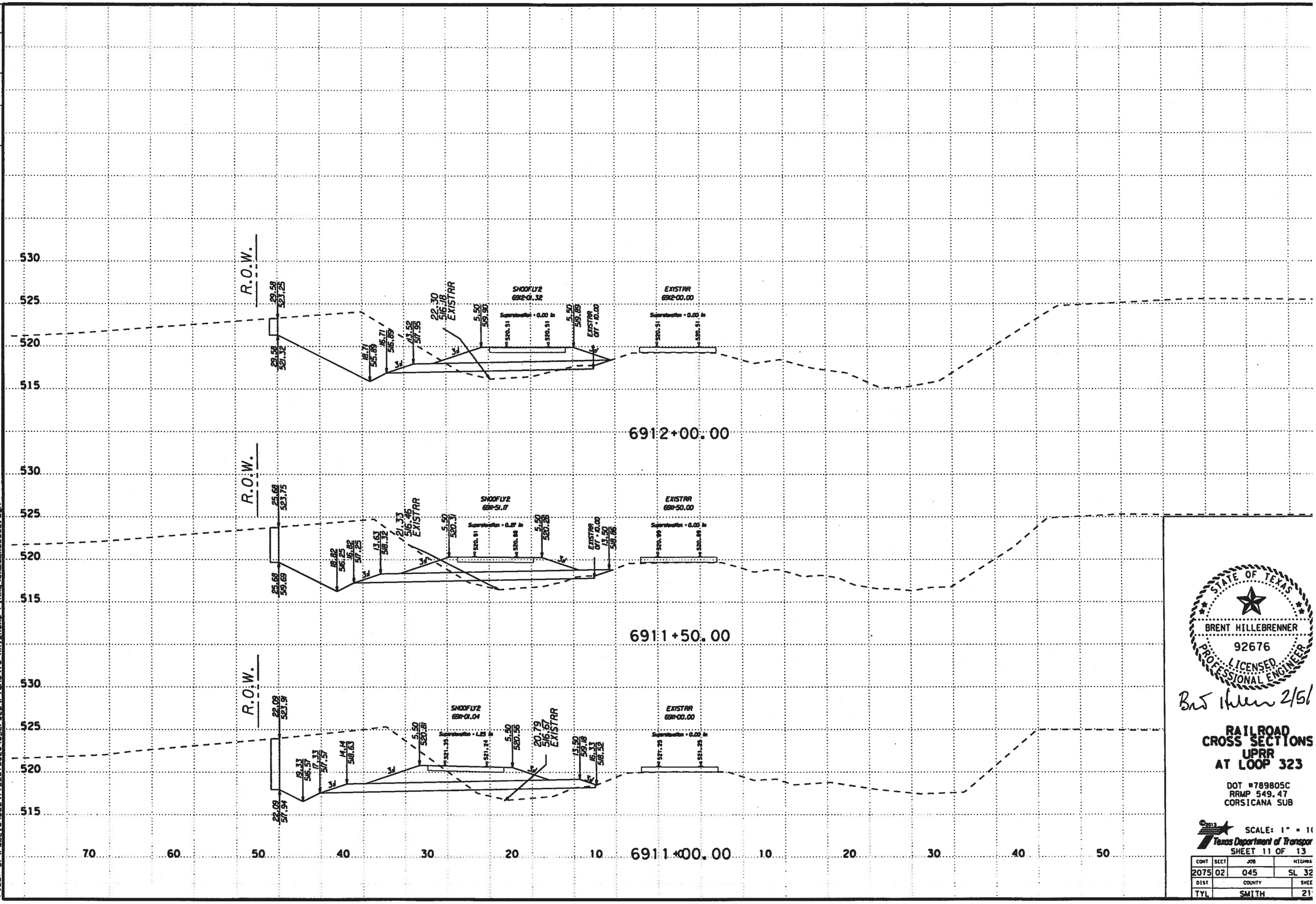

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STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

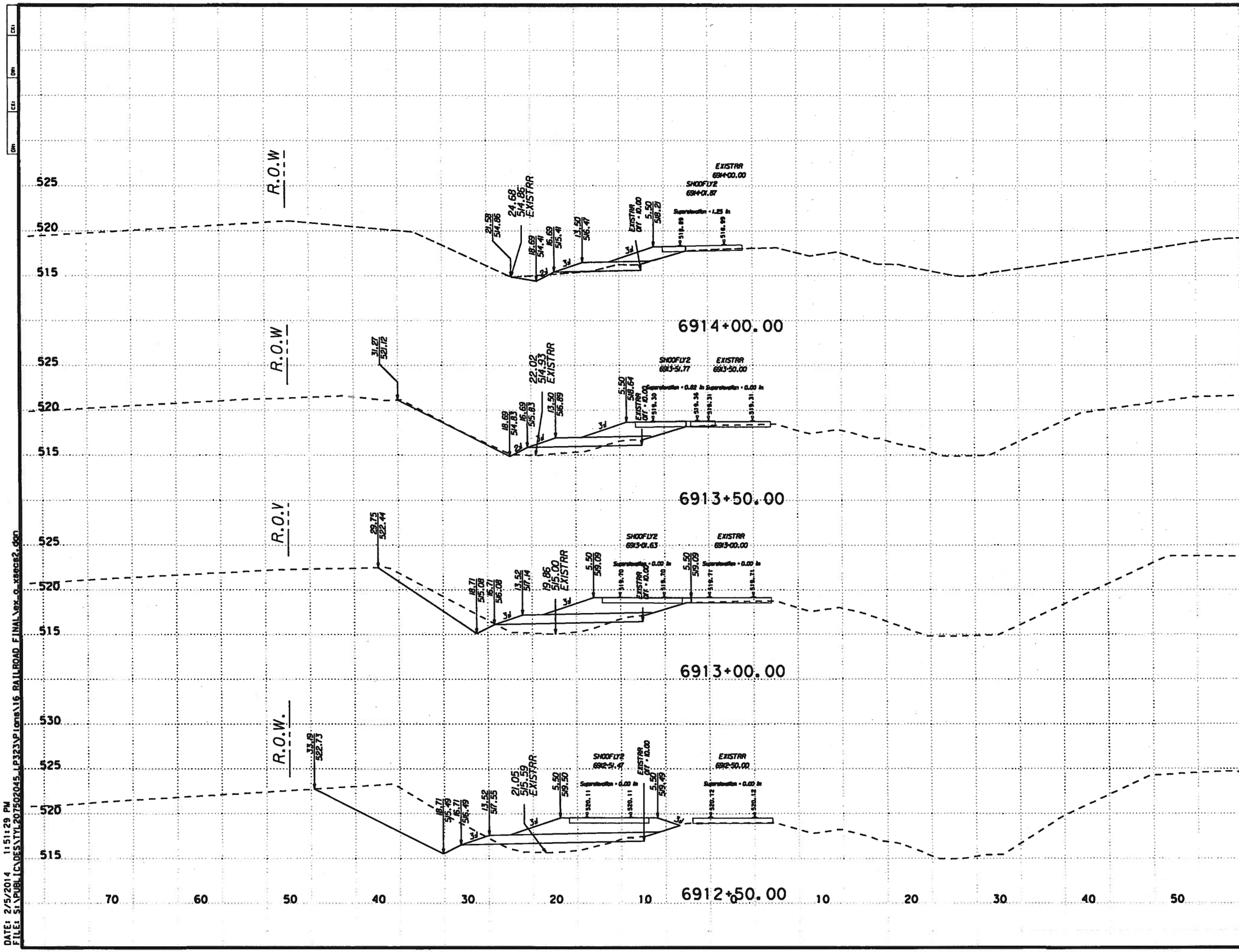
DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpor

SHEET 11 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	21



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STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

Brent Hillebrenner 2/5/

RAILROAD CROSS SECTIONS UPRR AT LOOP 323

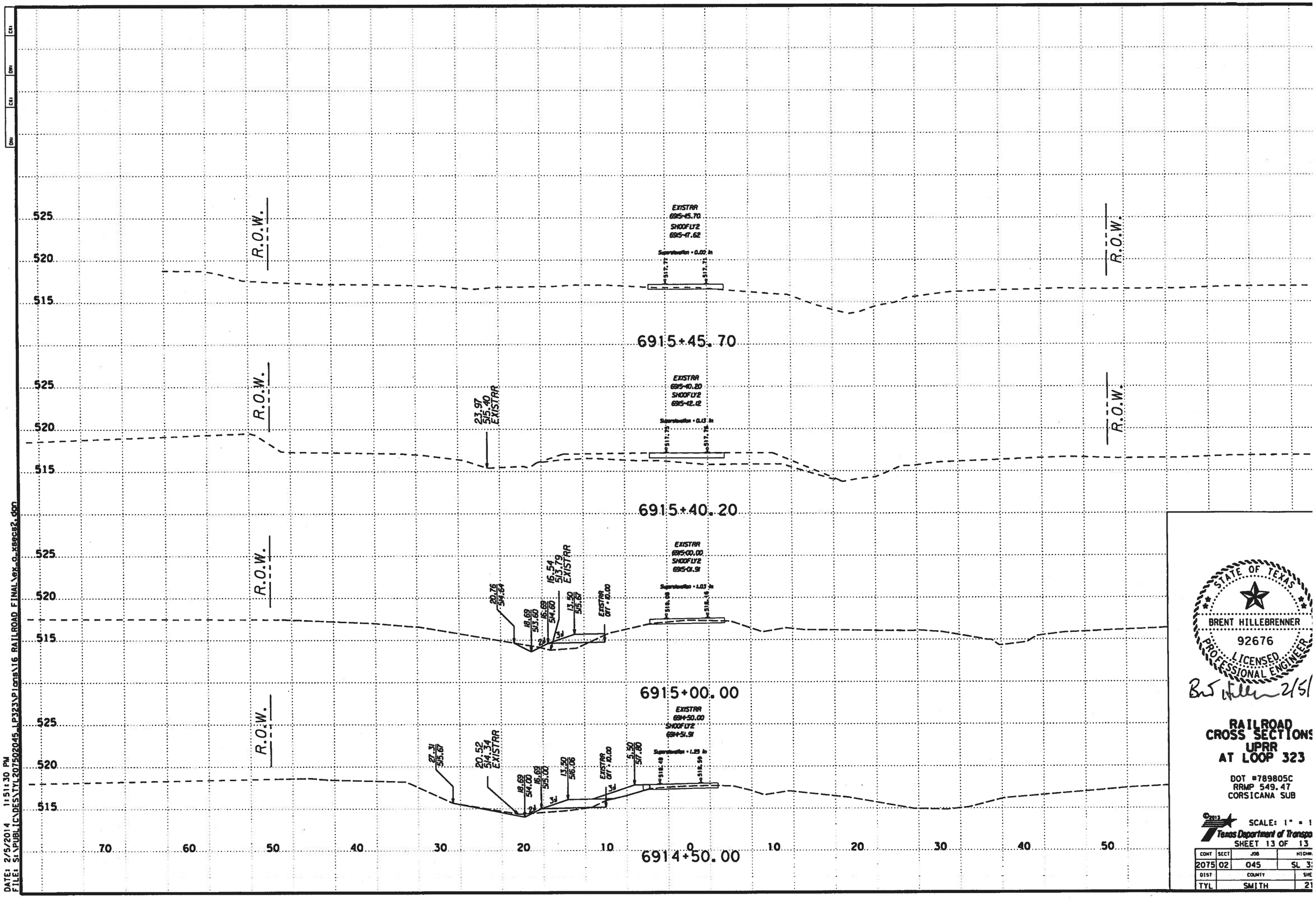
DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpo

SHEET 12 OF 13

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHEE
TYL		SMITH	21



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STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER

2/5/

RAILROAD CROSS SECTIONS
UPRR
AT LOOP 323

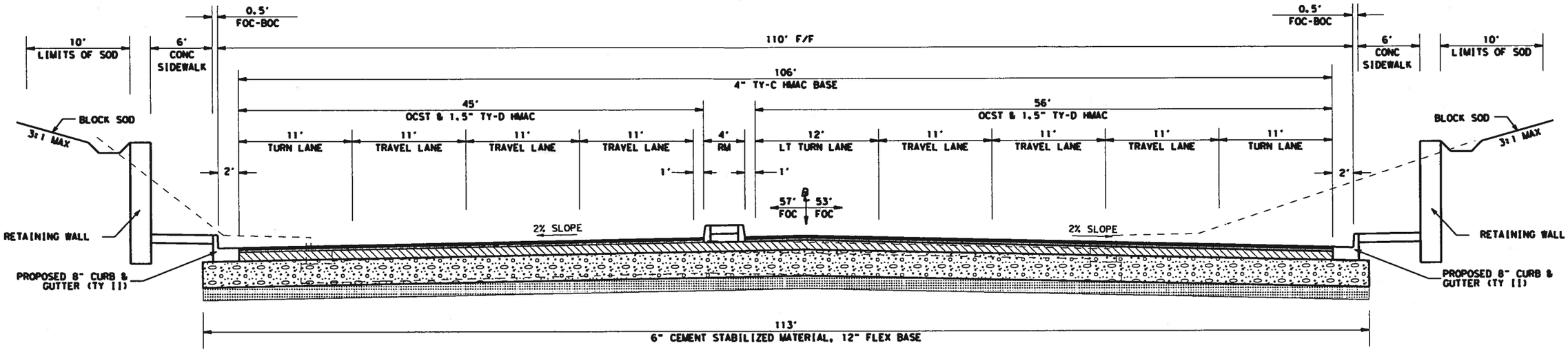
DOT #789805C
RRMP 549.47
CORSICANA SUB

SCALE: 1" = 1

Texas Department of Transpo

SHEET 13 OF 13

CONT	SECT	JOB	HIGHW
2075	02	045	SL 3
DIST		COUNTY	SHE
TYL		SMITH	21



PROPOSED
TYPICAL SECTION
STA 388+48.86

EXHIBIT A

FOR UPRR REVIEW ONLY
NOT FOR CONSTRUCTION, BIDDING, OR
PERMIT PURPOSES
PREPARED UNDER THE SUPERVISION OF
MARK A STURROCK, P.E. 72267

TYPICAL SECTION @ UPRR

LOOP 323 @ STA 388+48.86

Texas Department of Transportation
© 2012
323Atyp01d045

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6	SEE TITLE SHEET		27
STATE	DIST.	COUNTY	
TEXAS	TYLER	SMITH	
CONT.	SECT.	JOB	HIGHWAY NO.
2075	02	045	SL 323

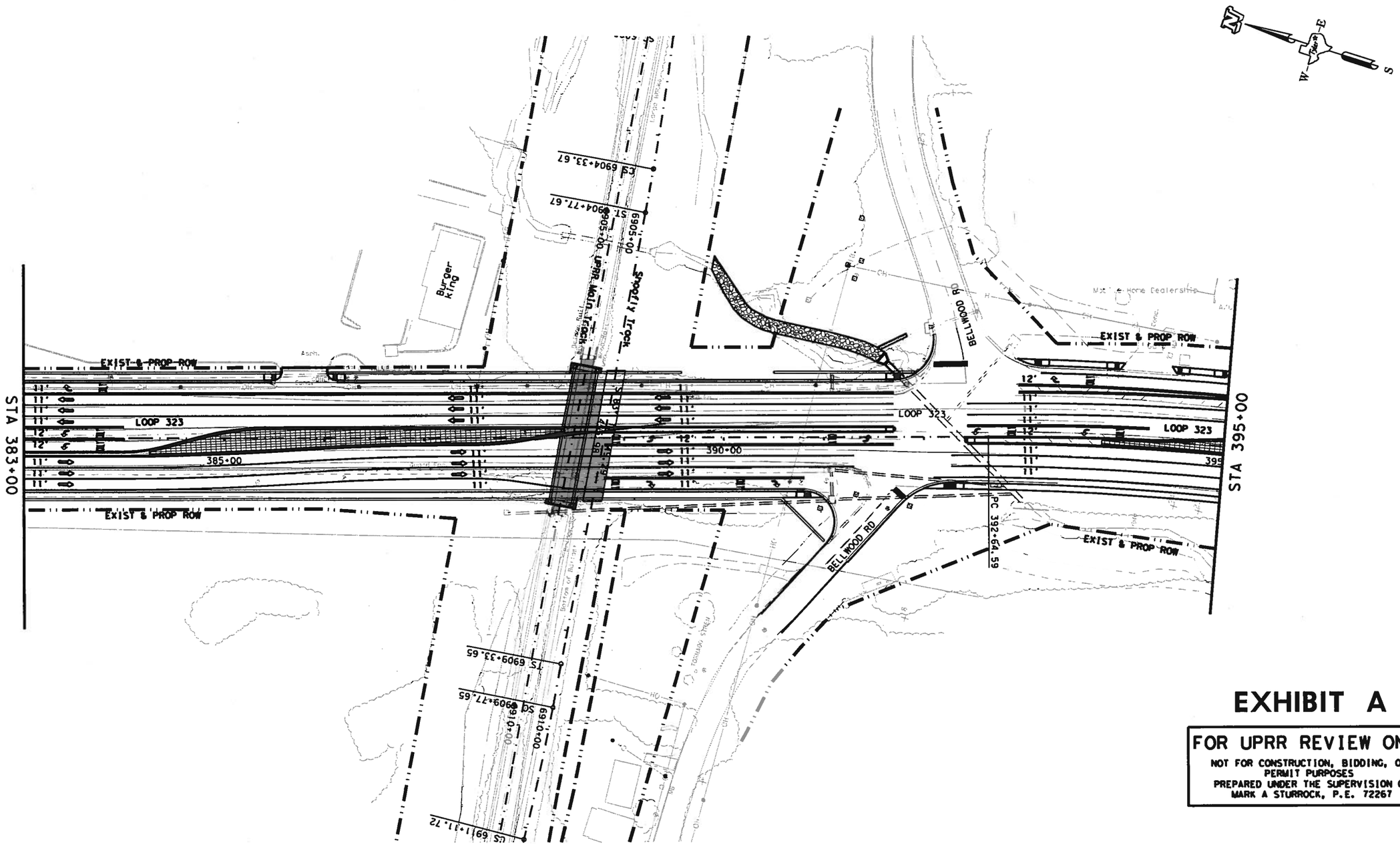


EXHIBIT A

FOR UPRR REVIEW ONLY

NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
PREPARED UNDER THE SUPERVISION OF
MARK A STURROCK, P.E. 72267

ROADWAY PLAN @ UPRR

LOOP 323

STA 383+00 TO STA 395+00

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323Apln01d045

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6	SEE TITLE SHEET		28
STATE	DIST.	COUNTY	
TEXAS		SMITH	
CONT.	SECT.	JOB	HIGHWAY NO.
2075	02	045	SL 323

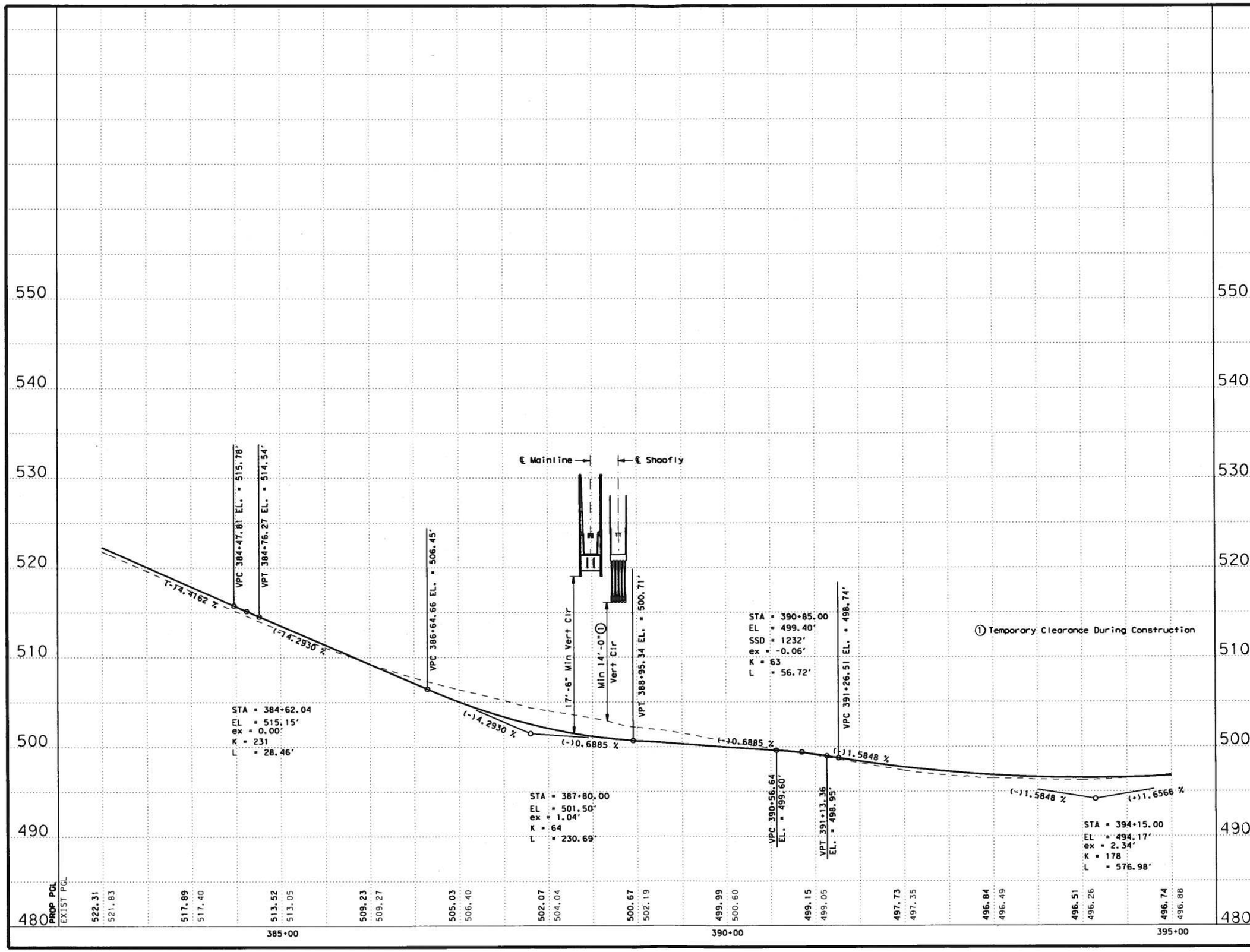

EXHIBIT A

FOR UPRR REVIEW ONLY

NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES PREPARED UNDER THE SUPERVISION OF MARK A. STURROCK, P.E. 72267

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'

ROADWAY PROFILE

LOOP 323 @ UPRR

FROM: STA 383+00.00
TO: STA 395+00.00

©2012 Texas Department of Transportation

323Aprf01d045

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6	SEE TITLE SHEET	29

STATE	DIST.	COUNTY	
TEXAS	TYL	SMITH	
CONT.	SECT.	JOB	HIGHWAY NO.
2075	02	045	SL 323

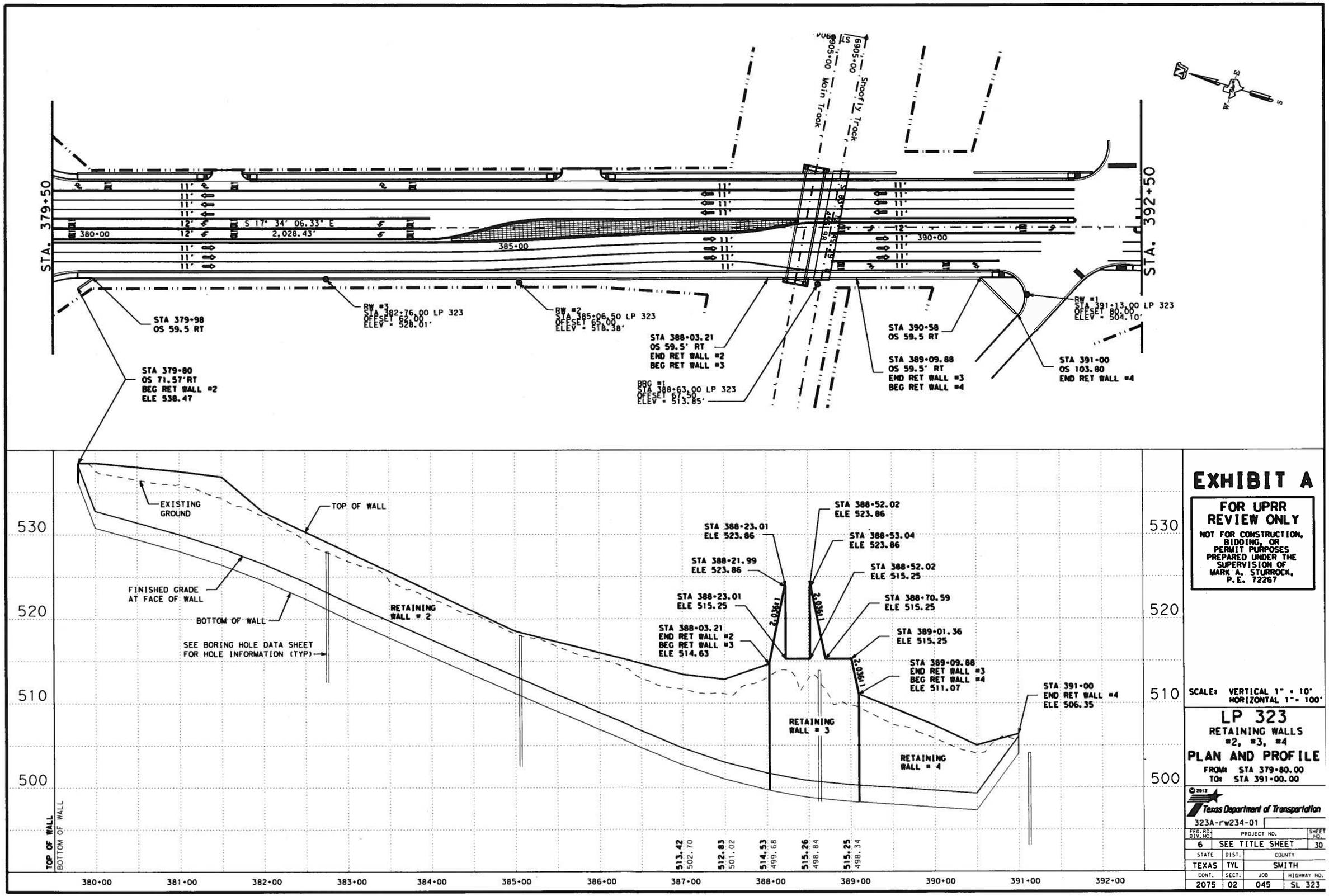

EXHIBIT A

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NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
PREPARED UNDER THE SUPERVISION OF
MARK A. STURROCK, P.E. 72267

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1" = 100'

LP 323
RETAINING WALLS #2, #3, #4

PLAN AND PROFILE
FROM: STA 379+80.00
TO: STA 391+00.00

© 2012 Texas Department of Transportation

323A-rw234-01

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6	SEE TITLE SHEET	30

STATE	DIST.	COUNTY
TEXAS	TYL	SMITH

CONT.	SECT.	JOB	HIGHWAY NO.
2075	02	045	SL 323

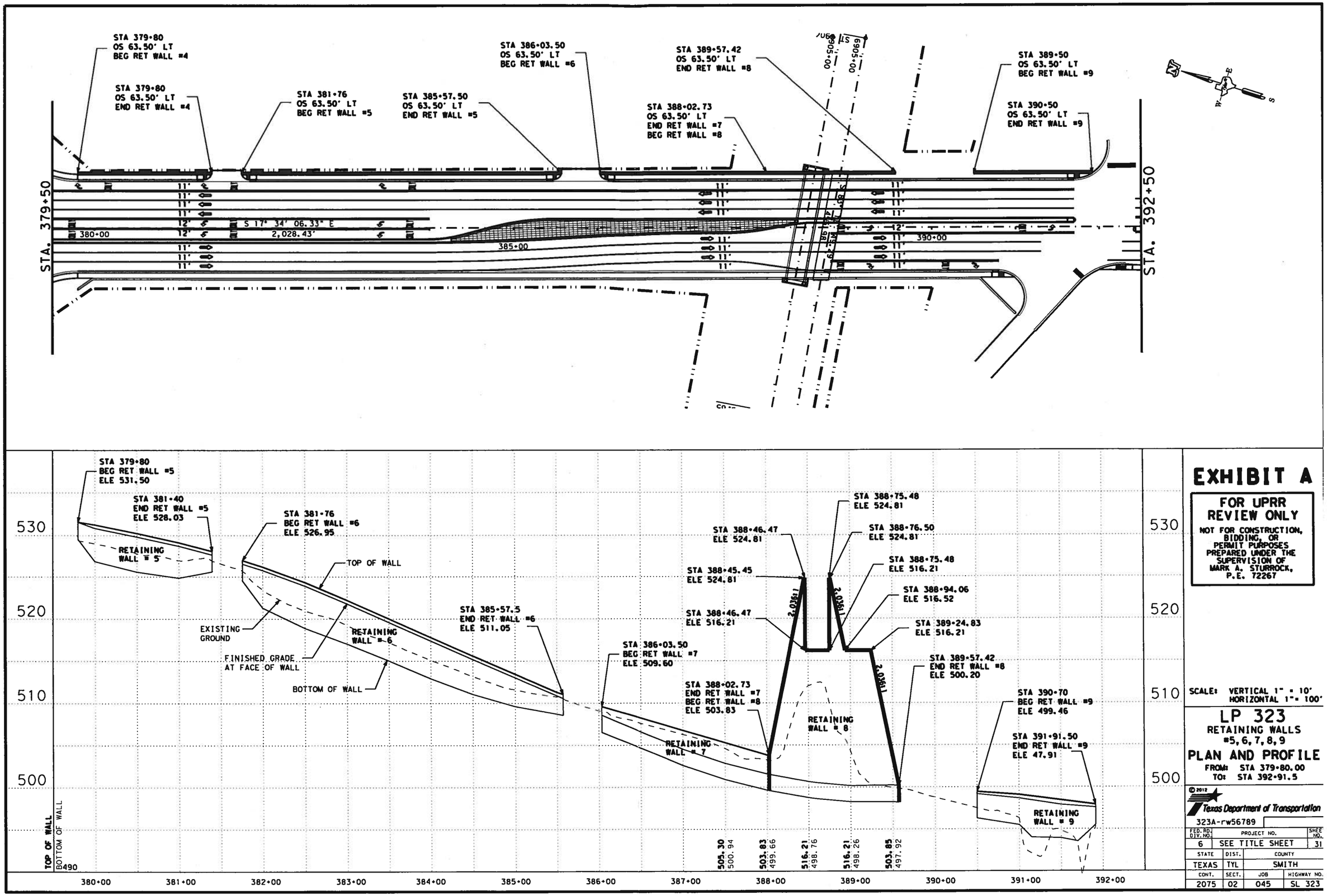

EXHIBIT A

FOR UPRR REVIEW ONLY

NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
PREPARED UNDER THE SUPERVISION OF
MARK A. STURROCK,
P.E. 72267

SCALE: VERTICAL 1" = 10'
HORIZONTAL 1"= 100'

LP 323
RETAINING WALLS
#5, 6, 7, 8, 9

PLAN AND PROFILE
FROM: STA 379+80.00
TO: STA 392+91.5

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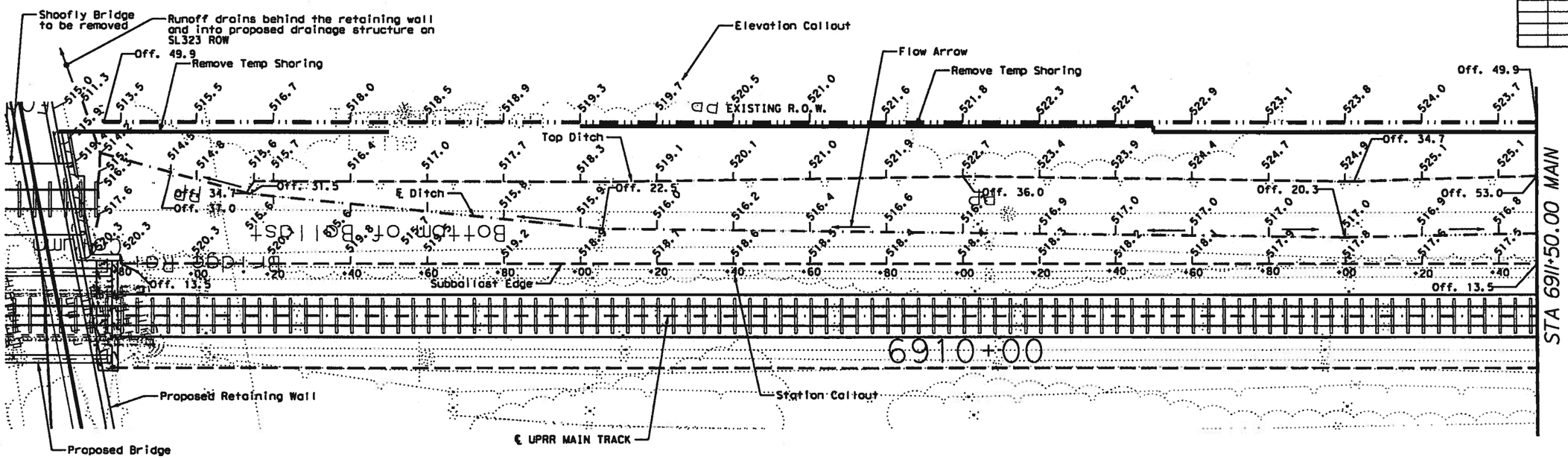
Texas Department of Transportation

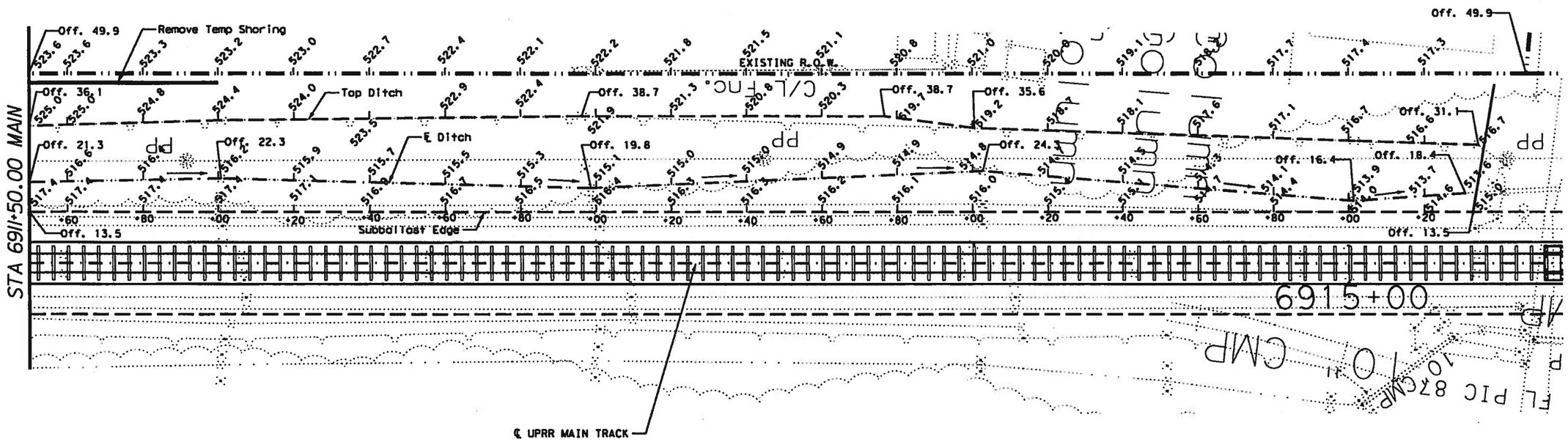
323A-rw56789

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6	SEE TITLE SHEET	31

STATE	DIST.	COUNTY	
TEXAS	TYL	SMITH	
CONT.	SECT.	JOB	HIGHWAY NO.
2075	02	045	SL 323

ITEM	UNIT	QTY	DESCRIPTION
110	CY	634	EXCAVATION
132	CY	1286	EMBANKMENT





Note:
At project completion, the West Shoofly track from station 6907+68 to the end of the project will be removed and regraded as shown on this sheet. The East Shoofly track embankment will remain in place.

STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER
2/5/14

UPRR
REGRADING PLA

SCALE
H: 1" = 30'

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transpo

SHEET 1 O

CONT	SECT	JOB	HIGHWA
2075	02	045	SL 32
DIST		COUNTY	SHE
TYL		SMITH	22

⚠ C.O. Number _____

Rev. 1
Sheet modified per UPRR comments

DATE: 2/5/2014 1:43:25 PM
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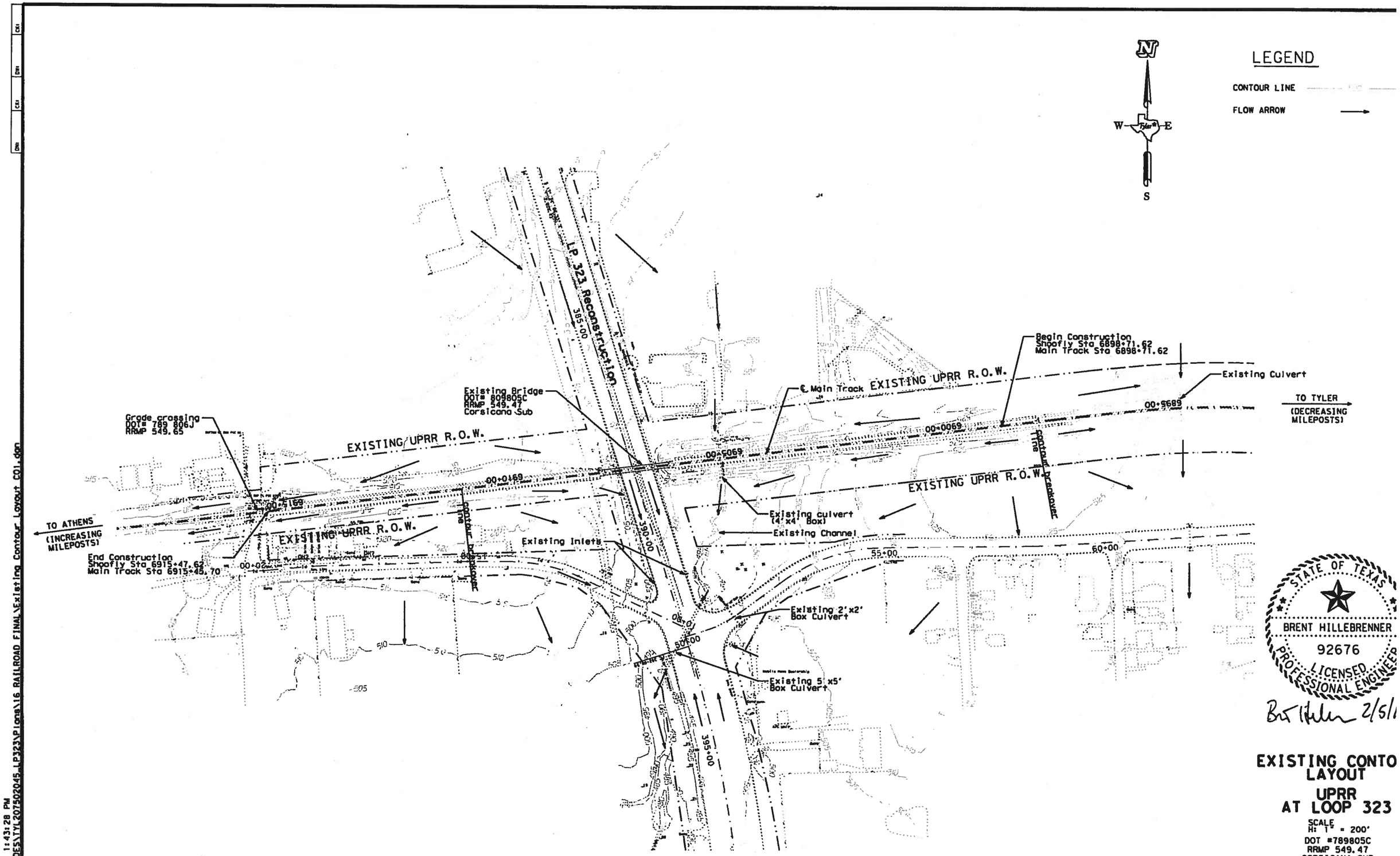


STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED
PROFESSIONAL ENGINEER
Brent Hillebrenner 2/5/1

EXISTING CONTO LAYOUT
UPRR AT LOOP 323

SCALE
H: 1" = 200'
DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transport

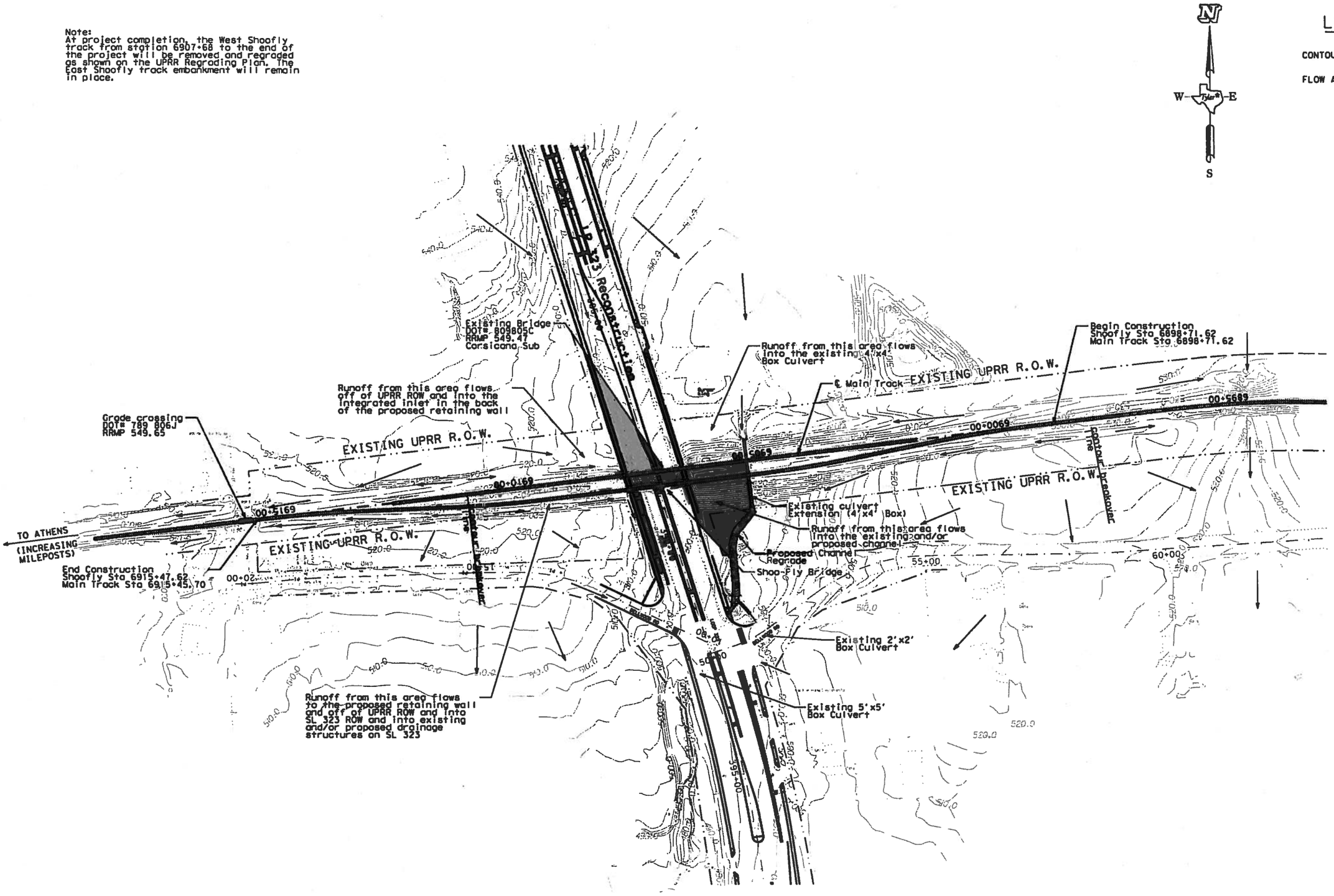
SHEET 1 OF

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 32
DIST		COUNTY	SHEET
TYL		SMITH	22

⚠ C.O. Number _____
Rev. 1
Sheet added per UPRR comments

DATE: 2/5/2014 1:43:28 PM
FILE: S:\PUBLIC\DES\TYL2075020045_LP323\Plans\16 RAILROAD FINAL\Existing Contour Layout C01.dgn

Note:
At project completion, the West Shoofly track from station 6907+68 to the end of the project will be removed and regraded as shown on the UPRR Regrading Plan. The East Shoofly track embankment will remain in place.



STATE OF TEXAS
BRENT HILLEBRENNER
92676
LICENSED PROFESSIONAL ENGINEER
Brent Hillebrenner 2/5/

SHOOFLY CONTOUR LAYOUT
UPRR AT LOOP 323

SCALE
H: 1" = 200'

DOT #789805C
RRMP 549.47
CORSICANA SUB

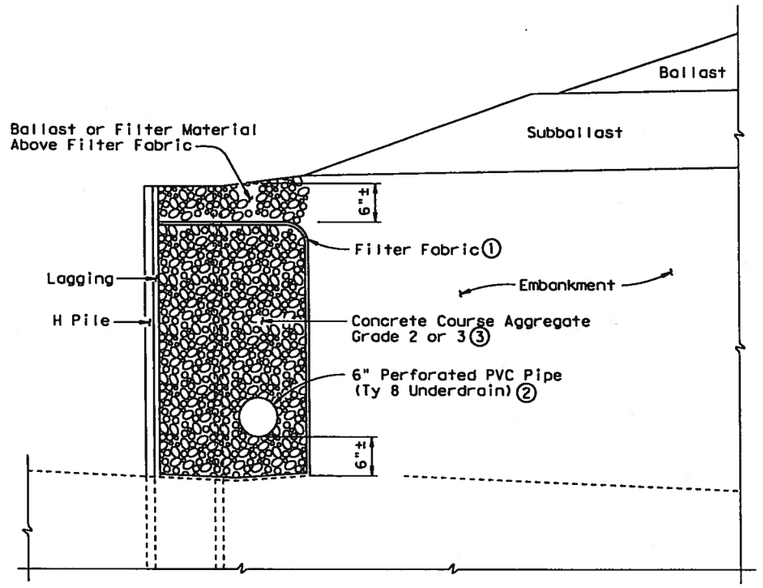
Texas Department of Transportation
SHEET 1 OF

CONT	SECT	JOB	HIGHWAY
2075	02	045	SL 32
DIST		COUNTY	SHEET
TYL		SMITH	22

⚠ C.O. Number _____
Rev. 1
Sheet added per UPRR comments

DATE: 2/5/2014 1:43:32 PM
FILE: S:\PUBLIC\DES\TYL\2075\02045_LP323\Plans\16 RAILROAD FINAL\Proposed Contour Layout C01.dgn

TABLE OF ESTIMATED QUANTITIES	
Pipe Underdrain (6") (Ty 8)	105 LF



① Meeting the requirements of DMS-6200 Type I

② Install maintaining a minimum longitudinal grade of 0.01 ft/ft downward towards Shoofly Abutment No. 3. Outfall either into Retaining Wall No. 3 underdrain or laterally into flume of Retaining Wall No. 4.

③ At Contractor's option, use crushed blast furnace slag, recycled crushed hydraulic cement concrete, or Type C filter material per Item 556. Place and compact in lifts with placement of embankment.

PIPE UNDERDRAIN DETAIL

Filter material, filter fabric, fittings, and other appurtenances shall be considered subsidiary to Pipe Underdrain.

CHANGE ORDER NO. _____

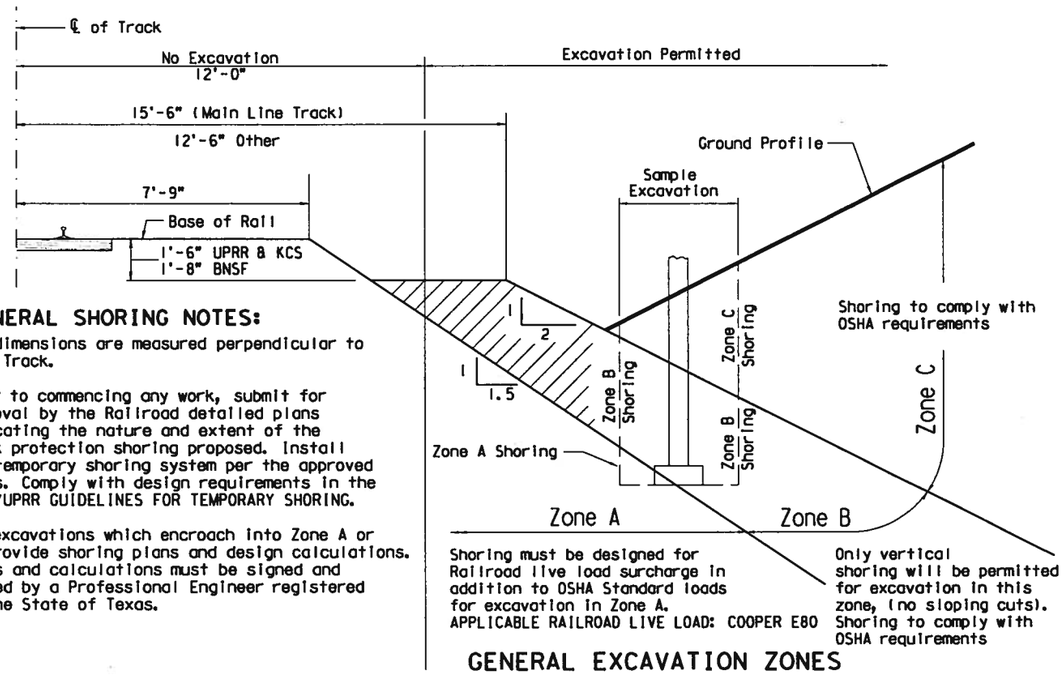
STATE OF TEXAS
MICHAEL D. WYZAK
90180
LICENSED
PROFESSIONAL ENGINEER

Michael D. Wyzak
2/05/14

PIPE UNDERDRAIN FOR LONGITUDINAL SHOOFLY RETAINING WALL

FILE: 7063RL03.DGN	DN: JSB	CK: JGD	DW: RNP	CK: JSB	
©TxDOT APRIL 2013	DISTRICT	FEDERAL AID PROJECT			SHEE
REVISIONS	TYL				225/
	COUNTY		CONTROL	SECT	JOB	HIGHW
	SMITH		2075	02	045	LP32

LEVELS DISPLAYED
PATH: BRG-SDZIEKAN



GENERAL EXCAVATION ZONES

REFER TO PLAN AND PROFILE SHEETS FOR EXISTING TOP OF RAIL PROFILE.

GENERAL SHORING NOTES:

1. All dimensions are measured perpendicular to ℄ of Track.
2. Prior to commencing any work, submit for approval by the Railroad detailed plans indicating the nature and extent of the track protection shoring proposed. Install the temporary shoring system per the approved plans. Comply with design requirements in the BNSF/UPRR GUIDELINES FOR TEMPORARY SHORING.
3. For excavations which encroach into Zone A or B, provide shoring plans and design calculations. Plans and calculations must be signed and sealed by a Professional Engineer registered in the State of Texas.

GENERAL SHORING REQIREMENTS ⌗

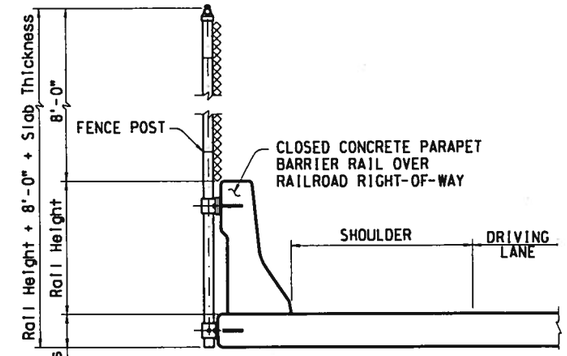
RAILROAD GENERAL NOTES:

1. Railroad review and approval of shoring, erection, demolition, and falsework is required. Allow a minimum of four weeks for the review and approval of each submittal. See ⌗
2. The proposed grade separation project shall not increase the quantity and/or characteristics of the flow in the Railroad's ditches and/or drainage structures.
3. Verify the elevation of the existing top-of-rail profile before beginning construction. Bring all discrepancies to the attention of the Railroad prior to construction.
4. Submit a proposed method of erosion and sediment control for approval by the Railroad.
5. Design and construct all shoring systems that impact the Railroad's operations and/or support the Railroad's embankment per current Railroad Guidelines for Temporary Shoring. See ⌗
6. Comply with Railroad Demolition Guidelines for all demolitions within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations.
7. Design erection methods over the Railroad's right-of-way to cause no interruption to the Railroad's operation, enabling the track(s) to remain open to traffic per the Railroad's requirements. Coordinate construction work windows with the Railroad's Designated Representative.
8. Design all construction phasing that may impact the Railroad operations to cause no interruption to the Railroad's operations, enabling the track(s) to remain open to traffic per the Railroad's requirements. Coordinate construction work windows with the Railroad's Designated Representative.
9. Comply with minimum construction clearances for falsework outlined in the Railroad's Guidelines.
10. Verify all permanent clearances before project closing.
11. For Railroad coordination please refer to Sheets 2 and 3 and the TxDOT Standard Specifications.

⌗ For shoring/excavations in Zone A or B, TxDOT requires a predesigned and approved shoring design in the PS&E. If this is the case no Contractor submittal is required.

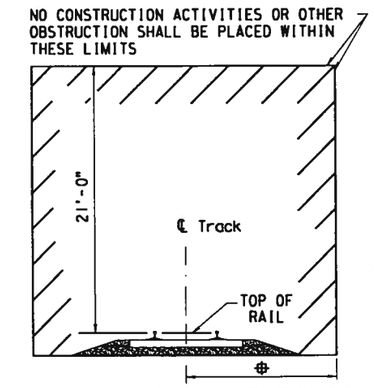
FOR THE FOLLOWING INFORMATION PLEASE REFER TO THE PLAN AND ELEVATION DRAWINGS OF THE BRIDGE PLANS. THE PLAN AND ELEVATION DRAWINGS SHALL SHOW ALL REQUIRED INFORMATION PER BNSF/UPRR GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECT PLAN NO. 711100 SHEET 2.

1. Centerline of bridge and/or centerline of project.
2. Track layout and limits of Railroad right-of-way with respect to centerline of main lines.
3. Future tracks, access roadways and existing tracks as main line, siding, spur, etc.
4. Point of minumum vertical clearance and distance, measured perpendicular, from the centerline of nearest track.
5. Horizontal clearance at right angle from centerline of nearest existing or future track to the face of obstruction such as substructure above grade.
6. Horizontal clearance at right angle from centerline of nearest existing or future track to the face of nearest foundation below grade.
7. Horizontal spacing at right angle between centerlines of existing and/or future tracks.
8. Limits of shoring and minimum distance at right angle from centerline of nearest track.
9. All existing facilities and utilities and their proposed relocation, if required.
10. Toe of riprap or earth slope and/or limits of retaining wall.
11. Existing and proposed contours. (not required if the existing groundlines or drainage characteristics in Railroad ROW will not be altered).
12. Railroad Milepost and direction of increasing Milepost.
13. Direction of flow for all drainage systems within project limits.
14. Limits of barrier rail and fence with respect to centerline of track.
15. Depth of foundation below bottom of tie. (for footings only)
16. Top and bottom of pier protection wall elevation relative to top of rail elevation.
17. Controlling dimensions of drainage ditches and/or drainage structures.
18. Top of rail elevations for all tracks.
19. Minimum permanent vertical clearance above top of high rail to the lowest point under the bridge.
20. Existing and proposed groundline & roadway profile.
21. Type of riprap slope paving.
22. Location of deck drains.
23. Total width of superstructure.
24. Width of shoulder and/or sidewalk.



TYPICAL FENCE ON BARRIER DETAIL

ONLY REQUIRED ON OVERPASSES IF SHOWN ON BRIDGE LAYOUT. (AREAS WITH PEDESTRIANS ON BRIDGE, RAIL YARDS, OR HISTORY OF VANDALISM)



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

(NORMAL TO RAILROAD)
⌖ 15'-0" for BNSF and 12'-0" for UPRR & KCS

GENERAL NOTES:

Design and Construction for Railroad Projects shall be in accordance with the AREMA Manual for Railway Engineering and BNSF/UPRR Guidelines for Railroad Grade Separation Projects (as annotated by TxDOT) or Kansas City Southern Guidelines for the Design and Construction of Overpasses and Underpasses, or DART Light Rail Project Design Criteria Manual, and the TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges AS APPLICABLE TO THE RAILROAD COMPANY INVOLVED.

See BNSF/UPRR Guidelines for Grade Seperation Projects Plan No. 711100 and TxDOT Railroad Fence Details Sheet for additional information. A curved top fence extending 8'-0" above top of sidewalk is acceptable only where there is a traffic rail between roadway and sidewalk.

See Kansas City Southern Guidelines for the Design and Construction of Overpasses and Underpasses for corresponding BNSF/UPRR sheets referenced.

SHEET 1 OF 3

P.E. SEAL REQUIRED

PRELIMINARY

SUBJECT TO REVISION

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Texas Department of Transportation
Bridge Division

RAILROAD REQUIREMENTS FOR BRIDGE CONSTRUCTION

EXHIBIT "A"

FILE: RR-Structural.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT		CK: TxDOT	
© TxDOT FEBRUARY 2008	DISTRICT	FEDERAL AID PROJECT				SHEET
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PART 1 - GENERAL

1.01 DESCRIPTION

This project includes construction work within the Right-of-Way and/or properties of the Railroad Company and adjacent to its tracks, wire lines and other facilities. These sheets describe the minimum special requirements for coordination with the Railroad when working upon, over or under Railroad Right-of-Way or when impacting current or future Railroad operations. Coordinate with the Railroad while performing the work outlined herein, and afford the same cooperation with the Railroad as with TxDOT. Complete all submittals and work in accordance with TxDOT Standard Specifications, Railroad Guidelines and AREMA recommendations as modified by these minimum special requirements or as directed in writing by the Railroad Designated Representative.

For purposes of this project, the Railroad Designated Representative is the person or persons designated by the Railroad Manager of Industry and Public Projects to handle specific tasks related to the project.

1.02 RAILROAD CONTACTS

The primary Railroad point of contact for this project and the contact for Railroad flagging services and track work, can be obtained by contacting the TxDOT Area Engineer responsible for the project.

1.03 REQUEST FOR INFORMATION / CLARIFICATION

Submit Requests for Information ("RFI") involving work within any Railroad Right-Of-Way to the TxDOT Engineer. The TxDOT Engineer will submit the RFI to the Railroad Designated Representative for review and approval for RFI's corresponding to work within Railroad Right-Of-Way. Allow six (6) weeks total time for review and approval, which includes four (4) weeks for review and approval by the Railroad.

1.04 PLANS / SPECIFICATIONS

TxDOT has received writtern Railroad approval of the plans and specifications for this project. Any revisions or changes in the plans after award of the Contract must have the approval of TxDOT and the Railroad.

PART 2 - UTILITIES AND FIBER OPTIC

Construct all utility installations in accordance with current AREMA recommendations, Railroad, TxDOT and owning utility specifications and requirements. Railroad general guidelines can be found on the Railroad website or by contacting the Railroad Designated Representative.

PART 3 - CONSTRUCTION

3.01 GENERAL

A. Perform all work in compliance with all applicable Railroad, FRA (Federal Railway Administration) and TxDOT rules and regulations. Arrange and conduct work in a manner that does not endanger or interfere with the safe operation of the tracks and property of the Railroad and the traffic moving on such tracks, or the wires, signals and other property of the Railroad, its tenants or licensees, at or in the vicinity of the Work. The safe operation of Railroad train movements takes precedence over any work to be performed by the Contractor. The Contractor is responsible for train delay cost and lost revenue claims due to any delays or interruption of train operations resulting from Contractor's construction or other activities.

B. Construction activities within 12 feet of the operational tracks will only be allowed if absolutely necessary and the Railroad's Designated Representative grants approval. Construction activities within 12 feet of the operational track(s) preferably allow the tracks to stay operational. In such cases, coordination and approval by the Railroad Track Manager is required with regard to schedule, flagging, and slow orders. See Sections 3.07 and 3.08 for additional information.

C. Provide track protection for all work equipment (including rubber tired equipment) operating within 25 feet from nearest rail. When not in use, keep Contractor machinery and materials at least 50 feet from the Railroad's nearest track.

D. Vehicular crossings of railroad track are allowed only at existing crossings, or haul road crossings developed with Railroad approval.

E. The Contractor is also advised that new railroad facilities within the project may be built by the Railroad. If applicable, these facilities are delineated in the plans. Be aware of the limits of responsibilities and coordinate efforts with the Railroad and TxDOT.

F. If the Contractor is constructing subgrade for railroad track structure, follow UPRR General Conditions and Specifications except where TxDOT Specifications meet or exceed the requirements of UPRR Specifications.

3.02 RAILROAD OPERATIONS

A. Trains and/or equipment are expected on any track, at any time, in either direction. Become familiar with the train schedules in this location and structure bid assuming intermittent track windows in this period, as defined in Paragraph B that follows.

B. All railroad tracks within and adjacent to the Contract Site are active, and rail traffic over these facilities shall be maintained throughout the Project. Activities may include both through moves and switching moves to local customers. Railroad traffic and operations will occur continuously throughout the day and night on these tracks and shall be maintained at all times as defined herein. Coordinate and schedule the work so that construction activities do not interfere with railroad operations.

C. Coordinate work windows with TxDOT and the Railroad's Designated Representative. Types of work windows include Conditional Work Windows and Absolute Work Windows, as defined below:

1. Conditional Work Window: A Conditional Work Window is a period of time that railroad operations have priority over construction activities. When construction activities may occur on and/or adjacent to the railroad tracks within 25 feet of the nearest track, a Railroad flag person will be required. At the direction of the Railroad flag person, upon approach of a train, and when trains are present on the tracks, the tracks must be cleared (i.e., no construction equipment, materials or personnel within 25 feet, or as directed by the Railroad Designated Representative, from the tracks). Conditional Work Windows are available for the Project.

2. Absolute Work Window: An Absolute Work Window is a period of time that construction activities are given priority over railroad operations. During this time frame, the designated railroad track(s) will be inactive for train movements and may be fouled by the Contractor. At the end of an Absolute Work Window, the railroad tracks and/or signals must be completely operational for train operations and all Railroad, Public Utilities Commission (PUC) and FRA requirements, codes and regulations for operational tracks must be satisfied. In the situation where the operating tracks and/or signals have been affected, the Railroad will perform inspections of the work prior to placing that track back into service. Railroad flag persons will be required for construction activities requiring an Absolute Work Window. Absolute Work Windows will not generally be granted. Any request will require a detailed explanation for Railroad review.

3.03 RIGHT OF ENTRY, ADVANCE NOTICE AND WORK STOPPAGES

A. Prior to beginning any work on or over the property of, or affecting the facilities of the Railroad, enter into a "Contractor's Right of Entry Agreement" with Railroad. The fee for processing the agreement is the responsibility of the Contractor. Submit a copy of the executed agreement and the insurance policies, binders, certificates and endorsements set forth therein to TxDOT prior to commencing work on Railroad property. Within the right of entry agreement, specify working time frames, flagging and inspection requirements, and any other items specified by the Railroad.

B. Give advance notice to the Railroad as required in the "Contractor's Right of Entry Agreement" before commencing work in connection with construction upon or over Railroad Right-of-Way and observe the Railroad's rules and regulations with respect thereto.

C. Perform all work upon Railroad Right-of-Way in a manner to avoid interference with or endanger the operations of the Railroad. Whenever work may affect the operations or safety of trains, submit the work method to the Railroad Designated Representative for approval. Approval does not relieve the Contractor from liability. Do not commence any work which requires flagging service or inspection service until the flagging protection required by the Railroad is available at the job site. See Section 3.18 for railroad flagging requirements.

D. Make requests in writing for both Absolute and Conditional Work Windows, at least 30 days in advance of any work. Include in the written request:
1. Exactly what the work entails.
2. The days and hours that work will be performed.
3. The exact location of work, and proximity to the tracks.
4. The type of window requested and the amount of time requested.
5. The designated contact person.

Provide a written confirmation notice to the Railroad at least 48 hours before commencing work in connection with approved work windows when work is within 25 feet of any track center line. Perform all work in accordance with previously approved work plans.

E. Make provisions to protect operations and property of the Railroad should a condition arising from, or in connection with the work, require immediate and unusual action. If in the judgment of the Railroad Designated Representative such provisions are insufficient, the Railroad Designated Representative may require or provide such provisions as deemed necessary. In any event, such provisions shall be at the Contractor's expense and without cost to the Railroad or TxDOT. The Railroad or TxDOT shall have the right to order the Contractor to temporarily cease operations in the event of an emergency or, if in the opinion of the Railroad Designated Representative, the Contractor's operations could endanger railroad operations. In the event of such an order, immediately notify TxDOT of the order.

3.04 INSURANCE

Do not begin work upon or over Railroad Right-of-Way until furnishing the Railroad with the insurance policies, binders, certificates and endorsements required by the "Contractor's Right-of-Entry Agreement", and until the Railroad Designated Representative has advised TxDOT that such insurance is in accordance with the Agreement. Further information on insurance requirements appear in the Special Provisions to Item 7 of the TxDOT Standard Specifications and/or the project General Notes.

3.05 RAILROAD SAFETY ORIENTATION

A. Complete the Railroad course "Orientation for Contractor's Safety", and maintain current registration prior to working on Railroad property. This orientation is available at www.contractororientation.com. This course is required to be completed annually by Contractor and Subcontractor personnel working on site.

"KCS/TEXMEX will not accept on-track safety training certificates from other railroads. Contractor's employees entering the KCS railroad shall hold current certificates at all times. The training can be had by contacting Larry Slater of TrackSense Inc. at 330-847-8661 or by email at lslater@neo.rr.com."

B. Know and follow the "Contractor's Right of Entry Agreement" EXHIBIT D, MINIMUM SAFETY REQUIREMENTS regarding clothing, personal protective equipment, and general safety requirements.

3.06 COOPERATION

The Railroad will cooperate with Contractor so that work may be conducted in an efficient manner, and will cooperate with Contractor in enabling use of Railroad Right-of-Way in performing the work.

3.07 MINIMUM CONSTRUCTION CLEARANCES FOR FALSEWORK AND OTHER TEMPORARY STRUCTURES

Abide by the following minimum temporary clearances during the course of construction:
A. 15' - 0" (BNSF) and 12'-0" (UPRR & KCS) horizontal from centerline of track
B. 21' - 6" vertically above top of rail.

For construction clearance less than listed above, obtain local Railroad Operating Unit review and approval.

3.08 APPROVAL OF REDUCED CLEARANCES

A. Maintain minimum track clearances during construction as specified in Section 3.07.

B. Submit any proposed infringement on the specified minimum clearances to the Railroad Designated Representative through TxDOT at least 30 days in advance of the work. Do not proceed with such infringement without written approval by the Railroad Designated Representative.

C. Do not commence work involving an approved infringement until receiving written assurance from the Railroad Designated Representative that arrangements have been made for any necessary flagging service.

CHANGE ORDER NO. _____

STATE OF TEXAS
MICHAEL D. HYZAK
90180
LICENSED PROFESSIONAL ENGINEER

2/05/14

SHEET 2 OF 3

Texas Department of Transportation
Bridge Division

RAILROAD REQUIREMENTS FOR BRIDGE CONSTRUCTIO

EXHIBIT "A"

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RAILROAD REQUIREMENTS FOR BRIDGE CONSTRUCTION.dgn

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3.09 CONSTRUCTION AND AS-BUILT SUBMITTALS

A. Provide TxDOT submittals for construction materials and procedures as outlined below and indicated in TxDOT Standard Specifications. A summary of most TxDOT submittal requirements can be found at: www.dot.state.tx.us/publications/bridge/items reviewed.pdf

B. The tables below provide the Railroad's minimum submittal requirements for the construction items noted. Submittal requirements are in addition to those specified elsewhere in these bid documents. The review times indicated below represent the total time, including the Railroad's required four (4) weeks.

C. TxDOT will forward relevant submittals to the Railroad Manager of Industry and Public Projects unless otherwise directed by the Railroad. TxDOT and the Engineer of Record will review and include comments prior to forwarding to the Railroad. Submit items in Table 1 for both railroad overpass and underpass projects, as applicable. Submit items in Table 2 for railroad underpass projects only.

TABLE 1 - RAILROAD SUBMITTAL REQUIREMENTS FOR OVERPASS & UNDERPASS PROJECTS

ITEM	DESCRIPTION	SETS	REVIEW TIME
1	Shoring design and details	6	6 weeks
2	Falsework design and details	6	6 weeks
3	Drainage design provisions	6	6 weeks
4	Erection diagrams and sequence	6	6 weeks
5	Demolition diagram and sequence	6	6 weeks

TABLE 2 - RAILROAD SUBMITTAL REQUIREMENTS FOR UNDERPASS PROJECTS

ITEM	DESCRIPTION	SETS	NOTES	REVIEW TIME
1	Shop drawings	6	Steel and Concrete members	6 weeks
2	Bearings	6	For all structures	6 weeks
3	Concrete Mix Designs	6	For all structures	6 weeks
4	Rebar & Strand certifications	6	For superstructure only	6 weeks
5	28 day concrete strength	6	For superstructure only	6 weeks
6	Waterproofing material certifications and installation procedure	6	Waterproofing & protective boards	6 weeks
7	Structural steel certifications	6	All fracture critical members & other members requiring improved notch toughness	6 weeks
8	Fabrication and Test reports	6	All fracture critical members & other members requiring improved notch toughness	6 weeks
9	Welding Procedures and Welder Certification	6	AWS requirements	6 weeks
10	Foundation Construction Reports or Notes	6	Pile driving, drilled shaft construction, bearing pressure test reports for spread footings	6 weeks
11	Compaction testing reports for backfill at abutments	6	Must meet 95% maximum dry density, Modified Procter ASTM D1557	6 weeks

D. TxDOT shall submit As-Built Records to the Railroad when TxDOT has processed the final project plans. These records shall consist of the following items:

Overpass Projects

1. Electronic files of all structure design drawings with as-constructed modifications shown, in Microstation J or Acrobat .PDF format.
2. Hard copies of all structure design drawings with as-constructed modifications shown.

Underpass Projects

1. Electronic files of all structure design drawings with as-constructed modifications shown, in Microstation J or Acrobat .PDF format.
2. Hard copies of all structure design drawings with as-constructed modifications shown.
3. Final approved copies of shop drawings for concrete and steel members.
4. Foundation Construction Reports
5. Compaction testing reports for backfill at abutments

3.10 APPROVAL OF DETAILS

Submit details of the construction affecting Railroad tracks and property not already included in the Contract Plans to the Railroad Designated Representative through TxDOT for the Railroad's review and written approval before such work is undertaken. Allow a total six (6) weeks for review and approval of these submittals, which includes the Railroad's four (4) week review time.

3.11 MAINTENANCE OF RAILROAD FACILITIES

A. Maintain all ditches and drainage structures free of silt or other obstructions resulting from Contractor's operations. Repair eroded areas and any other damage within Railroad Right-of-Way and repair any other damage to the property of the Railroad, or its tenants.

B. Perform all such maintenance and repair of damages due to the Contractor's operations at Contractor's expense.

C. Submit a proposed method of erosion control for review by the Railroad prior to beginning any grading on the Project Site. Comply with all applicable local, state and federal regulations when developing and implementing such erosion control.

3.12 SITE INSPECTIONS BY RAILROAD's DESIGNATED REPRESENTATIVE

A. In addition to the office reviews of construction submittals, site inspections may be performed by the Railroad Designated Representative at significant points during construction, including the following if applicable:
1. Pre-construction meetings.
2. Pile driving/drilling of caissons or drilled shafts.
3. Reinforcement and concrete placement for railroad bridge substructure and/or superstructure.
4. Erection of precast concrete or steel bridge superstructure.
5. Placement of waterproofing (prior to placing ballast on bridge deck).
6. Completion of the bridge structure.

B. Site inspection is not limited to the milestone events listed above. Site visits to check progress of the work may be performed at any time throughout the construction as deemed necessary by the Railroad.

C. Provide a detailed construction schedule, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to TxDOT for submittal to the Railroad Designated Representative for review prior to commencement of work. Include the anticipated dates when the above listed events will occur. Update this schedule for the above listed events as necessary and each month at a minimum to allow the Railroad to schedule site inspections.

3.13 RAILROAD REPRESENTATIVES

Railroad representatives, conductors, flag person or watch person will be provided by the Railroad at expense of TxDOT to protect Railroad facilities, property and movements of its trains or engines. In general, the Railroad will furnish such personnel or other protective services as follows:

A. When any part of any equipment is standing or being operated within 25 feet, measured horizontally, from centerline of any track on which trains may operate, or when any object is off the ground and any dimension thereof could extend inside the 25 foot limit, or when any erection or construction activities are in progress within such limits, regardless of elevation above or below track.

B. For any excavation below elevation of track subgrade if, in the opinion of the Railroad Designated Representative, track or other Railroad facilities may be subject to settlement or movement.

C. During any clearing, grubbing, excavation or grading in proximity to Railroad facilities, which, in the opinion of the Railroad Designated Representative, may endanger Railroad facilities or operations.

D. During any contractor's operations when, in the opinion of the Railroad Designated Representative, Railroad facilities, including, but not limited to, tracks, buildings, signals, wire lines, or pipe lines, may be endangered.

E. Arrange with the Railroad Designated Representative to provide the adequate number of flag persons to accomplish the work.

3.14 WALKWAYS REQUIRED

Maintain along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than twelve feet (12') from centerline of track. Remove any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours before the close of each work day. Construct walkways with railings over open excavation areas when in close proximity of track. Do not violate allowable clearances of these railings to centerline of track: 8' - 6" horizontally for tangent track or 9' - 6" horizontally for curved track.

3.15 COMMUNICATIONS AND SIGNAL LINES

If required, the Railroad will rearrange its communications and signal lines, its grade crossing warning devices, train signals and tracks, and facilities that are in use and maintained by the Railroad's forces in connection with its operation at expense of TxDOT. This work by the Railroad will be done by its own forces and it is not a part of the Work under this Contract.

3.16 TRAFFIC CONTROL

Coordinate any operations that control traffic across or around Railroad facilities with the Railroad Designated Representative.

3.17 CONSTRUCTION EXCAVATIONS

A. Take special precaution and care in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls or other facilities that require shoring shall comply with requirements of TxDOT, OSHA, AREMA and Railroad "Guidelines for Temporary Shoring".

B. The project plans indicate whether there are fiber optic lines or other such telecommunications systems that require consideration. Regardless, contact the necessary call center to determine if such cable systems are present:

UPRR 1-800-336-9193
7:00 AM to 9:00 PM CST Monday-Friday except holidays,
staffed 24 hrs/day for emergencies
48 hrs notice required

BNSF 1-800-533-2891
24 hour number
5 working days notice required

KCS 1-800-344-8377
Texas One Call, a 24 hour number
48 hrs notice required, excluding weekends and holidays

If a telecommunications system is buried anywhere on or near Railroad property, coordinate with TxDOT, the Railroad and the Telecommunication Company(ies) to arrange for relocation or protective measures prior to beginning work on or near Railroad property. Refer to the project General Notes for additional information.

3.18 RAILROAD FLAGGING

Railroad flagging will be required for any work within 25 ft horizontally of the track. Provisions for flagging are also described in Item 7.16 "Work Near Railroads" in the TxDOT Standard Specifications.

3.19 CLEANING OF RIGHT-OF-WAY

When work is complete, remove all tools, implements, and other materials brought into Railroad Right-of-Way and leave the Right-of-Way in a clean and presentable condition to satisfaction of TxDOT and the Railroad.

P.E. SEAL REQUIRED
PRELIMINARY
SUBJECT TO REVISION

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Texas Department of Transportation
Bridge Division

RAILROAD REQUIREMENTS FOR BRIDGE CONSTRUCTION

EXHIBIT "A"

FILE: RR-Structural.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
© TxDOT NOVEMBER 2007	DISTRICT	FEDERAL AID PROJECT		SHEET
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06/24/10 - Revised Part 2 - Utilities And Fiber Optic Note	COUNTY		CONTROL SECT JOB	HIGHWAY
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WORK TO BE PERFORMED BY TXDOT'S CONTRACTOR:

1. Furnish and install warning signs, barricades, SW3P measures and handle traffic according to traffic control plans and SW3P sheets and/or as directed by the Engineer.
2. Construct shoofly bridge as shown in the plans.
3. Provide all material and construct shoofly earthwork, subballast, ballast, temporary drainage structures, and ditches.
4. Provide all material and construct shoofly rails and ties between 13' mainline to shoofly centerline offset points as shown in the plans, a total of 1083 LF of track work.
5. Deliver and stockpile an approved ballast at a convenient location for relining activities associated with the shoofly tie in and reconnection to the mainline. Provide mobile equipment if requested by UPRR to deliver ballast to relining area.
6. Perform any approach grading or pavement modifications for the planking removal and reinstallation at the Whiteside Road crossing (DOT #789806J).
7. Remove and salvage existing mainline rails and ties at a location as approved by the Engineer. Remove approximately 237.5 LF with careful cutting of the rail that will permit welding of new replacement rail by Contractor.
8. Demolish and salvage existing mainline bridge in accordance with UPRR Demolition Guidelines.
9. Construct mainline bridge as show in the plans.
10. Construct mainline trackwork for the 237.5 LF previously removed on and approaching the new mainline bridge. Provide new 136 lb to 115 lb transitions, new 136# ISHH rail, and welded joints. Perform this work while shoofly is still in operation.
11. Remove and dispose of shoofly bridge.
12. Salvage and transport shoofly trackwork to be retained by TxDOT at the location specified in the plans.
13. Regrade ditches from Shoofly Abutment No. 3 and westward as shown in the plans. No regrading is required from Shoofly Abutment No. 1 and eastward (extended culvert to remain).
14. Construct retaining walls as shown in the plans.
15. Construct new pavement and stormwater drainage as shown in the plans.
16. Construct traffic signals, illumination, and landscaping as shown in the plans.
17. Install new pavement markings and signs as shown in the plans and/or in accordance with Texas MUTCD Guidelines.

WORK TO BE PERFORMED BY UNION PACIFIC RAILROAD (UPRR):

1. Perform engineering inspection of railroad facilities.
2. Provide flagmen as required for the safe movement of trains during construction.
3. Install shoofly ties to 13' mainline to shoofly centerline offset points in the two end tie in regions as shown in the plans.
4. Cut and shift mainline rails to shoofly tieing into shoofly trackwork installed by TxDOT's contractor at the 13' offset points. Adjust road crossing planking at Whiteside Road as necessary to facilitate track shift. Install any remaining ties, perform rail welds, and install tie plates and spikes in the two 13' offset point zones. Total track work to be perfomed is 570 LF.
5. Provide and install any signal work for the shoofly.
6. Move trains operations to shoofly.
7. After TxDOT's contractor has completed mainline bridge construction, cut and shift rails back to mainline tieing into the salvaged/new mainline rails. Adjust road crossing planking at Whiteside Road as necessary to facilitate track shift. Install any remaining ties, perform rail welds, and install tie plates and spikes in the two 13' offset point zones. Total track work to be perfomed is 570 LF.
8. Adjust signal work for mainline.
9. Move train operations back to mainline.

UPRR forces shall field verify the condition of the existing rail and all rail proposed to be salvaged and reused for this contract. All rail shall be re-reviewed and approved the the UPRR Director of Track Maintenance or their appointed designee, otherwise new RE136# ISHH rail will be required in all work.

TRAFFIC NOTES:

1. All barricades, warning signs, lights, devices, etc. for the guidance of vehicle traffic and pedestrians must conform to the installation shown in the Manual on Uniform Traffic Control Devices (MUTCD), current edition.
2. Contractor shall make twice daily inspections of barricades and flashing lights to ensure proper placement and functioning of warning devices.
3. Grade crossings closed to traffic during construction shall be barricaded in accordance with the MUTCD.
4. At all grade crossings, all grade crossing warning signs (crossbuck) shall temporarily be relocated during construction and reset after the grade crossings construction is completed to a point adjacent to the roadway and 15 feet from the centerline of the near track as stated in the MUTCD except where automatic grade crossing warning signals/gates exist. All automatic warning devices are the responsibility of UPRR. At no time shall a crossing be left open without proper warning signs in place.
5. Contractor shall submit traffic control plans to CITY Traffic Department for approval at least 2 weeks prior to each road closure. Plans shall be 11" x 17" engineered drawings, sealed by a professional engineer from the STATE.
6. The contractor is responsible for the prompt replacement and/or repair of all traffic control devices and appurtenances damaged or disturbed due to construction.

CHANGE ORDER NO. _____

GENERAL NOTES:

1. Coordinate construction efforts with TxDOT and UPRR. Comply with all requirements of referenced parties. Refer to UPRR General Conditions and Specifications prior to commencing work.
2. Comply with all Federal, State, County, and City Laws and Ordinances and Regulations of the Department of Industrial Relations;, OSHA, NPDES, and Industrial Accident Commission related to teh safety and character of the work, equipment and labor personnel.
2. Coordinate with UPRR to schedule construction.
3. Accomplish all TxDOT contractor and UPRR work requiring track closure within multiple 12-hour max "absolute work windows". Perform this work on dates scheduled and agreed to by UPRR.
4. TxDOT contractor shall be at the ready to assist UPRR in their responsibilities.
5. UPRR shall be at the ready to assist TxDOT contractor in their responsibilities.
6. Salvaging of trackwork will not be paid for directly but will be considered subsidiary to Item 496 - Removing Structures.
7. Provide a backup crew to be ready at all times during the 12-hour track closures.

RAILROAD CLOSURE TABLE

WORK ITEM NO.	DESCRIPTION	RESPONSIBLE ENTITY	EST'D DURATION	ABSOLUTE WORK WINDOW
1	Shoofly tie install in 13' offset regions	UPRR	4.0 Hr	#1
2	Adjust planking at Whiteside Rd as necessary	UPRR	2.0 Hr	#1
3	Cut and shift mainline rails into shoofly	UPRR	4.0 Hr	#1
4	Pavement and approach grading at Whiteside Rd as necessary	TxDOT Contractor	1.0 Hr	#1
5	Signal adjustment for shoofly	UPRR	1.0 Hr	#1
6	Mainline tie install in 13' offset regions	UPRR	4.0 Hr	#2
7	Adjust planking at Whitside Rd as necessary	UPRR	2.0 Hr	#2
8	Cut and shift shoofly rails into mainline	UPRR	4.0 Hr	#2
9	Pavement and approach grading at Whiteside Rd as necessary	TxDOT Contractor	1.0 Hr	#2
10	Signal adjustment for mainline	UPRR	1.0 Hr	#2

STATE OF TEXAS
MICHAEL D. HYZAK
90180
LICENSED PROFESSIONAL ENGINEER

2/05/14

DOT #789805C
RRMP 549.47
CORSICANA SUB

Texas Department of Transportation
Bridge Division

EXHIBIT A
PROJECT SPECIFIC RAILROAD COORDINATIO

UPRR UNDERPASS AT LOOP 323

FILE: 7063mi05.dgn	DN: MDH	CK: BM	DW: STD	CK: MD
© TxDOT NOVEMBER 2012	CONT	SECT	JOB	HIGHWAY
REVISIONS	2075	02	045	SL 32
	DIST		COUNTY	SHEET
	TYL		SMITH	23

DATE:
FILE: