



Work Package	Prefinal Package 12 Comanche Signing & Striping Prefinal Package 7 Loop Ramps Signing & Striping
Revision	B0
Submittal Stage	Prefinal
Date	4-20-2017

**Advanced status plans were initially provided with Package 12 Comanche Roadway, Drainage and TCP.
For Prefinal, Signing & Striping has been submitted separately.**

Plotted: 4/12/2017 10:40:53 AM
Pen Table: HBR_BRG_5A.tbl
Design Files: \\santec-sc-pw\ent\ey.com\santec-sc-pw\Documents\01 Projects\HBR\Bui\ld\Work\Design\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_Index_7.12.dgn

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION	REVISION
STR-FM; 002	LARGE SIGN FORMATS	B0
STR-OSSE; 008 TO 009	OVERHEAD SIGN ELEVATIONS	B0
STR-LOSS; 003	SUMMARY OF LARGE SIGNS: SH 286 FRONTAGE ROADS	B0
STR-SOSS; 004 TO 005	SUMMARY OF SMALL SIGNS: SOUTHBOUND FRONTAGE ROAD	B0
STR-SOSS; 014 TO 015	SUMMARY OF SMALL SIGNS: NORTHBOUND FRONTAGE ROAD	B0
STR-SOSS; 024 TO 025	SUMMARY OF SMALL SIGNS: CROSSROADS, LOOP RAMPS	B0
STR-NSFR; 007 TO 010	PAVEMENT MARKING AND SIGNING, SH 286 FRONTAGE ROADS STA 1148+80 TO STA 1097+00	B0
STR-XRCM; 001	PAVEMENT MARKING AND SIGNING, COMANCHE STREET STA 20+00 TO STA 30+00	B0
STR-XRLI; 001	PAVEMENT MARKING AND SIGNING, LIPAN STREET STA 4+97 TO STA 24+25	B0

NO.	BY		DATE

PRELIMINARY

FOR REVIEW ONLY

THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:

Engineer: Steven Ogburn

P.E. No.: 115334

Date: 4/5/2017

PRE-FINAL SUBMITTAL


NOT FOR CONSTRUCTION

US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING

SH 286 FRONTAGE ROADS

INDEX OF SHEETS




FLATIRON/DRAGADOS

FLATIRON/DRAGADOS LLC



2000 Berling Drive, Suite 102
Houston, Texas 77057
281-772-2880

DP-007 & 012

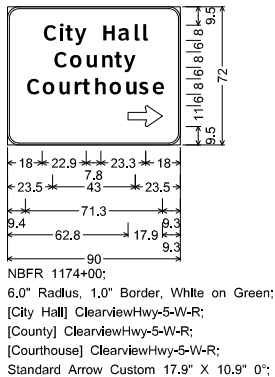
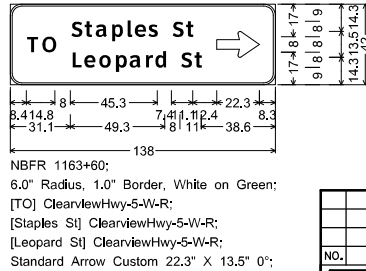
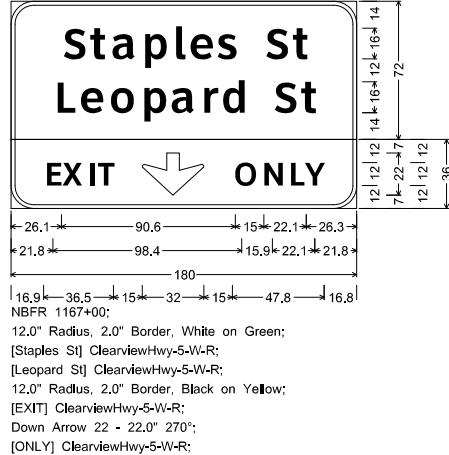
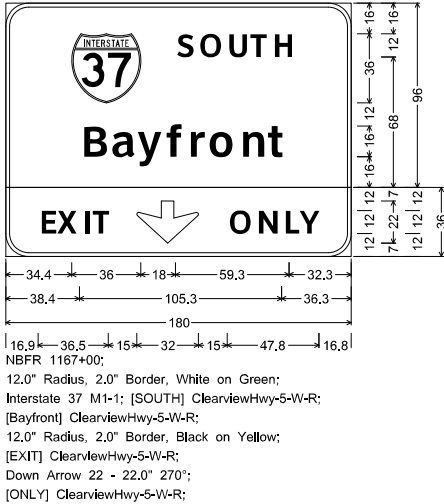
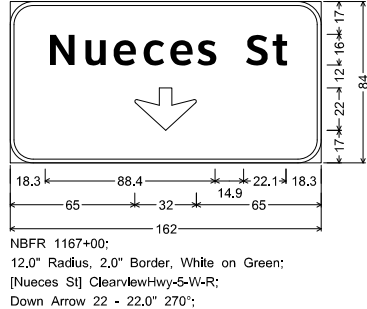
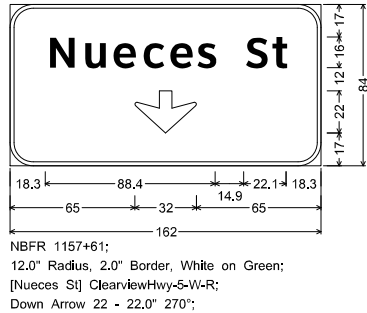
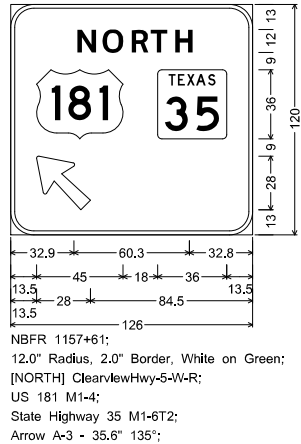
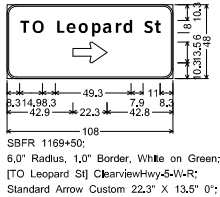
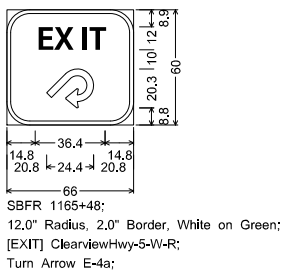
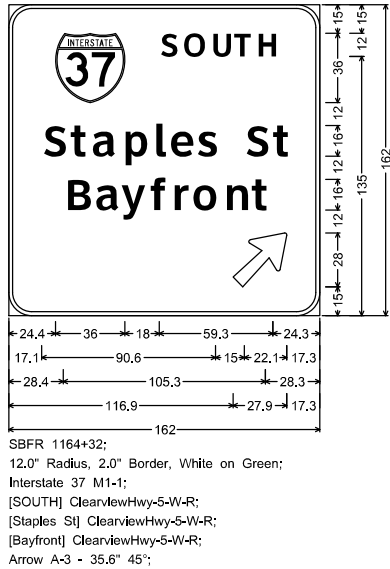
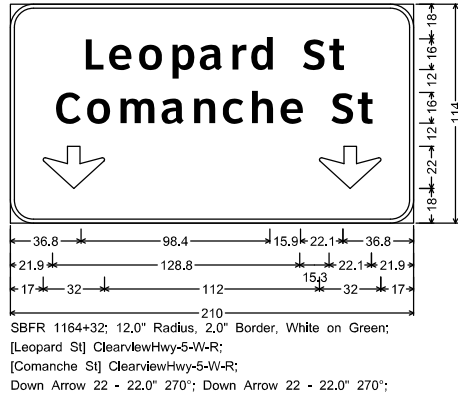


Texas Department of Transportation

© 2016

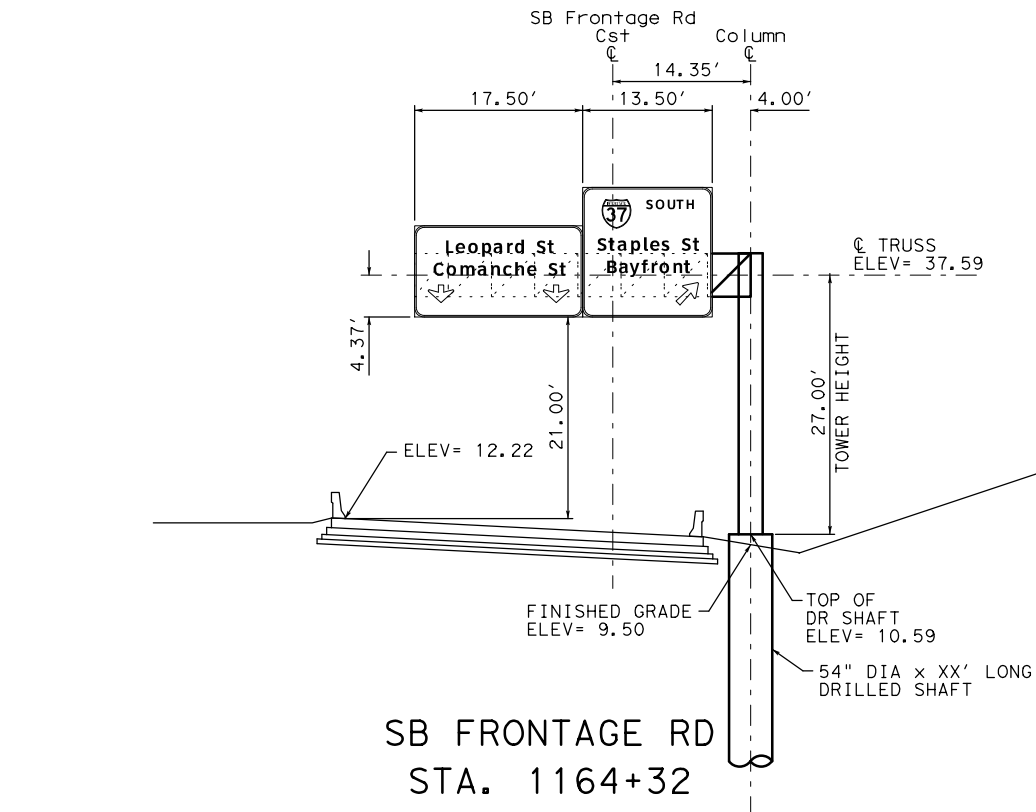
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597 (1)		STR-IND
STATE	STATE DIST. NO.	COUNTY	012
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	HIGHWAY NO.
0101	06	095	US181

Plotted: 4/17/2017 4:20:45 PM
Pen Table: HBR_BRG_SA.tbl
Design File: pw:\stntec-sc-pw\ben\ley.com\stntec-sc-pw\Documents\01 Projects\HBR\Bui\ld\Work\Design\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_FM.02



NO.		BY	DATE
PRELIMINARY			
FOR REVIEW ONLY			
THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:			
Engineer: <u>Steven Ogburn</u>			
P.E. No.: <u>115334</u>			
Date: <u>4/5/2017</u>			
PRE-FINAL SUBMITTAL			
NOT FOR CONSTRUCTION			
US 181 HARBOR BRIDGE			
PAVEMENT MARKING & SIGNING			
US 181/SH 286			
LARGE SIGN FORMATS			
SCALE: 1" = 20'			
FLATIRON/Dragados LLC			
2020 Berling Drive, Suite 102 Houston, Texas 77057 281-772-2880			
DP-007 & 012			
© 2016			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597 (1)		STR-FM
STATE	STATE DIST. NO.	COUNTY	002
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	HIGHWAY NO.
0101	06	095	US181

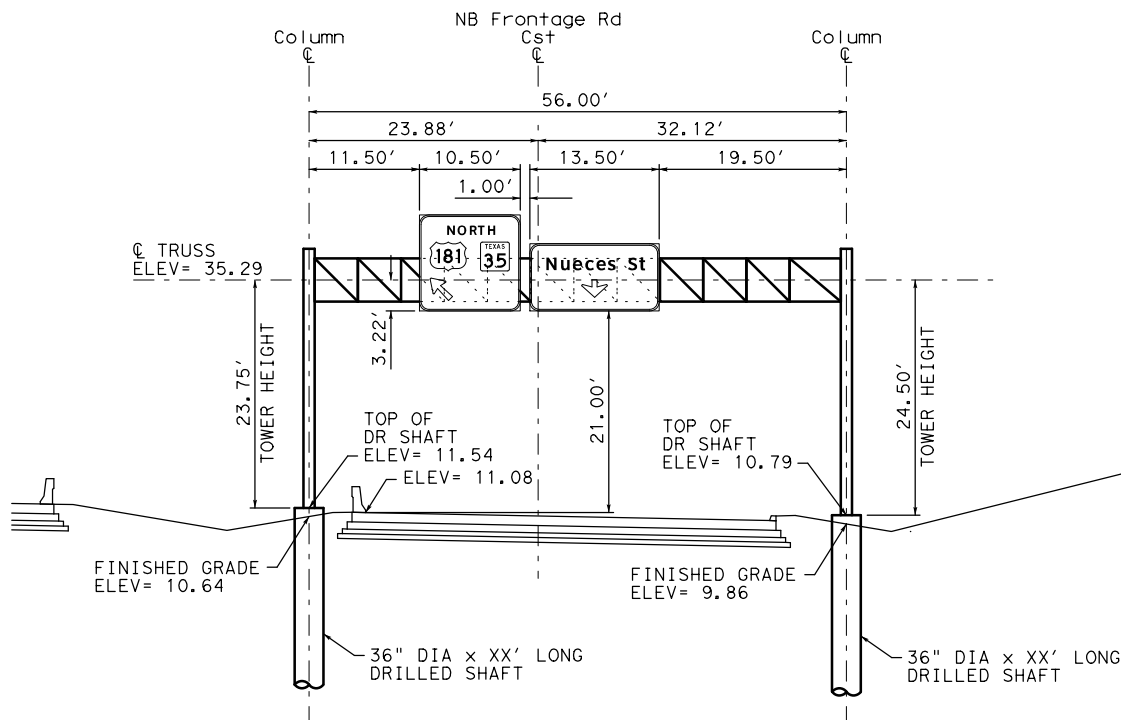
Plotted: 4/17/2017 4:42:10 PM
Pen Table: HBR_BRG_5A.tbl
Design Files: \\stantec-sc-pw.bentley.com\stantec-sc-pw\Documents\01 Projects\HBR\Bui\ld\Work\Design\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_OSSE_08



DESIGN DATA	
SPAN LENGTH	35.00
DESIGN HEIGHT	27.00
TOWER HEIGHT	27.00
DESIGN SIGN AREA	350
ACTUAL SIGN AREA	348.50
PENETROMETER VALUE	"N"=XX
DESIGN LOADS	
TORSION	330.60
MOMENT	554.50

STRUCTURE DATA	
STRUCTURE CODE	COS-Z1-10
TRUSS SIZE	4.5' x 4.5'
TOWER SIZE	30"

SUMMARY OF DRILLED SHAFT	
XX LF OF 54 IN DIA DRILLED SHAFT	
BOTTOM BASE PLATE ELEV	10.61
TOP DRILLED SHAFT ELEV	10.59
GROUND ELEV	9.50
BOTTOM DRILLED SHAFT ELEV	XX





DESIGN DATA	
SPAN LENGTH	56'
DESIGN HEIGHT	25'
TOWER HEIGHT, LEFT	23.75
TOWER HEIGHT, RIGHT	24.50
DESIGN SIGN AREA	420
ACTUAL SIGN AREA	199.5
PENETROMETER VALUE	"N"=XX
DESIGN LOADS	
TORSION	X
MOMENT	X

STRUCTURE DATA	
STRUCTURE CODE	OSB-Z1
TRUSS SIZE	4.5' x 4.5'
TOWER SIZE	W 14 x 30




SUMMARY OF DRILLED SHAFT	
XX	LF OF 36 IN DIA DRILLED SHAFT - LEFT TOWER
XX	LF OF 36 IN DIA DRILLED SHAFT - RIGHT TOWER

	LEFT	RIGHT
BOTTOM BASE PLATE ELEV	11.71	10.96
TOP DRILLED SHAFT ELEV	11.54	10.79
GROUND ELEV	10.64	9.86
BOTTOM DRILLED SHAFT ELEV	X	X

NO.				BY				DATE				
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Osburn P.E. No. 115334 Date: 4/5/2017												
PRE-FINAL SUBMITTAL												
NOT FOR CONSTRUCTION US 181 HARBOR BRIDGE												
PAVEMENT MARKING & SIGNING NB AND SB FRONTAGE ROADS OVERHEAD SIGN STRUCTURE ELEVATIONS												
 FLATIRON/Dragados LLC												
 AZTEC 2000 Berling Drive, Suite 102 Houston, Texas 77057 281-772-2880												
Texas Department of Transportation © 2016												
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.								SHEET NO.			
6	HP X597(1)								STR-OSSE			
STATE	STATE DIST. NO.				COUNTY				008			
TEXAS	CRP				NUECES				JOB			
CONT.	0101				06				095			
HIGHWAY NO.				US181								



	LEFT	RIGHT
BOTTOM BASE PLATE ELEV	<u>14.18</u>	<u>13.68</u>
TOP DRILLED SHAFT ELEV	<u>14.01</u>	<u>13.51</u>
GROUND ELEV	<u>13.07</u>	<u>12.90</u>
BOTTOM DRILLED SHAFT ELEV	<u>X</u>	<u>X</u>

NO.				BY DATE	
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OF BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: <i>Engineer: <u>Steven Ogburn</u></i> <i>P.E. No.: <u>115334</u></i> <i>Date: <u>4/5/2017</u></i>					
PRE-FINAL SUBMITTAL NOT FOR CONSTRUCTION US 181 HARBOR BRIDGE					
PAVEMENT MARKING & SIGNING NB AND SB FRONTAGE ROADS OVERHEAD SIGN STRUCTURE ELEVATIONS					
 FLATIRON/DRAGADOS LLC					
 <div style="display: inline-block; vertical-align: middle;"> 2000 Baring Drive, Suite 702 Houston, Texas 77057 281-772-0860 </div>					
DP-007 & 012					
 Texas Department of Transportation © 2016					
FED. RD. DIV. NO.		FEDERAL AID PROJECT NO.			SHEET NO.
6		HP X597(1)			STR-05
STATE	STATE DIST. NO.	COUNTY		000	
TEXAS	CRP	NUECES		HIGHWAY	
CONT.	SECT	JOB		US18	
0101	06	095			

SUMMARY OF LARGE OVERHEAD SIGNS	
---------------------------------	--

[illegible]

NO. _____	BY _____	DATE _____
<div style="border: 2px solid black; padding: 5px;"> <p style="margin: 0;">PRELIMINARY</p> <p style="margin: 0;">FOR REVIEW ONLY</p> <p style="margin: 0; font-size: small;">THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:</p> <p style="margin: 0;">Engineer, <u>Steven Ogburn</u></p> <p style="margin: 0;">P.E. No., <u>115334</u></p> <p style="margin: 0;">Date, <u>4/5/2017</u></p> </div>		
<p style="margin: 0; font-size: 24px; font-weight: bold;">PRE-FINAL SUBMITTAL</p> <div style="border: 2px solid black; padding: 10px; text-align: center;"> <p style="margin: 0; font-size: 36px; font-weight: bold;">NOT FOR CONSTRUCTION</p> <p style="margin: 0; font-size: 24px; font-weight: bold;">US 181 HARBOR BRIDGE</p> </div>		
<p style="margin: 0; font-size: 24px; font-weight: bold;">PAVEMENT MARKING & SIGNING</p> <p style="margin: 0; font-size: 24px; font-weight: bold;">SH 286 FRONTAGE ROADS</p> <p style="margin: 0; font-size: 24px; font-weight: bold;">SUMMARY OF LARGE SIGNS</p>		
<div style="display: flex; align-items: center; justify-content: center;"> <div> <p style="margin: 0; font-weight: bold;">FLATIRON/DRAGADOS LLC</p> </div> </div>		
<div style="display: flex; align-items: center; justify-content: center;"> <div> <p style="margin: 0; font-weight: bold;">AZTEC</p> <p style="margin: 0; font-size: small;">2000 Bering Drive, Suite 702 Houston, Texas 77057 346-172-2886</p> </div> </div>		
<p style="margin: 0;">DP-007 & 012</p>		
<div style="display: flex; align-items: center; justify-content: center;"> <div> <p style="margin: 0; font-weight: bold;">Texas Department of Transportation</p> <p style="margin: 0; font-size: small;">© 2016</p> </div> </div>		
FED. RD. DIV. NO. 6	FEDERAL AID PROJECT NO. HP X597 (1)	SHEET NO. STR-LOSS
STATE TEXAS	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> STATE DIST. NO. CRP </div> <div style="width: 45%;"> COUNTY NUECES </div> </div>	003
CONT. 0101	SECT 06	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> JOB 095 </div> <div style="width: 45%;"> HIGHWAY NO. US181 </div> </div>

Design File: \\stamtec-sc-pw.bentley.com:stamtec-sc-pw\Documents\01 Projects\HBR\Build Work\Design\11.01-Sheets\Sign Summaries\HBR_STR_S0SS-004.dgn

Design File: pw:\stantec-sc-pw.b

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/>

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD (GEN).

PRELIMINARY
FOR REVIEW ONLY
 THESE DOCUMENTS ARE PRELIMINARY
 AND SUBJECT TO CHANGE. THEY ARE
 NOT INTENDED FOR CONSTRUCTION OR
 BIDDING. THEY WERE PREPARED BY,
 OR UNDER THE SUPERVISION OF:
Engineer, Steven Osburn
P.E. No., 115334
Date, 4/5/2017

**NOT FOR
CONSTRUCTION**

US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING
SUMMARY OF SMALL SIGNS
US181/SH286
SOUTHBOUND FRONTAGE ROAD



Texas Department of Transportation

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597(1)		STR-SSSS NSFR
STATE	STATE DIST. NO.	COUNTY	
TEXAS	CRP	NUECES	004
CONT.	SECT	JOB	
0101	06	095	HIGHWAY NO. US181

[illegible]

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/>

NOTE: _____

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD (GEN).

NO.		BY	DATE

PRELIMINARY
FOR REVIEW ONLY
THESE DOCUMENTS ARE PRELIMINARY
AND SUBJECT TO CHANGE. THEY ARE
NOT INTENDED FOR CONSTRUCTION OR
BIDDING. THEY WERE PREPARED BY,
OR UNDER THE SUPERVISION OF:
Engineer, Steven Ogburn
P.E. No. 115334
Date: 4/5/2017

PRE-FINAL SUBMITTAL
NOT FOR
CONSTRUCTION
US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING
SUMMARY OF SMALL SIGNS
US181/SH286
SOUTHBOUND FRONTAGE ROAD

**FLATIRON/Dragados LLC**

2000 Bering Drive, Suite 702
Houston, Texas 77057
346-772-2880

DP-007 & 012



Texas Department of Transportation

© 2016

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597(1)		STR-SOS NSFR
STATE	STATE DIST. NO.	COUNTY	005
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	
0101	06	095	HIGHWAY NO US181

Plotted: 4/17/2017 4:08:36 PM
Pen Table: HBR_BRG_SA.tbl
Design File: \\santec-sc-pw\desig\11-Traffic\AZTEC\11-01-Sheets\Sign_Summaries\HBR_STR_SOSS_014.dgn

SUMMARY OF SMALL SIGNS - FRONTAGE ROADS AND CROSS STREETS													
PLAN SHEET NO.	SIGN NO.	STATION	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)					BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)
								POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
											PREFABRICATED	1EXT or 2EXT = # of Ext	
													FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80
TY N	TY S												
STR-NSFR 009	100	STA 1180+66 NBFR	R6-1R		54" x 18"	X		10BWG	1	SA	P	BM	
STR-NSFR 009	101	STA 11+37 HOWARD ST	D3-1 (HOWARD) D3-1 (BROWNLEE) R1-1		D3-1 (HOWARD) D3-1 (BROWNLEE) 36" x 36"	X		10BWG	1	SA	T	EXAL	
STR-NSFR 009	102	STA 1179+35, LT NBFR	S1-1		36" x 36"	X		10BWG	1	SA	P	EXAL	
STR-NSFR 009	103	STA 1179+35, RT NBFR	S1-1		36" x 36"	X		10BWG	1	SA	P	EXAL	
STR-NSFR 009	104	STA 1178+87 NBFR	R6-1R		54" x 18"	X		10BWG	1	SA	P	EXAL	
STR-XRCM 001	105	STA 1177+39 NBFR	R5-1 R1-1 R1-4		36" x 36" 36" x 36" 30" x 12"	X		10BWG	1	SA	T	EXAL	
STR-XRCM 001	106	STA 1177+37 NBFR	R5-1 D3-1 (COMANCHE) R1-1 R1-4		36" x 36" D3-1 (COMANCHE) 36" x 36" 30" x 12"	X		10BWG	1	SA	T	EXAL	
STR-XRCM 001	107	STA 1176+66 NBFR	GUIDE ASSEMBLY		M3-3 (24" x 12") M1-6T (24" x 24") M6-1 LEFT (21" x 15") M4-5 (24" x 12") M1-1 (24" x 12") M6-3 (24" x 12")	X		10BWG	1	SA	U	EXAL	
STR-NSFR 009	108	STA 1175+10 NBFR	R6-1R		54" x 18"	X		10BWG	1	SA	P	BM	
STR-NSFR 009	109	STA 1174+63 NBFR	R2-1 (30)		24" x 30"	X		10BWG	1	SA	P	EXAL	
STR-NSFR 009	110	STA 1174+00 NBFR	GREEN GUIDE SIGN		90" x 72"	X		S80	2	SA	P	EXAL	
STR-NSFR 009	111	STA 1173+35 NBFR	R6-1R		54" x 18"	X		10BWG	1	SA	P	BM	
STR-NSFR 008	112	STA 1171+72 NBFR	R6-1R		54" x 18"	X		10BWG	1	SA	P	BM	
STR-NSFR 008	113	STA 1170+55, LT NBFR	R5-1A		42" x 30"	X		10BWG	1	SA	T	EXAL	
STR-NSFR 008	114	STA 1170+55, RT NBFR	R5-1A		42" x 30"	X		10BWG	1	SA	T	EXAL	

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.
<http://www.txdot.gov/>

- NOTE:
- Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
 - For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
 - For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD (GEN).

NO.	BY	DATE

PRELIMINARY

FOR REVIEW ONLY

THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:

Engineer: Steven Ogburn

P.E. No. 115334

Date: 4/5/2017

PRE-FINAL SUBMITTAL

NOT FOR CONSTRUCTION

US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING SUMMARY OF SMALL SIGNS US181/SH286 NORTHBOUND FRONTAGE ROAD

2000 Berling Drive, Suite 102
Houston, Texas 77057
713-772-2880

DP-007 & 012

Texas Department of Transportation

© 2016

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	HP X597 (1)	STR-SOSS NSFR
STATE	STATE DIST. NO.	COUNTY
TEXAS	CRP	NUECES
CONT.	SECT	JOB
0101	06	095
		HIGHWAY NO.
		US181

Printed: 4/12/2017 11:36:37 AM
Pen Table: HBR_BRC_5A.tbl
Design File: bw:\stntec-sc-pw\entire\com.stntec-sc-pw\Documents\01 Projects\HBR\Bui\Work\Design\1-Traffic\AZTEC\11_01-Sheets\Sig Summaries\HBR_STR_SOSS_015.dgn

Plotted: 4/12/2017 11:36:37 AM
Pen Table: HBR_BRG_5A.tb1
Design File: pw:\statedec-sc-pw, be

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/>

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD (GEN).

PRE-FINAL SUBMITTAL
NOT FOR CONSTRUCTION
US 181 HARBOR BRIDGE


FLATIRON/DRAGADOS LLC

Texas Department of Transportation

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597(1)		STR-SOS NSFR 015 HIGHWAY NO
STATE	STATE DIST. NO.	COUNTY	
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	
0101	06	095	
			US181

Design File: pw:\stamtec-sc-pw\Documents\01 Projects\HBR\Build Work\Design\11.01-Sheets\Sign Summaries\HBR_STR_S0SS_024.dgn

Design File: pw:\stantec-sc-pw.ber

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/>

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD (GEN).

PRELIMINARY
FOR REVIEW ONLY
 THESE DOCUMENTS ARE PRELIMINARY
 AND SUBJECT TO CHANGE. THEY ARE
 NOT INTENDED FOR CONSTRUCTION OR
 BIDDING. THEY WERE PREPARED BY,
 OR UNDER THE SUPERVISION OF:
Engineer, Steven Ogburn
P.E. No., 115334
Date, 04/05/2017

Plotted: 4/12/2017 11:43:56 AM
Pen Table: HBR_BRG_SA.tbl
Design File: dw:\stntec-sc-pw\entley.com\stntec-sc-pw\Documents\01 Projects\HBR\Bui\1-1-01-Sheets\Sign_Summaries\HBR_STR_SOSS_025.dgn

SUMMARY OF SMALL SIGNS - FRONTAGE ROADS AND CROSS STREETS													
PLAN SHEET NO.	SIGN NO.	STATION	SIGN NOMENCLATURE	SIGN	DIMENSIONS	FLAT ALUMINUM (TYPE A)	EXAL ALUMINUM (TYPE G)	SM RD SGN ASSM TY XXXXX (X) XX (X-XXXX)					BRIDGE MOUNT CLEARANCE SIGNS (See Note 2)
								POST TYPE	POSTS	ANCHOR TYPE	MOUNTING DESIGNATION		
											PREFABRICATED	1EXT or 2EXT = # of Ext BM = Extruded Wind Beam WC = 1.12 #/ft Wing Channel EXAL= Extruded Alum Sign Panels	
													FRP = Fiberglass TWT = Thin-Wall 10BWG = 10 BWG S80 = Sch 80
TY = TYPE	TY N	TY S											
STR-XRCM 001	576	STA 23+52 COMANCHE ST	GUIDE ASSEMBLY	M4-5 M1-1 M6-1 LEFT 	24" X 12" 24" X 24" 21" X 15"	X		10BWG	1	SA	T	EXAL	
STR-XRCM 001	577	STA 23+55 COMANCHE ST	D3-1 (BROWNLEE) D3-1 (COMANCHE) R6-1L R6-1R R1-1 R1-4 	D3-1 (BROWNLEE) D3-1 (COMANCHE) 54" X 18" 54" X 18" 36" X 36" 30" X 12"	X		10BWG	1	SA	T	EXAL		
STR-XRCM 001	578	STA 24+16 COMANCHE ST	GUIDE ASSEMBLY	M3-3 (24" x 12") M1-6T (24" x 24") M6-3 (21" x 15") 	24" X 12" 24" X 24" 21" X 15"	X		10BWG	1	SA	U	EXAL	
STR-XRCM 001	579	STA 27+24 COMANCHE ST	D3-1 (CULBERSON) D3-1 (COMANCHE) R6-1L R6-1R R1-1 R1-4 	D3-1 (CULBERSON) D3-1 (COMANCHE) 54" X 18" 54" X 18" 36" X 36" 30" X 12"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	604	STA 1151+20 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	605	STA 1152+00 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	606	STA 1152+80 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	607	STA 1153+60 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	608	STA 1154+40 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	609	STA 1155+20 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	610	STA 1156+00 RAMP W-S	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 008	611	STA 1166+80 RAMP S-E	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 008	612	STA 1167+60 RAMP S-E	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 008	613	STA 1168+40 RAMP S-E	W1-8R 	36" X 48"	X		10BWG	1	SA	T	EXAL		
STR-NSFR 007	620	STA 1155+50 RAMP W-S	W4-3R 	36" x 36"	X		10BWG	1	SA	P	EXAL		

ALUMINUM SIGN BLANKS THICKNESS	
Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.
<http://www.txdot.gov/>

- NOTE:
- Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
 - For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
 - For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs General Notes & Details SMD(GEN).

NO.	BY	DATE
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Ogburn P.E. No. 115334 Date: 4/5/2017		
PRE-FINAL SUBMITTAL		
NOT FOR CONSTRUCTION		
US 181 HARBOR BRIDGE		
PAVEMENT MARKING & SIGNING SUMMARY OF SMALL SIGNS CROSS STREETS & LOOP RAMPs		
FLATIRON/DragADOS LLC		
AZTEC		
2000 Berling Drive, Suite 102 Houston, Texas 77057 713-772-2880		
DP-007 & 012		
Texas Department of Transportation © 2016		
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	HP X597(1)	STR-SOSS XSTR
STATE	STATE DIST. NO.	COUNTY
TEXAS	CRP	NUECES
CONT.	SECT	JOB
0101	06	095
		HIGHWAY NO.
		US181



PRELIMINARY
FOR REVIEW ONLY
 THESE DOCUMENTS ARE PRELIMINARY
 AND SUBJECT TO CHANGE. THEY ARE
 NOT INTENDED FOR CONSTRUCTION OR
 BIDDING. THEY WERE PREPARED BY,
 OR UNDER THE SUPERVISION OF:
Engineer: Steven Ogburn
P.E. No.: 115334
Date: 4/5/2017

PRE-FINAL SUBMITTAL

**NOT FOR
CONSTRUCTION**

US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING
US181/SH286, FRONTAGE ROADS
STA.1151+00 - STA.1160+00

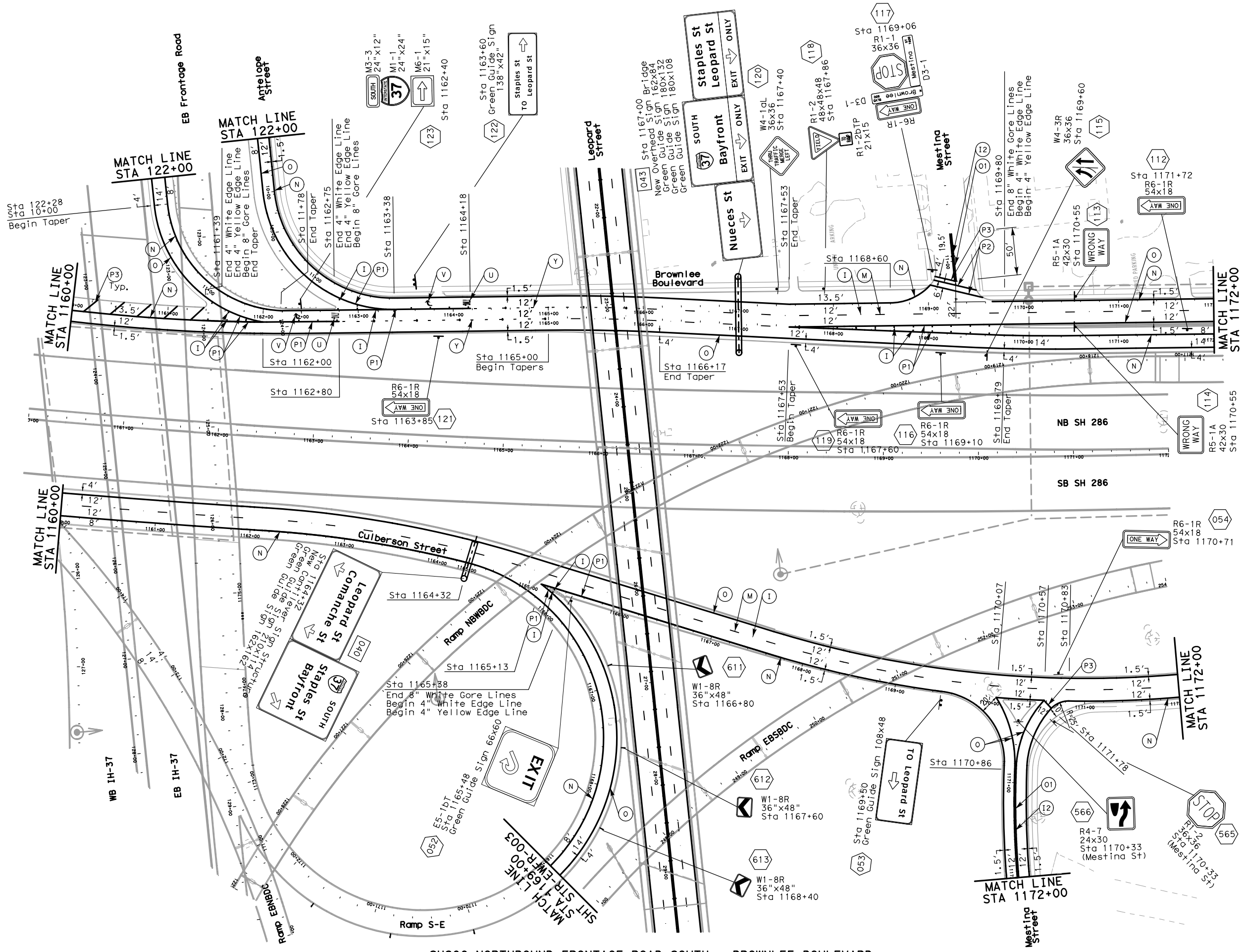
**FLATIRON/DRAGADOS LLC**

2000 Bering Drive, Suite 702
Houston, Texas 77057
346-772-2880

 **Texas Department of Transportation**
© 2016



FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597(1)		
STATE	STATE DIST. NO.	COUNTY	STR-NST
TEXAS	CRP	NUECES	007
CONT.	SECT	JOB	HIGHWAY N
0101	06	095	US18

Plotted: 4/17/2017 3:54:08 PM
Pen Table: HBR_BRC_5A.tbl
Design Files: dw:\\stntec-sc-pw\\bentley\\com\\stntec-sc-pw\\Documents\\01 Projects\\HBR\\Bul\\d\\Work\\Design\\11-Traffic\\AZTEC\\11.01-Sheets\\Segment 4,7,12 & 13(Bridge)\\HBR_STR_NSFR_P08.dgn

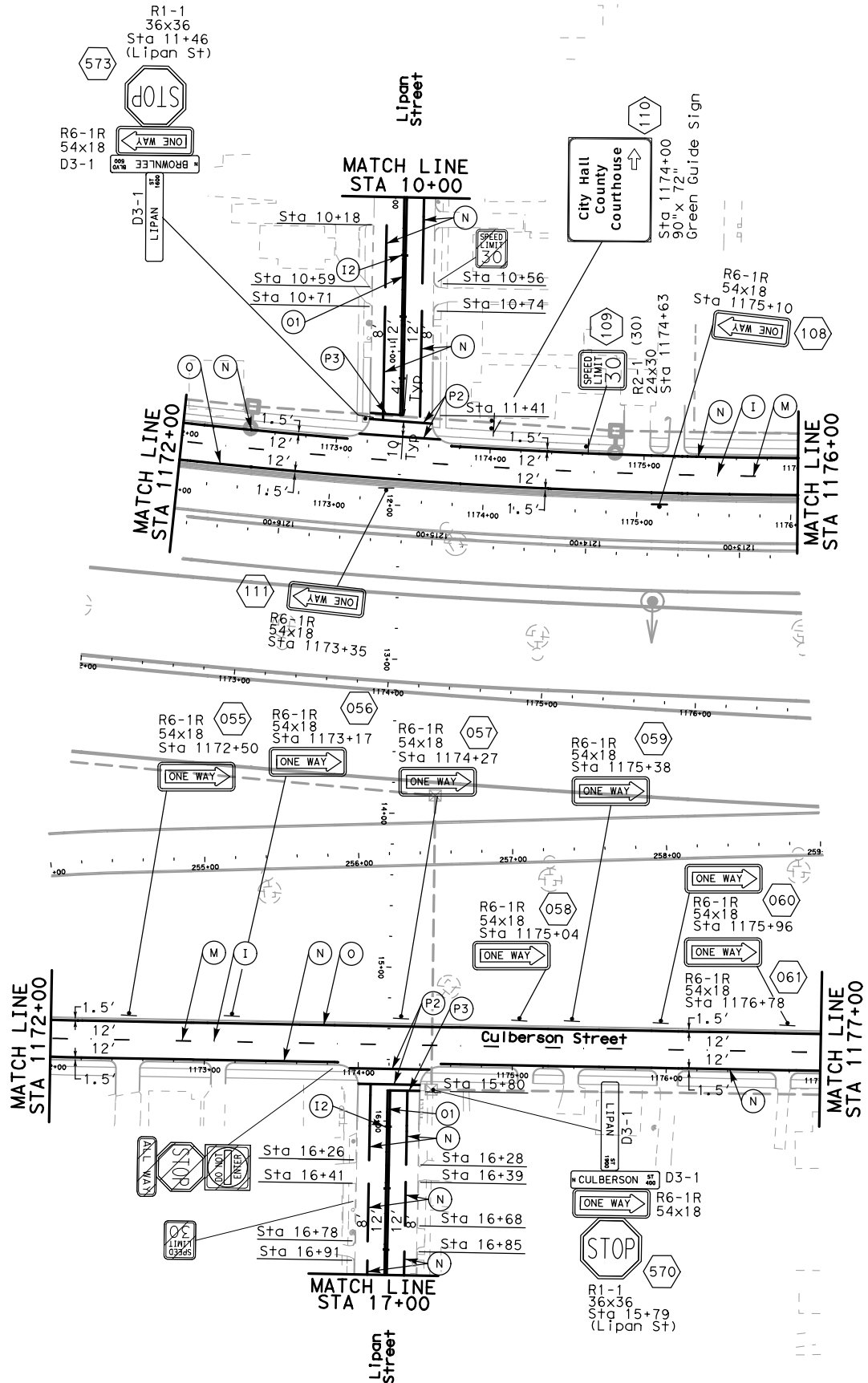


SH286 NORTHBOUND FRONTAGE ROAD SOUTH - BROWNLEE BOULEVARD
SH286 SOUTHBOUND FRONTAGE ROAD SOUTH - CULBERSON STREET



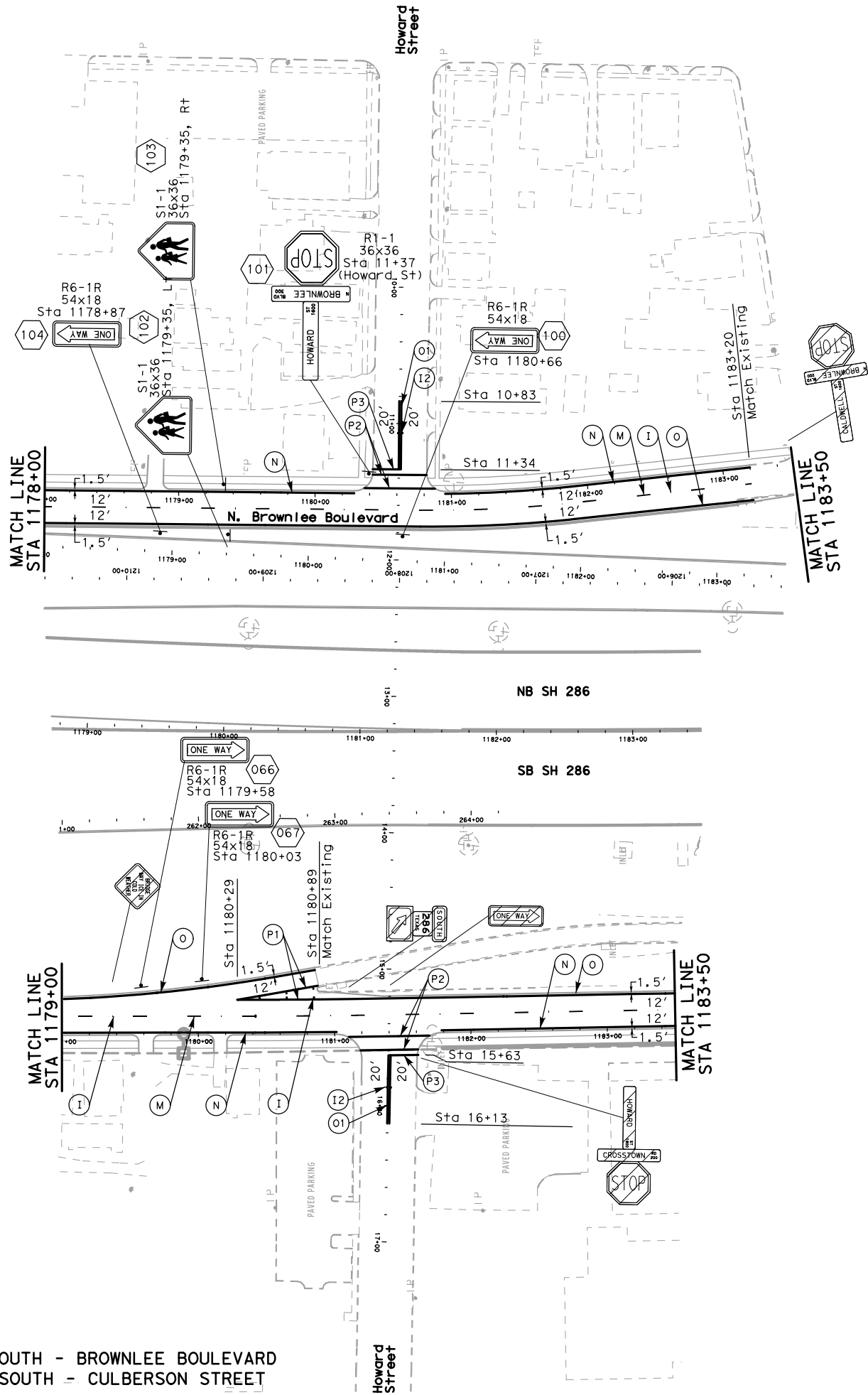
NO.		BY		DATE	
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Ogburn P.E. No. 115334 Date: 4/5/2017					
PRE-FINAL SUBMITTAL					
NOT FOR CONSTRUCTION					
US 181 HARBOR BRIDGE					
PAVEMENT MARKING & SIGNING US181/SH286, FRONTAGE ROADS STA. 1160+00 - STA. 1172+00					
 FLATIRON/DRAGADOS LLC					
 AZTEC 2000 Berling Drive, Suite 102 Houston, Texas 77057 281-772-2880					
Texas Department of Transportation © 2016 DP-007 & 012					
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.		
6	HP X597(1)		STR-NSFR		
STATE	STATE DIST. NO.	COUNTY	008		
TEXAS	CRP	NUECES			
CONT.	SECT	JOB	HIGHWAY NO.		
0101	06	095	US181		



Plotted: 4/18/2017 7:17:13 AM
Pen Table: HBR_BRC_5A.tbl
Design File: \\santec-sc-pw\desig\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_NSFR_P09.dgn



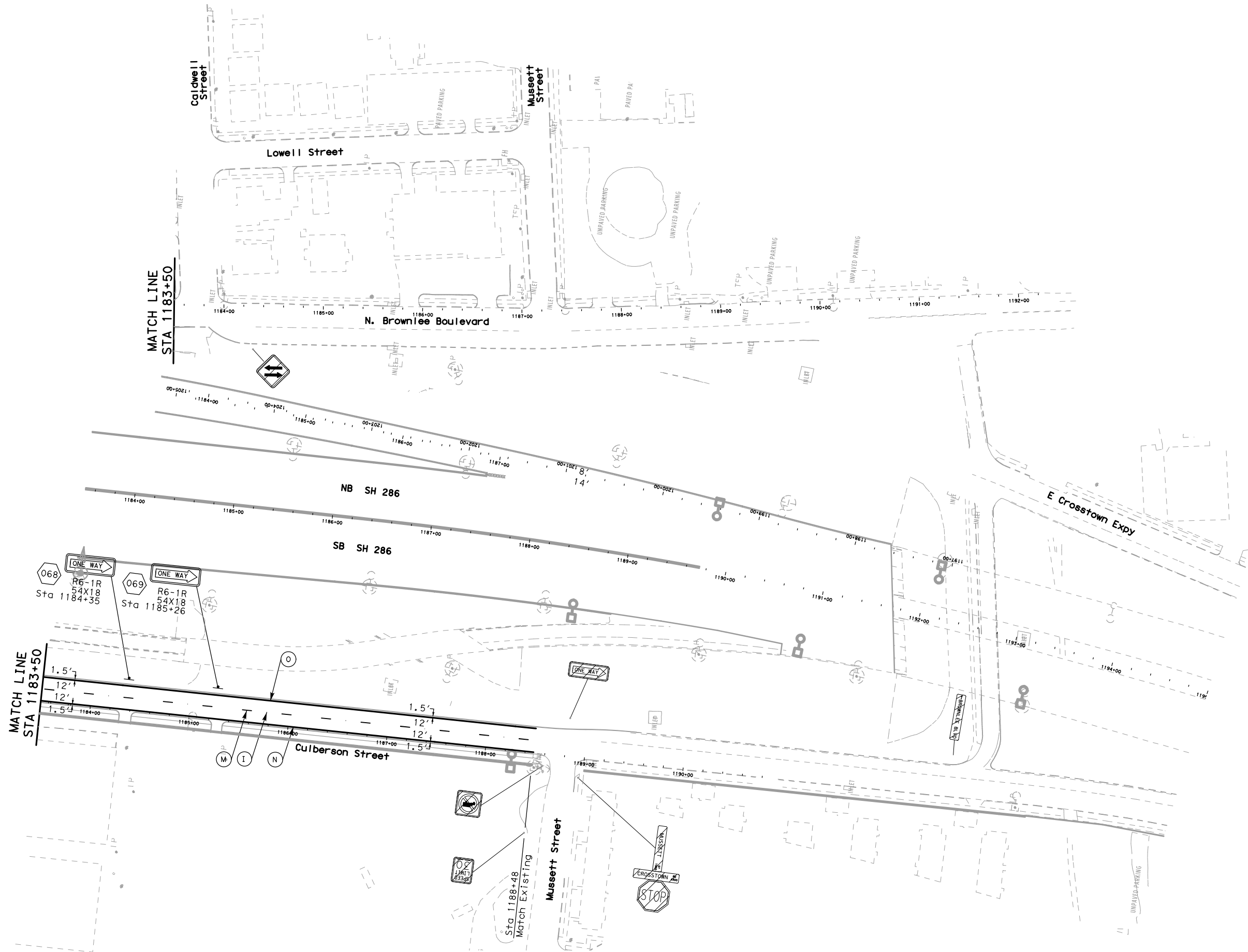
Comanche Street
See Sheet STR-XRCM-001

SH 286 NORTHBOUND FRONTAGE ROAD SOUTH - BROWNLEE BOULEVARD
SH 286 SOUTHBOUND FRONTAGE ROAD SOUTH - CULBERSON STREET



NO.		BY		DATE
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Ogburn P.E. No. 115334 Date: 4/5/2017				
PRE-FINAL SUBMITTAL				
NOT FOR CONSTRUCTION				
US 181 HARBOR BRIDGE				
PAVEMENT MARKING & SIGNING US181/SH286, FRONTAGE ROADS STA. 1172+00 - STA. 1183+00				
 FLATIRON/DRAGADOS LLC				
 AZTEC 2000 Berling Drive, Suite 102 Houston, Texas 77057 713-772-2880				
Texas Department of Transportation © 2016 DP-007 & 012				
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.			SHEET NO.
6	HP X597(1)			STR-NSFR
STATE	STATE DIST. NO.	COUNTY	009	
TEXAS	CRP	NUECES		
CONT.	SECT	JOB	HIGHWAY NO.	
0101	06	095	US181	

Plotted: 4/12/2017 12:26:53 PM
Pen Table: HBR_BRG_5A.tbl
Design File: dw:\stntec-sc-pw\Documents\01 Projects\HBR\Bui\ld\Work\Design\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_NSFR_P10.dgn



SH 286 NORTHBOUND FRONTAGE ROAD SOUTH - BROWNLEE BOULEVARD
SH 286 SOUTHBOUND FRONTAGE ROAD SOUTH - CULBERSON STREET

NO. BY DATE

PRELIMINARY

FOR REVIEW ONLY

THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF:

Engineer: **Steven Ogburn**

P.E. No.: **115334**

Date: **4/5/2017**

PRE-FINAL SUBMITTAL

NOT FOR CONSTRUCTION

US 181 HARBOR BRIDGE

PAVEMENT MARKING & SIGNING

US181/SH286, FRONTAGE ROADS

STA. 1183+50 - STA. 1192+23

FLATIRON/DRAGADOS LLC

AZTEC

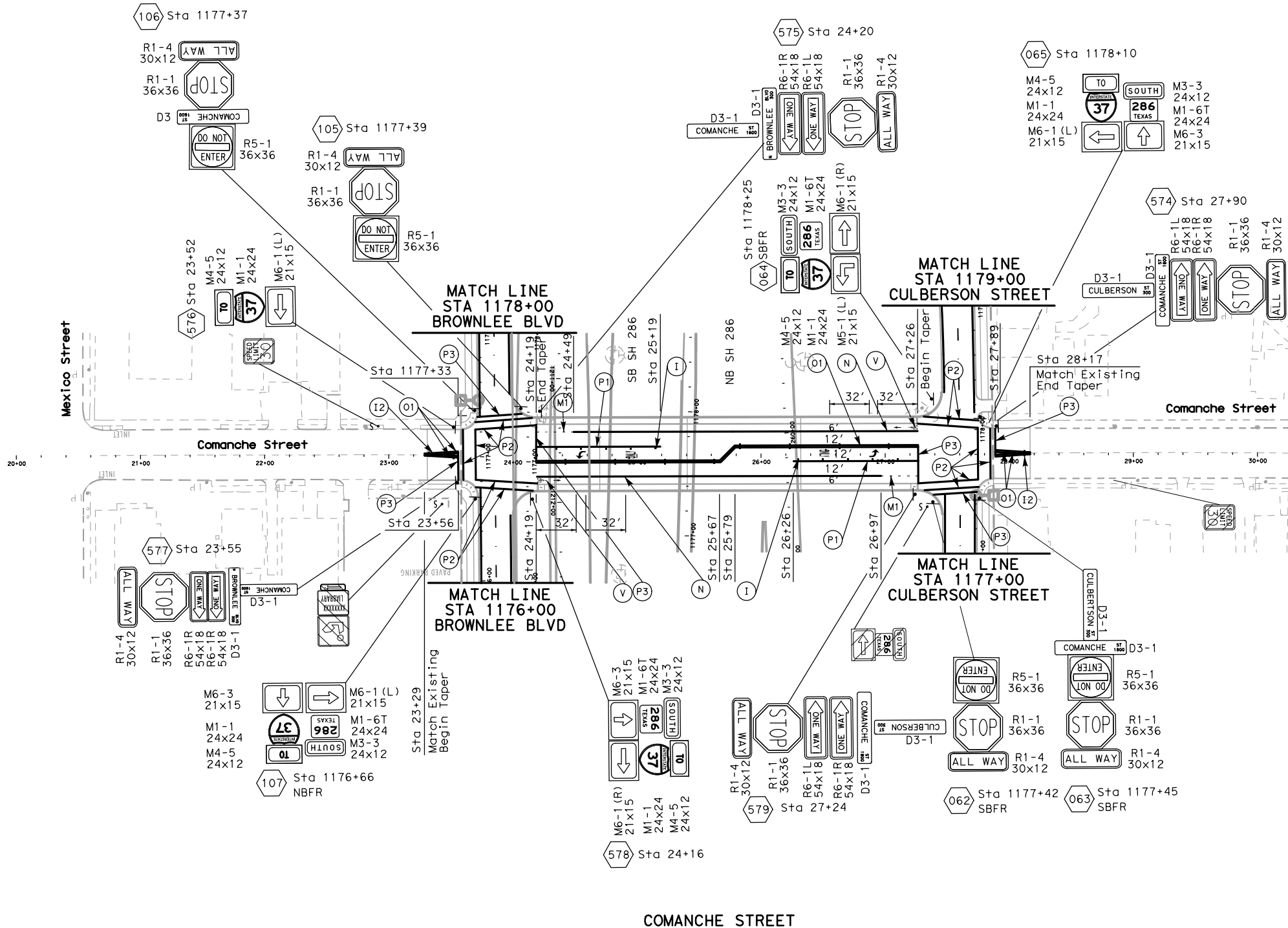
2020 Berling Drive, Suite 102
Houston, Texas 77057
281-772-2880

Texas Department of Transportation

© 2016

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6	HP X597(1)	STR-NSFR
STATE	STATE DIST. NO.	COUNTY
TEXAS	CRP	NUECES
CONT.	SECT	JOB
0101	06	095
		HIGHWAY NO.
		US181

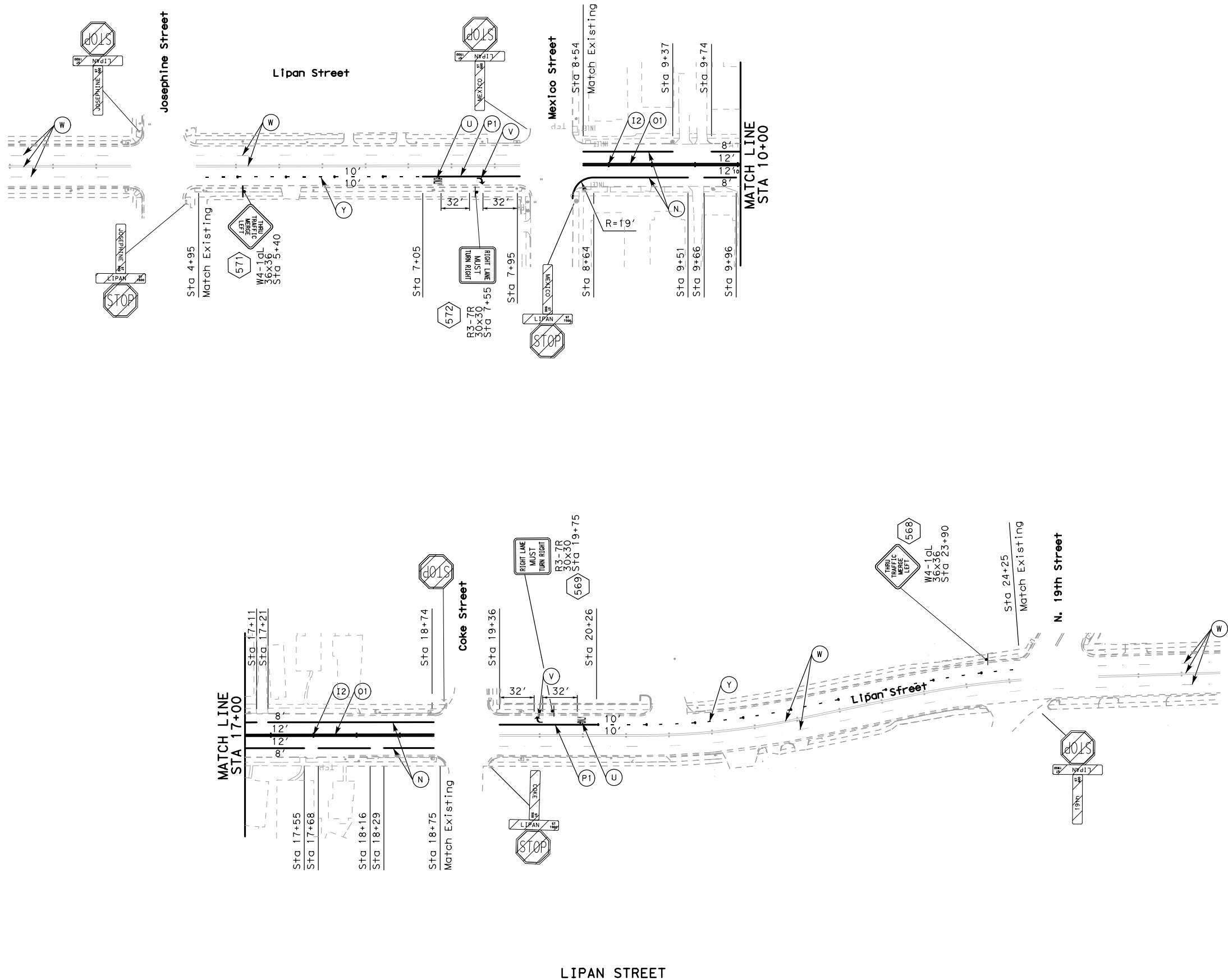
Plotted: 4/17/2017 4:17:12 PM
Pen Table: HBR_BRC_5A.tbl
Design File: \\stantec-sc-pw\Documents\01 Projects\HBR\Bui\1-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_XRCM_P01.dgn



NO. _____ BY _____ DATE _____			
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Ogburn P.E. No. 115334 Date: 4/5/2017			
ADVANCED STATUS			
NOT FOR CONSTRUCTION			
US 181 HARBOR BRIDGE			
PAVEMENT MARKING & SIGNING US181/SH286, CROSS STREETS COMANCHE STREET STA. 20+00 - STA. 30+00			
 FLATIRON/DRAGADOS LLC			
 AZTEC 2000 Berling Drive, Suite 102 Houston, Texas 77057 281-772-2880			
DP-007 & 012			
Texas Department of Transportation			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597(1)		STR-XRCM
STATE	STATE DIST. NO.	COUNTY	001
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	HIGHWAY NO.
0101	06	095	US181



Plotted: 4/12/2017 12:38:06 PM
Pen Table: HBR_BRG_5A.tbl
Design Files: \\santec-sc-pw\ent\ey.com\santec-sc-pw\Documents\01 Projects\HBR\Bui\id\Work\Design\11-Traffic\AZTEC\11.01-Sheets\Segment 4,7,12 & 13(Bridge)\HBR_STR_XRLI_P01.dgn



NO. _____ BY _____ DATE _____			
PRELIMINARY FOR REVIEW ONLY THESE DOCUMENTS ARE PRELIMINARY AND SUBJECT TO CHANGE. THEY ARE NOT INTENDED FOR CONSTRUCTION OR BIDDING. THEY WERE PREPARED BY, OR UNDER THE SUPERVISION OF: Engineer: Steven Ogburn P.E. No. 115334 Date: 4/5/2017			
ADVANCED STATUS			
NOT FOR CONSTRUCTION			
US 181 HARBOR BRIDGE			
PAVEMENT MARKING & SIGNING US181/SH286, CROSS STREETS LIPAN STREET STA. 4+97 - STA. 24+25			
 FLATIRON/Dragados LLC			
 AZTEC 2000 Berling Drive, Suite 102 Houston, Texas 77057 281-772-2880			
DP-007 & 012			
Texas Department of Transportation			
© 2016			
FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	HP X597 (1)		STR-XRLI
STATE	STATE DIST. NO.	COUNTY	001
TEXAS	CRP	NUECES	
CONT.	SECT	JOB	HIGHWAY NO.
0101	06	095	US181