



DRILLING LOG

1 of 1

WinCore
Version 3.1

County Brazoria
Highway Green Tee Trail
CSJ 0912-31-291

Hole GBC-1
Structure Box Culvert
Station 28+88.56
Offset 49.83' RT

District Houston
Date 01-11-18
Grnd. Elev. 37.84 ft
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
5		3 (6) 4 (6)	FILL, clay, very soft to stiff, reddish brown, dark gray, gray and brown			25.8			125.5	w/grass roots 0'-2' w/calcareous and ferrous nodules 2'-5' % passing #200 sieve = 82% w/sand coams 2'-13'
				4	21	24.5	54	32	124.7	
						21.3				
			CLAY, soft, reddish brown and gray w/calcareous and ferrous nodules (CH)			26.2				w/calcareous nodules 8'-13' % passing #200 sieve = 77%
						25.0				
				13	13	25.0	63	39	125.7	
24.8		4 (6) 4 (6)				25.6				% passing #200 sieve = 99%
15		4 (6) 4 (6)				29.3	83	54		
						28.3				
17.8		4 (6) 5 (6)								
20										
25										
30										
35										
40										
45										
50										
55										
60										

Remarks: 1) Dry auger to 20.0 ft.

The ground water elevation was not determined during the course of this boring.

Driller: Elliot Van Antwerp

Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Box Culvert_GBC-1.CLG

FIGURE A-1



DRILLING LOG

1 of 1

WinCore
Version 3.1

County Brazoria
Highway Green Tee Trail
CSJ 0912-31-291

Hole GBT-2
Structure Trail Pavement
Station 47+10.59
Offset 64.36' RT

District Houston
Date 01-27-18
Grnd. Elev. 40.27 ft
GW Elev. N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35.3		6 (6) 7 (6)	FILL, clay, sandy, gray and yellowish brown w/sand seams, ferrous nodules and ferrous stains			17.2	38	21	128.3	% passing #200 sieve = 78%
5						12.7				
						15.2				
30.3		9 (6) 9 (6)	CLAY, soft, gray w/calcareous and ferrous nodules and ferrous stains (CH)			25.5	68	43		% passing #200 sieve = 94% yellowish brown & gray 8'-10'
10						21.2				
15										
20										
25										
30										
35										
40										
45										
50										
55										
60										

Remarks: 1) Dry auger to 10.0 ft.

The ground water elevation was not determined during the course of this boring.

Driller: Richard Smith

Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Trail Pavement_GBT-2,6,7.CLG

FIGURE A-2

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Texas PE Firm Reg. #F-929



GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL

BORE LOGS

SHEET 1 OF 5

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			86
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA



WinCore
Version 3.1

County Brazoria
Highway Green Tee Trail
CSJ 0912-31-291

Hole GBB-3
Structure Pedestrian Bridge
Station 6+23.78
Offset 30.92' RT

District Houston
Date 01-10-18
Grnd. Elev. 36.88 ft
GW Elev. N/A

DRILLING LOG

1 of 2

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
34.9			FILL, clay, gray, brown and dark gray w/grass roots			22.4			121.2	
5		3 (6) 3 (6)	CLAY, very soft to very stiff, gray and brown w/ferrous nodules and ferrous stains (CH)	4	28	23.1	72	46	121.2	% passing #200 sieve = 81% w/calcareous nodules 3'11"-6'
30.9						21.4				w/sand seams, calcareous and ferrous nodules 6.5'-8'
			CLAY, sandy, gray and yellowish brown (CL)			18.6	49	28		
28.4		5 (6) 7 (6)	CLAY, soft to very stiff, reddish brown and gray w/calcareous nodules and sand seams (CH)			26.2				
10				13	30	24.1	72	45	128.2	% passing #200 sieve = 99%
						27.9				
15		7 (6) 10 (6)								
20.9			SAND, silty, brown (SM)			22.2				% passing #200 sieve = 27%
17.9		8 (6) 9 (6)	CLAY, soft to very stiff, reddish brown w/ferrous nodules and ferrous stains (CH)			18.4				w/calcareous nodules 20'-35'
20						22.2				
		8 (6) 12 (6)				21.7				
25				28	52	24.6	80	51	128.1	% passing #200 sieve = 94% gray and brown 28'-35'
						25.6				
30		7 (6) 9 (6)				25.4				w/silt seams 32'-35'
						26.8				
35		8 (6) 10 (6)	reddish brown and gray 35'-41'8" slickensided 35'-50'			25.4				
				40	14	26.3	85	54	126.9	% passing #200 sieve = 100% w/calcareous nodules 40'-50'
40		9 (6) 14 (6)				17.0				gray and brown 41'8"-45'
						17.2				reddish brown and gray 45'-50'
45		14 (6) 18 (6)				18.2				
				50	21	20.3	77	48	129.3	% passing #200 sieve = 98% reddish brown and gray, slickensided 50'-56'
50		15 (6) 17 (6)				24.7				
						27.6				
55		14 (6) 19 (6)	yellowish brown & gray 56'-63'			19.3				
				60	19	21.6	72	46	130.1	% passing #200 sieve = 92% w/calcareous nodules 60'-75'
60		11 (6) 15 (6)								

Remarks: 1) Dry auger to 18.0 ft., wet rotary from 18.0 ft. to 80.0 ft. 2) Free water first encountered at 18.0 ft. during drilling; after 15 min. at 13.0 ft. 3) Water depth at 12.5 ft. and hole open to 74.7 ft. on 1-11-18.

The ground water elevation was not determined during the course of this boring.

Driller: Elliot VanAntwerp

Logger: Felipe Gamez

Organization: Geotest Engineering, Inc.

FIGURE A-3

C:\Jobs\1140225001\1140225001_Pedestrian Bridge_GBB-3.4.CLG



WinCore
Version 3.1

County Brazoria
Highway Green Tee Trail
CSJ 0912-31-291

Hole GBB-3
Structure Pedestrian Bridge
Station 6+23.78
Offset 30.92' RT

District Houston
Date 01-10-18
Grnd. Elev. 36.88 ft
GW Elev. N/A

DRILLING LOG

2 of 2

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
			CLAY, soft to very stiff, reddish brown w/ferrous nodules and ferrous stains (CH)			24.0				gray, yellow and reddish brown 63'-65' slickensided 63' 70' brown and gray 65'-68'
65		19 (6) 15 (6)				26.1				
						20.6				reddish brown and gray 68'-70' % passing #200 sieve = 83%
70		14 (6) 18 (6)		70	42	20.1	62	38	131.9	
						18.2				w/calcareous nodules 73'-75'
-36.1			CLAY, sandy, gray and yellowish brown (CL)			16.8				
-38.1		22 (6) 19 (6)	SAND, silty, compact, yellowish brown (SM)			18.3				% passing #200 sieve = 16%
-43.1		33 (6) 38 (6)								
80										
85										
90										
95										
100										
105										
110										
115										
120										

Remarks: 1) Dry auger to 18.0 ft., wet rotary from 18.0 ft. to 80.0 ft. 2) Free water first encountered at 18.0 ft. during drilling; after 15 min. at 13.0 ft. 3) Water depth at 12.5 ft. and hole open to 74.7 ft. on 1-11-18.

The ground water elevation was not determined during the course of this boring.

Driller: Elliot VanAntwerp

Logger: Felipe Gamez

Organization: Geotest Engineering, Inc.

FIGURE A-3a

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**GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL**

BORE LOGS

SHEET 2 OF 5

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			87
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA

DRILLING LOG

1 of 2



WinCore
Version 3.1

County	Brazoria
Highway	Green Tee Trail
CSJ	0912-31-291

Hole	GBB-4
Structure	Pedestrian Bridge
Station	7+78.90
Offset	60.92' RT

District	Houston
Date	01-25-18
Grnd. Elev.	35.49 ft
GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties					Additional Remarks
				Lateral Deviator Press. Stress (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)		
34.5			FILL, clay			27.1				124.9	dark gray, gray, reddish brown
			CLAY, soft to very stiff, gray			24.1	88	58			w/grass roots and sand
			and yellowish brown and reddish			21.1					seams 0'-1'
5		7 (6) 8 (6)	brown and gray w/calcareous and								% passing #200 sieve = 88%
			ferrous nodules and ferrous stains			25.1					w/sand seams 3'-6'
			(CH)								
10		5 (6) 6 (6)		10	26	23.4	61	38	129.5		% passing #200 sieve = 86%
						24.1					
						22.9					
15		16 (6) 17 (6)				20.3					
				20	43	20.7	81	51	127.6		% passing #200 sieve = 99%
20		25 (6) 26 (6)				21.4					reddish brown 20'-25'
						20.9					
25		24 (6) 27 (6)				26.6					gray and brown 25'-33'
				30	24	27.5	85	54	126.3		% passing #200 sieve = 97%
30		18 (6) 23 (6)				18.7					
						25.0	78	50			% passing #200 sieve = 99%
35		18 (6) 19 (6)				24.7					slickensided 35'-40'
				0	46	26.7	80	50	127.5		% passing #200 sieve = 100%
40		16 (6) 17 (6)				19.4					gray and brown 41'-47'
						18.5					
45		20 (6) 26 (6)				16.6					
				50	92	18.5	65	40	135.1		very hard 48'-50'
50		19 (6) 21 (6)				26.0					% passing #200 sieve = 98%
						27.0					
55		20 (6) 23 (6)				24.3					
				60	42	29.3	74	46	125		% passing #200 sieve = 99%
60		19 (6) 20 (6)									gray and brown 60'-63'

Remarks: 1) Dry auger to 38.0 ft., wet rotary from 38.0 ft. to 80.0 ft. 2) Water depth at 16.6 ft. and hole open to 77.3 ft. on 1-26-18.

The ground water elevation was not determined during the course of this boring.

Driller: Dennis Smith

Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Pedestrian Bridge_GBB-3.4.CLG

FIGURE A-4

DRILLING LOG

2 of 2









WinCore
Version 3.1

County	Brazoria
Highway	Green Tee Trail
CSJ	0912-31-291

Hole	GBB-4
Structure	Pedestrian Bridge
Station	7+78.90
Offset	60.92' RT

District	Houston
Date	01-25-18
Grnd. Elev.	35.49 ft
GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
65		16 (6) 19 (6)	CLAY, soft to very stiff, gray and yellowish brown and reddish brown and gray w/calcareous and ferrous nodules and ferrous stains (CH)			23.3				
					25.8					
				68	46	21.5	65	40	131.2	% passing #200 sieve = 91%
70		17 (6) 19 (6)				20.9				
					22.1				w/sand seams 70'-73'	
					20.9					
-37.5		32 (6) 43 (6)	CLAY, sandy, very stiff, gray and yellowish brown w/calcareous nodules and sand seams (CL)	75	50	19.3	40	20	133.3	% passing #200 sieve = 84%
75									w/sandy silt 77'-78'	
					14.9				% passing #200 sieve = 79%	
-42.5		50 (3.5) 50 (3.5)	SAND, silty, very dense, brown (SM)			19.6				w/sandy clay layer 79'-79.5'
-44.5				80						
85										
90										
95										
100										
105										
110										
115										
120										

Remarks: 1) Dry auger to 38.0 ft., wet rotary from 38.0 ft. to 80.0 ft. 2) Water depth at 16.6 ft. and hole open to 77.3 ft. on 1-26-18.

The ground water elevation was not determined during the course of this boring.

Driller: Dennis Smith


Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Pedestrian Bridge_GBB-3,4.CLG

FIGURE A-4a


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GREEN TEE TERRACE BIKE & PEDESTRIAN TRAIL

BORE LOGS

SHEET 3 OF 5

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6		88
STATE	DIST.	COUNTY
TEXAS	HOU	BRAZORIA / HARRIS
CONT.	SECT.	JOB HIGHWAY NO.
0912	31	291 VA

DRILLING LOG

1 of 1



WinCore
Version 3.1

County	Brazoria
Highway	Green Tee Trail
CSJ	0912-31-291

Hole	GBP-5
Structure	Parking Lot
Station	1+28.03
Offset	14.24' LT

District	Houston
Date	01-10-18
Grnd. Elev.	40.48 ft
GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Deviator Press. Stress (psi)	Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
38.5			FILL, clay, sandy, gray w/grass roots			25.6	41	22	121	% passing #200 sieve = 84%
			CLAY, soft, gray and yellowish brown w/ferrous nodules and ferrous stains (CH)			22.9				
5		5 (6) 5 (6)				24.0				
						23.6	73	45		brown and gray 6'-8' % passing #200 sieve = 87.7 w/calcareous nodules 8'-10' reddish brown and gray 8'-10' very soft 10'-11.5'
30.5	10	2 (6) 4 (6)				30.4				
15										
20										
25										
30										
35										
40										
45										
50										
55										
60										

Remarks: 1) Dry auger to 10.0 ft.

The ground water elevation was not determined during the course of this boring.

Driller: Elliot VanAntwerp

Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Parking Lot_GBP-5.CLG

FIGURE A-5

DRILLING LOG

1 of 1



WinCore
Version 3.1

County	Brazoria
Highway	Green Tee Trail
CSJ	0912-31-291

Hole	GBT-6
Structure	Trail Pavement
Station	83+72.15
Offset	30.88' LT

District	Houston
Date	01-11-18
Grnd. Elev.	37.85 ft
GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test		Properties				Additional Remarks
				Lateral Press. (psi)	Deviator Stress (psi)	MC	LL	PI	Wet Den. (pcf)	
35.9			FILL, clay, reddish brown and gray w/grass roots			21.8	52	31	126.2	% passing #200 sieve = 79% w/sand seams and calcareous nodules 0'-2'
		9 (6) 10 (6)	CLAY, soft, gray and brown w/calcareous and ferrous nodules (CH)			19.1				
31.9	5					16.0				
			CLAY, sandy, soft, brown and gray w/sand seams, calcareous and ferrous nodules (CL)			8.7	30	13		% passing #200 sieve = 82%
27.9	10	5 (6) 7 (6)				8.0				
	15									
	20									
	25									
	30									
	35									
	40									
	45									
	50									
	55									
	60									

Remarks: 1) Dry auger to 10.0 ft.

The ground water elevation was not determined during the course of this boring.

Driller: Elliot Van Antwerp


Logger: John A. Gentry

Organization: Geotest Engineering, Inc.

C:\Jobs\1140225001\1140225001_Trail Pavement_GBT-2,5,7.CLG

FIGURE A-6


NO.	DATE	REVISION	APPROV.



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GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL

BORE LOGS

SHEET 4 OF 5
SHEET NO. 89

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			89
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA



1 of 1

WinCore
Version 3.1


The ground water elevation was not determined during the course of this boring.

Organization: Geotest Engineering, Inc.


C:\Jobs\1140225001\1140225001_Trail Pavement_GBT-2,6,7.CLG

FIGURE A-7

NO.	DATE	REVISION	APPROV.



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GREEN TEE TERRACE BIKE & PEDESTRIAN TRAIL

BORE LOGS

SHEET 5 OF 5

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6		90
STATE	DIST.	COUNTY
TEXAS	HOU	BRAZORIA / HARRIS
CONT.	SECT.	JOB HIGHWAY NO.
0912	31	291 VA

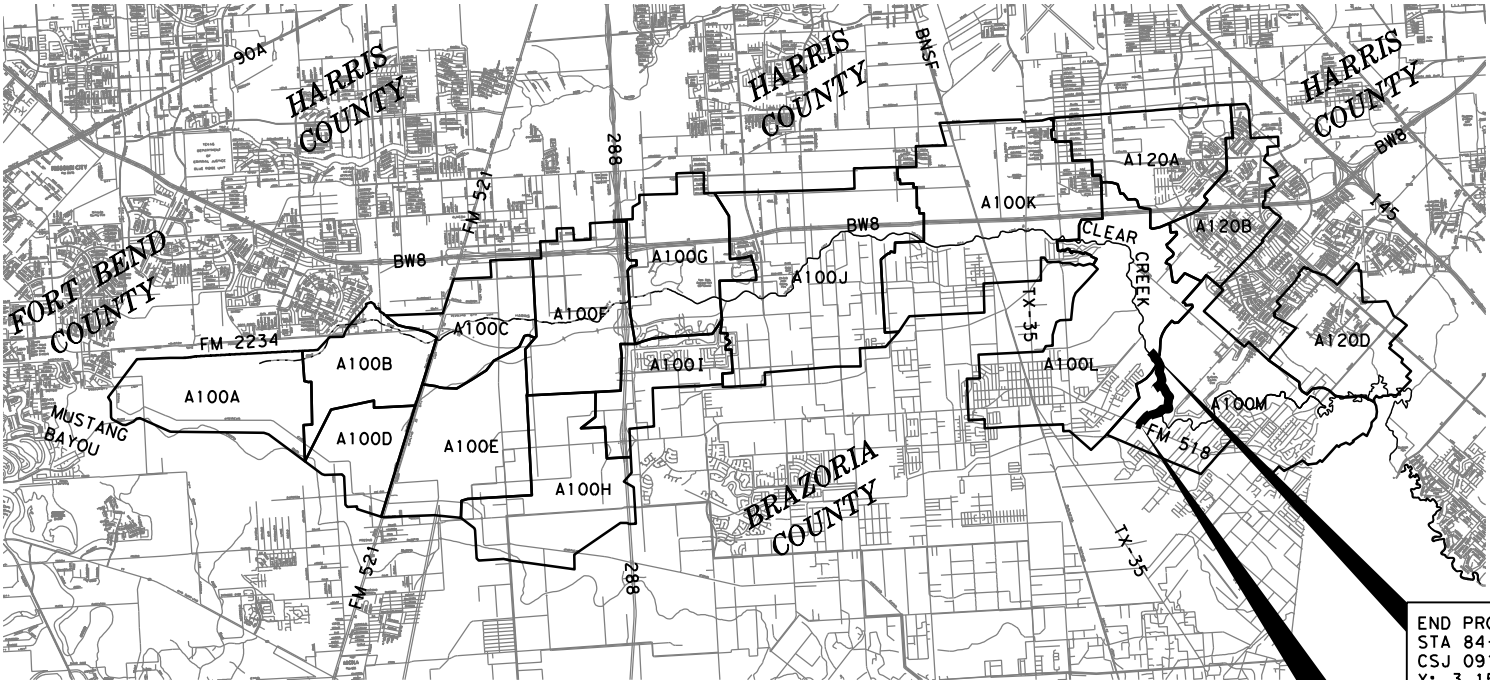
HEC-RAS STATION	DOWNSTREAM REACH LENGTHS	FREQUENCY	FLOW	COMPUTED WATER SURFACE ELEVATION (ft)			
		(YR)	(CFS)	Effective	Rev Ex	Proposed	DIFF (Prop - Rev Ex)
167264.8	98.2	10	2982	39.05	39.06	38.98	(0.08)
		50	4553	40.78	40.78	40.73	(0.05)
		100	5376	41.39	41.39	41.36	(0.03)
167166.6	540.7	10	2982	39	39.01	38.93	(0.08)
		50	4553	40.71	40.71	40.67	(0.04)
		100	5376	41.33	41.33	41.29	(0.04)
166625.9	642	10	2982	38.93	38.94	38.85	(0.09)
		50	4553	40.64	40.64	40.59	(0.05)
		100	5376	41.27	41.26	41.23	(0.03)
165983.9	747.8	10	2982	38.79	38.8	38.71	(0.09)
		50	4553	40.49	40.5	40.44	(0.06)
		100	5376	41.12	41.12	41.08	(0.04)
165236.1	678.4	10	2982	38.6	38.61	38.51	(0.10)
		50	4553	40.31	40.31	40.25	(0.06)
		100	5376	40.95	40.94	40.9	(0.04)
164557.7	755.4	10	2982	38.36	38.37	38.26	(0.11)
		50	4553	40.1	40.1	40.04	(0.06)
		100	5376	40.76	40.75	40.71	(0.04)
163802.3	502.3	10	2982	38.02	38.03	37.9	(0.13)
		50	4553	39.83	39.83	39.75	(0.08)
		100	5376	40.52	40.52	40.46	(0.06)
163300	5	10	2982		37.83	37.8	(0.03)
		50	4553		39.66	39.63	(0.03)
		100	5376		40.36	40.34	(0.02)
163295	19	10	2982		37.82	37.81	(0.01)
		50	4553		39.65	39.65	-
		100	5376		40.36	40.35	(0.01)
163286	Proposed Hike and Bike Pedestrian Bridge						
163276	10	10	2982		37.82	37.81	(0.01)
		50	4553		39.65	39.64	(0.01)
		100	5376		40.35	40.35	-
163266	190.6	10	2982		37.81	37.77	(0.04)
		50	4553		39.65	39.61	(0.04)
		100	5376		40.35	40.31	(0.04)
163075.4		10	2982	37.75	37.75	37.75	-
		50	4553	39.59	39.59	39.59	-
		100	5376	40.3	40.3	40.3	-

* SEE BRIDGE LAYOUT PEDESTRIAN BRIDGE OVER CLEAR CREEK
FOR BRIDGE PROFILES & ADDITIONAL DATA.

APPROVED BY BRAZORIA DRAINAGE DISTRICT NO. 4

DISTRICT SUPERINTENDENT _____ DATE _____

DISTRICT ENGINEER _____ DATE _____

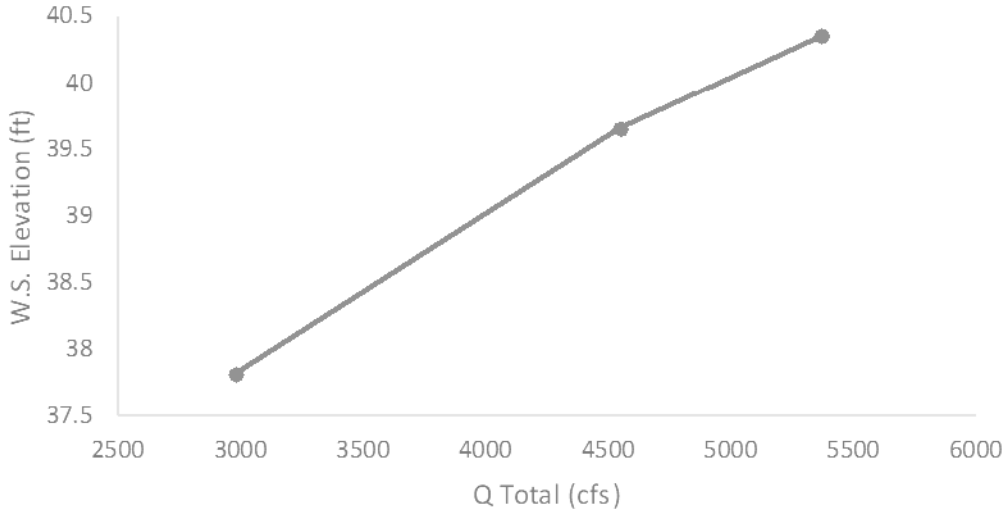


GREEN TEE TERRACE HIKE AND BIKE TRAIL
AREA = 5.4 SQ MILES
N.T.S.

BEGIN PROJECT
STA 10+00
CSJ 0912-31-291
X: 3,157,590.09
Y: 13,770,056.42
REF. MARKER:

END PROJECT
STA 84+91.20
CSJ 0912-31-291
X: 3,158,599.14
Y: 13,775,560.97
REF. MARKER:

RS 163295 Rating Curve



NOTES:

1. MODEL PULLED FROM THE HCFCD MODEL AND MAP MANAGEMENT (M3) SYSTEM
2. HEC-RAS VERSION 3.0.1 FOR HYDRALIC DESIGN ANALYSIS
3. ELEVATIONS BASED ON NAVD 88 VERTICAL DATUM 2001 ADJUSTMET
4. DRAINAGE IMPACT STUDY = "DRAINAGE IMPACT ANALYSIS - GREEN TEE TERRACE TRAIL
CLEAR CREEK (A100-00-00)" DATED 9/18/2018 HCFCD PROJECT NO. 1807090097
5. FLOODPLAIN COORDINATION DATE HCFCD: JANUARY 10, 2018. BDD4: DECEMBER 1, 2017.



09/24/2018

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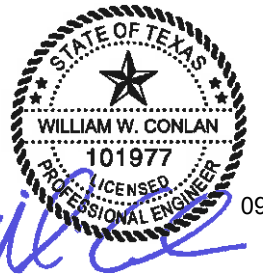
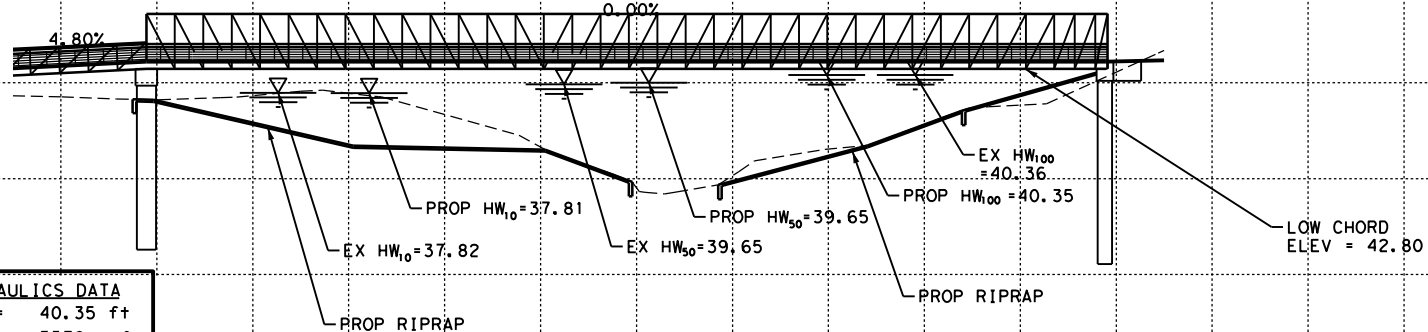
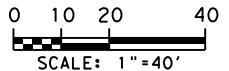
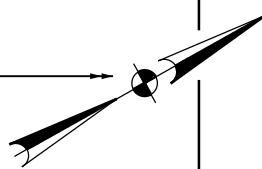
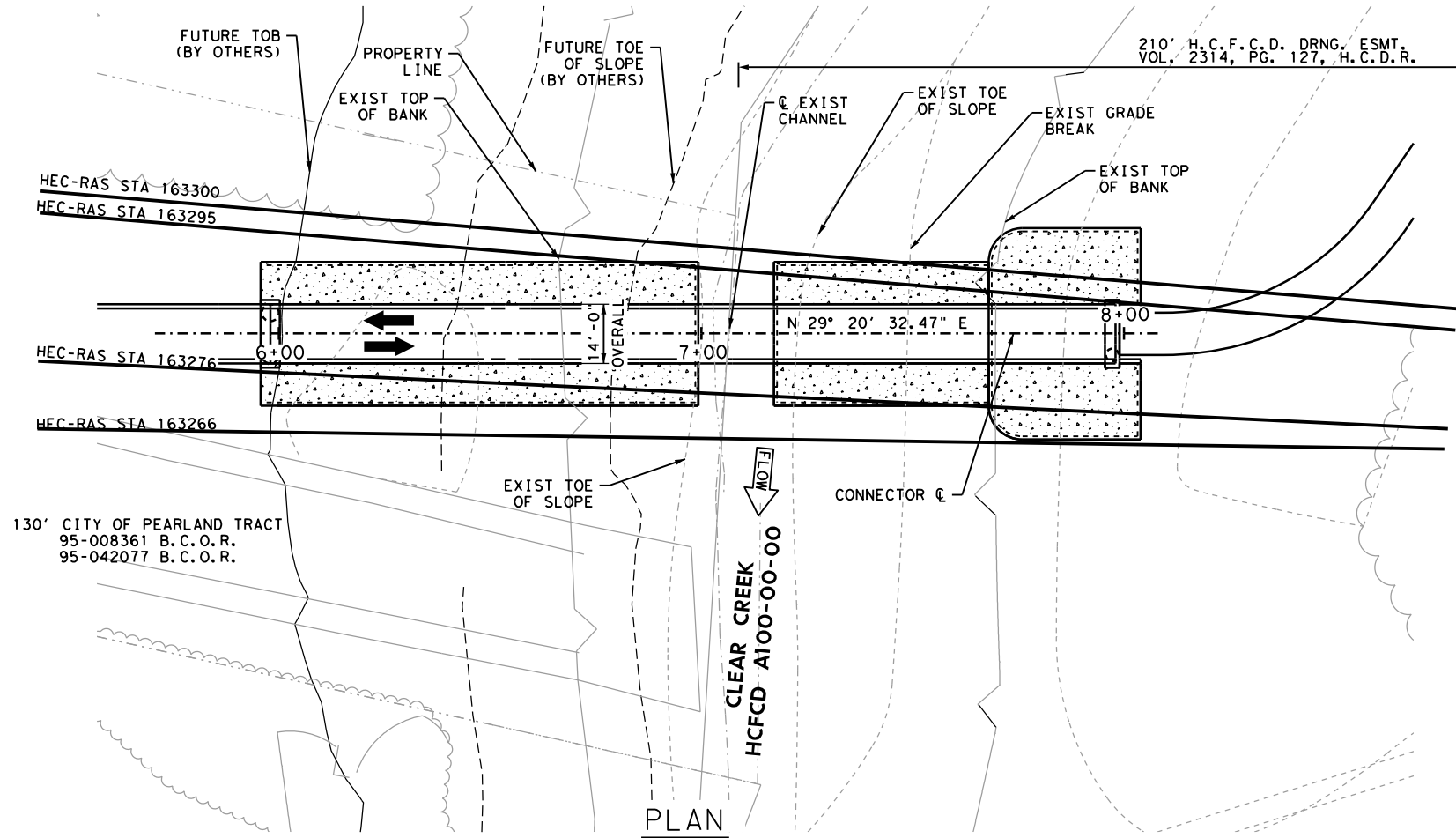
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**GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL**

**HYDRAULIC DATA
SHEET**

SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			91
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA



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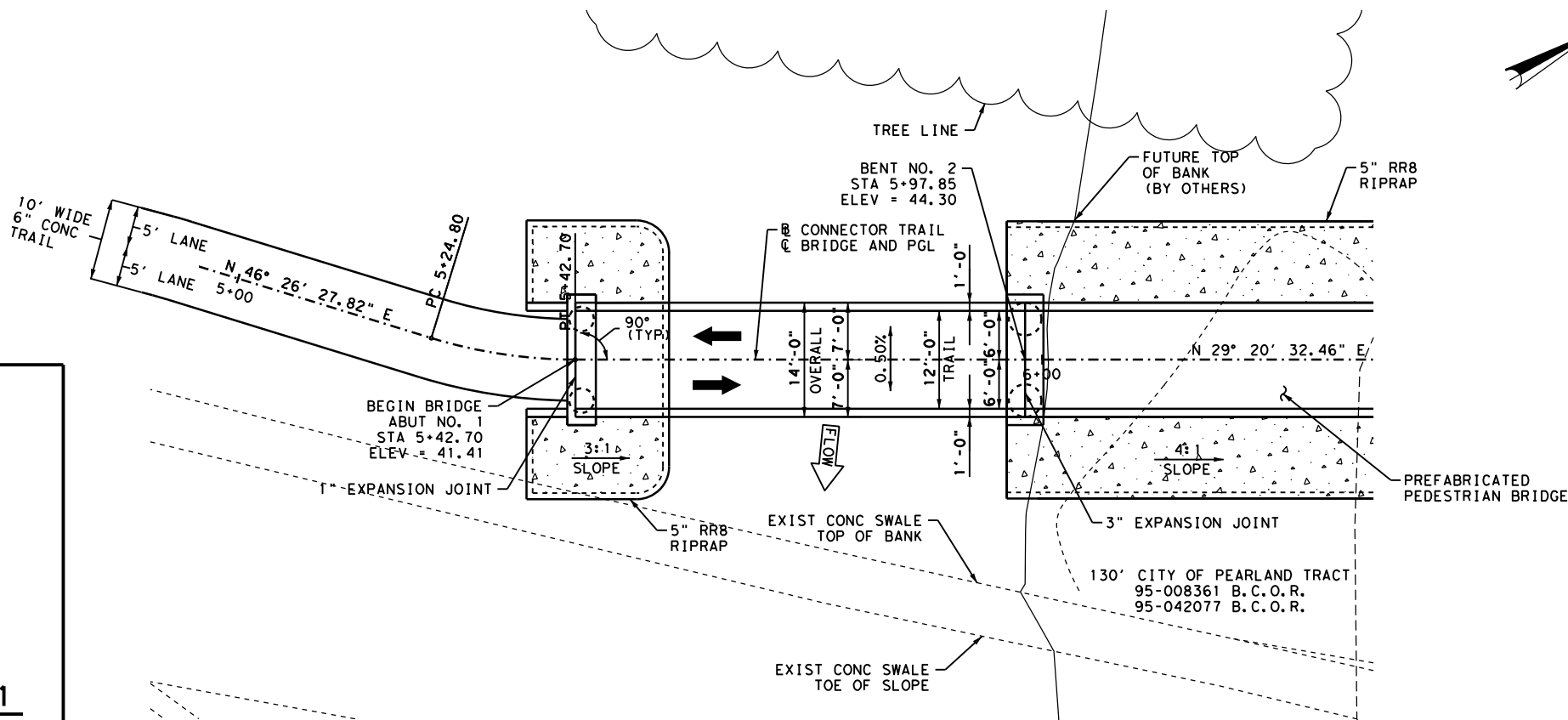
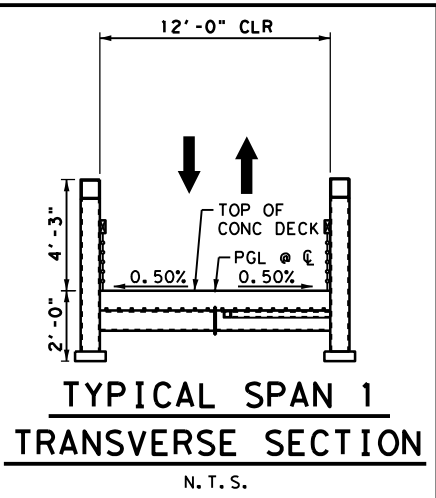


GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL

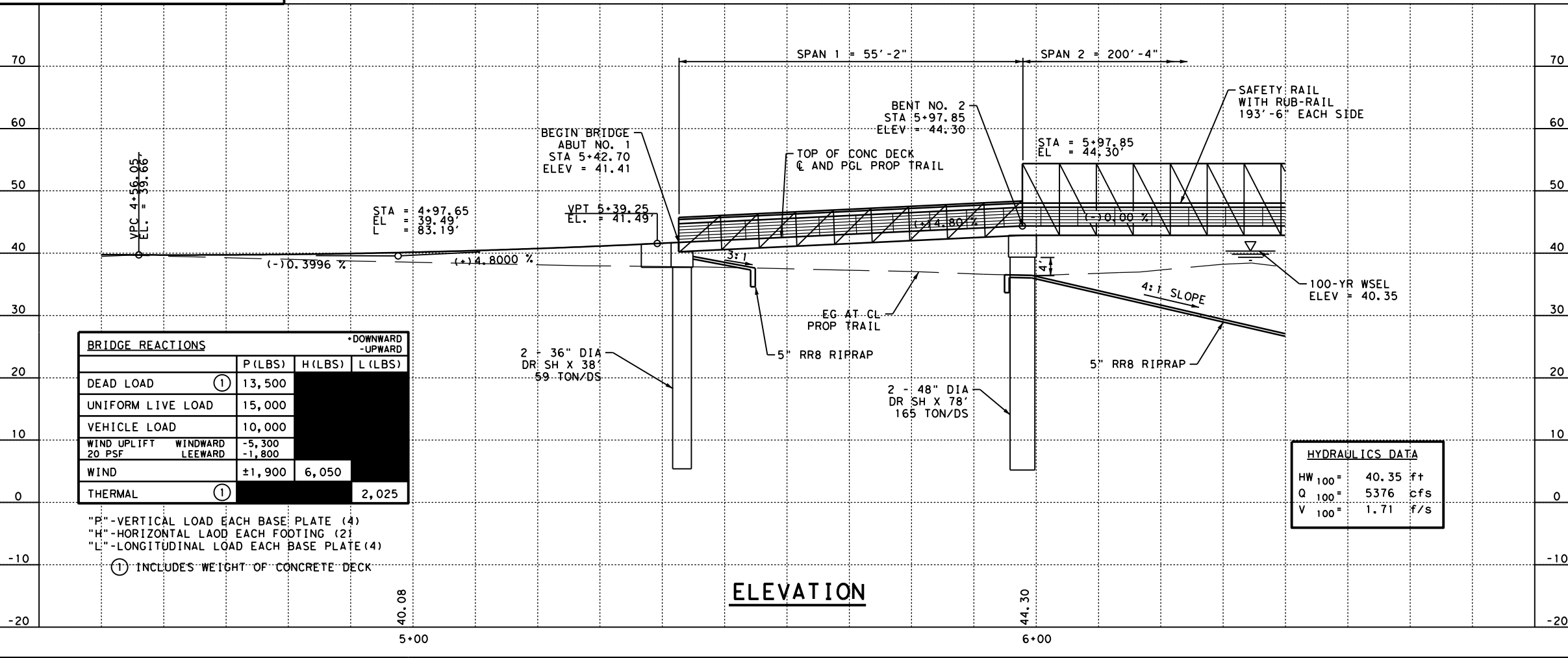
HYDRAULIC DATA
SECTIONS

SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.	SHEET NO.
6		93A
STATE	DIST.	COUNTY
TEXAS	HOU	BRAZORIA / HARRIS
CONT.	SECT.	JOB
0912	31	291
		HIGHWAY NO.
		VA



H10 LOADING



BRIDGE REACTIONS			
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD ①	13,500		
UNIFORM LIVE LOAD	15,000		
VEHICLE LOAD	10,000		
WIND UPLIFT 20 PSF			
WIND WINDWARD	-5,300		
WIND LEEWARD	-1,800		
WIND	±1,900	6,050	
THERMAL ①			2,025

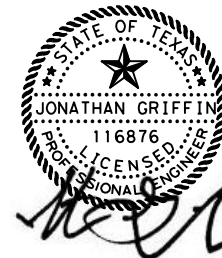
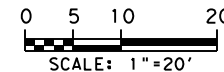
"P"-VERTICAL LOAD EACH BASE PLATE (4)
"H"-HORIZONTAL LOAD EACH FOOTING (2)
"L"-LONGITUDINAL LOAD EACH BASE PLATE (4)

① INCLUDES WEIGHT OF CONCRETE DECK

HYDRAULICS DATA			
HW 100 =	40.35	ft	
Q 100 =	5376	cfs	
V 100 =	1.71	f/s	

NOTES

1. PREFABRICATED BRIDGE SHALL BE PROVIDED BY CONTECH BRIDGE SOLUTIONS OR APPROVED EQUAL.
2. BRIDGE DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
3. ALL BRIDGE DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED UNDER THE SEAL OF A LICENSED TEXAS PROFESSIONAL ENGINEER.
4. THE BRIDGE ERECTOR/INSTALLER SHALL FOLLOW OSHA, STATE AND COUNTY GUIDELINES RELATIVE TO THE ERECTIONS OF STEEL STRUCTURES.
5. THE CONTRACTOR SHALL VERIFY ANCHOR BOLT SPACING, BACKWALL HEIGHT AND ALL OTHER DIMENSIONS WITH BRIDGE MANUFACTURER AND BRIDGE SHOP DRAWINGS PRIOR TO CONSTRUCTION.
6. SEE GEOTECHNICAL REPORT FOR SOIL INFORMATION.
7. CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
8. ALL EXPOSED STEEL WILL BE HOT DIPPED GALVANIZED.



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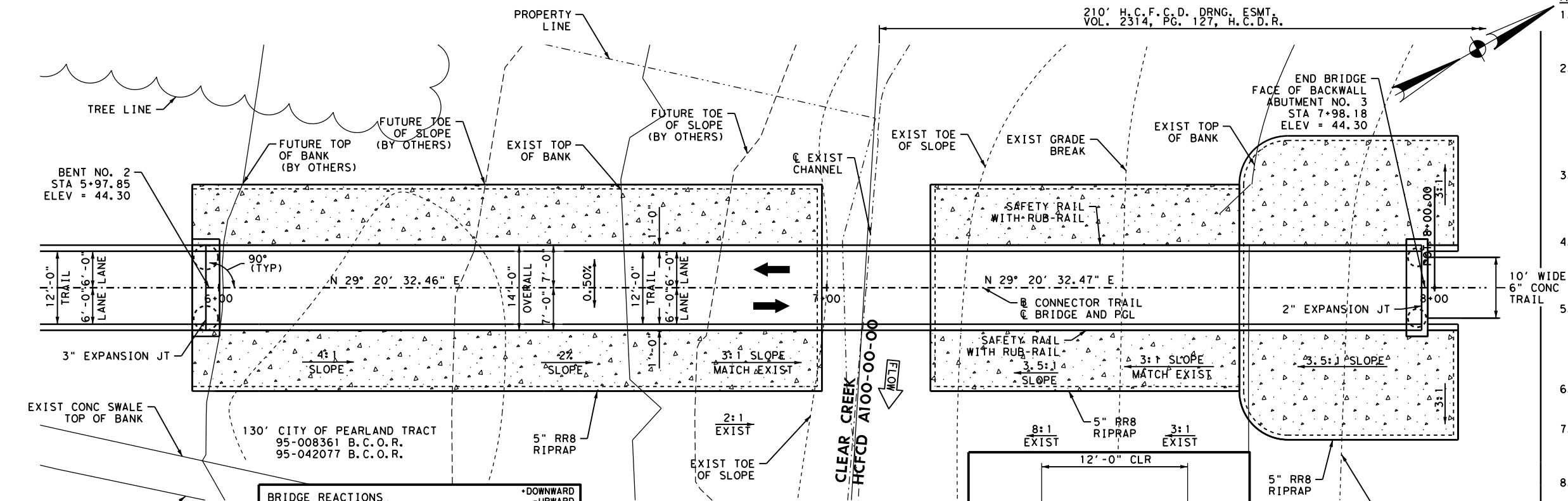
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**GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL**

**BRIDGE LAYOUT
PEDESTRIAN BRIDGE
OVER CLEAR CREEK**

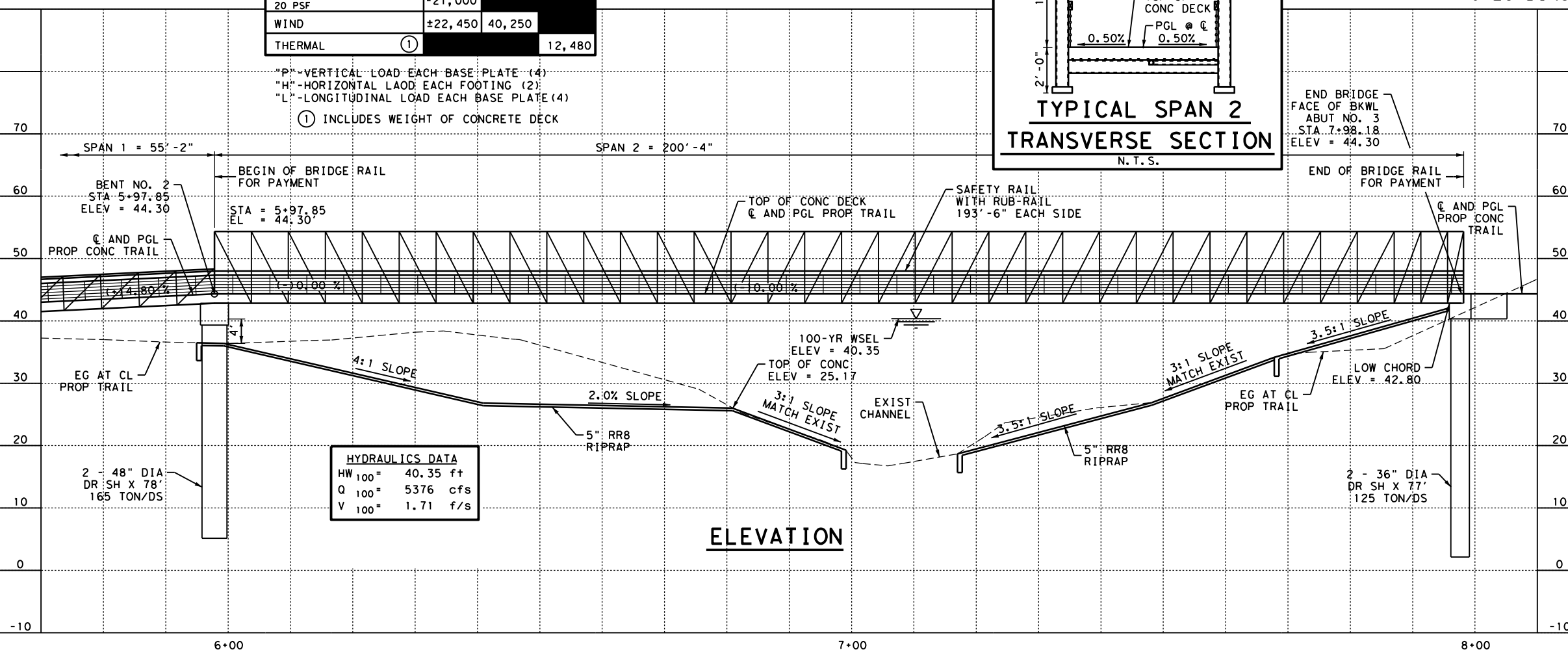
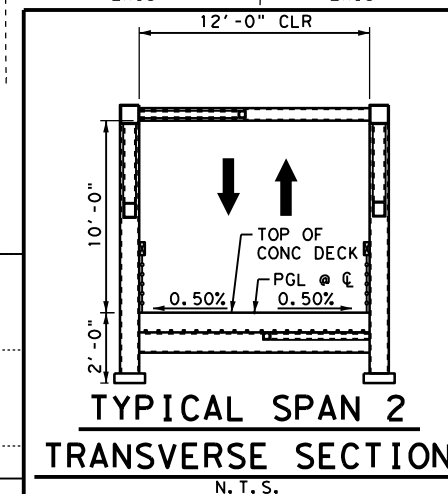
SHEET 1 OF 2

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
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STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA



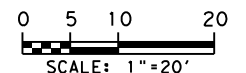
BRIDGE REACTIONS		*DOWNWARD -UPWARD	
	P (LBS)	H (LBS)	L (LBS)
DEAD LOAD (1)	83,200		
UNIFORM LIVE LOAD	54,000		
VEHICLE LOAD	10,000		
WIND UPLIFT 20 PSF	-21,000		
WIND	±22,450	40,250	
THERMAL (1)			12,480

"P"-VERTICAL LOAD EACH BASE PLATE (4)
 "H"-HORIZONTAL LOAD EACH FOOTING (2)
 "L"-LONGITUDINAL LOAD EACH BASE PLATE (4)
 ① INCLUDES WEIGHT OF CONCRETE DECK



NOTES

1. PREFABRICATED BRIDGE SHALL BE PROVIDED BY CONTECH BRIDGE SOLUTIONS OR APPROVED EQUAL.
2. BRIDGE DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
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6. SEE GEOTECHNICAL REPORT FOR SOIL INFORMATION.
7. CONTRACTOR SHALL LOCATE AND IDENTIFY ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
8. ALL EXPOSED STEEL WILL BE HOT DIPPED GALVANIZED.



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GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL

BRIDGE LAYOUT
PEDESTRIAN BRIDGE
OVER CLEAR CREEK

SHEET 2 OF 2


FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			93
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA


SUMMARY OF BRIDGE QUANTITIES							
TRAIL ALIGNMENT	LOCATION	0400 6005	416 6004	0416 6006	0420 6013	0420 6025	0432 6008
		CEM STABIL BKFL	DRILL SHAFT (36 IN)	DRILL SHAFT (48 IN)	CL C CONC (ABUT)	CL C CONC (BENT)	RIPRAP (CONC)(CL B) (RR8&RR9)
		CY	LF	LF	CY	CY	CY
TRAIL CONNECTOR	1+00 TO 8+00	22	230	156	18.2	9.3	249
PROJECT TOTALS		22	230	156	18.2	9.3	249
TRAIL ALIGNMENT	LOCATION	7640 SS	7640 SS				
		PEDESTRIAN TRUSS BRIDGE SPAN	PEDESTRIAN APPROACH RAMP				
		EA	EA				
TRAIL CONNECTOR	1+00 TO 8+00	1	1				
PROJECT TOTALS		1	1				



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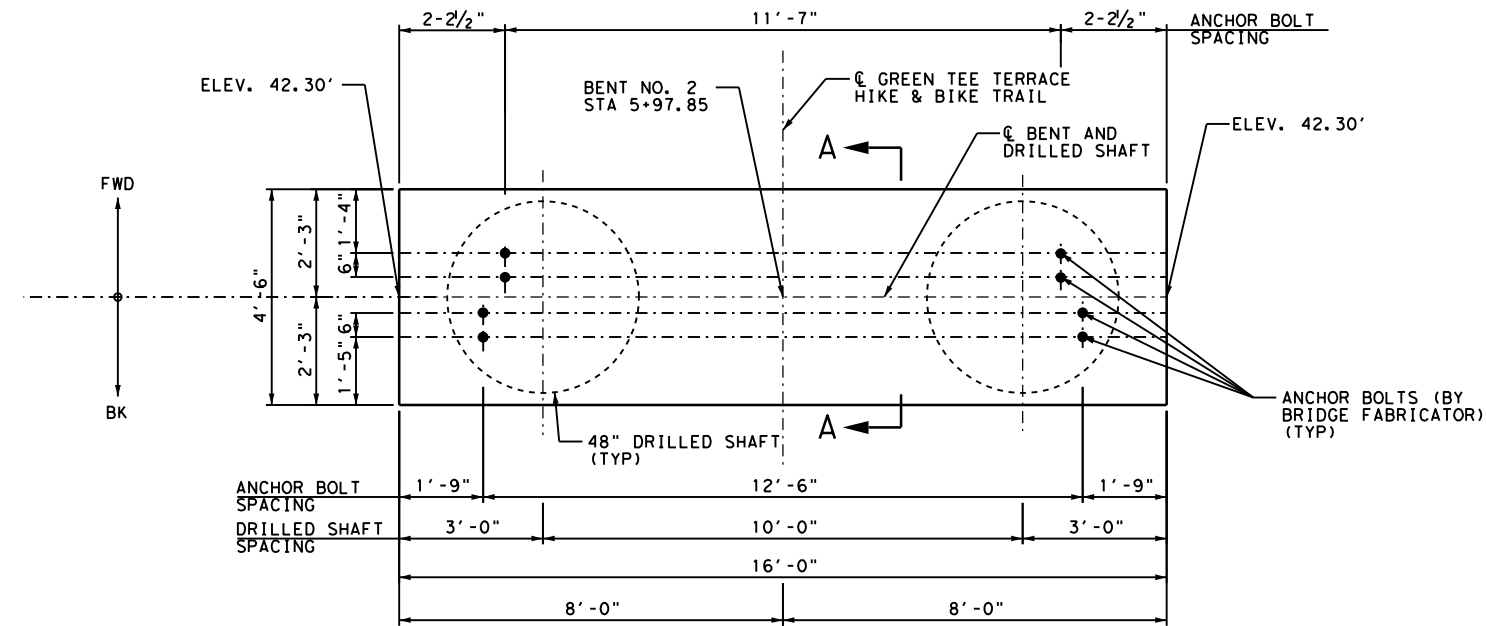
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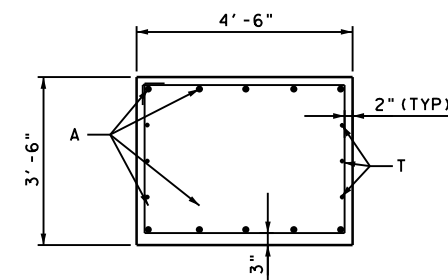
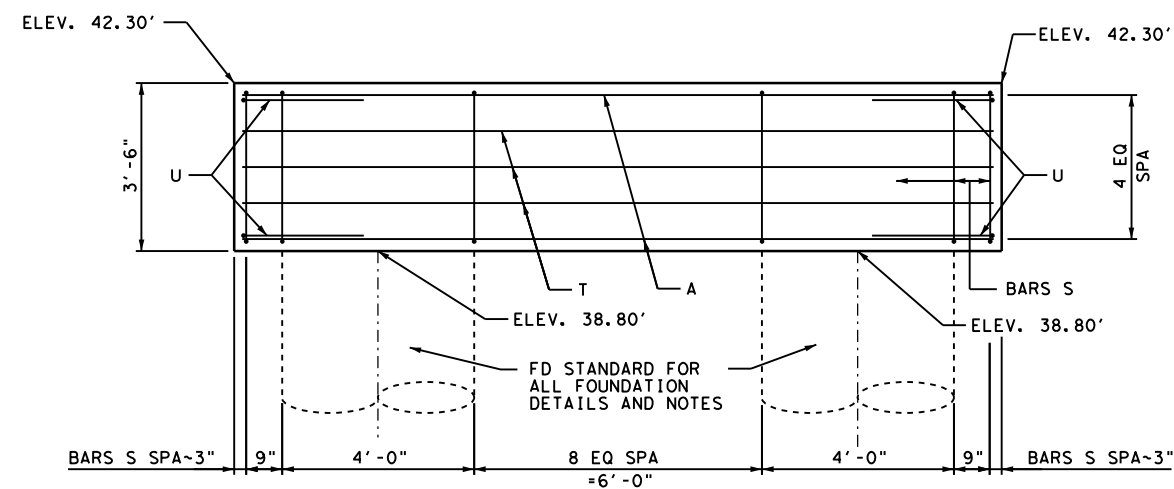
BRIDGE QUANTITIES

SHEET 1 OF 1

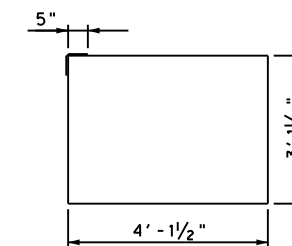
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STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA



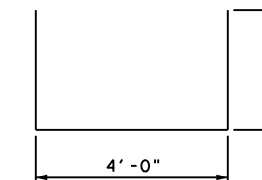
PLAN



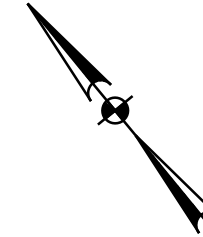
SECTION A-A



BARS S



BARS U



* TABLE OF ESTIMATED QUANTITIES				
BAR	NO	SIZE	LENGTH	WEIGHT
A	10	#11	15' - 8"	832
T	6	#5	15' - 8"	499
S	13	#4	15' - 4"	678
U	4	#6	9' - 0"	54
REINFORCING STEEL			LBS	2,064
CLASS "C" CONCRETE (BENT)			CY	9.3

* FOR CONTRACTOR'S INFORMATION ONLY QUANTITIES SHOWN ARE FOR ONE BENT ONLY.

- NOTES:
1. BRIDGE BENT DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
 2. ALL CONCRETE STRENGTH $f'c=3600$ psi.
 3. REINFORCING SHALL BE GRADE 60.
 4. SEE FD STANDARD FOR FOUNDATION DETAILS AND NOTES.
 5. SEE BRIDGE LAYOUT FOR DRILLED SHAFT LENGTHS.
 6. SEE ABUTMENT DETAILS SHEET FOR ADDITIONAL INFORMATION.
 7. CONTRACTOR MUST VERIFY ALL ELEVATIONS AND DIMENSIONS OF PREFABRICATED SPANS UPON DELIVERY.
 8. ALL PARTS ASSOCIATED WITH THE ANCHORAGE OF THE PREFABRICATED BRIDGE TO THE PROPOSED ABUTMENT ARE TO BE DESIGNED BY THE BRIDGE MANUFACTURER PRIOR TO THE CONSTRUCTION OF THE ABUTMENT. THE CONTRACTOR MUST ALSO VERIFY THE LOCATION, NUMBER AND SIZE OF THE ANCHOR BOLTS WITH THE BRIDGE MANUFACTURER PRIOR TO CONSTRUCTION.

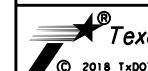


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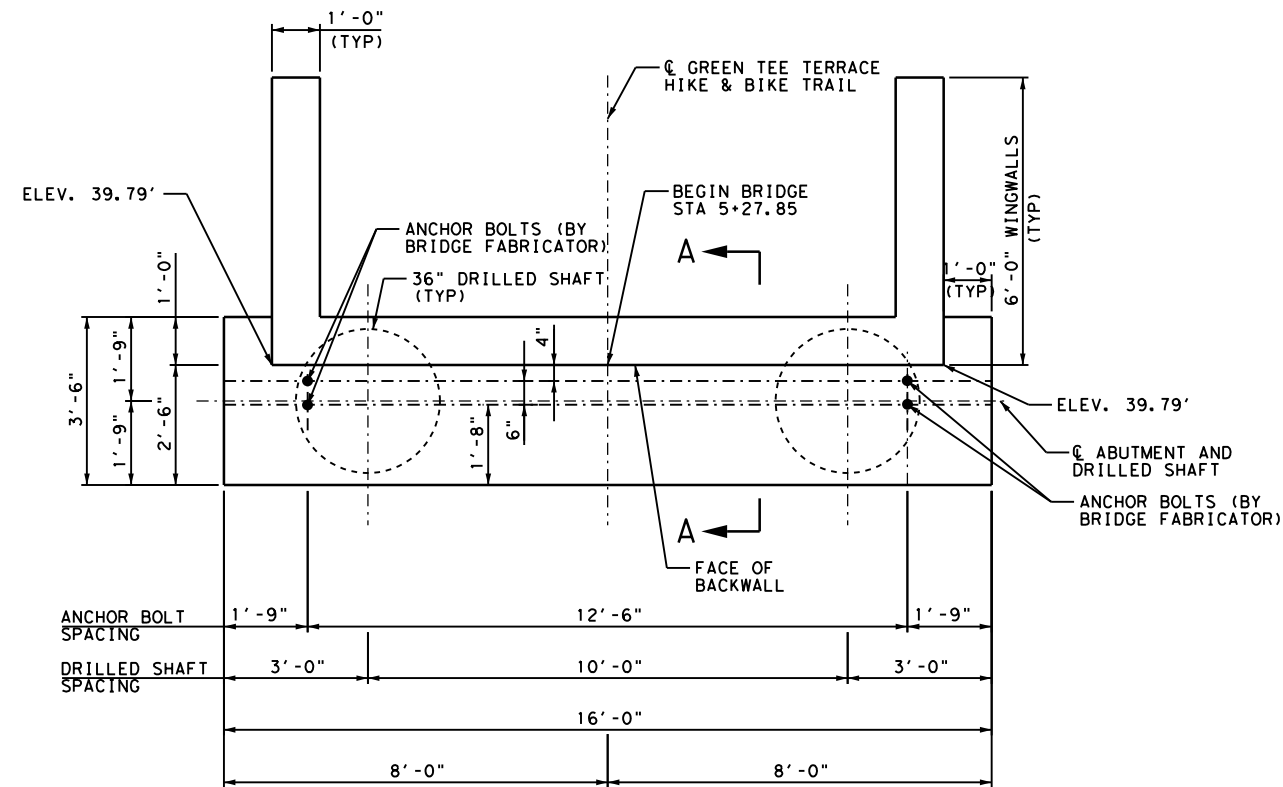
GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL

BENT 2

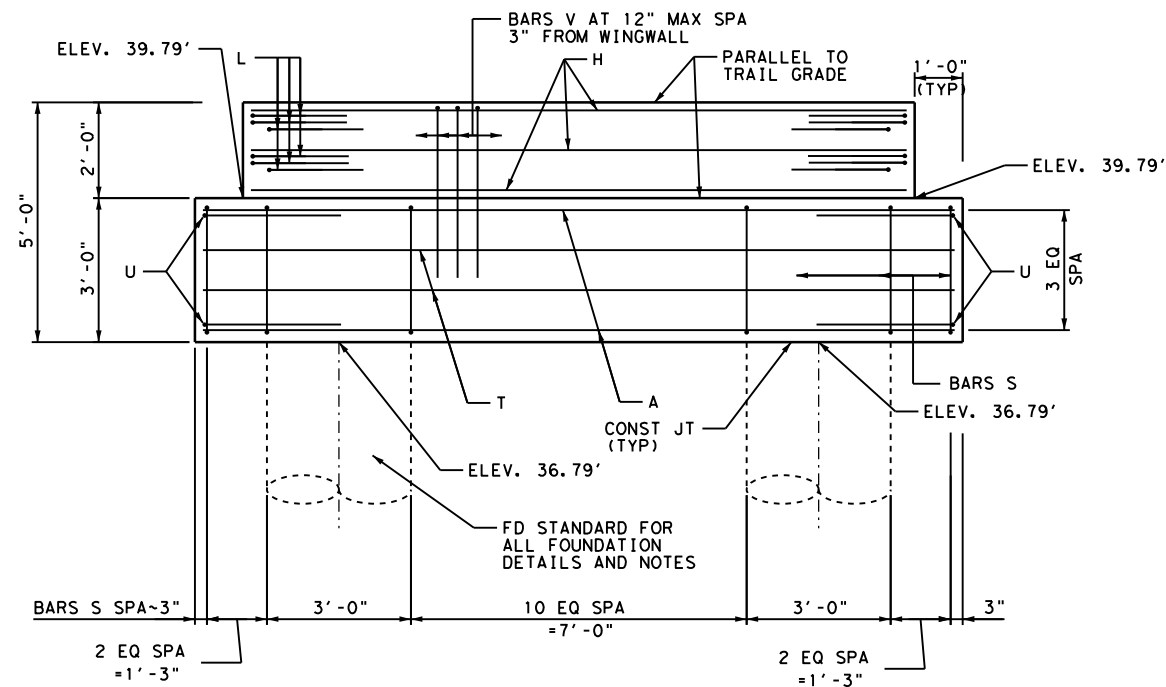
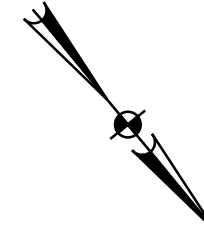
SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			95
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA

H10 LOADING



PLAN

ELEVATION

NOTES:

1. BRIDGE ABUTMENT DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
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8. ALL PARTS ASSOCIATED WITH THE ANCHORAGE OF THE PREFABRICATED BRIDGE TO THE PROPOSED ABUTMENT ARE TO BE DESIGNED BY THE BRIDGE MANUFACTURER PRIOR TO THE CONSTRUCTION OF THE ABUTMENT. THE CONTRACTOR MUST ALSO VERIFY THE LOCATION, NUMBER AND SIZE OF THE ANCHOR BOLTS WITH THE BRIDGE MANUFACTURER PRIOR TO CONSTRUCTION.



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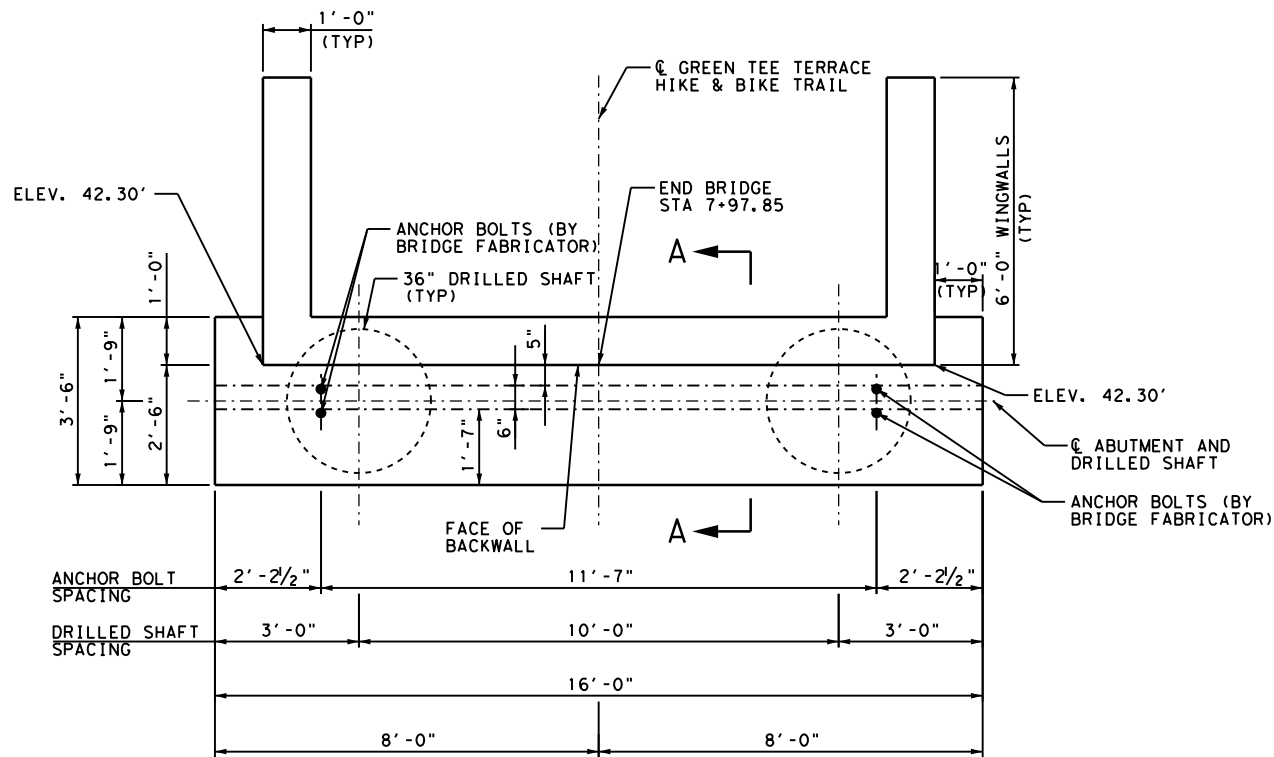
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BIKE & PEDESTRIAN TRAIL**

ABUTMENT 1

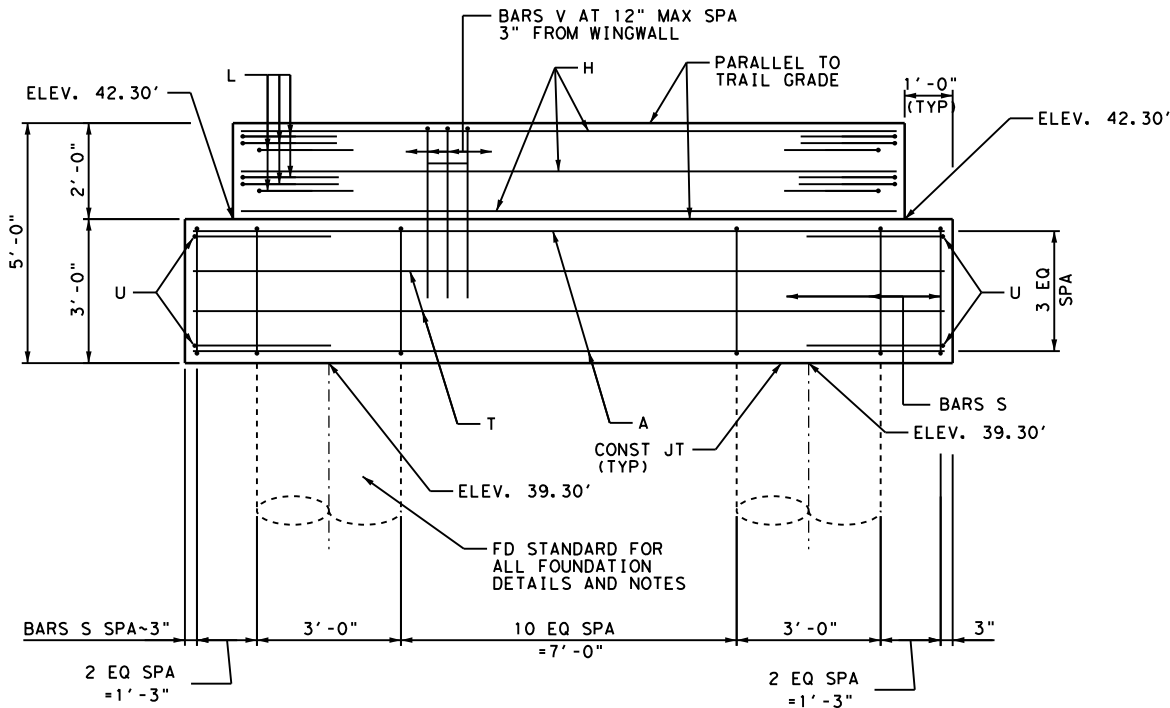
SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			96
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA

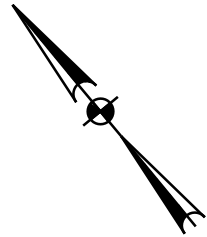
H10 LOADING



PLAN



ELEVATION



- NOTES:
1. BRIDGE ABUTMENT DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
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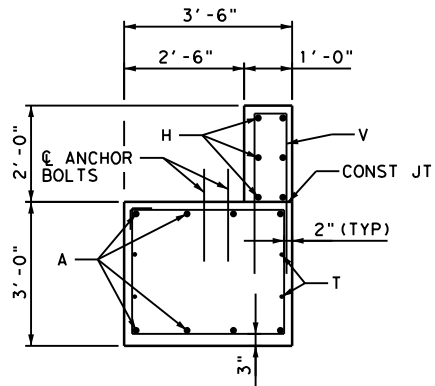
**GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL**

ABUTMENT 3

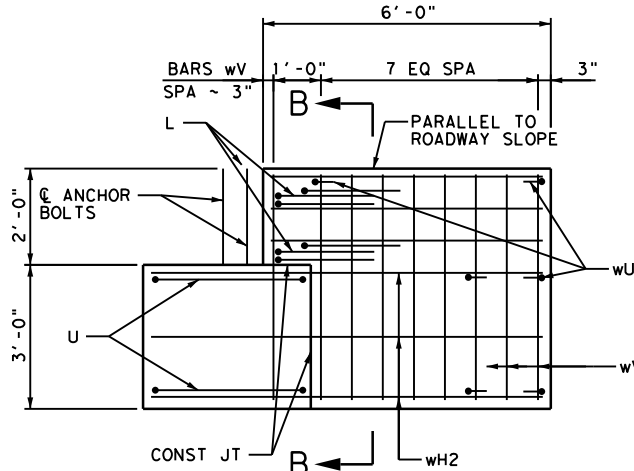
SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			97
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA

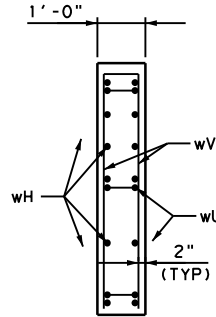
H10 LOADING



SECTION A-A



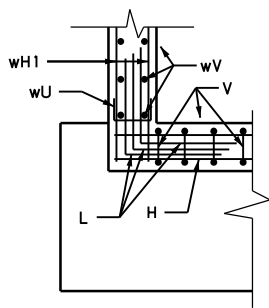
WINGWALL ELEVATION



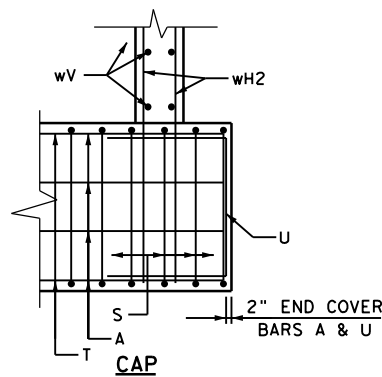
SECTION B-B

* TABLE OF ESTIMATED QUANTITIES				
BAR	NO	SIZE	LENGTH	WEIGHT
A	8	#11	15' - 8"	666
H	6	#5	13' - 8"	86
L	12	#5	4' - 0"	50
S	17	#4	12' - 4"	140
T	4	#5	15' - 8"	65
U	4	#6	8' - 0"	48
V	13	#5	7' - 4"	99
wH1	12	#6	5' - 8"	102
wH2	12	#6	8' - 2"	147
wU	12	#4	1' - 7"	13
Wv	32	#5	4' - 8"	156
REINFORCING STEEL			LBS	1,572
CLASS "C" CONCRETE (ABUT)			CY	9.1

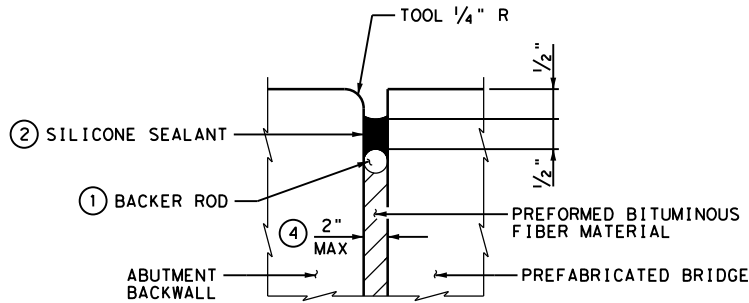
* FOR CONTRACTOR'S INFORMATION ONLY QUANTITIES SHOWN ARE FOR ONE ABUTMENT ONLY.



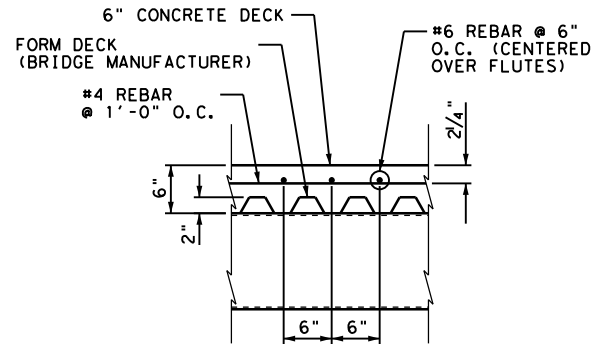
BACKWALL



CORNER DETAILS



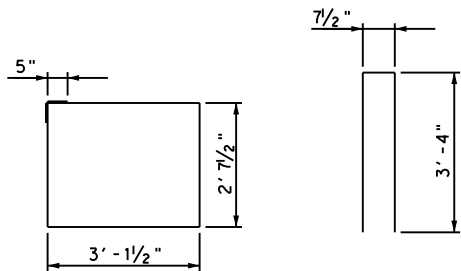
EXPANSION JOINT DETAIL ③



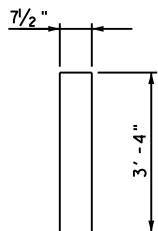
TYP SLAB REINFORCEMENT DETAIL

F'c=4,000 PSI (MINIMUM 28 DAY STRENGTH)
GRADE 60 REINFORCING (Fy=60,000 PSI)

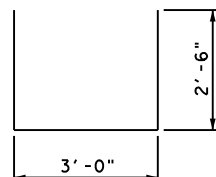
- ① BACKER ROD SHALL BE 1/4" LARGER THAN JOINT WIDTH AND MUST BE COMPATIBLE WITH JOINT SEALANT. USE OF MULTIPLE PIECES TO CREATE A BACKER ROD CROSS SECTION IS NOT PERMITTED. TOP OF BACKER ROD MUST BE CONVEX AS SHOWN.
- ② CLASS 7 SILICONE SEALANT THAT CONFORMS TO DMS-6310. INSTALL WHEN AMBIENT TEMPERATURE IS BETWEEN 55°F AND 85°F AND RISING. ENGINEER TO DETERMINE ALLOWABLE HOURS FOR SEALANT APPLICATION.
- ③ SEE BRIDGE LAYOUT FOR EXPANSION JOINT LOCATIONS.
- ④ SEE CONTECH DESIGN DATA SHEETS FOR JOINT WIDTH.



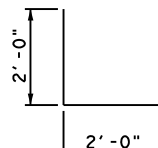
BARS S



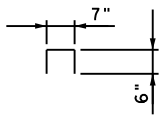
BARS V



BARS U



BARS L



BARS wU

H10 LOADING

NOTES:

1. BRIDGE ABUTMENT DESIGNED ACCORDING TO LRFD BRIDGE DESIGN SPECIFICATION 7TH EDITION AND GUIDE SPECIFICATION FOR DESIGN OF PEDESTRIAN BRIDGES BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO 2015)
2. ALL CONCRETE STRENGTH f'c=3600 psi.
3. REINFORCING SHALL BE GRADE 60.
4. SEE FD STANDARD FOR FOUNDATION DETAILS AND NOTES.
5. SEE BRIDGE LAYOUT FOR DRILLED SHAFT LENGTHS.
6. CONTRACTOR MUST VERIFY ALL ELEVATIONS AND DIMENSIONS OF PREFABRICATED SPANS UPON DELIVERY.
7. ALL PARTS ASSOCIATED WITH THE ANCHORAGE OF THE PREFABRICATED BRIDGE TO THE PROPOSED ABUTMENT ARE TO BE DESIGNED BY THE BRIDGE MANUFACTURER PRIOR TO THE CONSTRUCTION OF THE ABUTMENT. THE CONTRACTOR MUST ALSO VERIFY THE LOCATION, NUMBER AND SIZE OF THE ANCHOR BOLTS WITH THE BRIDGE MANUFACTURER PRIOR TO CONSTRUCTION. ANCHOR BOLTS SHALL CONFORM TO TXDOT SPECIFICAITON 449.



9/17/2018

NO.	DATE	REVISION	APPROV.

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Houston, Texas 77079
T 281 589 7257
USInfrastructure@rpsgroup.com
Formerly Klotz Associates, Inc.
Texas PE Firm Reg. #F-929

Texas Department of Transportation
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**GREEN TEE TERRACE
BIKE & PEDESTRIAN TRAIL**

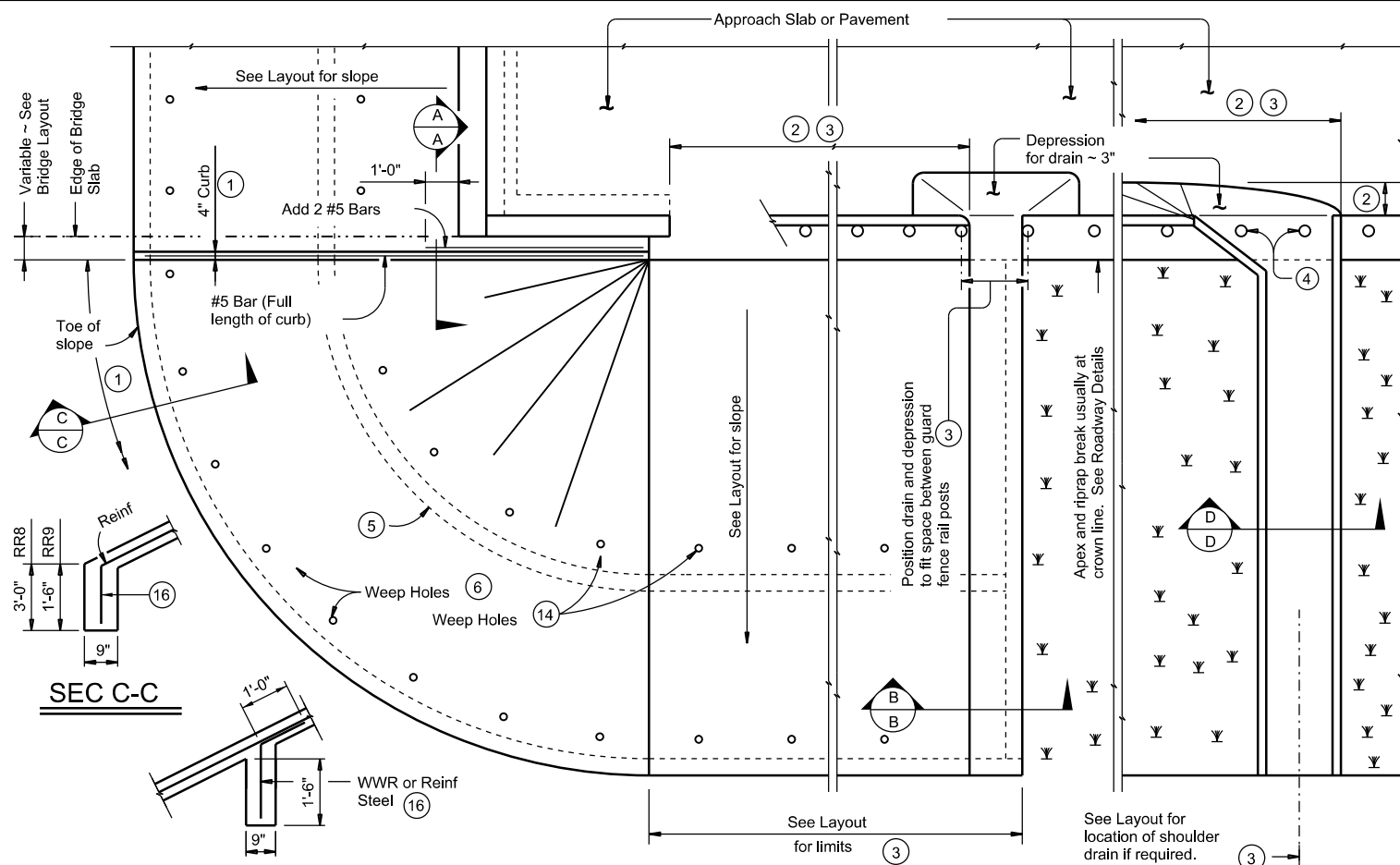
ABUTMENT DETAILS

SHEET 1 OF 1

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			98
STATE	DIST.	COUNTY	
TEXAS	HOU	BRAZORIA / HARRIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0912	31	291	VA

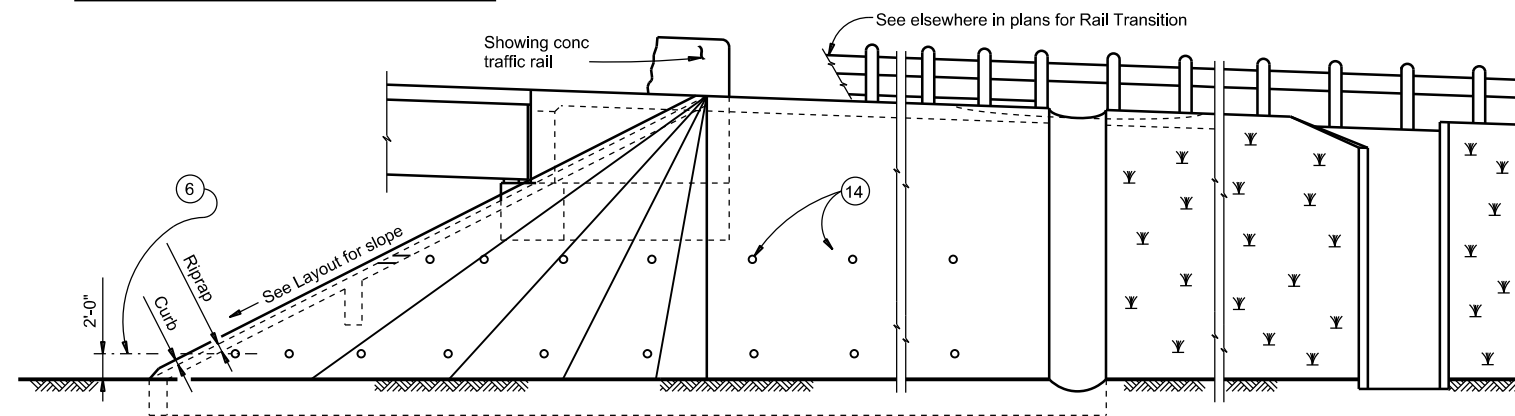
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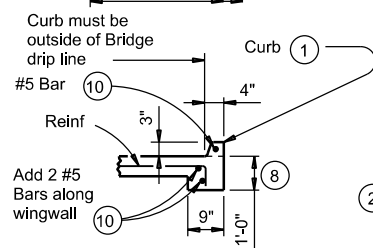


INTERMEDIATE TOEWALL

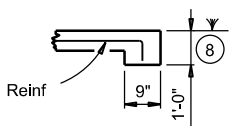
PLAN



ELEVATION

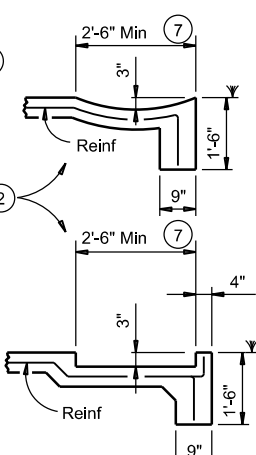


SEC A-A



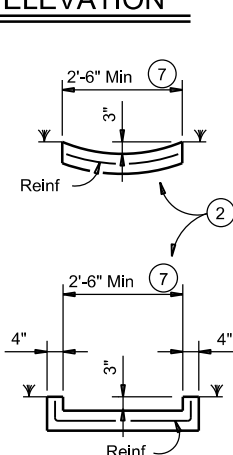
SEC B-B

(No Drain)



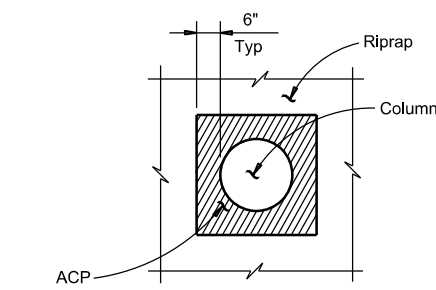
SEC B-B

(Shoulder Drain
integral with riprap)



SEC D-D

(Shoulder Drain)

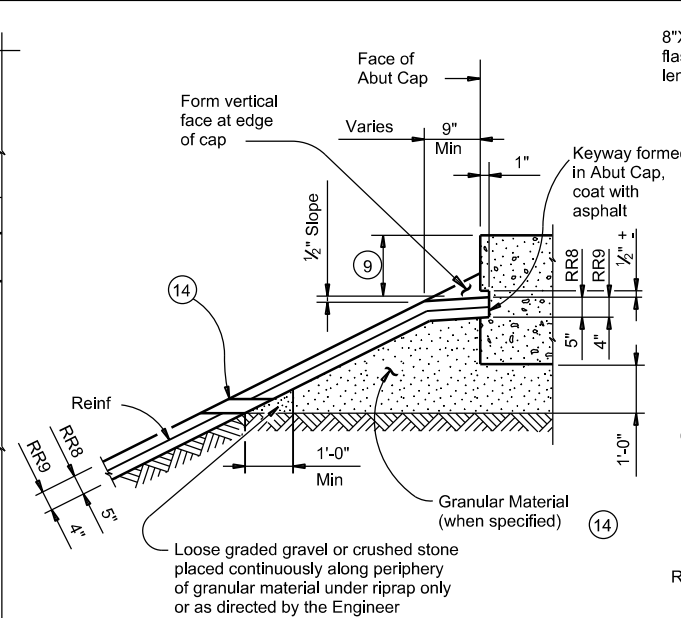


RIPRAP DETAIL AT COLUMNS

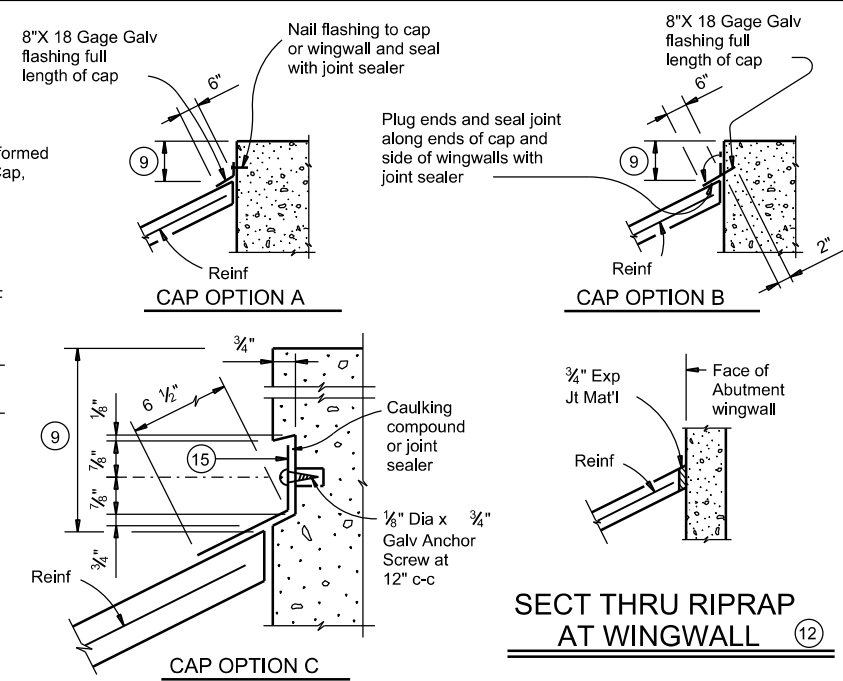
(As directed by the Engineer)

- When riprap is shown extended around header on layout, extend slab and toewall as shown and eliminate 4" curb.
- Limits and configuration of drains and depressions are as shown elsewhere in plans or as directed by the Engineer.
- Location of shoulder drain must consider limitations imposed by rail transition. Do not locate shoulder drains at expansion joints between approach slab and concrete pavement.
- See details elsewhere in plans for installation of guard fence posts through concrete riprap.
- Provide intermediate toewall only when designated elsewhere in the plans or included in the specifications.
- Provide lower level of 2" Dia weep holes at 10' c-c backed by 1 CF packet of gravel and galvanized hardware cloth at all locations unless directed by the Engineer to eliminate.
- Use wider or other drain configurations if shown elsewhere in plans or if directed by the Engineer.
- Wall extension may be reduced or modified if approved by the Engineer. Increase wall extension to 1'-6" whenever the optional intermediate toewall is called for in the plans.
- Top of cap to top of riprap dimension varies as directed by the Engineer. Should be 9" Min for beam/slab type bridges and 1'-6" for slab span, box beam, or slab beam bridges.
- #5 bars shown are required even when synthetic fiber reinforcing option is selected.
- Provide sealing option for joint between the face of cap and riprap as designated by the Engineer or as shown elsewhere on plans.
- Flashing (shown in Cap Option A) may be used at wingwall in addition to Exp Jt Mat'l if shown on plans or directed by the Engineer.
- Provide #3 reinforcing bars at 18" Spa c-c. Provide Welded Wire Reinforcement (WWR) as 6x6-D3xD3. Combinations of WWR and reinforcing bars may be used if both are permitted. Use lap splices of a minimum 6 inches, measured from the transverse wire of WWR, and the ends of reinforcing bars.
- If granular material is specified, provide upper level of 2" Dia weep holes at 10' c-c backed by galvanized hardware cloth.
- 8" x 18 Gage Galv Sheet Metal
- Provide WWR or #3 bars, with 1'-0" extension into slope.

FOR CONTRACTOR'S INFORMATION ONLY:
5" of RR8 = 0.015 CY/SF
4" of RR9 = 0.012 CY/SF
#3 Reinf at 18" c-c = 0.501 Lbs/SF
6x6-D3xD3 = 0.408 Lbs/SF

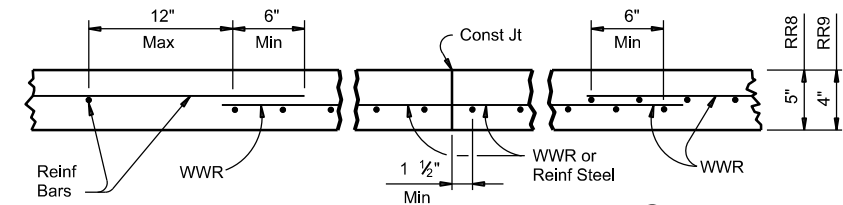


SHOWING KEYWAY OPTION



CAP OPTION C

SECTIONS THRU RIPRAP AT CAP




REINFORCEMENT DETAILS

See General Notes for optional sythetic fiber reinforcement.

GENERAL NOTES:

- Provide Class "B" concrete with a minimum compressive strength of 2,000 psi unless noted elsewhere in plans.
- Provide Grade 60 reinforcing steel.
- Provide synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) in lieu of steel reinforcing in riprap concrete unless noted otherwise.
- Install construction joints or grooved joints extending the full slant slope height at intervals of approximately 20 feet unless otherwise directed by the Engineer.
- Hardware cloth, loose grade stone behind weep holes, flashing, or other sealing material are subsidiary to the bid item "Riprap".
- Use reinforcing bars, deformed Welded Wire Reinforcing (WWR), or any suitable combination of both types for riprap reinforcing, unless specified elsewhere in the plans.
- See Layout for limits of riprap.
- RR8 is to be used on stream crossings.
- RR9 is to be used on other embankments.



Texas Department of Transportation

Bridge Division Standard

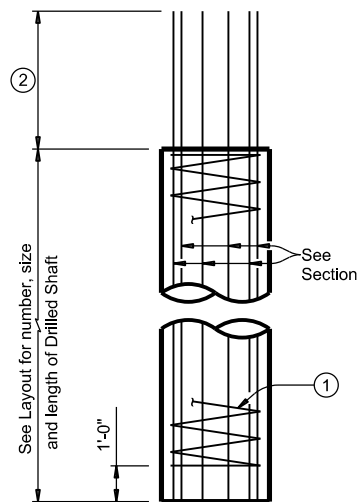
CONCRETE RIPRAP AND SHOULDER DRAINS EMBANKMENTS AT BRIDGE ENDS (TYPES RR8 & RR9)

CRR

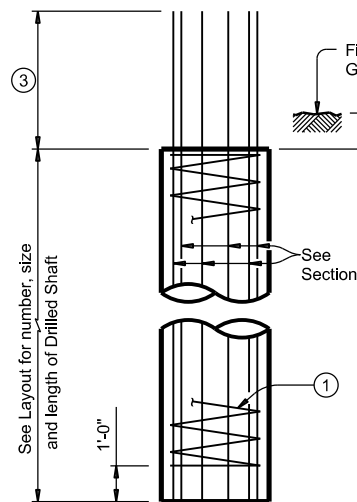
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©TxDOT	January 2015	CONT	SECT	JOB		HIGHWAY			
REVISIONS		0912	31	291		VA			
		DIST	COUNTY					SHEET NO.	
		HOU	BRAZORIA / HARRIS					99	

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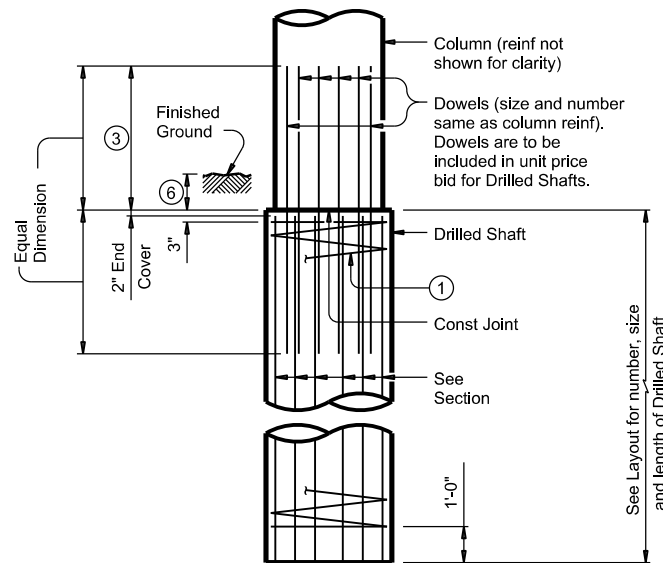
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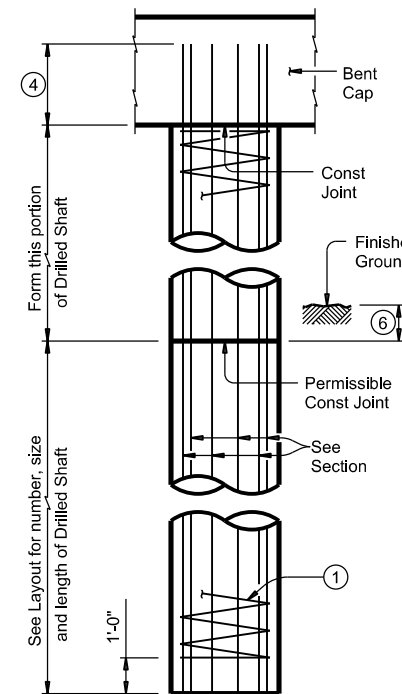
ABUTMENTS, WINGWALLS
AND MULTI-DRILLED
SHAFT FOOTINGS



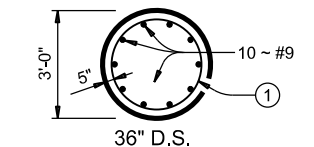
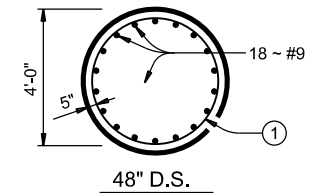
INTERIOR BENTS
DRILLED SHAFT DIA
EQUAL TO COLUMN DIA



INTERIOR BENTS
DRILLED SHAFT DIA
GREATER THAN COLUMN DIA



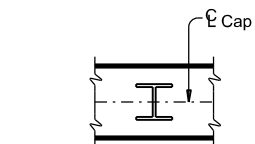
OPTIONAL
INTERIOR BENT
DRILLED SHAFT DETAIL



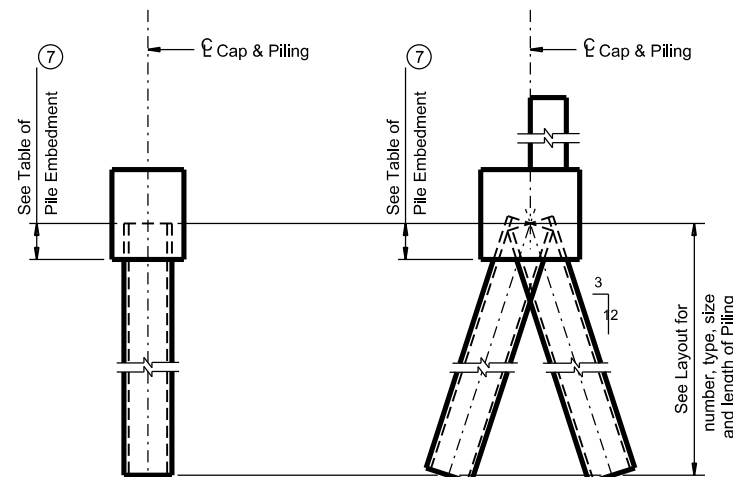
DRILLED SHAFT SECTIONS

TABLE OF PILE EMBEDMENT	
Pile Type	Embedment Depth (Ft)
16" Sq Concrete 18" Sq Concrete HP14 Steel HP16 Steel	1'-0"
20" Sq Concrete 24" Sq Concrete HP18 Steel	1'-6"

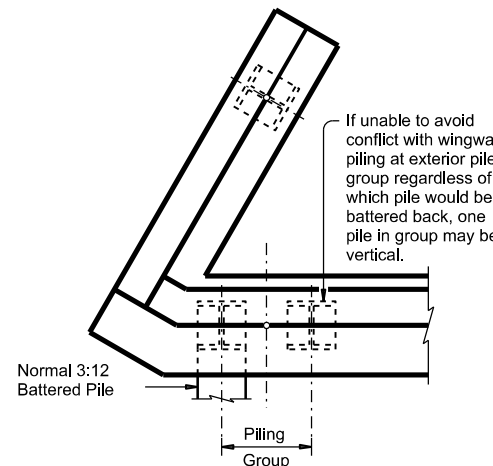
See standard CP for additional details
on concrete pile embedment.



ORIENTATION OF
STEEL H-PIILING

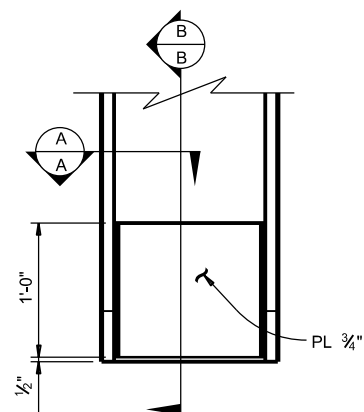


PIILING DETAILS
(Concrete or Steel H)

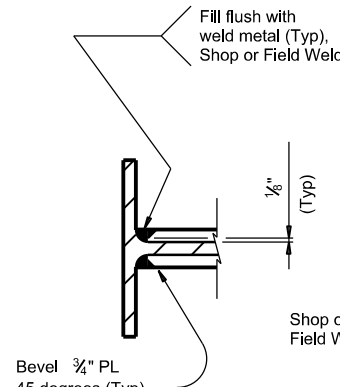


DETAIL "A"

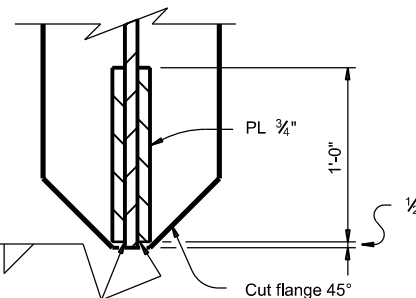
(Showing Plan View of a
30° Skewed Abutment)



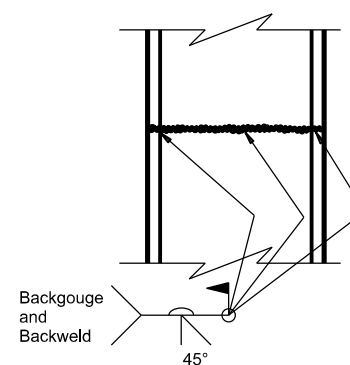
ELEVATION



SECTION A-A

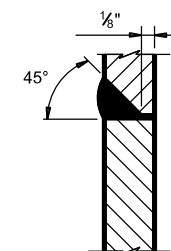


SECTION B-B



STEEL H-PILE SPLICE DETAIL

Use when required.



SECTION THRU
FLANGE OR WEB

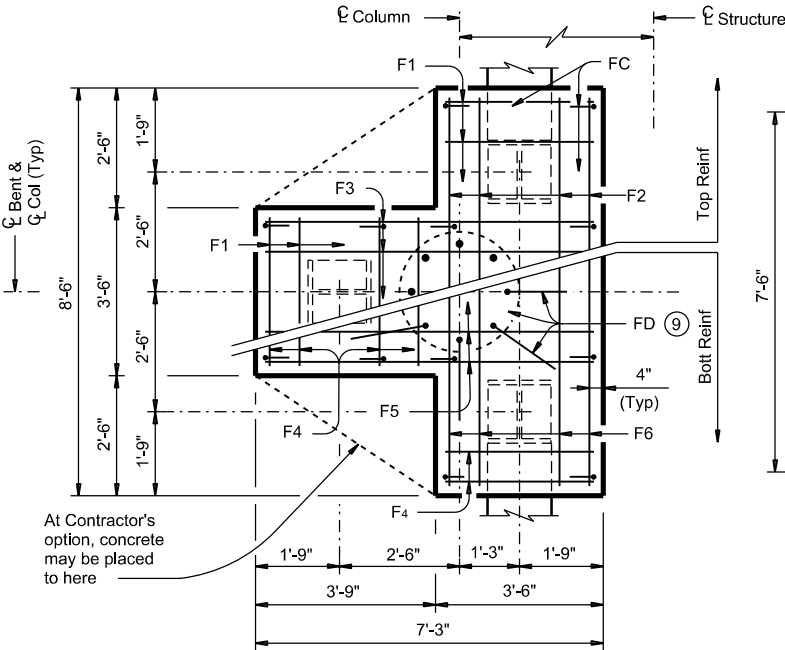
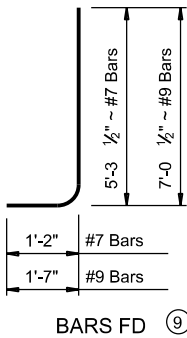
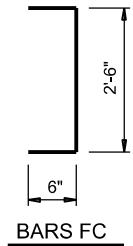
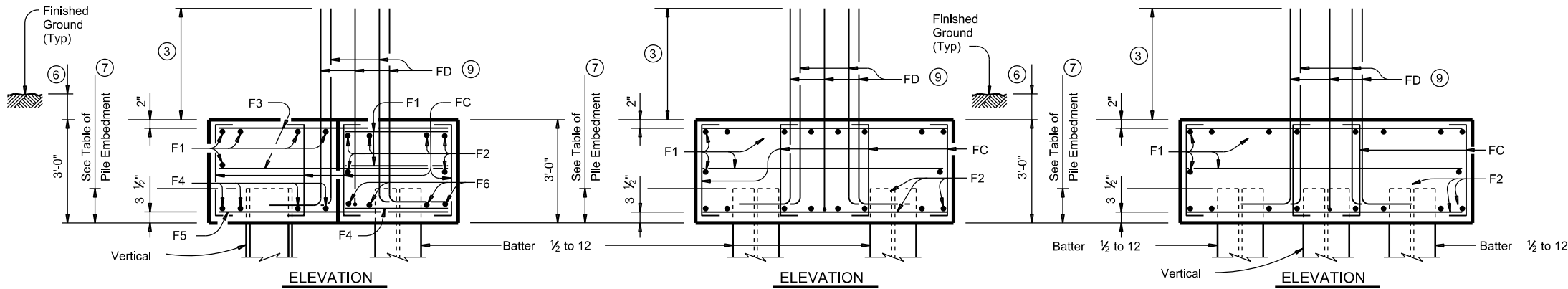
- #4 Spiral at 9" pitch (One and a half flat turns top & bottom).
- Min extension into supported element:
#6 Bars = 1'-6"
#7 Bars = 1'-8"
#9 Bars = 2'-3"
- Min lap with Column reinf:
#7 Bars = 2'-9"
#9 Bars = 4'-6"
- Min extension into supported element:
#6 Bars = 1'-6"
#7 Bars = 1'-8"
#9 Bars = 2'-8"
- Drilled Shafts may extend to the bottom of bent caps for "H" heights of 6 ft and less (as shown on the Bridge Layout), if approved. This option can only be used when the Drilled Shaft diameter equals the Column diameter. Obtain approval of the forming method above the ground line prior to construction. No adjustments in payment will be made if this option is used.
- 1'-0" Min
- Or as shown on plans.

SHEET 1 OF 2

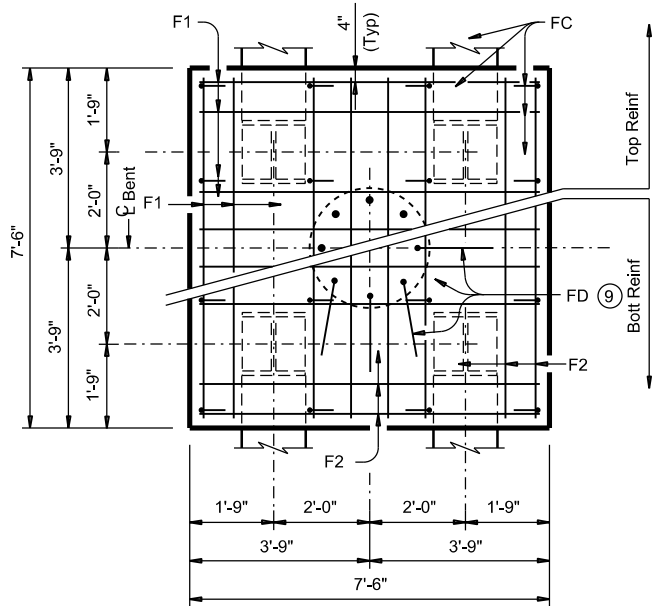
		Bridge Division Standard	
COMMON FOUNDATION DETAILS			
FD(MOD)			
FILE: fdstde01.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT
©TxDOT January 2015	CONT	SECT	JOB
REVISIONS	0912	31	291
DIST	COUNTY		SHEET NO.
HOU	BRAZORIA / HARRIS		100

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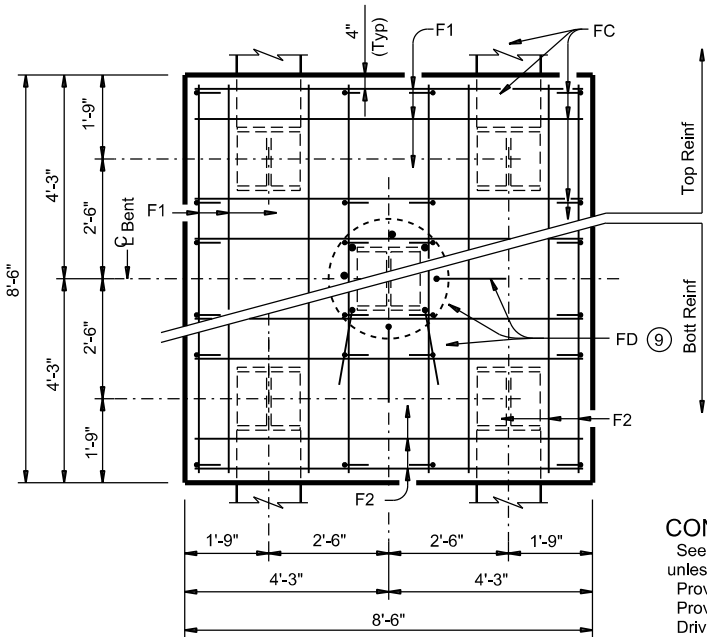
DATE:
FILE:



THREE PILE FOOTING
For 36" Dia and smaller columns.



FOUR PILE FOOTING
For 42" Dia and smaller columns.



FIVE PILE FOOTING
For 42" Dia and smaller columns.

CONSTRUCTION NOTES:

See Bridge Layout for foundation type required. Use these foundation details unless shown otherwise.
Provide Class C Concrete ($f'_c = 3600$ psi), unless shown otherwise.
Provide Grade 60 reinforcing steel.
Drive piling under abutment wingwalls to a minimum resistance of 10 Tons/Pile unless shown otherwise.

GENERAL NOTES:

Designed according to AASHTO LRFD Specifications.

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.

DESIGNER NOTES:

Do not use the Drilled Shaft details shown on this standard for retaining wall, noise wall, barrier or sign foundations without structural evaluation.
Do not use the footings shown on this standard in direct contact with salt water or exposed to salt water spray.
Maximum allowable pile loads for the footings shown are :
72 Tons/Pile with 24" Dia Columns
80 Tons/Pile with 30" Dia Columns
100 Tons/Pile with 36" Dia Columns
120 Tons/Pile with 42" Dia Columns

TABLE OF FOOTING QUANTITIES FOR 30" COLUMNS

ONE 3 PILE FOOTING				
Bar	No.	Size	Length	Weight
F1	11	#4	3'- 2"	23
F2	6	#4	8'- 2"	33
F3	6	#4	6'- 11"	28
F4	8	#9	3'- 2"	86
F5	4	#9	6'- 11"	94
F6	4	#9	8'- 2"	111
FC	12	#4	3'- 6"	28
FD (10)	8	#9	8'- 8"	236

Reinforcing Steel	Lb	639
Class "C" Concrete	CY	4.8

ONE 4 PILE FOOTING				
Bar	No.	Size	Length	Weight
F1	20	#4	7'- 2"	96
F2	16	#8	7'- 2"	306
FC	16	#4	3'- 6"	37
FD (11)	8	#9	8'- 8"	236

Reinforcing Steel	Lb	675
Class "C" Concrete	CY	6.3

ONE 5 PILE FOOTING				
Bar	No.	Size	Length	Weight
F1	20	#4	8'- 2"	109
F2	16	#9	8'- 2"	444
FC	24	#4	3'- 6"	56
FD (11)	8	#9	8'- 8"	236

Reinforcing Steel	Lb	845
Class "C" Concrete	CY	8.0

SHEET 2 OF 2



Texas Department of Transportation

Bridge Division Standard

COMMON FOUNDATION DETAILS

FD

FILE:	fdstde01.dgn	DN:	TxDOT	CK:	TxDOT	DW:	TxDOT	CK:	TxDOT
©TxDOT	January 2015	CONT	SECT	JOB	HIGHWAY				
	REVISIONS	0912	31	291	VA				
		DIST		COUNTY	SHEET NO.				
		HOU		BRAZORIA / HARRIS	101				