

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 17-012

ELECTION OF THE MOBILITY AUTHORITY BOARD SECRETARY

WHEREAS, pursuant to Section 101.22, Mobility Authority Policy Code, officers of the Authority shall consist of a chair, vice chair, treasurer, and secretary; and

WHEREAS, by Resolution No. 17-007 dated February 22, 2017, the Board of Directors elected Nikelle Meade, former secretary, to serve as vice chair, replacing retiring vice chair Jim Mills; and

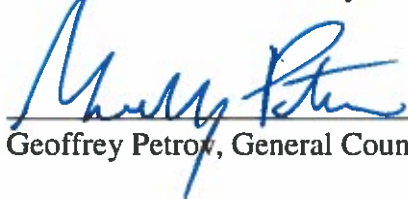
WHEREAS, Nikelle Meade's election to serve as vice chair has left the secretary position vacant; and

WHEREAS, it is the desire of the Board of Directors to elect from among its members a Secretary who shall perform the duties described in Section 101.25 of the Mobility Authority Policy Code.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors of the CTRMA elects Charles Heimsath to serve as Secretary of the Board for a two-year term or until such time as their successor is elected by the Board.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March 2017.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 17-013

ACCEPT THE FINANCIAL STATEMENTS FOR FEBRUARY 2017

WHEREAS, the Central Texas Regional Mobility Authority ("Mobility Authority") is empowered to procure such goods and services as it deems necessary to assist with its operations and to study and develop potential transportation projects, and is responsible to insure accurate financial records are maintained using sound and acceptable financial practices; and

WHEREAS, close scrutiny of the Mobility Authority's expenditures for goods and services, including those related to project development, as well as close scrutiny of the Mobility Authority's financial condition and records is the responsibility of the Board and its designees through procedures the Board may implement from time to time; and

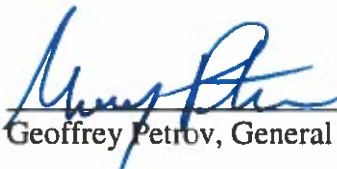
WHEREAS, the Board has adopted policies and procedures intended to provide strong fiscal oversight and which authorize the Executive Director, working with the Mobility Authority's Chief Financial Officer, to review invoices, approve disbursements, and prepare and maintain accurate financial records and reports; and

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of February 2017, and has caused Financial Statements to be prepared and attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors accept the Financial Statements for February 2017, attached as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March 2017.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
REVENUE				
Operating Revenue				
Toll Revenue - Tags	46,555,037	34,633,844	74.39%	30,268,085
Video Tolls	16,030,043	9,315,572	58.11%	7,423,804
Fee Revenue	6,876,980	3,700,498	53.81%	3,111,075
Total Operating Revenue	69,462,060	47,649,915	68.60%	40,802,965
Other Revenue				
Interest Income	250,000	581,710	232.68%	316,130
Grant Revenue	700,000	14,693,679	2099.10%	38,847,524
Reimbursed Expenditures	1,555,396	207,873	13.36%	2,849
Misc Revenue	-	6,010	-	48,322
Total Other Revenue	2,505,396	15,489,271	618.24%	39,214,826
TOTAL REVENUE	\$71,967,456	\$63,139,186	87.73%	80,017,791

EXPENSES

Salaries and Benefits				
Salary Expense-Regular	2,967,036	2,094,304	70.59%	1,876,406
Salary Reserve	80,000	-	-	-
TCDRS	415,385	288,497	69.45%	257,097
FICA	128,873	84,634	65.67%	79,082
FICA MED	45,627	30,842	67.60%	27,341
Health Insurance Expense	332,091	229,863	69.22%	170,410
Life Insurance Expense	14,167	6,191	43.70%	2,946
Auto Allowance Expense	10,200	6,800	66.67%	6,800
Other Benefits	269,785	155,293	57.56%	141,347
Unemployment Taxes	15,463	4,245	27.45%	276
Total Salaries and Benefits	4,278,627	2,900,668	67.79%	2,561,705

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Administrative				
Administrative and Office Expenses				
Accounting	20,000	5,431	27.15%	14,245
Auditing	74,000	53,880	72.81%	36,247
Human Resources	30,000	12,766	42.55%	3,288
IT Services	88,000	47,096	53.52%	32,280
Internet	1,700	1,396	82.10%	3,722
Software Licenses	55,725	61,601	110.54%	22,157
Cell Phones	14,542	9,785	67.29%	7,359
Local Telephone Service	12,000	10,216	85.13%	7,512
Overnight Delivery Services	850	63	7.39%	102
Local Delivery Services	1,050	-	-	250
Copy Machine	12,000	10,485	87.38%	9,612
Repair & Maintenance-General	1,000	2,030	203.00%	2,034
Meeting Facilities	1,000	-	-	-
Community Meeting/ Events	2,000	-	-	616
Meeting Expense	15,250	5,908	38.74%	4,887
Public Notices	2,000	25	1.25%	-
Toll Tag Expense	1,900	874	45.98%	594
Parking	3,600	954	26.51%	2,209
Mileage Reimbursement	11,200	2,984	26.64%	3,227
Insurance Expense	150,000	99,079	66.05%	84,566
Rent Expense	558,000	358,565	64.26%	251,124
Legal Services	525,000	41,872	7.98%	96,071
Total Administrative and Office Expenses	1,580,817	725,009	45.86%	582,104
Office Supplies				
Books & Publications	6,150	690	11.21%	297
Office Supplies	21,000	12,520	59.62%	14,649
Computer Supplies	17,000	11,152	65.60%	10,224
Copy Supplies	2,500	609	24.35%	1,294
Other Reports-Printing	10,000	584	5.84%	5,088
Office Supplies-Printed	2,700	635	23.50%	2,907
Misc Materials & Supplies	3,750	1,015	27.07%	387
Postage Expense	5,850	322	5.51%	382
Total Office Supplies	68,950	27,527	39.92%	35,229

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Communications and Public Relations				
Graphic Design Services	75,000	6,625	8.83%	18,008
Website Maintenance	140,000	99,436	71.03%	12,403
Research Services	105,000	79,059	75.29%	-
Communications and Marketing	469,900	221,608	47.16%	124,768
Advertising Expense	336,500	58,327	17.33%	105,193
Direct Mail	10,000	-	-	380
Video Production	35,000	8,820	25.20%	34,229
Photography	10,000	1,077	10.77%	8,950
Radio	10,000	-	-	-
Other Public Relations	125,000	5,000	4.00%	3,500
Promotional Items	10,000	972	9.72%	8,322
Displays	5,000	-	-	-
Annual Report printing	5,000	-	-	-
Direct Mail Printing	11,300	-	-	-
Other Communication Expenses	1,000	2,009	200.90%	660
Total Communications and Public Relations	1,348,700	482,933	35.81%	316,411
Employee Development				
Subscriptions	3,300	1,467	44.46%	2,840
Memberships	50,750	35,066	69.10%	36,451
Continuing Education	11,750	135	1.15%	3,000
Professional Development	6,700	-	-	(2,366)
Other Licenses	1,250	257	20.52%	430
Seminars and Conferences	44,000	18,259	41.50%	12,261
Travel	88,000	40,364	45.87%	44,987
Total Employee Development	205,750	95,548	46.44%	97,603
Financing and Banking Fees				
Trustee Fees	15,000	17,500	116.67%	3,225
Bank Fee Expense	8,000	3,790	47.37%	3,838
Continuing Disclosure	10,000	-	-	-
Arbitrage Rebate Calculation	8,000	6,455	80.69%	3,685
Rating Agency Expense	30,000	15,000	50.00%	14,000
Total Financing and Banking Fees	71,000	42,745	60.20%	24,748
Total Administrative	3,275,217	1,373,761	41.94%	1,056,095

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Operations and Maintenance				
Operations and Maintenance Consulting				
GEC-Trust Indenture Support	165,000	63,278	38.35%	75,625
GEC-Financial Planning Support	10,500	47	0.45%	-
GEC-Toll Ops Support	45,000	14,384	31.97%	3,180
GEC-Roadway Ops Support	331,667	223,614	67.42%	268,020
GEC-Technology Support	40,000	19,026	47.56%	36,131
GEC-Public Information Support	30,000	19,134	63.78%	13,334
GEC-General Support	1,176,000	426,250	36.25%	225,952
General System Consultant	70,000	22,218	31.74%	113,192
Traffic and Revenue Consultant	80,000	53,521	66.90%	66,553
Total Operations and Maintenance Consulting	1,948,167	841,472	43.19%	801,988
Roadway Operations and Maintenance				
Roadway Maintenance	4,871,600	1,964,776	40.33%	320,828
Landscape Maintenance	5,000	-	-	108,103
Signal & Illumination Maint	20,000	23,677	118.39%	113,316
Maintenance Supplies-Roadway	45,000	396	0.88%	68,470
Tools & Equipment Expense	750	22	2.95%	475
Gasoline	6,000	4,106	68.43%	1,541
Repair & Maintenance-Vehicles	1,500	1,521	101.37%	7,190
Roadway Operations	-	-	-	521
Electricity - Roadways	180,000	97,109	53.95%	96,723
Total Roadway Operations and Maintenance	5,129,850	2,091,608	40.77%	717,168
Toll Processing and Collection Expense				
Image Processing	2,300,000	919,901	40.00%	1,218,931
Tag Collection Fees	3,240,000	2,304,996	71.14%	1,991,728
Court Enforcement Costs	40,000	8,800	22.00%	7,575
DMV Lookup Fees	5,000	303	6.06%	1,424
Total Processing and Collection Expense	5,585,000	3,234,000	57.91%	3,219,658

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Toll Operations Expense				
Facility maintenance	-	30	-	787
Generator Maintenance	-	-	-	3,662
Generator Fuel	6,000	58	0.96%	1,291
Fire and Burglar Alarm	500	153	30.60%	247
Elevator Maintenance	3,000	-	-	-
Refuse	1,200	1,051	87.55%	512
Pest Control	1,600	-	-	3,074
Custodial	2,500	-	-	1,313
Telecommunications	90,000	43,971	48.86%	49,305
Water	10,500	10,867	103.49%	6,619
Electricity	1,200	1,541	128.38%	-
ETC spare parts expense	1,600	-	-	-
Repair & Maintenance Toll Equip	275,000	11,928	4.34%	299,375
Law Enforcement	273,182	137,142	50.20%	132,519
ETC Maintenance Contract	1,755,098	512,132	29.18%	910,200
ETC Toll Management Center System Operation	49,098	-	-	-
ETC Testing	10,000	-	-	-
Total Toll Operations Expense	2,480,478	718,873	28.98%	1,408,903
Total Operations and Maintenance	15,143,495	6,885,952	45.47%	6,147,717
Other Expenses				
Special Projects and Contingencies				
HERO	700,000	676,837	96.69%	796,572
Special Projects	125,000	151,088	120.87%	587,196
Other Contractual Svcs	105,000	39,319	37.45%	28,369
Contingency	300,000	578	0.19%	12,195
Total Special Projects and Contingencies	1,230,000	867,822	70.55%	1,424,333

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending February 28, 2017

	Budget Amount FY 2017	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Non Cash Expenses				
Amortization Expense	383,230	255,828	66.76%	255,487
Amort Expense - Refund Savings	1,027,860	688,342	66.97%	685,240
Dep Exp- Furniture & Fixtures	2,207	1,607	72.81%	736
Dep Expense - Equipment	9,692	10,158	104.81%	6,172
Dep Expense - Autos & Trucks	6,406	5,982	93.39%	3,244
Dep Expense-Buildng & Toll Fac	177,115	118,077	66.67%	118,077
Dep Expense-Highways & Bridges	22,012,091	11,674,766	53.04%	11,255,742
Dep Expense-Communic Equip	196,115	130,743	66.67%	130,743
Dep Expense-Toll Equipment	2,756,238	1,837,492	66.67%	1,835,479
Dep Expense - Signs	325,893	217,262	66.67%	217,262
Dep Expense-Land Improvemts	884,934	589,956	66.67%	589,956
Depreciation Expense-Computers	16,203	9,304	57.42%	10,910
Total Non Cash Expenses	27,797,984	15,539,516	55.90%	15,109,047
Total Other Expenses	29,027,984	16,407,338	56.52%	16,533,380
Non Operating Expenses				
Bond issuance expense	200,000	1,090,977	545.49%	142,339
Interest Expense	42,813,675	20,961,444	48.96%	27,799,687
Community Initiatives	100,000	28,500	28.50%	35,000
Total Non Operating Expenses	43,113,675	22,080,921	51.22%	27,977,026
TOTAL EXPENSES	\$94,838,998	\$49,648,641	52.35%	\$54,275,922
Net Income	(\$22,871,542)	\$13,490,545		25,741,868

Central Texas Regional Mobility Authority
Balance Sheet
as of February 28, 2017

	as of 02/28/2017		as of 02/29/2016	
ASSETS				
Current Assets				
Cash				
Regions Operating Account	\$ 284,186		\$ 747,217	
Cash in TexStar	454,513		581,879	
Regions Payroll Account	183,918		135,853	
Restricted Cash				
Goldman Sachs FSGF 465	250,820,728		424,345,449	
Restricted Cash - TexSTAR	133,845,253		7,026,209	
Overpayments account	159,978		128,083	
Total Cash and Cash Equivalents		385,748,576		432,964,689
Accounts Receivable				
Accounts Receivable	14,485		14,485	
Due From TTA	570,013		591,871	
Due From NTTA	456,532		384,195	
Due From HCTRA	987,545		343,530	
Due From TxDOT	360,594		5,651,376	
Interest Receivable	540,387		142,518	
Total Receivables		2,929,556		7,127,974
Short Term Investments				
Agencies	173,681,288		114,958,510	
Total Short Term Investments		173,681,288		114,958,510
Total Current Assets		562,359,419		555,051,173
Total Construction in Progress		440,169,338		267,216,402
Fixed Assets (Net of Depreciation)				
Computer	30,968		45,672	
Computer Software	901,512		1,266,641	
Furniture and Fixtures	16,117		15,819	
Equipment	2,821		(2,800)	
Autos and Trucks	51,454		22,956	
Buildings and Toll Facilities	5,349,577		5,526,692	
Highways and Bridges	604,960,406		613,936,244	
Communication Equipment	87,678		283,793	
Toll Equipment	15,419,203		18,175,441	
Signs	11,039,093		11,364,987	
Land Improvements	10,918,917		11,803,851	
Right of way	87,960,004		86,849,829	
Leasehold Improvements	155,182		167,825	
Total Fixed Assets		736,892,933		749,456,950
Other Assets				
Security Deposits	-		0	
Intangible Assets-Net	102,663,730		12,215,183	
2005 Bond Insurance Costs	4,572,635		4,786,143	
Prepaid Insurance	86,245		82,868	
Deferred Outflows (pension related)	780,064		-	
Pension Asset	202,023		-	
Total Other Assets		108,304,696		17,084,194
Total Assets		\$ 1,847,726,388		\$ 1,588,808,719

Central Texas Regional Mobility Authority
Balance Sheet
as of February 28, 2017

	as of 02/28/2017	as of 02/29/2016
LIABILITIES		
Current Liabilities		
Accounts Payable	\$ 115,137	\$ 816,494
Construction Payable	315,577	3,020,315
Overpayments	162,446	130,247
Interest Payable	8,688,496	9,509,577
Due to other Funds	-	113,194
Deferred Compensation Payable	(13,169)	-
TCDRS Payable	54,416	50,186
Medical Reimbursement Payable	(2,002)	2,160
Due to other Agencies	-	(669,167)
Due to Other Entities	6,696,717	1,329,333
Other	-	650,000
Total Current Liabilities	16,017,618	14,952,338
Long Term Liabilities		
Compensated Absences	138,927	189,089
Deferred Inflows (pension related)	172,017	-
Long Term Payables	310,944	189,089
Bonds Payable		
Senior Lien Revenue Bonds:		
Senior Lien Revenue Bonds 2010	67,417,712	114,378,536
Senior Lien Revenue Bonds 2011	14,140,764	309,227,006
Senior Refunding Bonds 2013	144,183,000	147,880,000
Senior Lien Revenue Bonds 2015	298,790,000	298,790,000
Senior Lien Put Bnd 2015	68,785,000	68,785,000
Senior Lien Refunding Revenue Bonds 2016	358,030,000	-
Sn Lien Rev Bnd Prem/Disc 2010	-	25,908
Sn Lien Rev Bnd Prem/Disc 2011	-	(3,301,620)
Sn Lien Rev Bnd Prem/Disc 2013	10,683,284	12,738,041
Sn Lien Revenue Bnd Prem 2015	22,372,688	23,569,193
Sn Lien Put Bnd Prem 2015	6,210,562	8,074,316
Senior lien premium 2016 revenue bonds	57,457,966	-
Total Senior Lien Revenue Bonds	1,048,070,977	980,166,380
Sub Lien Revenue Bonds:		
Subordinated Lien Bond 2011	-	70,000,000
Sub Refunding Bnds 2013	101,530,000	102,030,000
Sub Debt Refunding Bonds 2016	74,690,000	-
Sub Lien Bond 2011 Prem/Disc	-	(1,723,720)
Sub Refunding 2013 Prem/Disc	2,487,391	2,975,868
Sub Refunding 2016 Prem/Disc	10,316,340	-
Total Sub Lien Revenue Bonds	189,023,731	173,282,148
Other Obligations		
TIFIA note 2015	52,185	50,618
SIB loan 2015	30,205,206	31,572
State Highway Fund Loan 2015	30,205,206	31,572
2013 American Bank Loan	3,570,000	5,300,000
Total Other Obligations	64,032,596	5,413,763
Total Long Term Liabilities	1,301,438,249	1,159,051,380
Total Liabilities	1,317,455,867	1,174,003,718
NET ASSETS		
Contributed Capital	40,347,060	35,847,060
Net Assets Beginning	476,432,916	353,216,073
Current Year Operations	13,490,545	25,741,868
Total Net Assets	530,270,521	414,805,001
Total Liabilities and Net Assets	\$ 1,847,726,388	\$ 1,588,808,719

Central Texas Regional Mobility Authority
Statement of Cash Flows
as of February 28, 2017

Cash flows from operating activities:

Receipts from toll fees	\$ 46,794,984
Receipts from other fees	213,883
Payments to vendors	(4,440,934)
Payments to employees	(2,899,094)
Net cash flows provided by (used in) operating activities	<u>39,668,839</u>

Cash flows from capital and related financing activities:

Proceeds from notes payable	49,008,509
Refunding of bonds	(11,916,240)
Receipts from Department of Transportation	96,923,100
Receipt from Hays County	4,500,000
Payments on interest	(32,265,305)
Acquisition of capital assets	(132,607)
Acquisitions of construction in progress	(132,575,631)
Net cash flows provided by (used in) capital and related financing activities	<u>(28,688,173)</u>

Cash flows from investing activities:

Interest income	1,866,941
Purchase of investments	(180,054,286)
Proceeds from sale or maturity of investments	95,504,938
Net cash flows provided by (used in) investing activities	<u>(82,682,407)</u>

Net increase (decrease) in cash and cash equivalents (71,701,742)

Cash and cash equivalents at beginning of period	<u>323,150,553</u>
Cash and cash equivalents at end of February	<u>\$ 251,448,811</u>

Reconciliation of change in net assets to net cash provided by operating activities:

Operating income	<u>\$ 20,898,582</u>
Adjustments to reconcile change in net assets to net cash provided by operating activities:	
Depreciation and amortization	14,851,174
Changes in assets and liabilities:	
Decrease in accounts receivable	(854,930)
(Increase) decrease in prepaid expenses and other assets	21,357
(Decrease) increase in accounts payable	(1,263,363)
Increase (decrease) in accrued expenses	6,016,018
Total adjustments	<u>18,770,256</u>
Net cash flows provided by (used in) operating activities	<u>\$ 39,668,838</u>

Reconciliation of cash and cash equivalents:

Unrestricted cash and cash equivalents	\$ 628,082
Restricted cash and cash equivalents	250,820,728
Total	<u>\$ 251,448,811</u>

INVESTMENTS by FUND

		Balance February 28, 2017		
Renewal & Replacement Fund			3.00	
TexSTAR	504,918.70			TexSTAR 134,299,765.83
Goldman Sachs	188,563.46			Goldman Sachs 250,548,347.51
Agencies			693,482.16	Agencies & Treasury Notes 173,670,885.51
TxDOT Grant Fund				\$ 558,518,998.85
TexSTAR	4,093,017.56			
Goldman Sachs	5,467,654.85			
Agencies			9,560,672.41	
Senior Debt Service Reserve Fund				
TexSTAR	10,619,292.53			
Goldman Sachs	29,327,957.22			
Agencies	39,985,710.39		79,932,960.14	
2010 Senior Lien DSF				
Goldman Sachs	389,725.96			
TexSTAR	-		389,725.96	
2011 Debt Service Acct				
Goldman Sachs	751,056.08		751,056.08	
2013 Sr Debt Service Acct				
Goldman Sachs	1,836,899.98		1,836,899.98	
2013 Sub Debt Service Account				
Goldman Sachs	1,013,509.29		6,026,449.57	
TexSTAR	5,012,940.28			
2015 Sr Capitalized Interest				
Goldman Sachs	10,590,963.43		60,699,986.18	
TexSTAR	50,109,022.75			
2015A Debt Service Account				
Goldman Sachs	3.30		3.30	
2015B Debt Service Account				
Goldman Sachs	574,161.98		574,161.98	
2016 Sr Lien Rev Refunding Cost of Issuance				
Goldman Sachs	-		-	
2016 Sr Lien Rev Refunding Debt Service Account				
Goldman Sachs	8,530,003.11		8,530,003.11	
2016 Sub Lien Rev Refunding Cost of Issuance				
Goldman Sachs	-		-	
2016 Sub Lien Rev Refunding Bond Proceeds Clearing Fund				
Goldman Sachs	-		-	
2016 Sub Lien Rev Refunding Debt Service Account				
Goldman Sachs	628,948.38		628,948.38	
2016 Sub Lein Rev Refunding DSR				
Goldman Sachs	6,635,981.64		6,635,981.64	
Operating Fund				
TexSTAR	454,513.13			
TexSTAR-Trustee	3,075,098.17			
Goldman Sachs	-		3,529,611.30	
Revenue Fund				
Goldman Sachs	2,818,815.83		2,818,815.83	
General Fund				
TexSTAR	25,065,623.08			
Goldman Sachs	17,843,015.05			
Agencies	4,408,662.50		47,317,300.63	
2013 Sub Debt Service Reserve Fund				
Goldman Sachs	3,472,717.02			
Agencies			3,472,717.02	
MoPac Revenue Fund				
Goldman Sachs	56,744.63		56,744.63	
MoPac Construction Fund				
Goldman Sachs	46,543,226.39		46,543,226.39	
2011 Sub Debt Project fund				
TexSTAR	-			
Agencies				
Goldman Sachs	0.00		0.00	
2015B Project Account				
Goldman Sachs	4,891,763.16			
Agencies	20,201,168.68		40,125,638.76	
TexSTAR	15,032,706.92			
2015A Project Account				
TexSTAR	5,293,811.76			
Goldman Sachs	38,936,957.07			
Agencies	79,192,898.11			
Treasury Notes	29,882,445.83		153,306,112.77	
2015 TIFIA Project Account				
Goldman Sachs	50,272.15		50,272.15	
2015 State Highway Fund Project Account				
Goldman Sachs	29,582,224.68		29,582,224.68	
2015 SIB Project Account				
Goldman Sachs	19,722,925.91		19,722,925.91	
2011 Sr Financial Assistance Fund				
Goldman Sachs	11,448,313.45		26,487,134.40	
TexSTAR	15,038,820.95			
Develper Deposits				
Goldman Sachs	351.24		351.24	
183S Utility Custody Deposit				
Goldman Sachs	5,976,536.10		5,976,536.10	
45SW Trust Account Hays County				
Goldman Sachs	300,571.09		300,571.09	
45SW Trust Account Travis County				
Goldman Sachs	2,968,485.06		2,968,485.06	
			<u>\$ 558,518,998.85</u>	\$ -

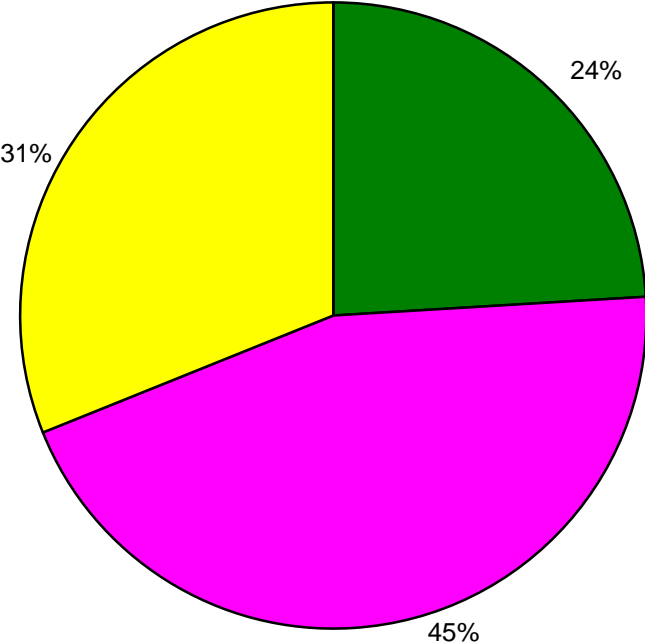
CTRMA INVESTMENT REPORT

Month Ending 2/28/17						
Balance 2/1/2017	Additions	Discount Amortization	Accrued Interest	Withdrawals	Balance 2/28/2017	Rate February
Amount in Trustee TexStar						
2011 Sr Lien Financial Assist Fund			6,380.77		15,038,820.95	0.553%
2013 Sub Lien Debt Service Reserve			2,126.91		5,012,940.28	0.553%
General Fund			10,635.00		25,065,623.08	0.553%
Trustee Operating Fund	1,626,192.63		1,149.75	1,000,000.00	3,075,098.17	0.553%
Renewal and Replacement			214.24		504,918.70	0.553%
TxDOT Grant Fund			1,736.61		4,093,017.56	0.553%
Senior Lien Debt Service Reserve Fund			4,505.64		10,619,292.53	0.553%
2015A Sr Ln Project account			2,246.09		5,293,811.76	0.553%
2015A Sr Ln Project Cap Interest			21,260.62		50,109,022.75	0.553%
2015B Sr Ln Project			6,378.17		15,032,706.92	0.553%
133,162,426.27	1,626,192.63		56,633.80	1,000,000.00	133,845,252.70	
Amount in TexStar Operating Fund						
454,305.25	1,000,000.00		207.88	1,000,000.00	454,513.13	0.553%
Goldman Sachs						
Operating Fund	1,626,190.00		2.63	1,626,192.63	0.00	0.280%
45SW Trust Account Travis County			1,263.05	44,486.65	2,968,485.06	0.280%
45SW Trust Account Hays County			654.72	1,141,931.14	300,571.09	0.280%
2015A Project Account	8,000,000.00		71,073.76	19,629,354.85	38,936,957.07	0.280%
2015B Project Account			1,964.99		4,891,763.16	0.280%
2015D State Highway Fund Project Acct			11,669.76		29,582,224.68	0.280%
2015C TIFIA Project Account			20.19		50,272.15	0.280%
2015E SIB Project Account			7,060.01		19,722,925.91	0.280%
2011 Sub Lien Project Acct			22.17	22.17	0.00	0.280%
Developer Deposits			40.31	100,000.00	351.24	0.280%
183S Utility Custody Deposit			2,585.83	363,181.91	5,976,536.10	0.280%
2011 Sr Financial Assistance Fund			4,686.02		11,448,313.45	0.280%
2010 Senior DSF			162.68		389,725.96	0.280%
2011 Senior Lien Debt Service Acct			301.69		751,056.08	0.280%
2013 Senior Lien Debt Service Acct	913,901.08		379.29		1,836,899.98	0.280%
2013 Subordinate Debt Service Acct	506,227.52		169.36		1,013,509.29	0.280%
2015 Sr Capitalized Interest			4,440.60		10,590,963.43	0.280%
2015A Debt Service Acct			3.30		3.30	0.280%
2015B Debt Service Acct	286,390.62		99.48		574,161.98	0.280%
2016 Sr Lien Rev Refunding Debt Service Account	48,128.90		2,030.11		8,530,003.11	0.280%
2016 Sub Lien Rev Refunding Debt Service Account	312,682.17		95.81		628,948.38	0.280%
2016 Sub Lein Rev Refunding DSR			2,665.63		6,635,981.64	0.280%
TxDOT Grant Fund			2,196.32		5,467,654.85	0.280%
Renewal and Replacement			75.74		188,563.46	0.280%
Revenue Fund	6,506,858.64		1,203.49	6,576,543.02	2,818,815.83	0.280%
General Fund	2,231,080.74		6,705.89	1,337,138.66	17,843,015.05	0.280%
Senior Lien Debt Service Reserve Fund	2,500,000.00		18,763.79		29,327,957.22	0.280%
MoPac Revenue Fund	25,274.19		11.41		56,744.63	0.280%
2013 Sub Debt Service Reserve Fund			1,394.97		3,472,717.02	0.280%
MoPac Managed Lane Construction Fund	6,432,564.29		16,350.41	70,802.49	46,543,226.39	0.280%
251,890,612.77	29,389,298.15	0.00	158,090.11	30,889,653.52	250,548,347.51	
Amount in Fed Agencies and Treasuries						
Amortized Principal		(40,691.75)		10,500,000.00	173,670,885.51	
	0.00	(40,691.75)	0.00	10,500,000.00	173,670,885.51	
Certificates of Deposit						
Total in Pools	2,626,192.63		56,841.68	2,000,000.00	134,299,765.83	
Total in GS FSGF	29,389,298.15		158,090.11	30,889,653.52	250,548,347.51	
Total in Fed Agencies and Treasuries	0.00	(40,691.75)		10,500,000.00	173,670,885.51	
Total Invested	32,015,490.78	(40,691.75)	214,931.79	43,389,653.52	558,518,998.85	

All Investments in the portfolio are in compliance with the CTRMA's Investment policy.

William Chapman, CFO

Allocation of Funds



- Total in Pools
- Total in Money Market
- Total in Fed Agencies
- Total in CD's

Amount of investments As of February 28, 2017

Agency	CUSIP #	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures	FUND
Farmer Mac	31315PV55	Matured	Matured	Matured	0.7751%	3/11/2015	2/23/2017	Senior DSRF
Federal Farm Credit	3133ECA79	4,959,250.00	4,985,284.72	4,989,250.00	1.2155%	3/11/2015	3/19/2018	Senior DSRF
Federal Farm Credit	3133EE4K3	24,928,346.00	24,980,738.17	25,001,500.00	0.7200%	1/13/2016	7/21/2017	Senior DSRF
Federal Farm Credit	3133EFSG3	10,057,749.23	10,029,634.37	10,106,600.00	0.8421%	2/8/2016	3/14/2018	2015B Sr Project
Federal Home loan Bank	313378QK0	10,253,642.07	10,171,534.31	10,010,800.00	1.0369%	2/8/2016	3/8/2019	2015B Sr Project
Freddie Mac	3137EADF3	16,124,658.17	16,022,757.07	16,020,800.00	0.6259%	2/9/2016	5/12/2017	2015A Sr Project
Freddie Mac	3134G4Z84	9,850,343.91	9,819,425.32	9,825,480.00	0.8097%	2/18/2016	10/10/2017	2015A Sr Project
Federal Farm Credit	3133ECKC7	8,000,866.72	8,000,065.66	8,001,040.00	0.6400%	2/23/2016	3/28/2017	2015A Sr Project
Federal Home loan Bank	3030A62S5	6,984,310.89	6,994,610.60	7,001,050.00	0.9053%	3/14/2016	8/28/2017	2015A Sr Project
Fannie MAE	3135G0JA2	8,031,624.00	8,004,708.29	8,008,000.00	0.9023%	3/14/2016	4/27/2017	2015A Sr Project
Federal Home loan Bank	303370SZZ	14,536,023.18	14,345,341.06	14,361,577.50	0.9023%	3/7/2016	9/8/2017	2015A Sr Project
Federal Home loan Bank	3030A5QL6	8,000,900.56	8,000,225.14	8,002,000.00	0.7913%	3/4/2016	6/30/2017	2015A Sr Project
Freddie Mac	3137EADT3	Matured	Matured	Matured	0.6999%	3/4/2016	2/22/2017	2015A Sr Project
Federal Home loan Bank	313379FW4	8,027,415.64	8,005,764.97	8,008,320.00	0.7098%	3/30/2016	6/9/2017	2015A Sr Project
Federal Home loan Bank	3030A6SW8	10,039,900.00	10,019,687.50	10,010,000.00	0.7616%	4/11/2016	12/19/2017	Senior DSRF
Federal Home loan Bank	3030A6SW8	4,417,556.00	4,408,662.50	4,404,400.00	0.7616%	4/11/2016	12/19/2017	General
US Treasury Note	912828TB6	29,888,668.75	29,882,445.83	29,888,519.40	0.6266%	12/28/2016	6/30/2017	2015A Sr Project
		174,101,255.12	173,670,885.51	173,639,336.90				

Agency	CUSIP #	COST	Cumulative Amortization	2/28/2017 Book Value	Maturity Value	Interest Income February 28, 2017		
						Accrued Interest	Amortization	Interest Earned
Farmer Mac	31315PV55	Matured	Matured	Matured	Matured	1,666.67	(50.00)	1,616.67
Federal Farm Credit	3133ECA79	4,959,250.00	(26,034.72)	4,985,284.72	5,000,000.00	3,916.67	1,131.94	5,048.61
Federal Farm Credit	3133EE4K3	24,928,346.00	(52,392.17)	24,980,738.17	25,000,000.00	15,000.00	3,852.37	18,852.37
Federal Farm Credit	3133EFSG3	10,057,749.23	28,114.86	10,029,634.37	10,000,000.00	9,166.67	(2,279.58)	6,887.09
Federal Home loan Bank	313378QK0	10,253,642.07	82,107.76	10,171,534.31	10,000,000.00	15,625.00	(6,861.37)	8,763.63
Freddie Mac	3137EADF3	16,124,658.17	101,901.10	16,022,757.07	16,000,000.00	16,666.67	(7,585.69)	9,080.98
Freddie Mac	3134G4Z84	9,850,343.91	30,918.59	9,819,425.32	9,800,000.00	9,187.50	(2,428.16)	6,759.34
Federal Farm Credit	3133ECKC7	8,000,866.72	801.06	8,000,065.66	8,000,000.00	4,333.33	(65.66)	4,267.67
Federal Home loan Bank	3030A62S5	6,984,310.89	(10,299.71)	6,994,610.60	7,000,000.00	4,375.00	898.23	5,273.23
Fannie MAE	3135G0JA2	8,031,624.00	26,915.71	8,004,708.29	8,000,000.00	7,500.00	(2,354.14)	5,145.86
Federal Home loan Bank	303370SZZ	14,536,023.18	190,682.12	14,345,341.06	14,250,000.00	26,718.75	(15,890.18)	10,828.57
Federal Home loan Bank	3030A5QL6	8,000,900.56	675.42	8,000,225.14	8,000,000.00	5,333.33	(56.28)	5,277.05
Freddie Mac	3137EADT3	Matured	Matured	Matured	Matured	5,833.33	(1,135.10)	4,698.23
Federal Home loan Bank	313379FW4	8,027,415.64	21,650.67	8,005,764.97	8,000,000.00	6,666.67	(1,921.66)	4,745.01
Federal Home loan Bank	3030A6SW8	10,039,900.00	20,212.50	10,019,687.50	10,000,000.00	8,333.33	(1,968.75)	6,364.58
Federal Home loan Bank	3030A6SW8	4,417,556.00	8,893.50	4,408,662.50	4,400,000.00	3,666.67	(866.25)	2,800.42
US Treasury Note	912828TB6	29,888,668.75	6,222.92	29,882,445.83	29,870,000.00	18,688.75	(3,111.46)	15,577.29
		174,101,255.12	430,369.61	173,670,885.51	173,320,000.00	162,678.34	(40,691.75)	121,986.60

February 28, 2017

Certificates of Deposit Outstanding

Bank	CUSIP #	COST	Yield to Maturity	Purchased	Matures	February 28, 2017 Interest	FUND
		- =====				\$ - =====	

Travis County Escrow account				
Balance		Accrued		Balance
2/1/2017	Additions	Interest	Withdrawals	2/28/2017
\$ 272,271.30		\$ 109.41		\$ 272,380.71



CENTRAL TEXAS
Regional Mobility Authority

183 South Design-Build Project

Change Order Status 3/14/17



EXECUTED CONTRACT VALUE	\$581,545,700
--------------------------------	----------------------

EXECUTED CHANGE ORDERS	CO#1	City of Austin ILA Adjustment	(\$2,779,934)
	CO#2	Addition of Coping to Soil Nail Walls	\$742,385
	CO#4	Greenroads Implementation	\$362,280
	CO#6	51st Street Parking Trailhead	\$477,583
		Others Less than \$300,000 (2)	\$13,403
		Subtotal	(\$1,184,283)

CURRENT CONTRACT VALUE	\$580,361,417
-------------------------------	----------------------

CHANGE ORDERS IN NEGOTIATIONS & POTENTIAL CONTRACTUAL OBLIGATIONS	\$16,390,000
--	---------------------

TOTAL POTENTIAL OBLIGATIONS	\$15,210,000
------------------------------------	---------------------

TOTAL PROJECT CONTINGENCY	\$47,860,000
----------------------------------	---------------------

REMAINING PROJECT CONTINGENCY	\$32,650,000
--------------------------------------	---------------------



CENTRAL TEXAS
Regional Mobility Authority

SH 45SW Construction

Change Order Status 3/14/17



EXECUTED CONTRACT VALUE		\$75,103,623
EXECUTED CHANGE ORDERS	None To Date	\$0
CURRENT CONTRACT VALUE		\$75,103,623
CHANGE ORDERS IN NEGOTIATIONS & POTENTIAL CONTRACTUAL OBLIGATIONS		\$5,380,000
TOTAL POTENTIAL OBLIGATIONS		\$5,380,000
TOTAL PROJECT CONTINGENCY		\$7,520,000
REMAINING PROJECT CONTINGENCY		\$2,140,000



CENTRAL TEXAS
Regional Mobility Authority

MOPAC Construction

Change Order Status 3/14/17



EXECUTED CONTRACT VALUE **\$136,632,100**

EXECUTED CHANGE ORDERS

CO#001B	5th & Cesar Chavez SB Reconfig (Construction)	\$593,031
CO#05B	FM 2222 Bridge NB Ret Wall Abutment Repair (Construction)	\$850,000
CO#07	FM 2222 Exit Storage Lane	\$426,000
CO#08C	Refuge Area: Added Shoulder Adjustment Soundwall #1	\$2,508,548
CO#09	Westover SB Entrance Ramp Repairs	\$450,000
CO#12	Barrier Rail Opaque Seal	\$542,419
CO#17	Bike and Ped Improvements at Far West Blvd Bridge/FM 2222	\$971,889
	Total of Others Less than \$300,000 (20)	\$623,504
Subtotal		\$6,965,390

CURRENT CONTRACT VALUE **\$143,597,490**

CHANGE ORDERS IN NEGOTIATIONS & POTENTIAL CONTRACTUAL OBLIGATIONS

\$ 43,080,000

TOTAL POTENTIAL OBLIGATIONS **\$50,050,000**

TOTAL PROJECT CONTINGENCY **\$32,300,000**

ASSESSED LIQUIDATED DAMAGES **\$20,000,000**

REMAINING PROJECT CONTINGENCY **\$2,250,000**



Monthly Newsletter - February 2017

Performance

As of February 28, 2017

Current Invested Balance	\$7,267,565,993.07
Weighted Average Maturity (1)	43 Days
Weighted Average Maturity (2)	111 Days
Net Asset Value	1.000226
Total Number of Participants	827
Management Fee on Invested Balance	0.06%*
Interest Distributed	\$3,506,877.98
Management Fee Collected	\$343,060.18
% of Portfolio Invested Beyond 1 Year	8.33%
Standard & Poor's Current Rating	AAAm

February Averages

Average Invested Balance	\$7,453,099,075.99
Average Monthly Yield, on a simple basis	0.5533%
Average Weighted Average Maturity (1)*	48 Days
Average Weighted Average Maturity (2)*	105 Days

Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.

* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

Rates reflect historical information and are not an indication of future performance.

New Participants

We would like to welcome the following entities who joined the TexSTAR program in February:

- ★ Aransas Pass ISD
- ★ East Harris County Emergency Services JPB
- ★ Montgomery County MUD 112
- ★ San Antonio Water System

Economic Commentary

The month opened on a dovish tone as the labor report showed a decent headline number but underwhelming wage growth and the Federal Reserve (Fed) released meeting minutes which were viewed as neutral. Skepticism on the timing and magnitude of the Trump agenda along with political uncertainty in Europe led to a slight sell off. As the month progressed, U.S. economic data continued to come in strong and a slew of hawkish Fed statements starting mid-month led rates to reverse trend as the market began to expect an expedited hiking schedule with March as a possibility for the next rate hike. The Fed Fund's probability of a March rate rise increased from 30% in the beginning of the month to 80% by month end. The pace of growth in the second half of 2016 accelerated to 2.7% bringing year over year GDP growth in 2016 to 1.9%. It is expected that the strong momentum exiting 2016 should provide a positive backdrop for growth in 2017. The first half of 2017 growth may moderate somewhat as residual seasonality often negatively impacts the first quarter but the second half of 2017 should be stronger as fiscal policy initiatives become clearer. Consumption should continue to be the principal driver of the U.S. economy. Tighter labor markets, rising income, modest employment growth and rising net worth should all continue to be supportive of consumption. Despite the general hawkish tone from central banks, government bonds fared well, posting positive returns for February. Equity indices reached all time high levels supported by Trump's Congressional address. Investment grade credit spreads continued to trade tighter as demand remained strong given an average month of supply after an unexpectedly heavy January. Although the month started slow, new issuance picked up in the last few weeks of February - a possible sign that corporations are shoring up funding prior to a potential hike in March. Credit has also benefited from a solid earnings season as a majority of companies beat earnings estimates.

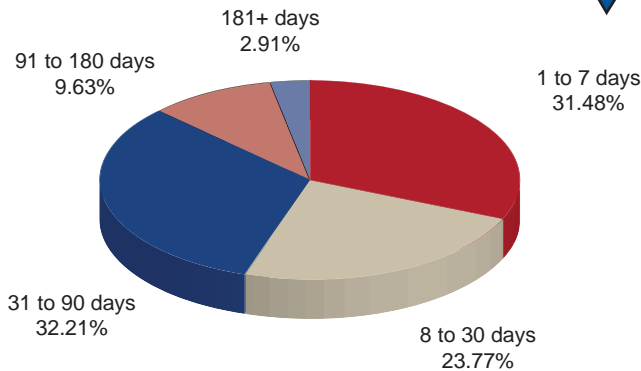
In terms of the timing for the next federal funds rate increase, the committee has indicated that their objective is to continue to keep the pace of rate hikes "gradual" however the median of the committee shifted their expectations upward from 2 to 3 rate hikes next year. This suggests that if better growth prospects come to fruition along with fiscal stimulus in the second half of 2017, the committee may become more anxious to move quickly. There are 3 - 4 rates hikes expected in 2017 with the first coming in June. However, the risks of a March rate hike have risen based on better inflation data and more hawkish rhetoric from some Fed members. President-Elect Trump will also be able to appointment three new Board of Governors, as well as a Vice Chair of Supervision this year. These appointments are unlikely to make a major impact on monetary policy in 2017. However, when Chair Yellen's term is complete in 2018, the potential for a new Chair poses large risks for a major change in the Fed's approach to monetary policy going forward.

This information is an excerpt from an economic report dated February 2017 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

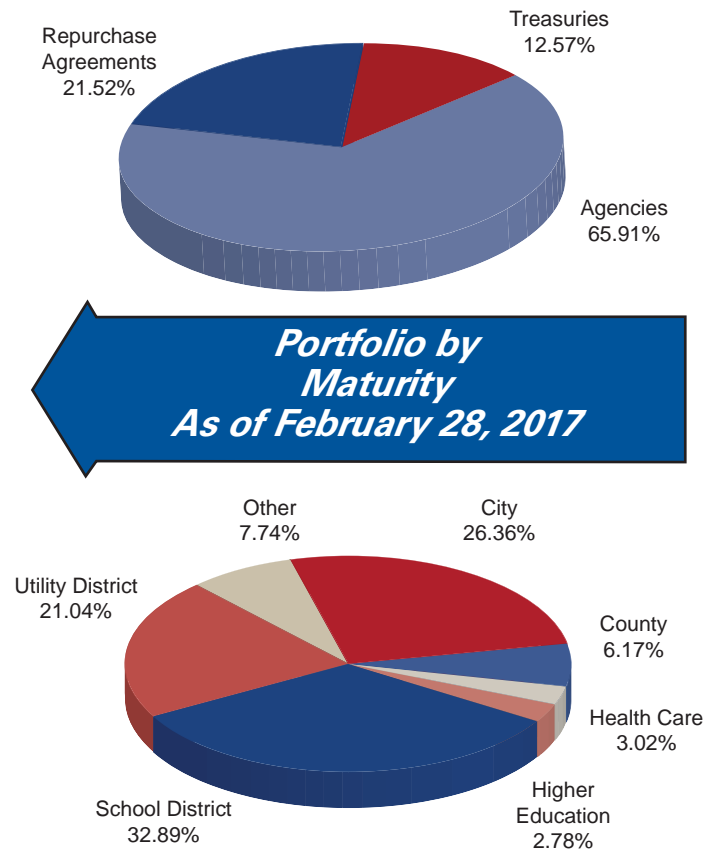
For more information about TexSTAR, please visit our web site at www.texstar.org.

Information at a Glance

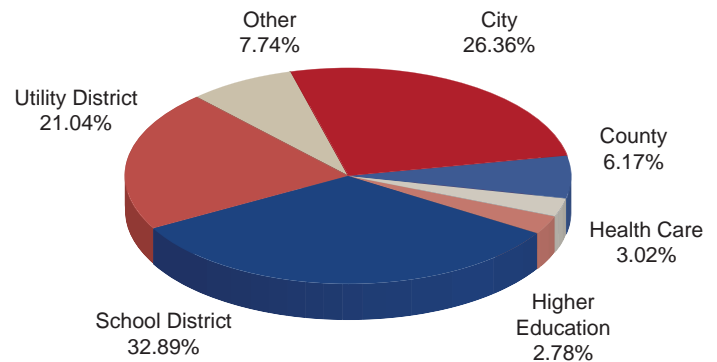
Portfolio by Type of Investment As of February 28, 2017



Distribution of Participants by Type As of February 28, 2017



Portfolio by Maturity As of February 28, 2017



Historical Program Information

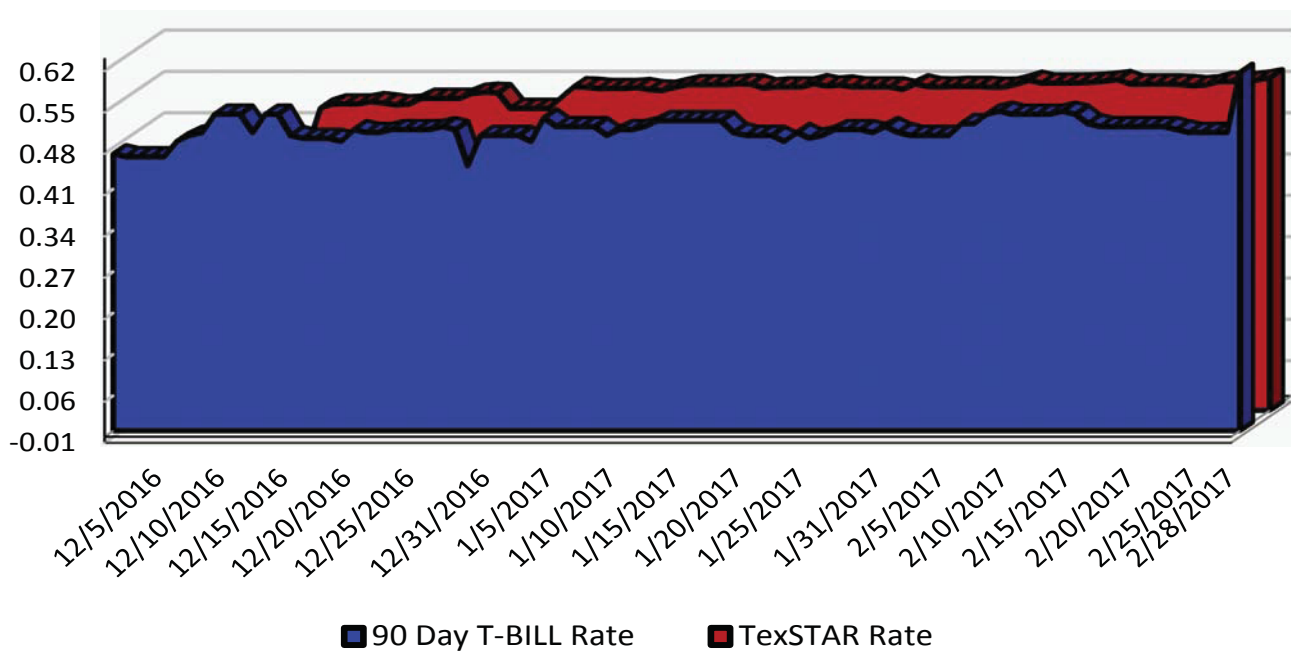
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
Feb 17	0.5533%	\$7,267,565,993.07	\$7,269,212,259.58	1.000226	43	111	827
Jan 17	0.5452%	7,011,113,225.83	7,012,695,761.41	1.000225	44	96	823
Dec 16	0.4815%	6,128,094,216.46	6,129,417,408.96	1.000215	49	100	822
Nov 16	0.4144%	5,250,402,124.93	5,251,596,034.74	1.000227	47	109	821
Oct 16	0.4202%	5,155,508,603.07	5,157,927,996.01	1.000469	39	105	820
Sep 16	0.4123%	5,253,367,191.87	5,255,503,092.88	1.000412	43	115	818
Aug 16	0.3990%	5,436,604,745.94	5,438,039,955.56	1.000263	39	114	817
Jul 16	0.3861%	5,602,432,939.56	5,603,475,110.87	1.000186	46	113	813
Jun 16	0.3927%	5,286,667,625.92	5,287,554,140.45	1.000167	47	111	810
May 16	0.3664%	5,716,887,504.32	5,717,379,585.85	1.000086	48	111	807
Apr 16	0.3696%	5,540,251,067.80	5,541,072,494.98	1.000144	46	106	805
Mar 16	0.3450%	5,594,793,523.15	5,595,290,113.49	1.000088	45	86	803

Portfolio Asset Summary as of February 28, 2017

	Book Value	Market Value
Uninvested Balance	\$ 43,049.43	\$ 43,049.43
Accrual of Interest Income	4,401,625.25	4,401,625.25
Interest and Management Fees Payable	(3,597,264.01)	(3,597,264.01)
Payable for Investment Purchased	0.00	0.00
Repurchase Agreement	1,563,447,999.72	1,563,447,999.72
Government Securities	5,703,270,582.68	5,704,916,849.19
Total	\$ 7,267,565,993.07	\$ 7,269,212,259.58

Market value of collateral supporting the Repurchase Agreements is at least 102% of the Book Value. The portfolio is managed by J.P. Morgan Chase & Co. and the assets are safekept in a separate custodial account at the Federal Reserve Bank in the name of TexSTAR. The only source of payment to the Participants are the assets of TexSTAR. There is no secondary source of payment for the pool such as insurance or guarantee. Should you require a copy of the portfolio, please contact TexSTAR Participant Services.

TexSTAR versus 90-Day Treasury Bill



This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness may be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill.

Daily Summary for February 2017

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
2/1/2017	0.5482%	0.000015019	\$7,057,842,102.22	1.000284	48	100
2/2/2017	0.5475%	0.000015001	\$7,192,592,329.20	1.000297	50	99
2/3/2017	0.5485%	0.000015027	\$7,180,351,364.08	1.000298	48	98
2/4/2017	0.5485%	0.000015027	\$7,180,351,364.08	1.000298	48	98
2/5/2017	0.5485%	0.000015027	\$7,180,351,364.08	1.000298	48	98
2/6/2017	0.5471%	0.000014990	\$7,329,851,392.83	1.000291	47	95
2/7/2017	0.5473%	0.000014994	\$7,400,841,729.90	1.000281	49	102
2/8/2017	0.5524%	0.000015133	\$7,540,263,632.44	1.000276	51	103
2/9/2017	0.5590%	0.000015315	\$7,529,165,615.29	1.000283	52	105
2/10/2017	0.5542%	0.000015183	\$7,884,302,216.71	1.000247	48	100
2/11/2017	0.5542%	0.000015183	\$7,884,302,216.71	1.000247	48	100
2/12/2017	0.5542%	0.000015183	\$7,884,302,216.71	1.000247	48	100
2/13/2017	0.5545%	0.000015191	\$7,873,978,766.35	1.000244	51	102
2/14/2017	0.5557%	0.000015226	\$7,748,417,223.48	1.000241	51	102
2/15/2017	0.5575%	0.000015275	\$7,585,839,872.45	1.000240	51	104
2/16/2017	0.5602%	0.000015349	\$7,495,662,930.50	1.000242	50	110
2/17/2017	0.5525%	0.000015136	\$7,435,639,454.60	1.000254	47	107
2/18/2017	0.5525%	0.000015136	\$7,435,639,454.60	1.000254	47	107
2/19/2017	0.5525%	0.000015136	\$7,435,639,454.60	1.000254	47	107
2/20/2017	0.5525%	0.000015136	\$7,435,639,454.60	1.000254	47	107
2/21/2017	0.5517%	0.000015114	\$7,430,939,248.15	1.000237	47	112
2/22/2017	0.5497%	0.000015061	\$7,461,659,666.55	1.000231	48	112
2/23/2017	0.5513%	0.000015104	\$7,434,739,570.11	1.000247	47	112
2/24/2017	0.5568%	0.000015255	\$7,370,498,900.47	1.000217	43	110
2/25/2017	0.5568%	0.000015255	\$7,370,498,900.47	1.000217	43	110
2/26/2017	0.5568%	0.000015255	\$7,370,498,900.47	1.000217	43	110
2/27/2017	0.5594%	0.000015325	\$7,289,398,793.05	1.000227	43	112
2/28/2017	0.5633%	0.000015432	\$7,267,565,993.07	1.000226	43	111
Average	0.5533%	0.000015160	\$7,453,099,075.99		48	105

TexSTAR Participant Services
FirstSouthwest, A Division of Hilltop Securities
1201 Elm Street, Suite 3500
Dallas, Texas 75270



TexSTAR Board Members

<i>William Chapman</i>	<i>Central Texas Regional Mobility Authority</i>	<i>Governing Board President</i>
<i>Nell Lange</i>	<i>City of Frisco</i>	<i>Governing Board Vice President</i>
<i>Kenneth Huewitt</i>	<i>Houston ISD</i>	<i>Governing Board Treasurer</i>
<i>David Medanich</i>	<i>FirstSouthwest / Hilltop Securities</i>	<i>Governing Board Secretary</i>
<i>Jennifer Novak</i>	<i>J.P. Morgan Asset Management</i>	<i>Governing Board Asst. Sec./Treas.</i>
<i>Eric Cannon</i>	<i>City of Allen</i>	<i>Advisory Board</i>
<i>Nicole Conley</i>	<i>Austin ISD</i>	<i>Advisory Board</i>
<i>Monte Mercer</i>	<i>North Central TX Council of Government</i>	<i>Advisory Board</i>
<i>Stephen Fortenberry</i>	<i>Plano ISD</i>	<i>Advisory Board</i>
<i>Becky Brooks</i>	<i>Government Resource Associates, LLC</i>	<i>Advisory Board</i>

For more information contact TexSTAR Participant Services ★ 1-800-TEX-STAR ★ www.texstar.org



**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 17-014

**AUTHORIZE A PROCUREMENT OF A FIRM TO PROVIDE PAY-BY-MAIL,
VIOLATIONS PROCESSING, COLLECTIONS AND CUSTOMER SERVICE**

WHEREAS, by Resolution No. 07-71, dated December 7, 2007, the Board of Directors authorized the Executive Director to negotiate and execute on behalf of the Mobility Authority an Agreement for Violation Processing and Debt Collection Services effective January 15, 2008, (the "Agreement") with Gila Corporation, a Texas corporation subsequently converted to Gila LLC, a Texas limited liability company, d/b/a Municipal Services Bureau ("MSB"); and

WHEREAS, the agreement with MSB expires in January 2018; and

WHEREAS, the Mobility Authority has an ongoing need for a contractor to provide pay-by-mail, violations processing, collections and customer services for Mobility Authority toll facilities; and

WHEREAS, the Mobility Authority staff issued a request for qualifications in December 2016 to firms interested in providing pay-by-mail, violations processing, collections and customer services for Mobility Authority toll facilities; and

WHEREAS, an evaluation committee reviewed the qualifications submitted by firms in response to the request for qualifications and established a shortlist of the most highly qualified responsive firms; and

WHEREAS, the Executive Director recommends that the Mobility Authority proceed with the solicitation of proposals from the shortlisted firms and, ultimately, recommend a firm for award of a contract to provide pay-by-mail, violations processing, collections and customer care services.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors authorizes and directs the Executive Director to develop and issue a request for proposals to the shortlisted firms; and

BE IT FURTHER RESOLVED that the Executive Director establish a process to review the responses to the request for proposals and make a recommendation to the Board for award of a contract to the "best value" proposal based on the criteria set forth in the request for proposals.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March 2017.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 17-015

**APPROVING A WORK AUTHORIZATION NO. 14 WITH KAPSCH TRAFFICCOM
USA FOR TOLL SYSTEMS INTEGRATION SERVICES FOR
THE SH 45 SW PROJECT**

WHEREAS, the Central Texas Regional Mobility Authority ("Mobility Authority") entered into a contract with Caseta Technologies, Inc. dated April 27, 2005, for the design, procurement, and installation of a toll collection system on the Authority's turnpike system (the "Contract"); and

WHEREAS, Kapsch TrafficCom USA (formerly Schneider Electric Mobility NA) is the successor in interest to the Contract with Caseta Technologies, Inc., and all rights and obligations of Caseta Technologies, Inc. under the Contract are now the rights and obligations of Kapsch TrafficCom USA ("Kapsch"); and

WHEREAS, the Executive Director and Kapsch have discussed and agreed to a proposed work authorization for Kapsch to provide toll system integration services and intelligent transportation system services for development of the SH 45 SW project (the "Project"); and

WHEREAS, the Executive Director recommends that the Board approve proposed Work Authorization No. 14, a copy of which is attached to this resolution as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the proposed work authorization with Schneider for toll system integration services and intelligent transportation system services for the Project is hereby approved; and

BE IT FURTHER RESOLVED that the Executive Director may finalize and execute on behalf of the Mobility Authority the proposed work authorization in the form or substantially the same form provided to the Board as agenda backup information.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March, 2017.

Submitted and reviewed by:



Geoff Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION

WORK AUTHORIZATION NO.14

TOLL SYSTEM IMPLEMENTATION

STATE HIGHWAY 45 SOUTHWEST PROJECT

THIS WORK AUTHORIZATION (“WA No. 14”) is made pursuant to the terms and conditions of Article 1 of the GENERAL PROVISIONS, Attachment A, to the original Contract for Toll System Implementation, dated April 27, 2005 (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the “Authority” or “CTRMA”), and Kapsch TrafficCom Transportation NA, Inc. (the “Contractor,” also referred to in attachments to this WA No. 14 as the “System Integrator” or “SI”).

PART I. The Contractor will perform toll implementation services generally described in the Scope of Work attached hereto as **Attachment A**. The Contractor’s duties and responsibilities are further detailed in: (1) the SH 45 SW Project Layout included as **Attachment B**, (2) the Toll Facility Responsibility Matrix included as **Attachment C**, and (3) the Fixed Price Tolling Standards included as **Attachment D**.

PART II. The maximum amount payable under this WA No. 14 is \$2,364,252.06. This amount is based upon the pricing obtained, and is documented by the fee schedule set forth in **Attachment E**.

PART III. Payment to the Contractor for the services established under this WA No. 14 shall be made in accordance with the Contract.

PART IV. This WA No. 14 shall become effective on the date both parties have signed this WA No. 14. This WA No. 14 will terminate on the SH 45 SW Toll Lanes substantial completion date or upon payment of the maximum amount payable in **Part II**, whichever date is first, unless extended as provided by the Contract. The work shall be performed in accordance with the project Schedule and Milestones as set forth in **Attachment F**.

PART V. This WA No. 14 does not waive any of the parties’ responsibilities and obligations provided under the Contract, and except as specifically modified by this WA No. 14, as such responsibilities and obligations under the Contract remain in full force and effect.

IN WITNESS WHEREOF, this Work Authorization No. 14 is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE CONTRACTOR: Kapsch TrafficCom Transportation NA, Inc.

Signature

Date

Typed/Printed Name and Title

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

Executed for and approved by the Central Texas Regional Mobility Authority for the purpose and effect of activating and/or carrying out the orders, established policies or work programs heretofore approved and authorized by the Texas Transportation Commission.

Signature

Date

Mike Heiligenstein, Executive Director

Typed/Printed Name and Title

LIST OF ATTACHMENTS

Attachment A	Scope of Work
Attachment B	SH 45 SW Toll System Layout
Attachment C	Toll Facilities and ITS Responsibility Matrix
Attachment D	Fixed Price Tolling Standards
Attachment E	Fee Schedule/Budget
Attachment F	Preliminary Project Schedule and Milestones

ATTACHMENT A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY **TOLL SYSTEM IMPLEMENTATION** **State Highway 45 Southwest Project**

SCOPE OF WORK for SYSTEMS INTEGRATOR

A1.0 General

A1.01. Background

The Central Texas Regional Mobility Authority (CTRMA) is developing the State Highway (SH) 45 Southwest (SW) Project (“Project”), which will construct a new 4-lane toll facility, approximately 3.6 miles in length, between FM 1626 and Loop 1 (MoPac), extending onto the existing the SH 45 roadway south of Escarpment Boulevard. Once complete, the project will offer drivers and residents in Northern Hays and Southern Travis counties less congested local roads and improved travel times.

The Texas Department of Transportation (TxDOT), along with Hays and Travis Counties, provided funding and right-of-way for the project, and TxDOT lead environmental impact studies, including related environmental documentation and coordination of public outreach. CTRMA is responsible for the project design, permitting, and infrastructure construction, in addition to the procurement, design, installation, testing and commissioning of the Toll Collection System (TCS). Additionally, SH 45SW will require the implementation of a Traffic Management System (TMS).

Upon substantial completion, CTRMA shall operate and maintain toll lanes on the Project, which will include the collection of tolls, setting toll rates, servicing customers, toll enforcement, facilities and toll collection system maintenance, repairs and capital improvements to the toll lanes, toll facilities, and related equipment.

A1.02. Summary Scope of Work

The Scope of Work for Work Authorization No. 14 consists of two (2) components: (1) Toll Collection System Implementation and (2) Traffic Management System Implementation. A description of the scope of work for each component is described below.

A1.02.A. Toll Collection System Implementation

Part A of the Scope of Work for Authorization No. 14 provides for the procurement, installation, testing, and implementation of a complete and fully operational TCS for the Project by the Systems Integrator (SI). This includes, but is not limited to, all of the required communications and systems interfaces, as well as design, coordination, and project interface activities to facilitate the design and construction of the toll system infrastructure facilities by others on the SH 45 SW Project.

This Work Authorization also authorizes the SI to establish and maintain relationships with a wide variety of third parties, and to coordinate the designs for the proposed TCS with the entire SH 45SW Project to ensure that the construction of the toll system infrastructure facilities will be fully compatible and meet the requirements for the CTRMA’s TCS. In this role, the SI will work closely with CTRMA, and various designers and roadway contractors in developing the required complete TCS and network infrastructure.

A1.02.B Traffic Management System

Part B of the Scope of Work for Work Authorization 14 provides for the procurement, installation, testing, and implementation of a complete and fully operational TMS for the Project by the Systems Integrator (SI). Scope shall include, but not be limited to, coordination and project interface activities to facilitate the design and construction of the TMS infrastructure facilities by others.

This Work Authorization also authorizes the SI to establish and maintain relationships with a wide variety of third parties, and to coordinate the designs for the proposed TMS with the entire SH 45SW Project. This coordination will help to ensure that the construction of the TMS infrastructure facilities will be fully compatible and meet the requirements for the CTRMA's Traffic Management System. In this role, the SI will work closely with CTRMA, various designers and roadway contractors in developing the required complete Intelligent Transportation System (ITS), and network infrastructure.

A2.0 General Description – Toll Road Infrastructure and Site

The SH 45 SW Project limits in Southern Travis County and Northern Hays County will extend from FM 1626 to Loop 1 (MoPac), utilizing the existing the SH 45 roadway south of Escarpment Boulevard. The project length is approximately 3.6 miles.

Proposed Facility:

The SH 45 SW Project will be a new four-lane, divided tollway consisting of: two (2) twelve-foot lanes in each direction, a ten-foot outside shoulder and a four- or five-foot inside shoulder with varying median widths. The project includes a ten-foot-wide, ADA-compliant shared use path, separated from the roadway for the entire length of the project, except over the Bear Creek Bridge. The shared use path will serve as part of the future Violet Crown Trail, and will have a trailhead under the bridge structure at SH 45SW and MoPac.

The following bridges are included in the design of the project:

- Overpass of Bliss Spillar Road and water quality pond
- Overpass of Bear Creek and water quality pond
- Overpass of Danz Creek, water quality ponds, and MoPac
- Direct connector for westbound SH 45SW to northbound MoPac over Danz Creek
- Widening of the existing SH 45 and MoPac bridges over Danz Creek

The Toll Collection System for the Project will be all Electronic Toll Collection (ETC). The project will consist of one Toll Site that provides Open Road Tolling for both the NB and SB lanes and shoulders. A two Gantry solution will be provided for this site at the locations listed in Table 1 below.

Note: The location of the gantries are approximate and may be subject to change.

The SH 45 SW Project will be a limited-access tollway with entrances and exits to the facility provided at the following locations:

- FM 1626
- Bliss Spillar Road
- Loop 1 (MoPac)
- SH 45, west of Loop 1

Table 1: Gantry Locations and Lane Counts

Approximate Station Location	Direction of Travel	No. of Lanes	No. of Shoulders (8' or greater)	Comments
256+00	Northbound	2	1	The design plan typical section includes one (1) 10 foot shoulder in each direction of travel. However, the typical section may be different if the location of the gantry is revised.
256+00	Southbound	2	1	The design plan typical section includes one (1) 10 foot shoulder in each direction of travel. However, the typical section may be different if the location of the gantry is revised.
Total Gantry		4	2	

Refer to the SH 45SW Project Layout included as **ATTACHMENT B** for the general project layout.

A3.0 General Requirements - Toll Collection System and Traffic Management System

A3.01 General Requirements - Toll Collection System

The Central Texas Roadway System, which is being designed and implemented through a series of separate work authorizations for the various segments of the proposed Toll Road System, generally will be fully compatible with the TCS that has been designed and implemented on the 183A Toll Road, US 290, SH 71 and the Manor Projects. The TCS installed on SH 45 SW shall utilize automatic vehicle identification and classification technology, a Violation Enforcement System (VES) with an integrated camera and triggering systems to capture referenced digital images of license plates, and a Remote Online Management System (ROMS). It is required that the TCS be interoperable with the other Texas ETC systems.

The Customer Service Center (CSC) is located in a facility at 12719 Burnet Road, Austin, Texas, developed and administrated by the Toll Operations Division (TOD) of TxDOT. The CTRMA contracts with the members of the Texas Statewide Interoperability Task force for CSC services for its customers. Expansion of CTRMA's TCS to serve the SH 45 SW Project includes coordination and design of appropriate interfaces with the TxDOT CSC. Appropriate communications links between, and interfaces to (where necessary), CTRMA's various toll facilities, including: the Central Texas Roadway System, Administrative Offices, Traffic Management Center (TMC) at the Field Operations Building(s), and the Violation Processing Center (VPC) are part of the requirements of the TCS design/implementation work.

Note: The VPC is located in a separate facility, and is currently being administrated by the Municipal Services Bureau, Inc. under contract to the CTRMA. Development of CTRMA's TCS will included coordination and design of the appropriate interfaces with the VPC.

The general locations, layouts, and implementation schedule for the toll facilities for the SH 45 SW Project, as currently proposed, are indicated in the attached Exhibits. The Exhibits are based upon the latest information currently available, and they are intended for informational purposes only. The locations are subject to change, and it should be anticipated that refinements and adjustment to the locations and layouts indicated will be required as designs for the TCS are developed further.

A3.02 General Requirements – Traffic Management System

The Intelligent Transportation System for SH 45 SW Project includes a concrete encased duct bank consisting of twelve, 2-inch conduits along the length of the project, closed-circuit television (CCTV) surveillance cameras, dynamic message signs (DMS), vehicle detectors, and communication hub enclosures. The ITS duct bank shall be in accordance with the guidelines included in the *Austin District Guidelines for Developing Freeway Corridor Traffic Management System*.

The Project design shall include ITS components, consistent with the overall location and quantity of ITS components in the “*ITS Schematic*.” The general locations, layouts, and implementation schedule for the TMS for the SH 45 SW Project, as currently proposed, are based on the latest information currently available, and they are intended for informational purposes only. The locations are subject to change, and it should be anticipated that refinements and adjustment to the locations and layouts indicated will be required as designs for the TMS are developed further.

The SI shall design and install a Traffic Management System that is compatible with the Austin Regional ITS Architecture for both control of devices and reception of images and data. The proposed system shall be seamlessly integrated into the existing CTRMA TMC, all devices shall be compatible with the current TMC Video Management Software (VMS), DMS software and Traffic Detector Database. Access to any cameras, DMS or RVSD by a third party will be facilitated by a Memorandum of Understanding and Agreement (MUA) between CTRMA and third party. The database administrator at the TMC will add the new device addresses to the already functioning tables. Note that the fiber trunk line will eventually tie into the fiber system along MoPac once constructed and installed. The SI shall furnish and install appropriate communications links between, and interfaces to, CTRMA’s various toll facilities, including: the Central Texas Roadway System, Administrative Offices, TMC at the Field Operations Building(s), and the VPC as part of the requirements of the TMS design/implementation work.

A4.0 Equipment and Installation

A4.01. Gantries and Roadside Equipment for ETC Systems

For a complete, tested, and operating TCS under this Work Authorization, the SI will be required to provide and install the toll equipment, hardware and software systems at all TCS field installations on the SH 45 SW Project. The SI’s principle items of work and primary components of the TCS at each toll location will include, but are not limited to:

- Furnishing and installing lane controllers and ancillary devices
- Furnishing and installing ETC lane components, including: Automatic Vehicle Detection System (AVDS), Automatic Vehicle Classification (AVC), Violation Enforcement System (VES), and Automatic Vehicle Identification (AVI) systems and hardware
- Furnishing and installing all ETC lane equipment wiring and cable, hardware, brackets, and fasteners required to attach the ETC equipment to the gantries and toll hangers provided by others
- Furnishing, installing and configuring ROMS for all ETC and ITS site equipment (e.g. ETC Equipment, ITS Equipment AVDS, AVC, AVI, VES, HVAC, generators, power, communications equipment, etc.)
- Furnishing and installing communication system communication system and network components (e.g. fiber optic cable, terminations, splices, network switches, routers and other network devices as required by CTRMA)
- Furnishing and installing master ground system connected to the master ground bus bar

provided by others

- Furnishing and installing lightning surge suppression system and components for AVI, communication network, VES, Uninterruptible Power Supply (UPS), and service/feeder power
- Furnishing and installing backup electrical power, including emergency generators, fuel tanks, and automatic transfer switches
- Furnishing and installing wiring, cable, hardware, and ROMS interface
- Furnishing and installing In-Lane Processor (ILP) enclosure, with HVAC for appropriate environmental protection and climate controls for electronic equipment.
- Furnishing and installing site surveillance cameras and security systems to monitor each ILP and gantries
- Providing power from the electrical service to the toll and ITS locations
- Preparing and submitting Federal Communication Commission (FCC) license(s)
- Providing complete testing, certification and acceptance of all systems for the complete, fully integrated and operational TCS, furnished and installed

The procurement, fabrication and installation of gantries and other civil infrastructure for the TCS to be located on the Project shall be completed by others contracted by CTRMA. It is the responsibility of the SI, nevertheless, to work closely with CTRMA, their various designers and roadway contractors to establish the precise location for the gantry structure and to provide the roadway contractor(s) with detailed information regarding the installation for the TCS equipment at each location.

A4.02 ITS System Design

For all TMS field installations on the SH 45 SW Project, the SI will be responsible for the final ITS systems design, as well as the purchase and installation of the ITS equipment. The principle items of work and primary components of the TMS at each location will include, but not limited to:

- Duct Banks: Furnish and install the fiber optic cabling required for the ITS and Tolling systems. The duct bank and its laterals shall be constructed by others.
- CCTV Cameras: Furnish and install the cameras, communications, and equipment enclosures. Installation of foundations, conduits and conduit laterals, grounding, lightning protection, camera poles, and electrical services shall be provided by others.
- DMS: Furnish and install the DMS, communications and equipment enclosures. Installation of foundations, conduits and conduit laterals, grounding, DMS support structures, and electrical services for DMS (at the location specified by the SI) shall be completed by others.
- Vehicle Detectors: Furnish and install radar vehicle detectors, communications and equipment enclosures. Installation of foundations, conduits and conduit laterals, grounding, vehicle detectors support structures, and electrical services for vehicle detectors (at the location specified by the SI) shall be completed by others.
- Communications enclosure: Design, furnish, and install the enclosures. Design and construction of the enclosure support slab shall be constructed by others.

As indicated above, elements of the ITS infrastructure will be the responsibility of others. Nevertheless, it is the responsibility of the SI to work closely with CTRMA, various designers and roadway contractors to establish the precise locations for the elements above and to provide the Roadway Contractor(s) with detailed information as needed.

A5.0 Coordination and Project Interface

All TCS/ITS infrastructure facilities along the SH 45 SW Project will be provided by others as indicated in **Section A6.0 and Section A7.0** below. The SI is required to participate and coordinate with contractors and designers of the SH 45 SW Project, enabling them to obtain specific, detailed information regarding the proposed design of the TCS and TMS, location of the TCS and TMS components, technical requirements of the system, as well as all documents necessary in order for them to complete the design/construction of the appropriate toll infrastructure.

The SI is responsible for ensuring that the toll gantry is located and configured properly to accommodate the SI's own particular system components as required to meet the CTRMA TCS and TMS performance and accuracy requirements. It is also the responsibility of the SI to ensure the construction of the toll system infrastructure facilities will be fully compatible with, and meet the requirements for, the CTRMA's TCS and TMS.

The SI will be responsible for maintaining relationships with a wide variety of third parties, including designers, roadway contractors, and various suppliers. In this role, the SI will work closely with CTRMA in developing the required network. The work related to this Work Authorization No. 14 generally will include, but not be limited to:

- Providing design input and detailed information, including: TCS and TMS component details, dimensions and layout configurations, and specific technical requirements for elements of the proposed TCS and TMS
- Preparing construction/installation guidelines for various components of CTRMA's TCS and TMS
- Reviewing construction documents prepared by others, including conducting "over-the-shoulder" reviews, as necessary or requested by CTRMA
- Attending and participating in coordination meetings as determined by the project schedule and/or as requested by CTRMA

Note: This includes attending design coordination meetings, construction meetings, and issue resolution meetings as necessary to resolve outstanding comments.

- Submitting installation plans and installation drawings to the CTRMA for review and approval
- Providing input into the development and maintenance of the project schedule as it relates to coordination with civil infrastructure contractors, the coordination of civil site turnovers, and the installation and testing of the toll system

Note: The SI will be expected to review the project baseline schedule prepared by the contractor for review and acceptance.

Prior to deploying any toll collection equipment or technology on the SH 45 SW Project, the SI shall certify to CTRMA that the technology complies with the interoperability rules that are in effect on the date of the issuance of the NTP for this WA.

All TCS infrastructure facilities will be provided by others as indicated in Section A6.0 and Section A7.0 hereof.

A6.0. Work by Others

A6.01 Civil/Roadway Construction – Toll Collection System

The CTRMA, through its roadway construction contracts, will provide a minimum of 60 linear feet of jointed concrete pavement in each of the areas designated for toll collection facilities. The pavement will be reinforced with Glass Fiber Reinforced Polymer (GFRP) bars. Transverse joints and longitudinal joints will be placed at positions equal to lane width and as shown on the CTRMA details. Power and communication lines to support the Wide Area Network (WAN) will be provided by others and terminated at an ILP enclosure in an area within 500 feet of ILP. The SI is responsible for the communication links between the TCS Host, the TxDOT CSC, the VPC, the TMC, and all express toll location facilities. It is the responsibility of the SI to coordinate with 3rd parties for leased communication services along the corridor.

Except as may be expressly indicated elsewhere, all toll system infrastructure required for the TCS at the designated TCS Location(s) will be provided and installed by others contracted by CTRMA. The principle items of work and primary components of the TCS infrastructure shall include, but are not limited to:

- GFRP Bar Reinforced Pavement Section
- Retaining Walls and Coping Details
- Drainage Features
- Civil Site Work, including Grading, Access Driveways, and Fencing
- All toll gantry procurement and installations, including foundations and gantry structures
- All conduit and ground boxes are to be provided by the civil contractor
- ILP concrete foundation slab with a perimeter security fence

Note: The ILP's are to be provided with appropriate environmental protection and climate controls for housing the electronic equipment by the SI.

- Toll Equipment concrete foundation slab
- Conduit and ground boxes providing connections between the ILP's and the ETC lane equipment installations

Note: It is the responsibility of the SI to coordinate with the roadway contractor(s) for the placement and installation of these elements to ensure that the construction is acceptable for the TCS as designed.

- Gantry and ILP enclosure lightning protection, air terminal, down conductors, and ground electrodes
- Power up to the location of the proposed ILP enclosures
- Concrete foundations for emergency generators and associated fuel tanks
- Installation of natural gas lines, if necessary

Note: The SI is to coordinate and provide generator requirements, including locations for gas feeds for the emergency generators.

- All signing, pavement markings, traffic barriers and other roadway appurtenances required at each remote express toll location

Refer to the Fixed Price Tolling Standards that were issued by the CTRMA on November 2013, which is

included as *ATTACHMENT D*.

A6.02 Civil/Roadway Construction – Traffic Management System

Except as may be expressly indicated elsewhere, all required TMS infrastructure will be provided and installed by others. The principle items of work and primary components of the TMS infrastructure shall include, but limited to:

- ITS layouts
- Duct Bank
- Foundations
- Conduits
- Electrical Services
- Grounding circuits
- Support Structures

A7.0 Toll Facilities Responsibility Matrix

For this work authorization, the SI is responsible for design and coordination of the various aspects of the TCS, as identified in *ATTACHMENT C - Toll Facilities and ITS Responsibility Matrix*, and shall work with the CTRMA, roadway designers and contractors, and others as described herein.

A8.0 Project Schedule

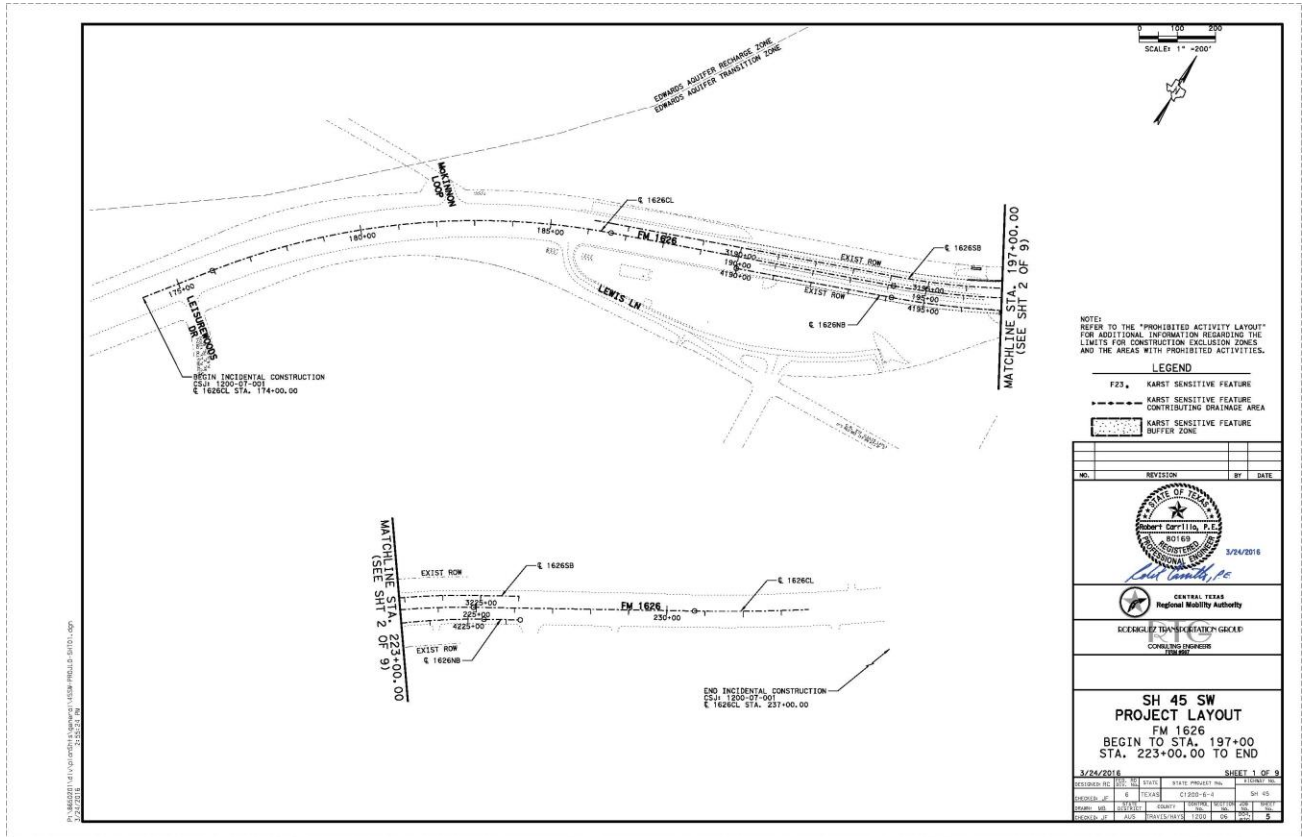
The Project Schedule shall be developed to incorporate the milestone dates established for this Work Authorization No. 14 as presented in *ATTACHMENT F*.

[END OF SECTION]

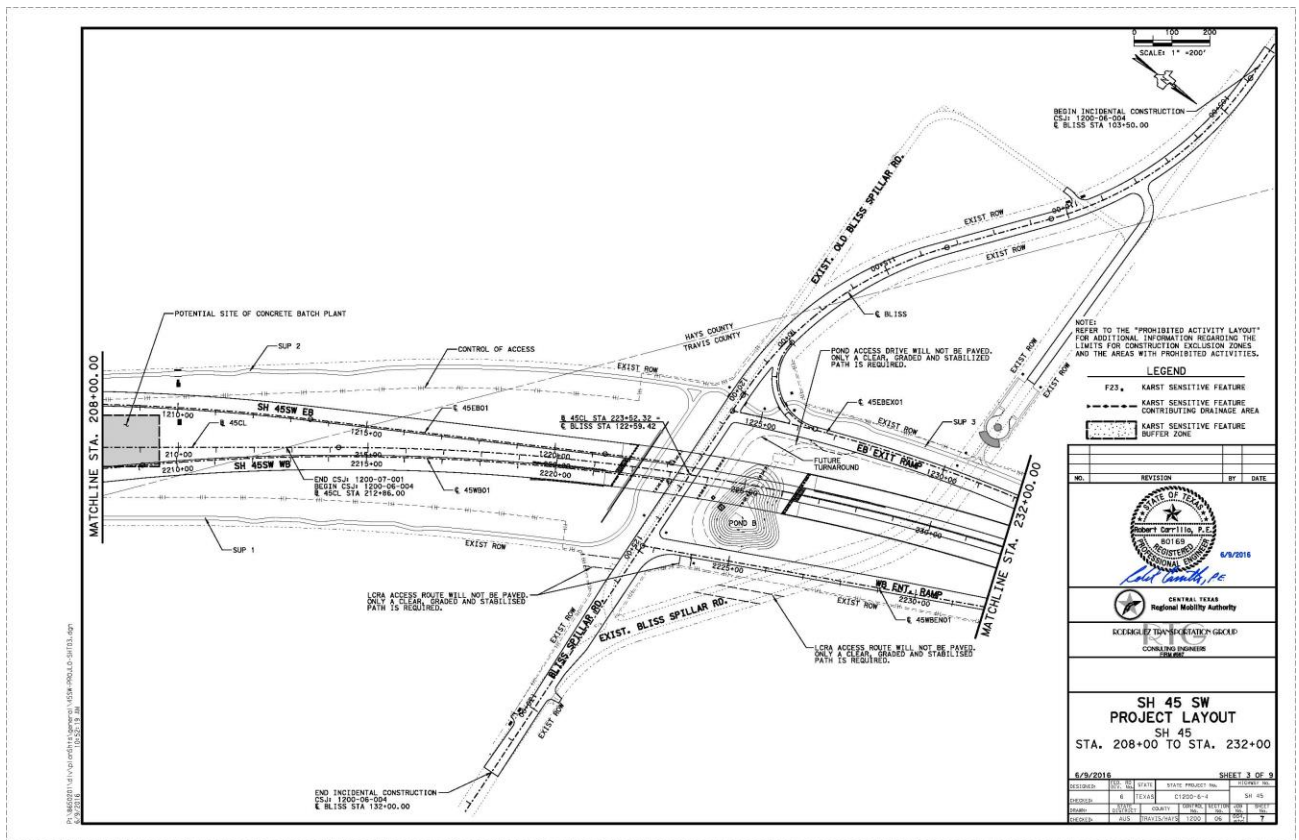
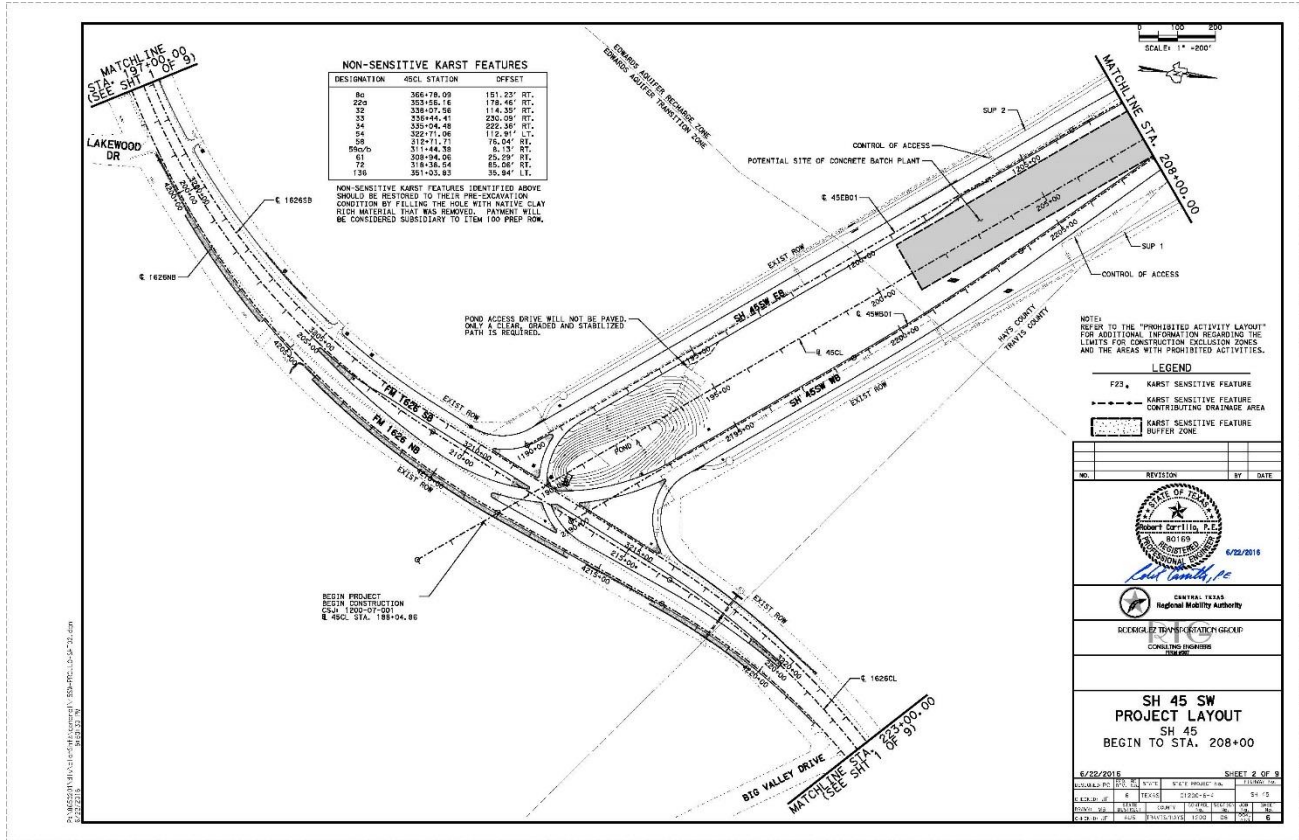
ATTACHMENT B

Toll System Layout

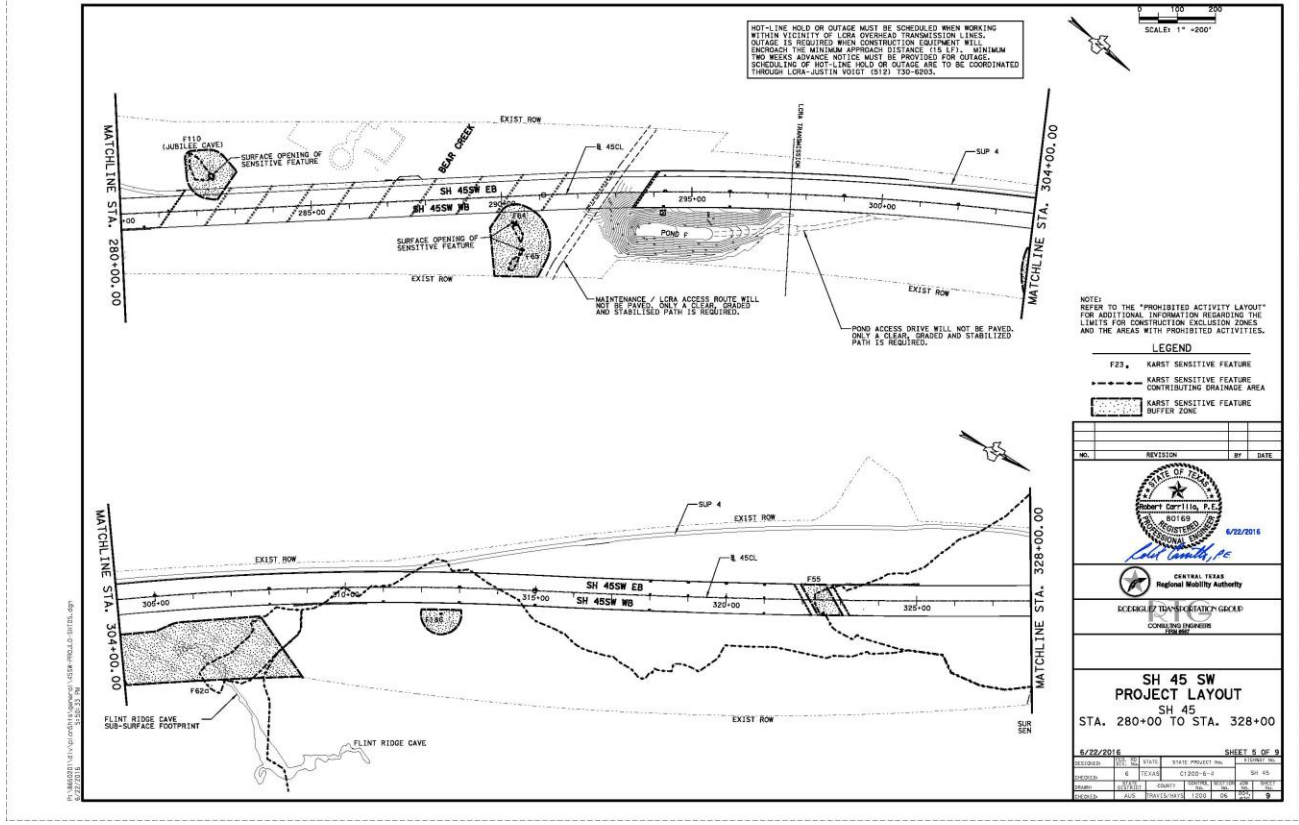
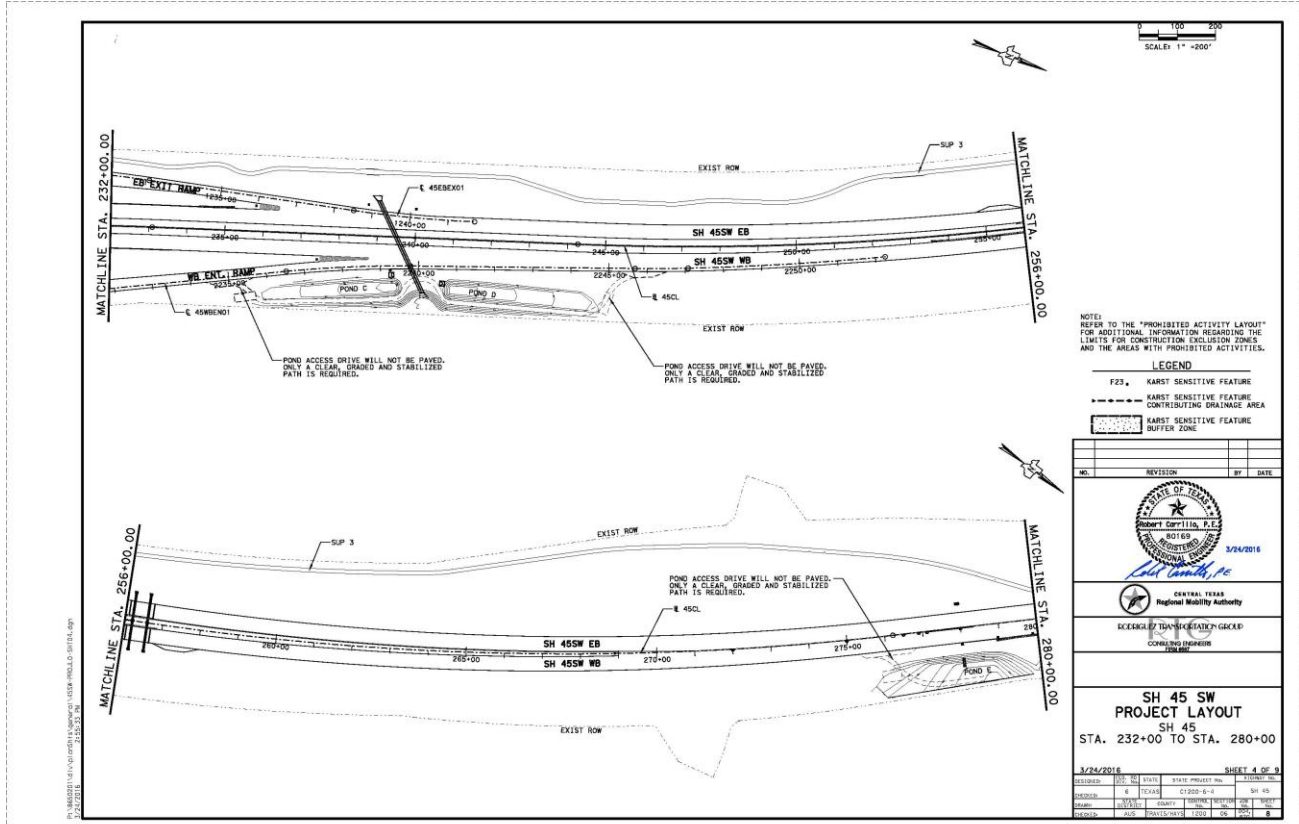
State Highway 45 SW Project



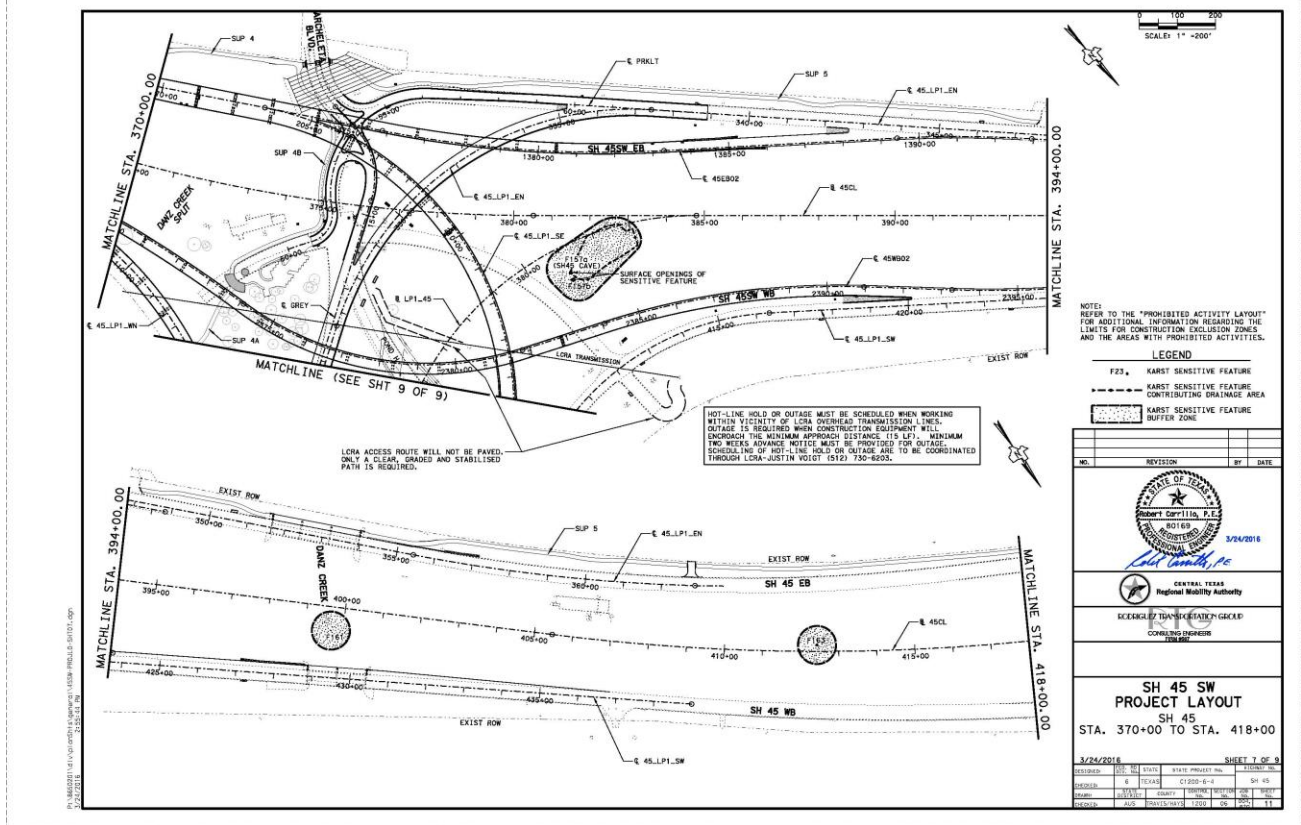
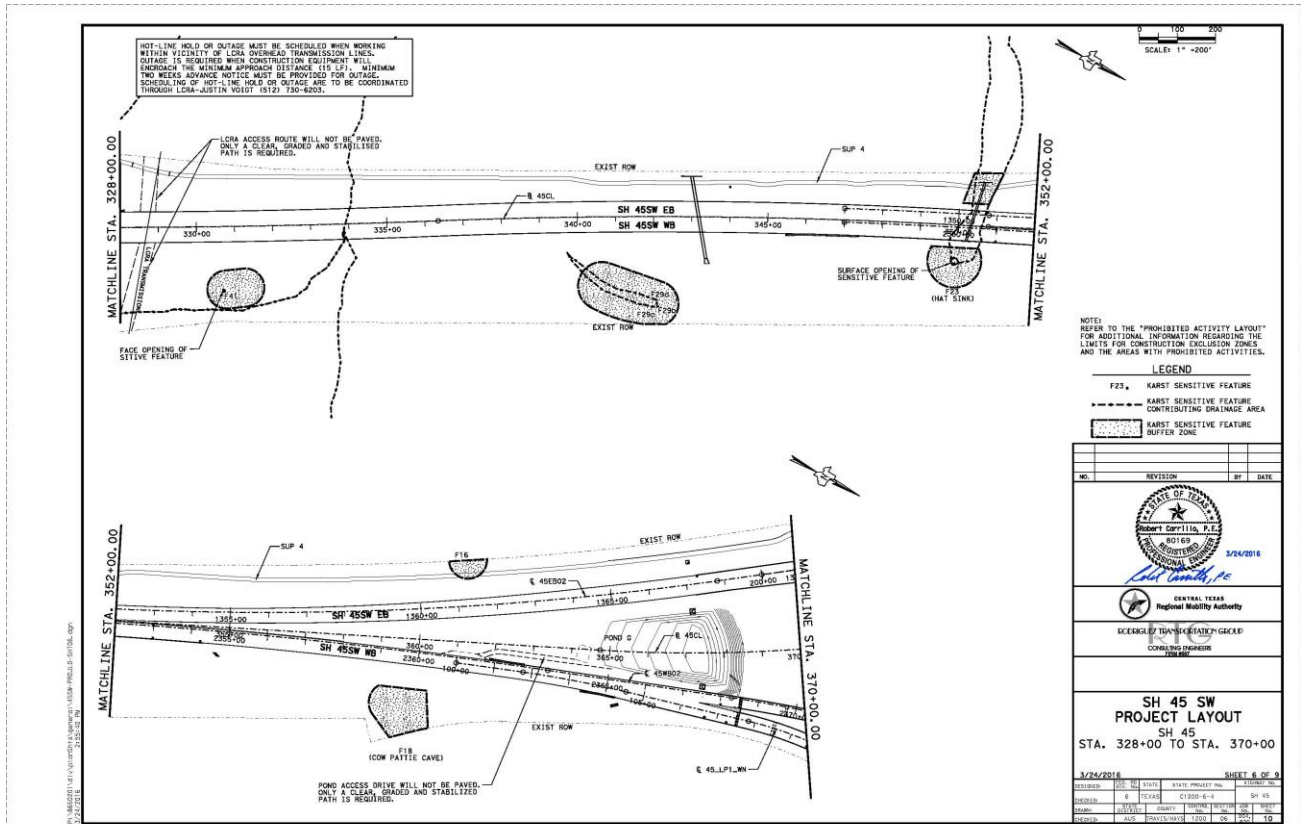
Toll System Implementation Work Authorization No.14



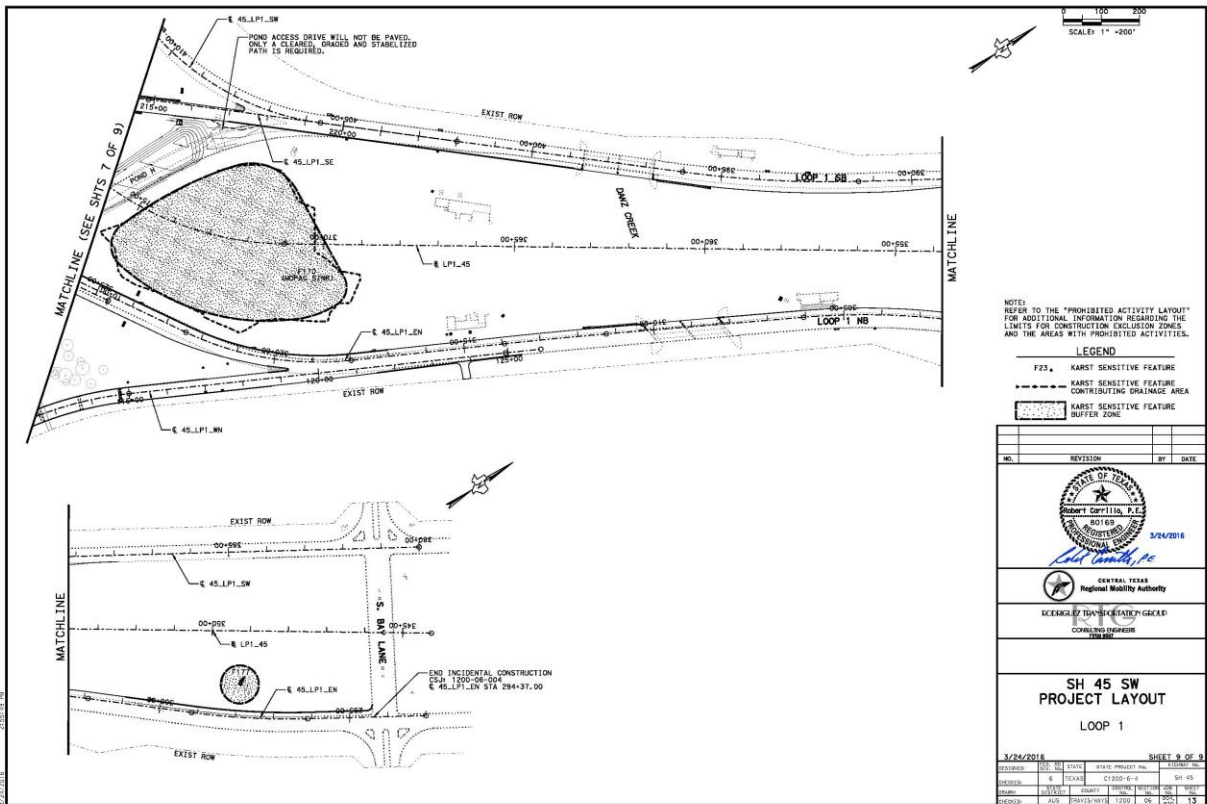
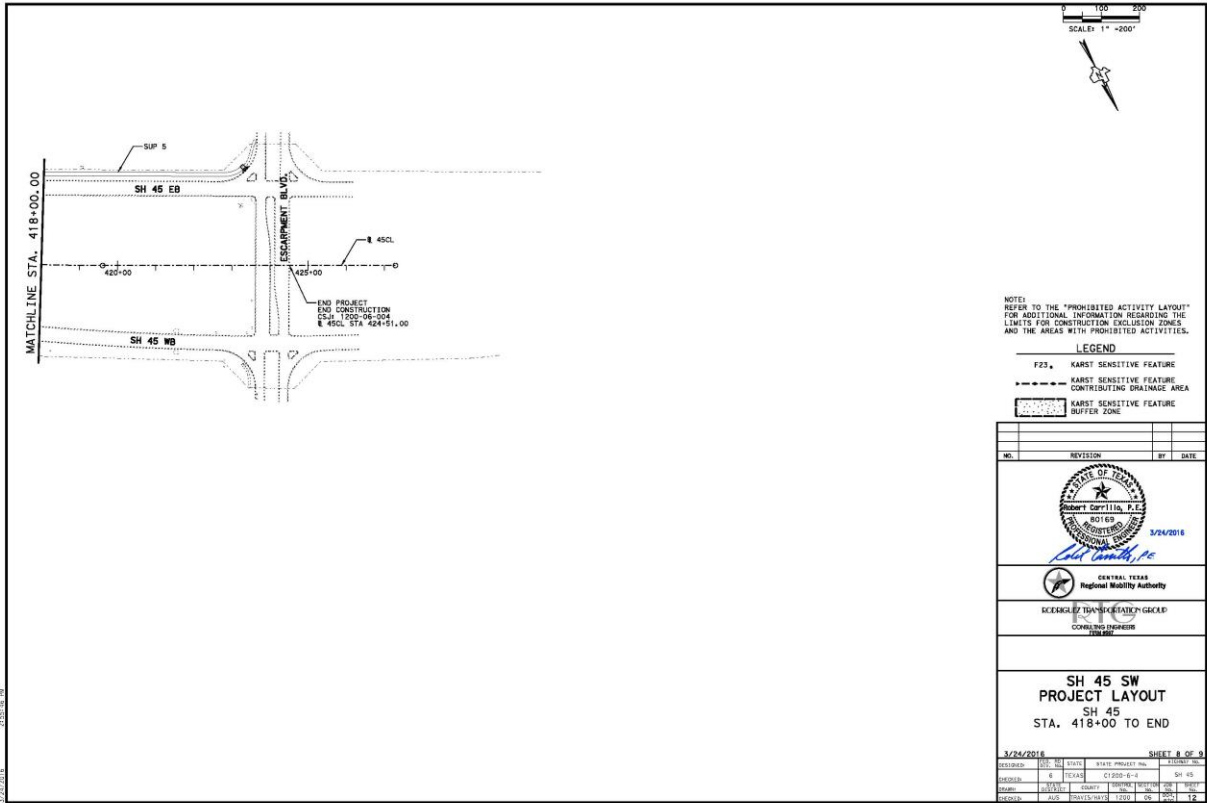
Toll System Implementation Work Authorization No.14



Toll System Implementation Work Authorization No.14



Toll System Implementation Work Authorization No.14



ATTACHMENT C

Toll Facilities and ITS Responsibility Matrix

State Highway 45 SW Project

Responsibility Assignment Legend							
Primary Responsibility: P		Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	

GENERAL REQUIREMENTS							
Schedule	N	P	P	S	S	S	Contractor must accommodate and incorporate the SI scheduled activities into the project schedule. All schedule changes or updates which impact the SI tasks must be agreed to by the SI prior to submittal to CTRMA. A weekly schedule must be distributed and incorporate any SI updates or changes.
Request for Early Opening	N	P	P	S	S	S	The SI must be able to match schedule request for early opening. SI must be allowed early unencumbered access in order to meet early opening request.
Design Package – Installation and Electrical Design and Plans	P	P	P	C	N	C	Designer to incorporate all SI requirements and specifications into Structural and Electrical Design Packages. Contractor will coordinate installation activities with SI.
Grading	N	P	P	C	N	C	
Drainage		S	P	C	N	C	No culverts or pipes under tolling zones.
Utilities/Electrical Services	P	P	P	S	C	C	SI to provide specific power requirements for the Toll System to the Contractor. The contractor is to incorporate the toll facilities design and construct power utilities interface, and all power infrastructure. Contractor to provide power to the Toll System pad and ITS locations. SI to terminate power to their sites.”
Traffic Control/Safe work zone	N	P	P	S	N	C	SI to provide contractor detailed lane closure requirements and schedule for installation and testing.
Signing	N	P	P	C	N	S	All toll signing must be coordinated with and approved by CTRMA.
Striping	N	P	P	S	N	C	SI to coordinate striping with pavement loop locations. Contractor to coordinate with SI for loops installation and striping sequencing.
Lighting		P	P	S	C	S	Roadway and toll location lighting provided by contractor. SI to provide lighting requirements in vicinity of toll locations and locations of other Toll System equipment. Contractor to confirm that lighting does not obstruct toll

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S	Coordination Responsibility Only: C			No Responsibility: N		
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
							related signing or impede the Toll System.
Landscaping	P	P	P	C	N	N	
Fencing/Guardrail/Bollards /Concrete Barrier	P	P	P	S	C	C	SI to provide requirements for specific equipment clearances for Toll System. Designer to incorporate into roadway design. SI to confirm that design plans meet requirements.
TOLL SYSTEM: LOCATIONS, LAYOUTS, STRUCTURES, MOUNTS/BRACKETS							
Locations and Layouts	P	P	P	S	C	C	SI to provide specific locations for the Toll System. SI to provide requirements for specific lane and facility layouts. Designer to incorporate into Design Packages. The contractor will coordinate with SI during the installation activity.
Gantries/Foundation/Trusses/Junction boxes/Conduits/Grounding	P	P	P	S	C	S	SI to provide requirements for conduits (for SI installed power and communications cables, including specific requirement for below ground conduits for the loops), junction boxes, and power needs for the Toll System. The Designer to incorporate into structural design, including electrical grounding, bonding. Contractor to provide and install junction boxes and conduit pull strings and bell ends for all conduits up to one foot above pole and gantry foundation. The contractor will require SI to sign off on below ground conduits for the loops prior to installation of special pavement structure.
Gantries/Foundation/Trusses/Junction boxes/Conduits/Grounding	N	P	P	S	C	S	Contractor will provide conduits/wire ways on all the toll gantries for all the SI equipment.
Equipment Mounts on Brackets/Frames	S	N	P	P	P	P	SI to procure and install all Toll System equipment mounts, and related cable and wiring, including communications from roadside cabinets to the equipment mounted on the gantries. SI to provide requirements for all brackets and frames needed to attach SI procured equipment. Contractor to furnish and install necessary brackets (i.e. Trapeze) as per

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S			Coordination Responsibility Only: C			No Responsibility: N
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
							SI requirements
Equipment Brackets/Frames on Gantries	S	P	P	S	N	S	The contractor is to provide and install all brackets and frames needed to attach all SI procured equipment. SI to provide locations for installation to the contractor. SI to provided requirements for hanger and orientation of hanger mount to Gantries
Pavement structure, including special nonferrous zones and conduit stub-outs for in-pavement sensors/loops	P	P	P	S	N	C	SI to provide requirements for special pavement structure at toll gantry areas. SI shall coordinate joint spacing to avoid conflicts with loop placement and sign off on riser locations before concrete pour. Contractor to assure ferrous objects (i.e. rebar, grates, pipes, etc.) are not in toll revenue collection detection system(s) zone of influence. Contractor to located loop risers after pavement is poured.
EQUIPMENT CABINETS							
Toll Equipment Cabinets	C	C	S	S	P	P	SI to provide size and number of cabinets needed for Toll System. Contractor shall incorporate location into site grading and drainage. SI to procure and install environmentally controlled cabinets. The environmentally controlled enclosures provided by SI must comply with the America Society of Heating, Refrigeration, and Air Conditioning Engineers: Thermal Guidelines for Data Processing Environments. Contractor to provide traffic control devices and safe working conditions for SI during installation of all toll equipment.

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S			Coordination Responsibility Only: C			No Responsibility: N
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Toll Equipment Cabinets Site (TEC) and Roadside Equipment Cabinet Base Slabs	P	P	P	S	N	S	SI to provide requirements for specific equipment weight and anchorages for cabinets to the Contractor. Contractor to incorporate into Roadway Design. Contractor to install slabs with conduit plumbing.
Security Communications at Toll System locations	C	N	C	P	P	P	SI to provide security communications for all toll system equipment. Contractor to provided physical security fence as required by SI around TEC/Generators and Auxiliary fuel tanks
Facility Security	P	P	P	S	C	C	Designer to incorporate into the Roadway Design. Contractor to provided physical security fence as required by SI around TEC/Generators and Auxiliary fuel tanks
TOLL SUB-SYSTEMS							
Automatic Vehicle Identification (AVI) Antennas and Readers	N	N	S	P	P	P	SI to provide AVI System Mounts, Wiring and Cables. SI will perform all AVI system installation and terminations, and to make the connections to the electronics in the cabinets.
Automatic Vehicle Classification and Detection (AVC) and (AVD)	N	N	S	P	P	P	SI to install, connect and terminate AVC and/or AVD System mounted on the gantries and/or installed in the pavement to the electronics in the cabinets.
In-Pavement Sensors/Loops	N	N	S	P	P	P	SI to saw cut pavement, procure, install, and seal pavement sensors with approved sealant. Contractor to assure ferrous objects (i.e. rebar, grates, etc.) are not in toll collection detection system(s) zone of influence. Contractor to assure longitudinal and Transverse pavement joints in the non-ferrous pavement section in the Toll Zone do not conflict with SI conduit stub-up array in pavement section.
Video Capture Sub-System (VCS/VES) Cameras, Illumination, Sensors and Servers	N	N	S	P	P	P	SI to provide, install, terminate all Video Capture Sub-System (VCS/VES) equipment.
In-Lane Processing Servers and Electronics	N	N	N	P	P	P	SI to provide, installs, connects, and terminates all electronics in the cabinet and assures proper communications to the devices on the gantry and/or in the pavement.

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S	Coordination Responsibility Only: C			No Responsibility: N		
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
POWER DISTRIBUTION SUB-SYSTEM							
Metered power service at each location:	N	P	P	C	N	C	SI to provide power requirements and special requirements for construction of utilities near each Toll System. Contractor to provide and install necessary conductors, ducts and junction/pull boxes, bell ends/pull strings and disconnect switch/fuse at the meter. Contractor is responsible for wiring up to the ATS.
Metered power service at each toll location:	C	N	C	P	P	P	The SI shall provide and install all other wiring, switches, surge protection/suppression, etc. for power from the ATS at the toll pad for the Toll System equipment. SI will terminate all power wiring for all branch circuits off the Service Panel to the Toll Site.
Generators and Automatic Transfer Switches (ATS)	S	N	C	P	P	P	SI to provide generators, ATS, generator cabinets, wiring, connect and terminate all power at the Toll System sites.
Generator Power Source is propane	S	N	C	P	P	P	The SI shall provide, and install the propane tank for the generator. Contractor will provide pad and conduit feed for propane fuel tank (10' minimum from generator).
Uninterruptible Power Supplies (UPS)	S	N	C	P	P	P	SI to provide and install Uninterruptible Power Supply Systems (UPS) in the cabinets. UPS will be required for the Toll System.
Lightning Protection and Grounding	N	P	P	S	C	C	SI to provide specific requirements for equipment lightning protection and grounding. Contractor to furnish and install required lightning protection and grounding.
COMMUNICATIONS SUB-SYSTEMS							

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Conduits/Ducts and Junction/Pull Boxes/Outlets	C	P	P	S	C	S	SI to provide specific Communications design requirements including location of long-radius sweep conduit bends. Contractor to incorporate into the roadway design. The contractor will install including conduits, junction boxes, bell ends with pull strings. The Contractor shall verify that all ducts bank and conduits are clear and have pull strings prior to the beginning of the Toll System installation.
Fiber Optic cabling in conduits for Toll System	S	S	S	P	P	P	SI to provide fiber requirements for Toll System. Contractor to incorporate into design of backbone and laterals. SI to furnish and install along the corridor from communication hub to cabinets.
Toll Hardware in Cabinets	C	N	C	P	P	P	SI to provide and install all toll hardware within the cabinets. Equipment must be installed in a clean and organized manner and must not be affected by the environmental controls. The SI must provide and install the redundant environmental controls.
Routers	C	N	C	P	P	P	SI to provide, install and configure the routers for connection from hub locations to the Mobility Authority's Traffic Management Center. (TMC)
Hubs	N	N	C	P	P	P	If applicable.
Switches	N	N	C	P	P	P	SI to provide, install and configure the switches for connection from tolling to hub locations.
Firewalls	N	N	C	P	P	P	SI to provide, install and configure the necessary firewall for the toll system
Patch/Distribution Panels	N	N	C	P	P	P	SI to provide and install all the necessary patch and distribution panels to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System.
Corridor Communications System	S	N	C	P	P	P	SI to provide Fault Tolerant Single Mode Fiber Optic IP-Based Communication System for Toll Revenue Collection Systems.

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S		Coordination Responsibility Only: C			No Responsibility: N	
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	
Corridor to Traffic Management Center(TMC)	N	N	N	P	P	P	SI to provide Fault Tolerant IP-Based Communication System to the TMC for Toll Revenue Collection Systems.
Data/Communications Service to each Tolling Location	N	N	N	P	P	P	SI to install any power and communications cable required to interface between the Toll Cabinet and the Communications Service Provider's POI. Contractor is responsible for the conduit infrastructure to provide a raceway from the Toll Pad to the Service POI
SYSTEMS SERVERS AND SPACE							
Toll Collection Systems Computer(s)	N	N	N	P	P	P	
Support Equipment at CTRMA Offices	N	N	N	P	P	P	SI to provide data and power wiring schematics, equipment rack/cabinet requirement, and elevations, layouts, floor plans, air flow diagrams, and environmental controls load calculations, electrical power distribution, including grounding, bonding, lightning protection, panel boards, TVSS, circuit breakers conduit, conductors, j-boxes, receptacles.
Systems Servers and Workstations	N	N	C	P	P	P	SI to provide, install and configure all system servers and workstations required at the TMC to support the operations and management of the Project.
Federal Communication Commission License Preparation and Submission	C	N	N	P	P	P	SI to provide all information necessary to acquire FCC Licensing to the Mobility Authority.

Responsibility Assignment Legend							
Primary Responsibility: P	Support Responsibility: S	Coordination Responsibility Only: C			No Responsibility: N		
Element/Task/Component/ Sub-system	Designer	Contractor		Systems Integrator (SI)			Comments Other Responsibility/Information
	Design	Procure	Install/ Construct	Design	Procure	Install / Construct	

DUCT BANK AND INTELLIGENT TRANSPORTATION SYSTEMS (ITS)							
New Duct bank	P	P	P	C	C	C	SI to provide requirements for new duct bank. Designer to incorporate into roadway design. SI to confirm that design plans meet requirements.
Fiber Installation	N	C	C	P	P	P	SI to provide, install and test the fiber.
Traffic Detection System (TDS) and CCTV Cameras: Pole/Post-Mounts, supports, wiring and cables	N	C	S	P	P	P	SI to provide requirements for traffic detection ground radar system mounts, conduits, power and data wiring, and cables. SI to procure, install and terminate TDS and CCTV Cameras including all communication and power wiring from the Contractor provided disconnect switch/fuse.
TDS and CCTV Cameras: Pole/Post-Mounts, cabinets, supports, wiring and cables	N	P	P	C	C	S	Contractor to provide and install poles , equipment cabinets, conduits, junction boxes, mounting supports, power wiring to a disconnect switch/fuse located in the base of the pole/post-mount. Contractor to provide pigtailed at end of conduit runs.
DMS foundations, conduits, grounding, DMS support structure, and electrical services	P	P	P	S	C	C	
DMS, communications, and equipment enclosures	S	N	S	P	P	P	

ATTACHMENT D

Fixed Price Tolling Standards

State Highway 45 SW Project

ATTACHMENT D
FIXED PRICE TOLLING STANDARDS



**CENTRAL TEXAS
Regional Mobility Authority**

FIXED PRICE TOLLING STANDARDS
2 - 4 LANES

ISSUED: NOVEMBER 2013

© 2013 CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY. ALL RIGHTS RESERVED

Toll System Implementation Work Authorization No. 14

Pen: TDD:\h1\voluaw00\pwwork\Jobs\46837-CTRMA\Loop+ML\Project Development\Drawings\CAD Files\APLOT\MOPAC+1\TIT.dwg
 Plot Date: 11/15/2013 10:58:11 AM
 Plot File: TDD:\h1\voluaw00\pwwork\Jobs\46837-CTRMA\Loop+ML\Project Development\Drawings\CAD Files\APLOT\MOPAC+1\TIT.dwg
 Plotter: HP DesignJet T1100e

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY - NOVEMBER 2013 ALL RIGHTS RESERVED

STANDARD PLANS & GUIDELINES

INDEX OF SHEETS

3	GN-1	GENERAL NOTES
4	ABB-1	ABBREVIATIONS
5	S-1	SYMBOLS USED
6	TC-1	TERMS AND CONDITIONS
7	ETC-1	EXAMPLE ETC CONFIGURATION
8	ETC-2	EXAMPLE ETC CONFIGURATION
9	ETC-3	EXAMPLE ETC CONFIGURATION
10	TES-1	TOLL EQUIPMENT SITE PLACEMENT DETAILS
11	P1-ML	MAIN LANE PAVEMENT JOINTING PLAN AND GROUND BOX LAYOUT
12	P1-RMP	RAMP PAVEMENT JOINTING PLAN AND GROUND BOX LAYOUT
13	P2-ML	GROUND BOX PLACEMENT AND CONDUIT RISER LOCATION (MAIN LANES)
14	P2-RMP	GROUND BOX PLACEMENT AND CONDUIT RISER LOCATION (RAMPS)
15	G1-ML	MAIN LANE GANTRY CROSS-LANE TANGENT ELEVATION VIEW
16	G2-RMP	RAMP GANTRY CROSS-LANE TANGENT ELEVATION VIEW
17	MG-1	TOLL GANTRY MISCELLANEOUS DETAILS
18	LP-1	LIGHTNING PROTECTION SYSTEM DETAILS
19	A1-A4	CONDUIT RISER DETAILS
20	DETAIL E1	TOLL GANTRY ELECTRICAL SINGLE-LINE DRAWING
21	DW-1	DRIVEWAY DETAIL
22	TAJ-1	TERMINAL ANCHOR JOINT - JOINTED
23	CATD-1	CONCRETE TO ASPHALT TRANSITION DETAIL
24	JC-1	JOINTED CONCRETE PAVEMENT

INTERIM REVIEW ONLY
Document Incorporates: not intended for permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 15-NOV-2013

HNTB CORPORATION <small>The HNTB Companies Engineers, Architects, Planners</small> <small>TYPE FIRM REGISTRATION NO. 1 420</small>	
<small>CENTRAL TEXAS Regional Mobility Authority</small>	
FIXED PRICE TOLLING STANDARDS INDEX OF SHEETS	
DESIGNED BY: KS	FEDERAL AID PROJECT NO. 2
DRAWN BY: KS	COUNTY 2
OR TX	COUNTY AUS
CHECKED BY: AK	JOB 14 HIGHWAY NO.


Toll System Implementation Work Authorization No. 14

Plot File: \\saw000\user\k\koba\4837-CTBMA\Coop1\ML\Proj\Draw\Development\Drawings\CD\Files\DWG\NAPS\131317.dwg
 Scale: 1" = 10'-0"
 Plot Date: 15-NOV-2013 10:10:10 AM
 Plotter: HP DesignJet 5000PS

GENERAL NOTES


- 1 REFERENCE SHEET: THE SYSTEM INTEGRATOR SHALL PROVIDE A SUMMARY STATION AND OFFSET TABLE FOR ALL OF THE FOLLOWING FOR EACH GANTRY LOCATION:
 AVDS & AVC ENTRY, MIDDLE, EXIT, AND AXLE CONDUIT RISERS (IF NECESSARY)
 AVDS & AVC ENTRY, MIDDLE, EXIT, AND AXLE LOOPS (IF NECESSARY)
- 2 REFERENCE SHEET: THE DESIGN BUILDER SHALL PROVIDE A SUMMARY STATION AND OFFSET TABLE FOR ALL OF THE FOLLOWING FOR EACH GANTRY LOCATION:
 GANTRY COLUMNS & TRUSSES
 PAVEMENT SECTION JOINTS (JOINTS SHALL BE DESIGNED SO THAT NO LOOP CROSSES ANY JOINT)
- 3 TXDOT ELECTRICAL DETAIL SHEETS SHALL APPLY.
- 4 NATIONAL ELECTRIC CODE (NEC), NFPA 780, NESC REQUIREMENTS SHALL APPLY
- 5 TXDOT ITEM 618 SHALL GOVERN FOR ALL CONDUIT REQUIREMENTS
- 6 TXDOT ITEM 620 SHALL GOVERN FOR ALL ELECTRICAL CONDUCTOR REQUIREMENTS
- 7 TXDOT ITEM 624 SHALL GOVERN FOR ALL GROUND BOXES. HS-20 LOAD RATING REQUIREMENTS SHALL GOVERN IN ALL LOCATIONS SUBJECT TO TRAFFIC LOADING.
- 8 TXDOT ITEM 628 SHALL GOVERN FOR ALL ELECTRICAL SERVICES. THE DESIGN BUILDER SHALL CONTACT RESPECTIVE UTILITY FOR LOCATION OF ELECTRICAL SERVICE.
- 9 SITE CONDITIONS MAY REQUIRE MODIFICATION TO THE JCP TO EXISTING PAVEMENT TRANSITION.
- 10 DETAILS ARE SUBJECT TO REVISIONS PERIODICALLY AS REQUIRED BY SYSTEM INTEGRATOR TECHNOLOGIES.

INITIAL REVIEW ONLY
 Document Incomplete: not intended for
 permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No. 93753
 Date: 15-NOV-2013



HNTB Corporation
The HNTB Companies
Engineers, Architects, Planners

TPC FIRM REGISTRATION NO. 1420



CENTRAL TEXAS
Regional Mobility Authority

**FIXED PRICE
TOLLING STANDARDS
GENERAL NOTES**

GN-1

DESIGNED BY:	6	FEDERAL AID PROJECT NO.	5
DRAWN BY:	STATE	DIST.	COUNTY
DR	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB
KK			HIGHWAY NO.



Toll System Implementation Work Authorization No. 14

Pen: T:\04\00\unm\A\Jobs\4837\CTBMA\Loop14ML\Project Development\Design\CD Files\010\MP\AC-11\17.dgn
 Design: T:\04\00\unm\A\Jobs\4837\CTBMA\Loop14ML\Operations and Maintenance\01\11\New Fixed Price Tolling Standards\TGI1\Guide\insrev.dgn
 Scale: 1:1
 Printed on: S04TE*****

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE	LPS	LIGHTNING PROTECTION SYSTEM
ANT	AVI ANTENNA	LO"X"	LANE "NUMBER X"
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MSE	MECHANICALLY STABILIZED EARTH
ATS	AUTOMATIC TRANSFER SWITCH	NEC	NATIONAL ELECTRICAL CODE: NFPA 70
AVC	AUTOMATIC VEHICLE CLASSIFICATION	NESC	NATIONAL ELECTRIC SAFETY CODE
AVDS	AUTOMATIC VEHICLE DETECTION	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
AVI	AUTOMATIC VEHICLE IDENTIFICATION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
AWG	AMERICAN WIRE GAUGE	N.T.S.	NOT TO SCALE
CCTV	CLOSED CIRCUIT TV	OSB	OVERHEAD SIGN BRIDGE
COMM	COMMUNICATIONS	PVC	POLYVINYL CHLORIDE CONDUIT
COSS	CANTILEVER OVERHEAD SIGN SUPPORT	RCP	REINFORCED CONCRETE PAVEMENT OR PIPE
C&G	CURB & GUTTER	RMC	RIGID METAL CONDUIT; SHD 40; GALVANIZED
CRCP	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT	S1	LEFT SHOULDER LANE
EPEC40	EXTRUDED POLYETHYLENE ELECTRICAL CONDUIT NEMA TC-7 SCHEDULE 40	SCH 40	NEMA TC-2 NOMINAL PIPE SIZE SCHEDULE 40 CONDUIT
EPEC80	EXTRUDED POLYETHYLENE ELECTRICAL CONDUIT NEMA TC-7 SCHEDULE 80	SCH 80	NEMA TC-2 NOMINAL PIPE SIZE SCHEDULE 80 CONDUIT
GAL	GALVANIZED	SSTB	SINGLE SLOPE TRAFFIC BARRIER
GB	GROUND BOX	STA	CHAIN BASE ALIGNMENT STATION
GB"X"	GROUND BOX "X"	TEC	TOLL ELECTRONICS CABINET
GEN	GENERATOR	TDS	TRAFFIC DETECTION SYSTEM
GFRP	GLASS FIBER REINFORCED POLYMER	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
ETC	ELECTRONIC TOLL CONFIGURATION	UL	UNDERWRITER LABORATORY
FOC	FIBER OPTIC CABLE	UPS	UNINTERRUPTABLE POWER SUPPLY
HDPE	HIGH DENSITY POLYETHYLENE CONDUIT	VES	VIOLATION ENFORCEMENT SYSTEM / VIDEO TOLLING
HMAC	HOT MIX ASPHALTIC CONCRETE		
HS-20	AASHTO TRUCK LOADING REFERENCE MODEL		
HSS	HIGH STRENGTH STEEL		
KW	KILOWATT		
JCP	JOINT REINFORCED CONCRETE PAVEMENT		
LP	LIQUEFIED PETROLEUM (GAS) / NATURAL GAS OR DIESEL MAY BE SUBSTITUTED FOR PROPANE (250 GALLON TANK)		

INTERIM REVIEW ONLY	
Document (recompiles) not intended for permit, bidding or construction.	
Engineer:	KRIS Z. KEITH
P.E. Serial No.:	93753
Date:	15-NOV-2013

		HNTB Corporation The HNTB Companies Engineers Architects Planners	
TYPE FIRM REGISTRATION NO. 420			
		CENTRAL TEXAS Regional Mobility Authority	
FIXED PRICE TOLLING STANDARDS ABBREVIATIONS			
ABB-1			
DESIGNED BY:	REV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
	6		4
DRAWN BY:	STATE	DIST.	COUNTY
	DW	TEXAS	AUS
CHECKED BY:	CONT.	SECT.	JOB
	KE		HIGHWAY NO.

Toll System Implementation Work Authorization No. 14

Scale: 1:1
Printed on: SDA1E*****

Path: \\user\luciano\workspace\jobs\46837-CTBMA\Loop1 ML Vp\Project Development\Design\CD\Files\VP of MOPAC\11117.dgn
 File: \\user\luciano\workspace\jobs\46837-CTBMA\Loop1 ML Vp\Project Development\Design\CD\Files\VP of MOPAC\11117.dgn
 Title: \\user\luciano\workspace\jobs\46837-CTBMA\Loop1 ML Vp\Project Development\Design\CD\Files\VP of MOPAC\11117.dgn

TERMS & CONDITIONS

THE CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY (HEREINAFTER REFERRED TO AS MOBILITY AUTHORITY) IS COMMITTED TO PROVIDING ELECTRONIC ACCESS TO FILES OF STANDARDS. MOBILITY AUTHORITY MAKES EVERY REASONABLE EFFORT TO DO SO IN A CROSS-PLATFORM AND COMPLEX MULTI-PROTOCOL ENVIRONMENT. MOBILITY AUTHORITY DOES NOT POSSESS A STAFF THAT IS AVAILABLE TO PROVIDE TECHNICAL SUPPORT TO OUTSIDE PARTIES WHO AVAIL THEMSELVES OF CAD FILES THAT ARE PROVIDED. IT IS IMPORTANT, THEREFORE, THAT ALL POTENTIAL USERS OF THESE FILES READ THE FOLLOWING DISCLAIMER AND ACCEPT ITS TERMS AS A PREREQUISITE TO THE USE OF THE FILES.

IF THE RECEIVER PROCEEDS, THE RECEIVER AGREES TO THE FOLLOWING TERMS AND CONDITIONS:

1. MOBILITY AUTHORITY MAKES NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH RESPECT TO THE FILE(S) WHICH ARE THE SUBJECT OF THIS AGREEMENT, AND SPECIFICALLY MAKES NO WARRANTY THAT SAID FILE(S) SHALL BE MARKETABLE OR FIT FOR ANY PARTICULAR PURPOSE. FURTHERMORE, ANY DESCRIPTION OF SAID FILE(S) SHALL NOT BE DEEMED TO CREATE AN EXPRESS WARRANTY THAT SUCH FILES SHALL CONFORM TO SAID DESCRIPTION.
2. RECEIVER ASSUMES ALL RISK AND LIABILITY FOR ANY LOSSES, DAMAGES, CLAIMS OR EXPENSES RESULTING FROM THE USE OR POSSESSION OF ANY FILE(S) FURNISHED BY MOBILITY AUTHORITY PURSUANT TO THIS AGREEMENT.
3. RECEIVER AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS MOBILITY AUTHORITY, ITS OFFICERS, AGENTS, AND EMPLOYEES FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, LOSSES, DAMAGES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM OR BY REASON OF RECEIVERS' USE OR POSSESSION WITH RESPECT TO ANY OF THE FILE(S) FURNISHED BY MOBILITY AUTHORITY PURSUANT TO THIS AGREEMENT, AND SUCH INDEMNIFICATION SHALL SURVIVE ACCEPTANCE OF SAID FILE(S) BY RECEIVER.
4. ALL DESIGN FILE STANDARDS ARE AVAILABLE IN MICROSTATION DRAWING FILES (*.DGN). RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT BE HELD RESPONSIBLE FOR PROBLEMS ARISING FROM FILES WHICH HAVE BEEN CONVERTED FOR USE IN NON-NATIVE APPLICATIONS (E.G. MICROSTATION DESIGN FILES TO AUTOCAD).
5. MICROSTATION (*.DGN) FILENAMES THAT HAVE A COMPANION PDF ICON CAN BE VIEWED IN ADOBE AROBAT READER BY CLICKING ON THE PDF ICON. THIS READER CAN BE USED TO PRINT THESE PDF FILES. RECEIVER AGREES THAT MOBILITY AUTHORITY ASSUMES NO RESPONSIBILITIES FOR PRINTING WITH ADOBE. ALSO, RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT BE HELD RESPONSIBLE FOR ANY PROBLEMS ARISING WITH THE PRINTING OF A PDF FILE.
6. RECEIVER AGREES THAT MOBILITY AUTHORITY CANNOT PROVIDE THE FILES IN OTHER FILE FORMATS OR COMPRESSED FORMATS, AND AGREES TO ACCEPT THE FILES IN THE FORMAT PROVIDED.
7. SINCE REVISIONS OR ADDITIONS TO THE DESIGN FILE STANDARDS MAY OCCUR AT ANY TIME, THE RECEIVER AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS MOBILITY AUTHORITY, ITS OFFICERS, AGENTS, EMPLOYEES, AND CONSULTANTS FROM AND AGAINST ANY AND ALL CLAIMS, SUITS, LOSSES, DAMAGES OR COSTS, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF OUTDATED DESIGN FILE STANDARDS, SUCH INDEMNIFICATION SHALL SURVIVE ACCEPTANCE OF SAID FILE(S) BY RECEIVER.
8. THE DESIGN FILES STANDARDS ARE COPYRIGHTED BY MOBILITY AUTHORITY AND MAY NOT BE RESOLD.
9. THESE TERMS AND CONDITIONS CONSTITUTE THE COMPLETE AND FINAL AGREEMENT OF THE PARTIES HERETO. RECEIVER ACCEPTS THE AFOREMENTIONED TERMS AND CONDITIONS.

INTENT FOR REVIEW ONLY
 Document incomplete: not intended for
 permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013



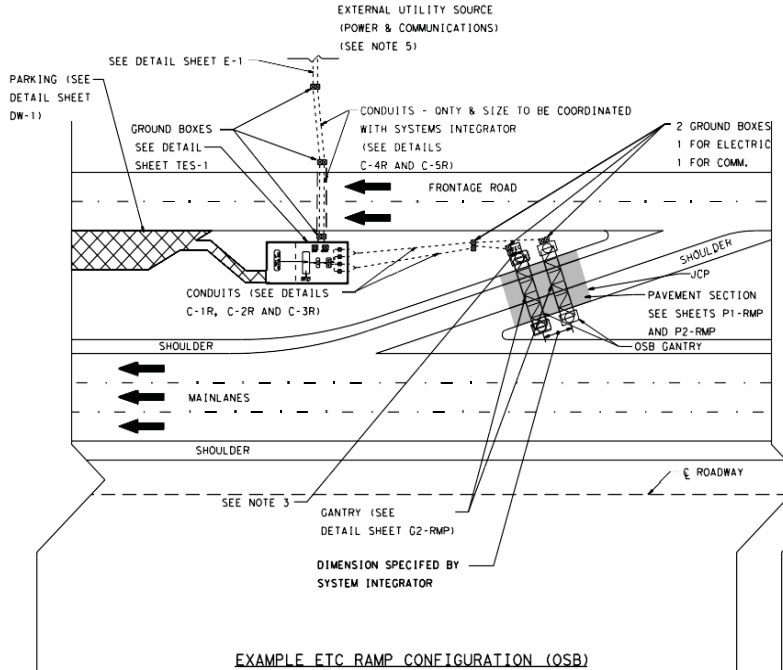
**FIXED PRICE
TOLLING STANDARDS
TERMS AND
CONDITIONS**

TC-1

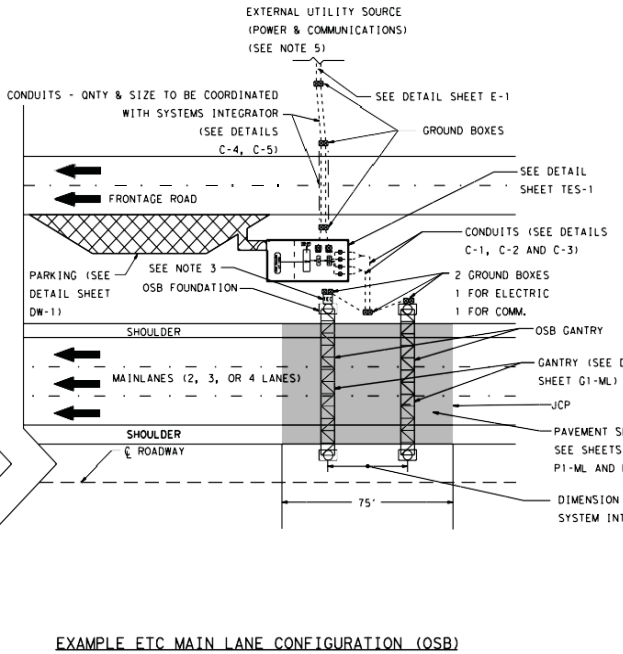
DESIGNED BY:		FED. AID PROJECT NO.		SHEET NO.	
6		6		6	
DRAWN BY:	STATE:	DIST.:	COUNTY:		
DR	TEXAS	AUS			
CHECKED BY:	CONT.:	SECT.:	JOB:	HIGHWAY NO.	
KK					

Toll System Implementation Work Authorization No. 14

Scale: 1/50
 Plotted on: S:\DATA\ETC\Standards\TollingStandards\TollTCConf\g-rev.dgn
 Path: T:\et\04\04\00\pwork\Jobs\46837-CTRMALoop\1-ML\Project Development\Design\CAD Files\p-for-MOP\PC-11\X17.dgn
 Design: FT:\et\04\04\00\pwork\Jobs\46837-CTRMALoop\1-ML\Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\TollTCConf\g-rev.dgn



EXAMPLE ETC RAMP CONFIGURATION (OSB)



EXAMPLE ETC MAIN LANE CONFIGURATION (OSB)

- NOTES:
1. CONDUIT BENDS SHALL NOT EXCEED 180° WITHOUT A PULL BOX UNLESS APPROVED BY ENGINEER.
 2. MAXIMUM LENGTH OF RUN FROM COMMUNICATION CABINET TO FURTHEST AVI/AVDS IS 125'.
 3. TEC TO BE MOUNTED ON COLUMN FOR STANDARD TXDOT STEEL COLUMNS. TEC TO BE MOUNTED ON CONCRETE PAD ADJACENT TO COLUMN FOR AESTHETIC COLUMNS. DESIGN BUILDER TO VERIFY LOCATION WITH MOBILITY AUTHORITY AND SYSTEM INTEGRATOR.
 4. THE DESIGN BUILDER MUST PROVIDE DRAWINGS SHOWING THE LOCATION OF GANTRY, PROFILES OF ROADWAY, AND SUGGESTED GENERATOR LOCATIONS TO MOBILITY AUTHORITY FOR APPROVAL.
 5. COMMUNICATIONS SHALL TIE INTO EXISTING OR PROPOSED DUCT BANK.
 6. MAXIMUM LENGTH OF RUN FROM COMMUNICATION CABINET TO FURTHEST VES/TDS EQUIPMENT IS 300'.

INTERIM REVIEW ONLY
 Document incomplete: not intended for
 permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013

NOT TO SCALE

HNTB HNTB Corporation
The HNTB Companies
Engineers, Architects, Planners
TYPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
Regional Mobility Authority

**FIXED PRICE
TOLLING STANDARDS
EXAMPLE ETC CONFIGURATIONS**

ETC-1

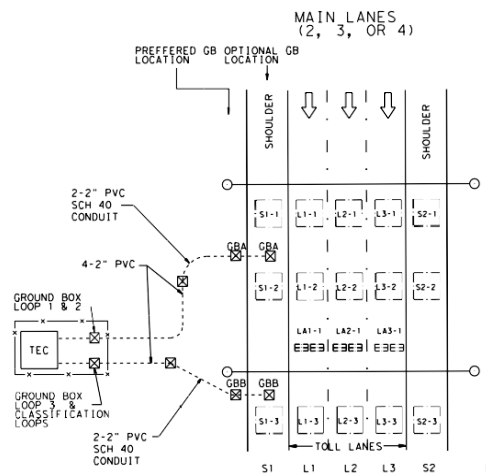
DESIGNED BY: ASU	FEDERAL AID PROJECT NO.	SHEET NO.
6		7
DRAWN BY: STATE	DIST.	COUNTY
DW TEXAS	AUS	
CHECKED BY:	CONT.	SECT.
KK		

Toll System Implementation Work Authorization No. 14

Sheet 1110
Printed on: SDDATE\$

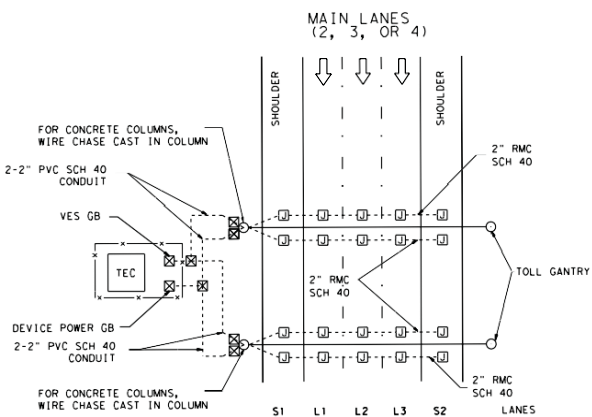
Standard: J:\ETC\Cont\grrrev.dgn

Path: Tab: \\s04w00\grrrev\kubbs\6837-CTRMA\Loop11\ML\Project_Developments\Design\CAD_Files\1101\MDPAC-1111\1117.dgn
Design_Filename: \\s04w00\grrrev\kubbs\6837-CTRMA\B3A_Operations_and_Maintenance\Tolling\New_Fixed_Price_Tolling_Standards\1111\1117.dgn



**DETAIL C-1
MAINLANE VEHICLE DETECTION SCHEMATIC**

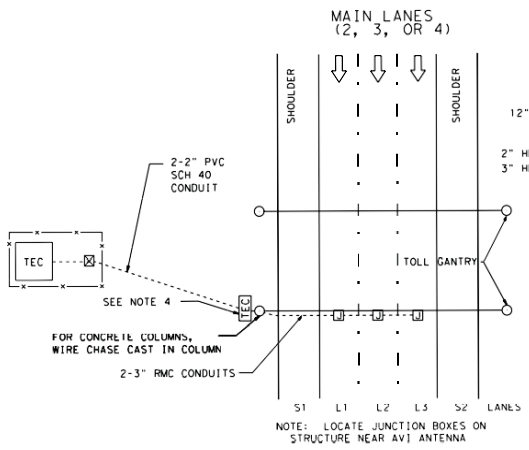
NOTE: LOOP QUANTITY AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR



**DETAIL C-2
VES CONFIGURATION**

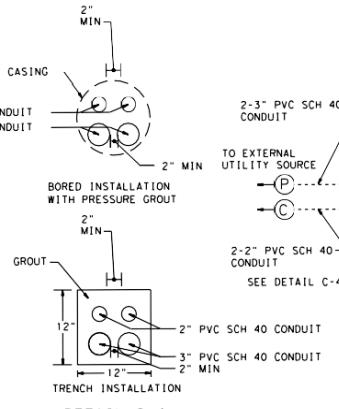
NOTE: LOCATE JUNCTION BOXES ON STRUCTURE OVER VES CAMERA

- NOTES:
- 1) BORES SHALL BE PLACED AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER.
 - 2) RETAINING WALL SECTIONS SHALL REQUIRE 4-4" SCH 80 PVC CONDUITS FROM ROADWAY SHOULDER PULL BOX TO A PULL BOX LOCATED ON THE GROUND AT FACE OF RETAINING WALL.
 - 3) DETAIL C-1: MAXIMUM CABLE LENGTH FROM S1-1 AND S1-3 TO TEC SHALL NOT EXCEED 300'
 - 4) TEC TO BE MOUNTED ON COLUMN FOR STANDARD T800 STEEL COLUMNS. TEC TO BE MOUNTED ON CONCRETE PAD ADJACENT TO COLUMN FOR AESTHETIC COLUMNS. DESIGN BUILDER TO VERIFY LOCATION WITH MOBILITY AUTHORITY AND SYSTEM INTEGRATOR.
 - 5) FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - 6) GROUND BOXES LOCATED IN PAVEMENT SHALL BE PRECAST CONCRETE HS-20 LOAD RATED WITH REMOVABLE BOLTED COVER. NO FERROUS MATERIAL ALLOWED FOR GROUND BOXES.
 - 7) PROVIDE A MINIMUM OF 2" CLEARANCE BETWEEN TOP OF GROUT AND/OR CASING, AND BOTTOM OF PAVEMENT AND/OR CONCRETE STRUCTURE.
 - 8) SYSTEM INTEGRATOR OR MOBILITY AUTHORITY MUST APPROVE OF ALL DESIGN DRAWINGS.
 - 9) WIRES RUNNING IN COLUMNS SHALL EITHER BE IN THE COLUMN IN RECESSED CHASE OR IN CONDUIT FOR TRUSS COLUMNS.
 - 10) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.
 - 11) FOR 2 MAIN LANES, REMOVE L3
FOR 4 MAIN LANES, ADD L4



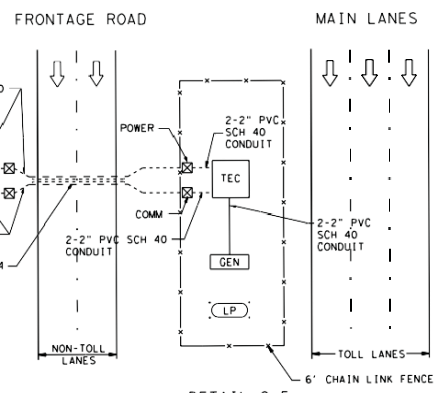
**DETAIL C-3
AVI READER CONFIGURATION**

SEE NOTE 7



**DETAIL C-4
CONDUIT ENCASUREMENT**

SEE NOTE 7



**DETAIL C-5
UTILITY POWER, BACKUP POWER, & TELECOMMUNICATIONS SCHEMATIC**

INTERIM REVIEW ONLY
 Document (contract) is not intended for
 permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013

NOT TO SCALE

HNTB CORPORATION
 THE HNTB COMPANIES
 ENGINEERS ARCHITECTS PLANNERS
 TYPE FIRM REGISTRATION NO. 1420

CENTRAL TEXAS
 Regional Mobility Authority

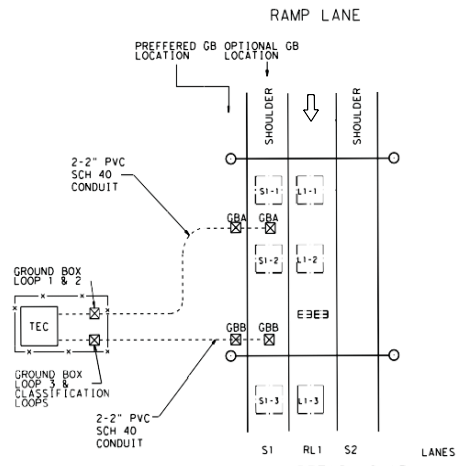
**FIXED PRICE
TOLLING STANDARDS
EXAMPLE ETC CONFIGURATION
(MAIN LANES)**

ETC-2			
DESIGNED BY:	FED. AID PROJECT NO.	SHEET NO.	6
DRAWN BY:	STATE:	DIST.:	COUNTY:
KK	TEXAS	AUS	
CHECKED BY:	CONT.:	SECT.:	JOB:
KK			HIGHWAY NO.

Toll System Implementation Work Authorization No. 14

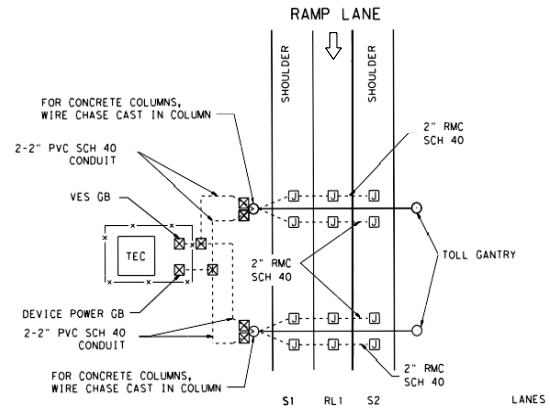
Scale: 1:10
Printed on: \$BDDT1E\$

Path: T:\04\000\pwork\Jobs\46837-CTRMA\Loop1\MCV\Project Development\Design\CAD Files\SP for MDP\C-111X17.dgn
Design: F:\names\louis\louis\work\Jobs\46837-CTRMA\183A_Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\pTCCConf\p-rev.dgn



**DETAIL C-1R
RAMP VEHICLE DETECTION SCHEMATIC**

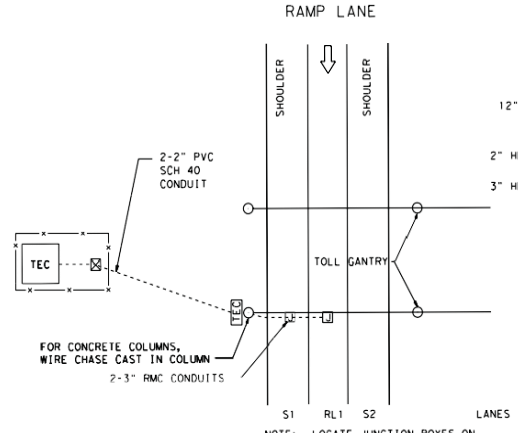
NOTE: LOOP QUANTITY AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR



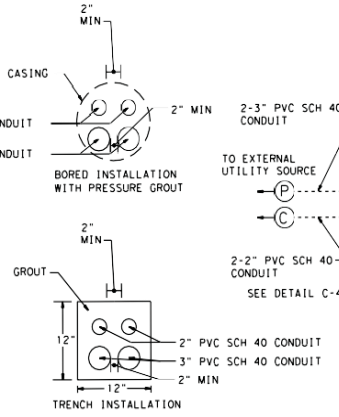
**DETAIL C-2R
VES CONFIGURATION**

NOTE: LOCATE JUNCTION BOXES ON STRUCTURE OVER VES CAMERA

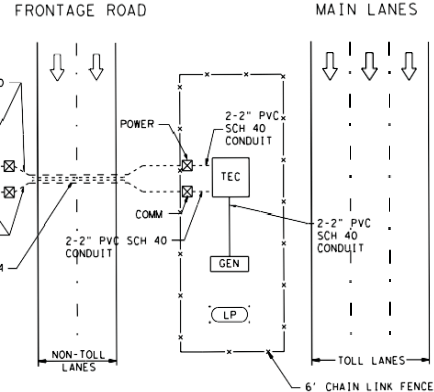
- NOTES:
- 1) BORES SHALL BE PLACED AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER.
 - 2) RETAINING WALL SECTIONS SHALL REQUIRE 4-4" SCH 80 PVC CONDUITS FROM ROADWAY SHOULDER PULL BOX TO A PULL BOX LOCATED ON THE GROUND AT FACE OF RETAINING WALL.
 - 3) DETAIL C1: MAXIMUM CABLE LENGTH FROM S1-1 AND S1-3 TO TEC SHALL NOT EXCEED 300'.
 - 4) TEC TO BE MOUNTED ON COLUMN FOR STANDARD TxDOT STEEL COLUMNS. TEC TO BE MOUNTED ON CONCRETE PAD ADJACENT TO COLUMN FOR AESTHETIC COLUMNS. DESIGN BUILDER TO VERIFY LOCATION WITH MOBILITY AUTHORITY AND SYSTEM INTEGRATOR.
 - 5) FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - 6) GROUND BOXES LOCATED IN PAVEMENT SHALL BE PRECAST CONCRETE HS-20 LOAD RATED WITH REMOVABLE BOLTED COVER. NO FERROUS MATERIAL ALLOWED FOR GROUND BOXES.
 - 7) PROVIDE A MINIMUM OF 2" CLEARANCE BETWEEN TOP OF GROUT AND/OR CASING, AND BOTTOM OF PAVEMENT AND/OR CONCRETE STRUCTURE.
 - 8) SYSTEM INTEGRATOR OR MOBILITY AUTHORITY MUST APPROVE OF ALL DESIGN DRAWINGS.
 - 9) WIRES RUNNING IN COLUMNS SHALL EITHER BE IN THE COLUMN IN RECESSED CHASE OR IN CONDUIT FOR TRUSS COLUMNS.
 - 10) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.



**DETAIL C-3R
AVI READER CONFIGURATION
SEE NOTE 7**



**DETAIL C-4R
CONDUIT ENCASUREMENT
(SEE NOTE 7)**



**DETAIL C-5R
UTILITY POWER, BACKUP POWER, &
TELECOMMUNICATIONS SCHEMATIC**

INITIAL REVIEW ONLY
Document incomplete: not intended for permit, bidding or construction.
Engineer: KRIS Z. KEITH
P.E. Serial No.: 93753
Date: 15-NOV-2013

NOT TO SCALE

HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TYPE FIRM REGISTRATION NO.: 420

REGIONAL BUREAU
Regional Mobility Authority

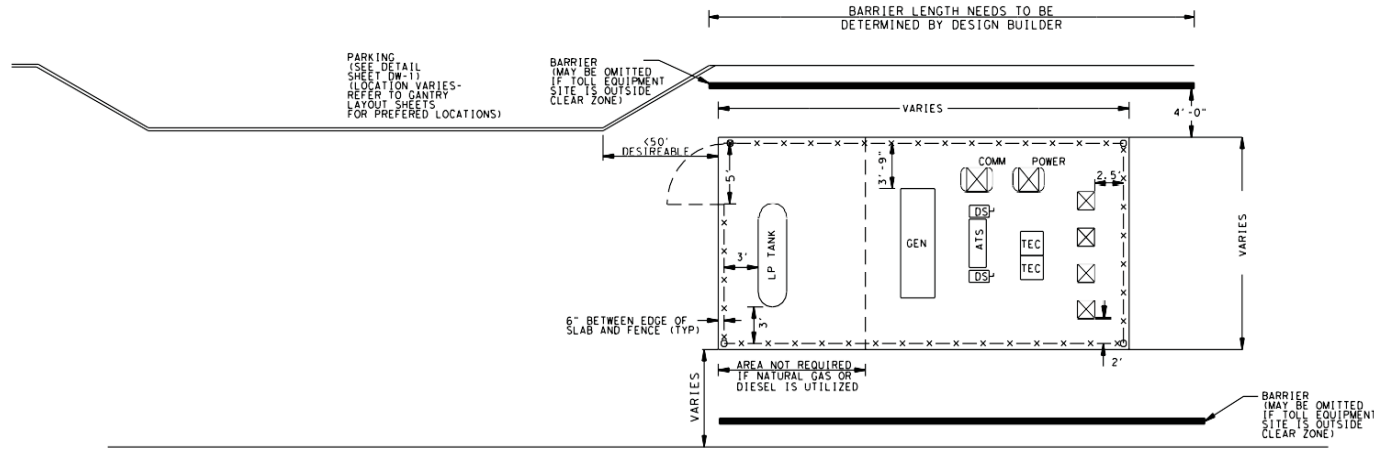
**FIXED PRICE
TOLLING STANDARDS
EXAMPLE ETC CONFIGURATION
(RAMPS)**

ETC-3		SHEET NO. 9
DESIGNED BY:	FEDERAL AID PROJECT NO.	
DRWN BY:	STATE DIST. COUNTY	
CHKD BY:	CONT. SECT. JOB	HIGHWAY NO.
KK		

Toll System Implementation Work Authorization No. 14

Scale: 1:10
Plotted on: SDDATE\$

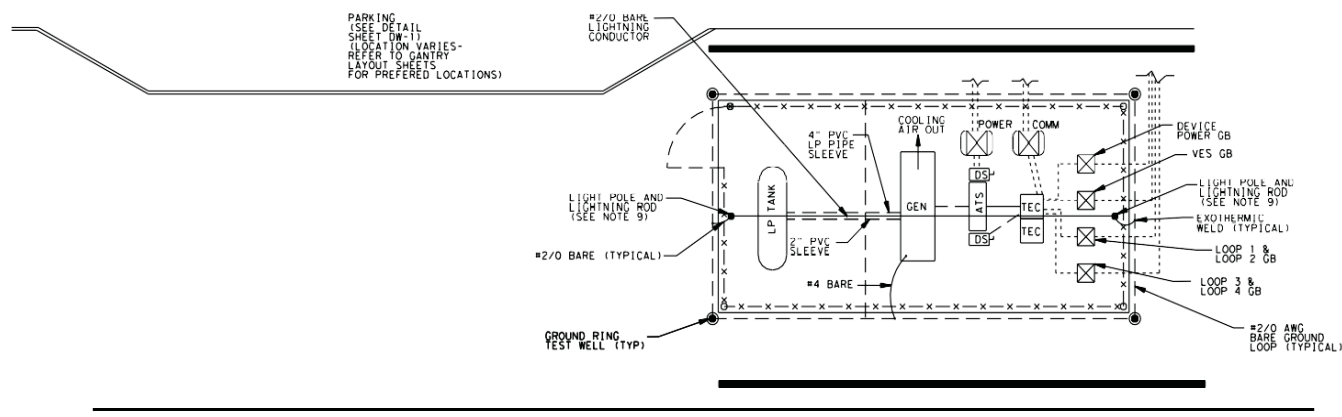
Path: T:\net\00400\pwork\Jobs\46837-CTMA\Loop1-MLV\Project Development\Design\CAD Files\SPLOT\MOPAC-11.X17.dwg
Design: F:\name1\00400\pwork\Jobs\46837-CTMA\182a-Operations and Maintenance\Tolling\New Fixed Price Tolling Standards\TEC.dgn



DETAIL 1
EQUIPMENT PLACEMENT
AND DIMENSIONS

- NOTES:
- 1) PARKING MAY BE LOCATED ON EITHER SIDE OF SLAB FOUNDATION. LAYOUTS MUST BE MIRRORRED IF PARKING IS RELOCATED.
 - 2) DESIGN BUILDER SHALL DESIGN SLAB FOUNDATION AND SUBMIT TO MOBILITY AUTHORITY FOR APPROVAL.
 - 3) DESIGN BUILDER SHALL PROVIDE ANCHOR DETAILS FOR ALL EQUIPMENT.
 - 4) TEC, FUEL TANK, GENERATOR, AND ATS TO BE PROVIDED BY SYSTEM INTEGRATOR.
 - 5) TEC SHALL HAVE FRONT AND REAR ACCESS LOCKABLE DOORS.
 - 6) TEC SHALL BE INSULATED WITH R4 FOAM INSULATION.
 - 7) TEC SHALL HAVE REDUNDANT ENVIRONMENTAL CONTROLS.
 - 8) TEC SHALL HAVE INTRUSION DETECTION SYSTEM.
 - 9) 18' ALUMINUM LIGHT POLE AND LIGHTNING ROD WITH MINIMUM 150 WAT METAL HALIDE 120V/240V OR EQUIVALENT LED OUTDOOR LIGHT FIXTURE WITH PHOTO CELL.
 - 10) DESIGN BUILDER SHALL BE RESPONSIBLE FOR PROVIDING PROTECTION FOR ALL EQUIPMENT PLACEMENT LOCATIONS.
 - 11) DESIGN BUILDER SHALL DETERMINE NUMBER OF WIRES, SIZE OF WIRES AND CONDUIT SIZE NEEDED TO MEET NEC AND ROAD REQUIREMENTS.
 - 12) TEC CABINET TO BE DUAL 334 OR EQUIVALENT.
 - 13) ALL GROUND/PULL BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.

INTERIM REVIEW ONLY
Document incomplete: not intended for permit, bidding or construction.
Engineer: KRIS Z. AELTH
P.E. Serial No.: 93753
Date: 15-NOV-2013



DETAIL 2
EQUIPMENT PLACEMENT
AND ELECTRICAL RUNS

NOT TO SCALE

HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TYPE FIRM REGISTRATION NO.: 420

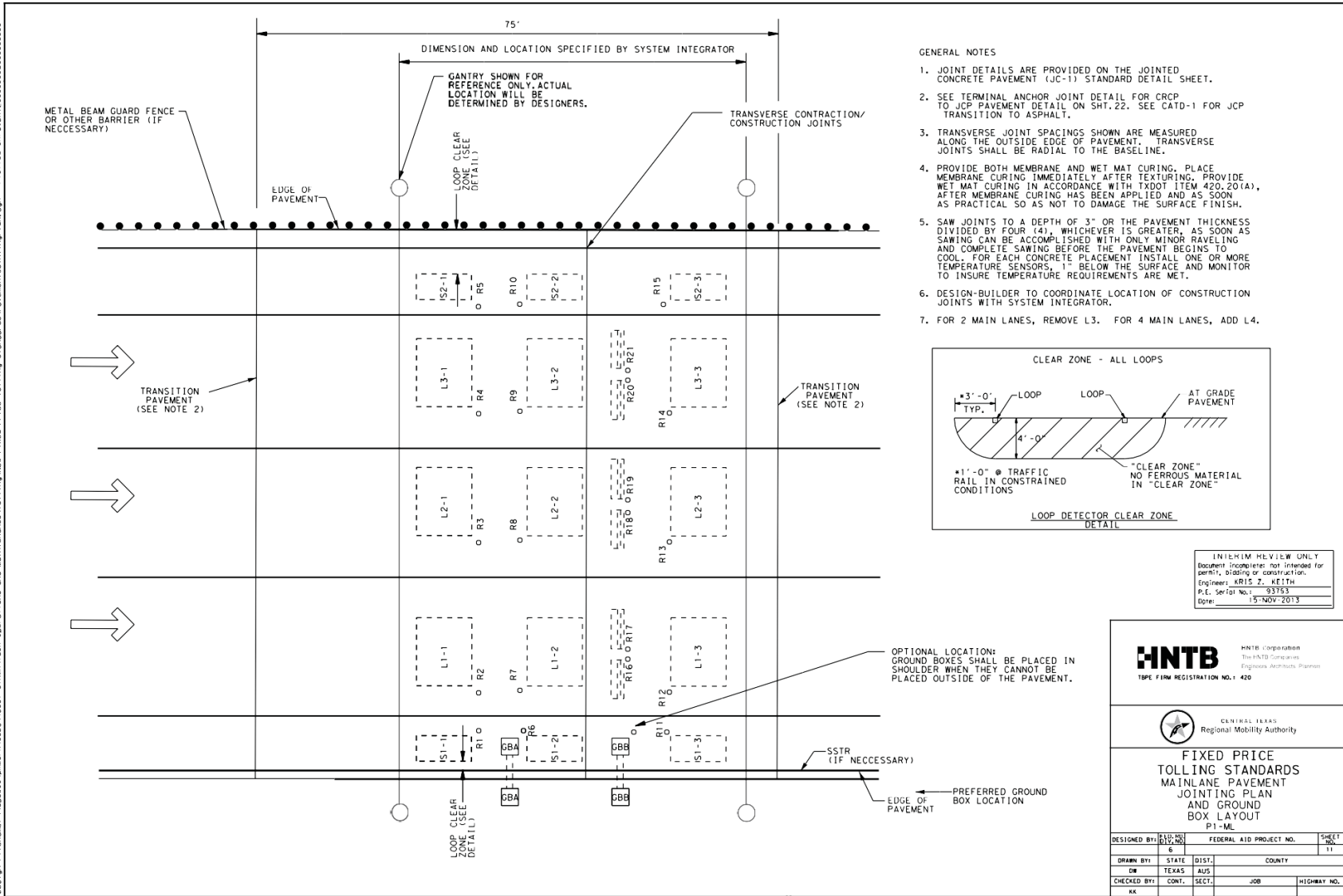
CENTRAL TEXAS
Regional Mobility Authority

FIXED PRICE
TOLLING STANDARDS
TOLL EQUIPMENT SITE
PLACEMENT DETAILS

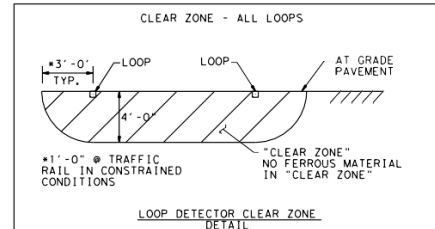
TES-1			
DESIGNED BY:	6	FEDERAL AID PROJECT NO.	SHEET NO.
DRWN BY:	STATE	DIST.	COUNTY
CHKD BY:	TXAS	AUS	
KK	CONT.	SECT.	JOB HIGHWAY NO.

Toll System Implementation Work Authorization No. 14

Pen: Top left: \\oua00\pwork\k\jobs\46837-CTRNA\Loop1 ML VPr-jct - Development\Des\gn\CAD - Files\Prj\gn\WGPA\11117.dwg
 Des\gn - Files\Prj\gn\WGPA\11117.dwg
 User: \\oua00\pwork\k\jobs\46837-CTRNA\Loop1 ML VPr-jct - Development\Operations and Maintenance\11117.dwg
 User: \\oua00\pwork\k\jobs\46837-CTRNA\Loop1 ML VPr-jct - Development\Operations and Maintenance\11117.dwg
 Scale: 1:10
 Printed on: SDAUTXXXXXXXXXXXXXXXXXXXX



- GENERAL NOTES
- JOINT DETAILS ARE PROVIDED ON THE JOINTED CONCRETE PAVEMENT (JC-1) STANDARD DETAIL SHEET.
 - SEE TERMINAL ANCHOR JOINT DETAIL FOR CRCP TO JCP PAVEMENT DETAIL ON SHT. 22. SEE CATD-1 FOR JCP TRANSITION TO ASPHALT.
 - TRANSVERSE JOINT SPACINGS SHOWN ARE MEASURED ALONG THE OUTSIDE EDGE OF PAVEMENT. TRANSVERSE JOINTS SHALL BE RADIAL TO THE BASELINE.
 - PROVIDE BOTH MEMBRANE AND WET MAT CURING. PLACE MEMBRANE CURING IMMEDIATELY AFTER TEXTURING. PROVIDE WET MAT CURING IN ACCORDANCE WITH TXDOT ITEM 400.20(A). AFTER MEMBRANE CURING HAS BEEN APPLIED AND AS SOON AS PRACTICAL SO AS NOT TO DAMAGE THE SURFACE FINISH.
 - SAW JOINTS TO A DEPTH OF 3" OR THE PAVEMENT THICKNESS DIVIDED BY FOUR (4), WHICHEVER IS GREATER, AS SOON AS SAWING CAN BE ACCOMPLISHED WITH ONLY MINOR RAVELING AND COMPLETE SAWING BEFORE THE PAVEMENT BEGINS TO COOL. FOR EACH CONCRETE PLACEMENT INSTALL ONE OR MORE TEMPERATURE SENSORS, 1" BELOW THE SURFACE AND MONITOR TO INSURE TEMPERATURE REQUIREMENTS ARE MET.
 - DESIGN-BUILDER TO COORDINATE LOCATION OF CONSTRUCTION JOINTS WITH SYSTEM INTEGRATOR.
 - FOR 2 MAIN LANES, REMOVE L3. FOR 4 MAIN LANES, ADD L4.



INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: J.R.S.P. KEITH
 P.E. Serial No.: 93753
 Date: 15 NOV 2013

HNTB HNTB Corporation
 The HNTB Companies
 Engineers Architects Planners
 TYPE FIRM REGISTRATION NO. 1420

CENTRAL TEXAS
 Regional Mobility Authority

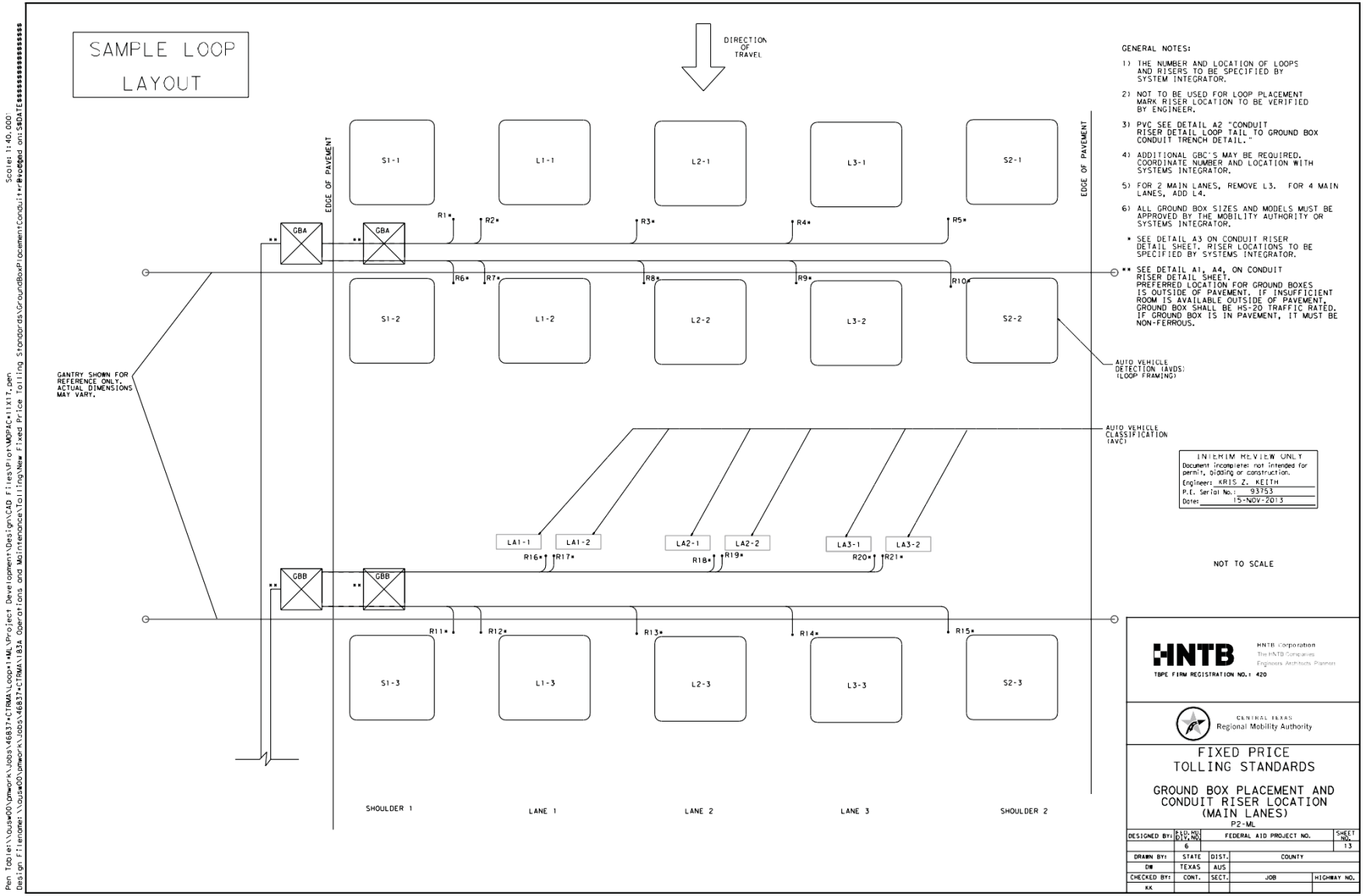
**FIXED PRICE
 TOLLING STANDARDS
 MAINLANE PAVEMENT
 JOINTING PLAN
 AND GROUND
 BOX LAYOUT
 P1 - ML**

DESIGNED BY: J.S.H.	FEDERAL AID PROJECT NO.:	SHEET NO.:
4		11
DRAWN BY: STATE	DIST.:	COUNTY:
DR TEXAS	AUS	
CHECKED BY: CONT.	SECT.:	JOB
KK		HIGHWAY NO.:

OPTIONAL LOCATION:
 GROUND BOXES SHALL BE PLACED IN SHOULDER WHEN THEY CANNOT BE PLACED OUTSIDE OF THE PAVEMENT.

SSTR (IF NECESSARY)
 PREFERRED GROUND BOX LOCATION
 EDGE OF PAVEMENT

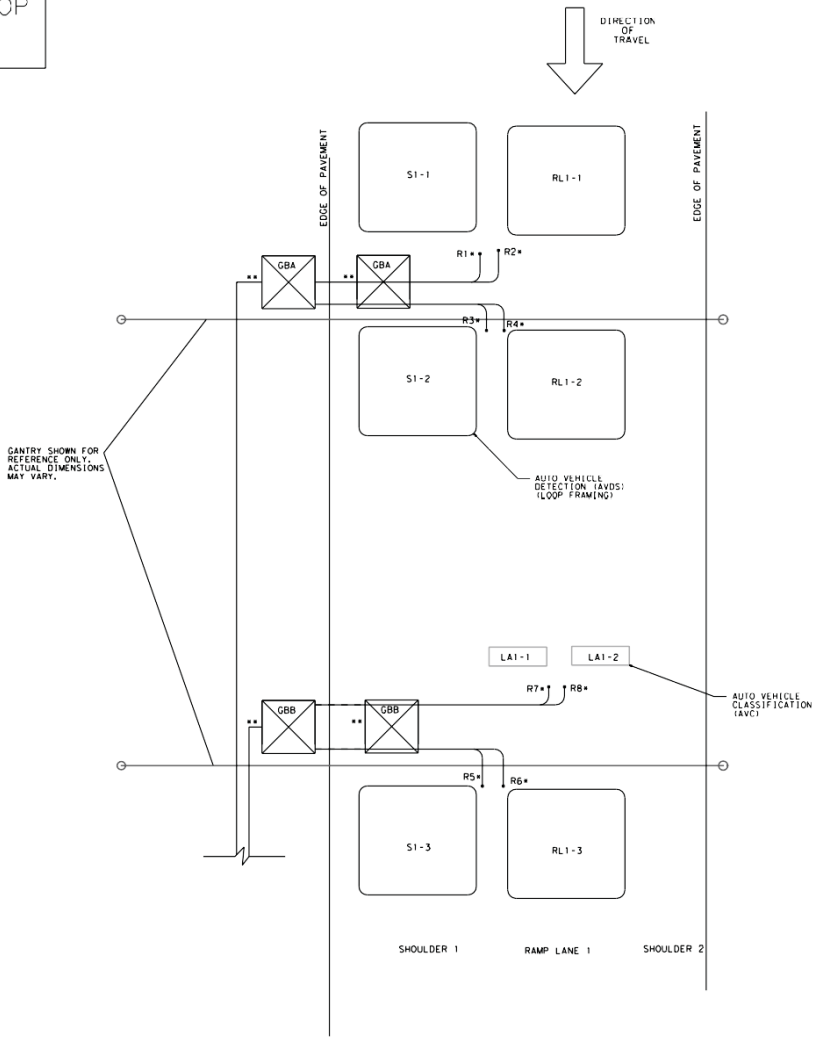
Toll System Implementation Work Authorization No. 14



Pen: Topline\Users\james.vadka\Jobs\46837-CTRMA\Loop1 ML\Project Development\Design\CD\ Files\SP of MOPAC\11117.dwg
 Dwg: Sp. File: 11117.dwg
 User: jvadka
 Date: 15-NOV-2013
 Title: SAMPLE LOOP LAYOUT

Plan Top left: \\source00\pwwork\jobs\6837-CTBMA\Loop14\4-UP-roject\Development\Design\CAD Files\SP of MPTAC\141117.dwg
 Dir: g:\p171\pwwork\jobs\6837-CTBMA\Loop14\4-UP-roject\Development\Design\Operations and Maintenance\Tolling\New Fixed Price Tolling_Storage\Src\condbox.rvt Document: Condbox14-4-UP-roject\Tolling\New Fixed Price Tolling_Storage\Src\condbox.rvt
 Scale: 1:40,000

SAMPLE LOOP
LAYOUT



- GENERAL NOTES:**
- 1) THE NUMBER AND LOCATION OF LOOPS AND RISERS TO BE SPECIFIED BY SYSTEM INTEGRATOR.
 - 2) NOT TO BE USED FOR LOOP PLACEMENT. MARK RISER LOCATION TO BE VERIFIED BY ENGINEER.
 - 3) PVC SEE DETAIL A2 "CONDUIT RISER DETAIL LOOP TAIL TO GROUND BOX CONDUIT TRENCH DETAIL".
 - 4) ADDITIONAL GBC'S MAY BE REQUIRED. COORDINATE NUMBER AND LOCATION WITH SYSTEMS INTEGRATOR.
 - 5) ALL GROUND/PILE BOX SIZES AND MODELS MUST BE APPROVED BY THE MOBILITY AUTHORITY OR SYSTEMS INTEGRATOR.
- SEE DETAIL A3 ON CONDUIT RISER DETAIL SHEET. RISER LOCATIONS TO BE SPECIFIED BY SYSTEMS INTEGRATOR.
- SEE DETAIL A1, A4, ON CONDUIT RISER DETAIL SHEET. PREFERRED LOCATION FOR GROUND BOXES IS OUTSIDE OF PAVEMENT. IF INSUFFICIENT ROOM IS AVAILABLE OUTSIDE OF PAVEMENT, GROUND BOX SHALL BE HS-20 TRAFFIC RATED. IF GROUND BOX IS IN PAVEMENT, IT MUST BE NON-FERROUS.

INTENT FOR REVIEW ONLY
 Document incomplete; not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013

NOT TO SCALE

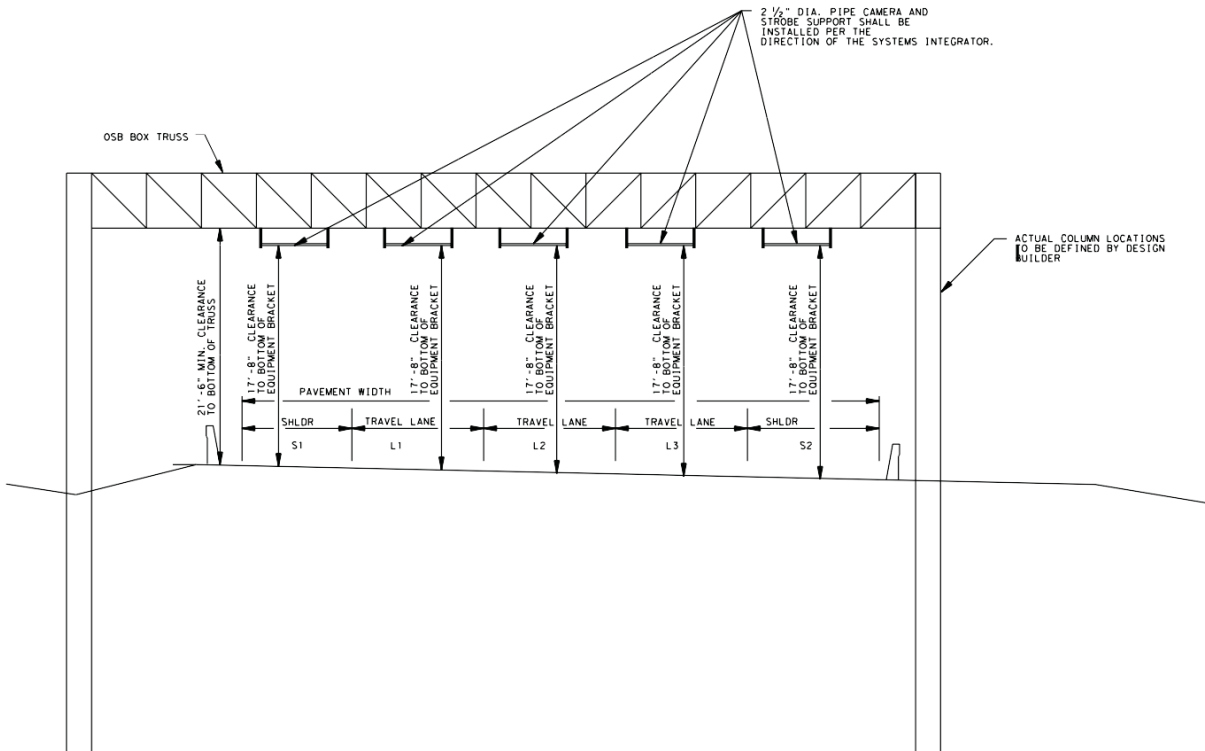


FIXED PRICE TOLLING STANDARDS
GROUND BOX PLACEMENT AND CONDUIT RISER LOCATION (RAMPS)
 P2 - RMP

DESIGNED BY:	6120	FEDERAL AID PROJECT NO.	SHEET NO.
6			14
DRAWN BY:	STATE	DIST.	COUNTY
DK	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB
KK			HIGHWAY NO.

Toll System Implementation
Work Authorization No. 14

Pen: Top: c:\Users\j\OneDrive\Documents\SH45 SW Project Development\Design\CAD Files\DWG\NMP\011117.dwg
 Design: F:\Users\j\OneDrive\Documents\SH45 SW Project Development\Design\CAD Files\DWG\NMP\011117.dwg
 Plot: 11/10/2017 11:10:11 AM
 Scale: 1:10
 File: C:\Users\j\OneDrive\Documents\SH45 SW Project Development\Design\CAD Files\DWG\NMP\011117.dwg
 Plot: 11/10/2017 11:10:11 AM
 Scale: 1:10
 File: C:\Users\j\OneDrive\Documents\SH45 SW Project Development\Design\CAD Files\DWG\NMP\011117.dwg



- NOTES**
- TWO (2) BRACKETS ARE REQUIRED FOR EACH LOCATION SHOWN. BRACKETS SHALL BE ADJUSTABLE TO ALLOW FOR POSITIONING IN ACCORDANCE WITH THE SYSTEMS INTEGRATOR'S SPECIFICATIONS. DESIGN BUILDER MUST COORDINATE INITIAL PLACEMENT LOCATION WITH THE SYSTEMS INTEGRATOR.
 - WALKWAYS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY TRUSSES. LADDERS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY COLUMNS.
 - FOR 2 MAIN LANES, REMOVE L3. FOR 4 MAIN LANES, ADD L4.

QUANTITY OF BRACKETS:
 2 LANES = 16 BRACKETS
 3 LANES = 20 BRACKETS
 4 LANES = 24 BRACKETS

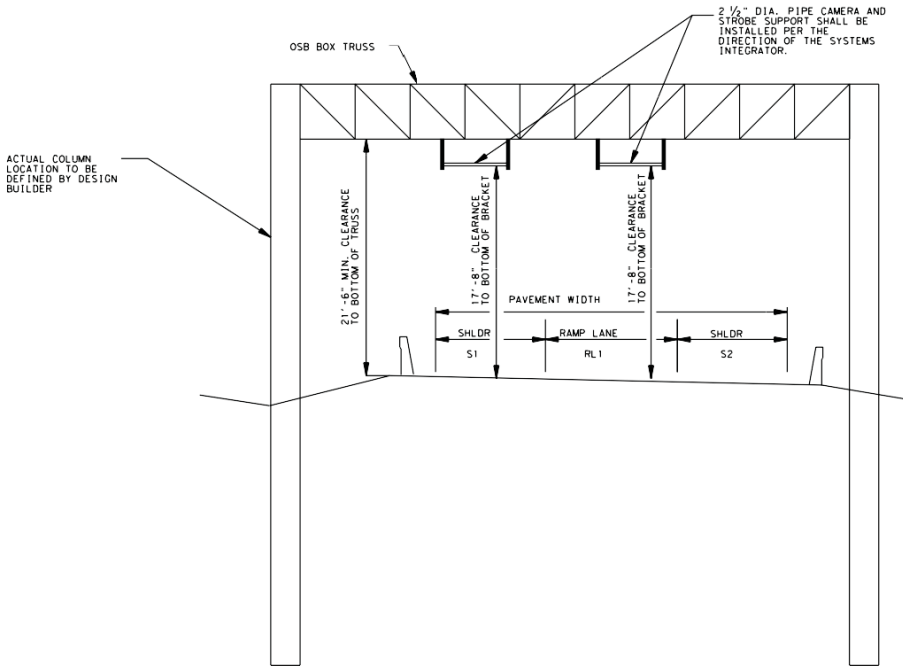
INTENTIONAL VIEW ONLY
 Document Incorporated: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E., Serial No.: 23153
 Date: 15-NOV-2013

NOT TO SCALE

HNTB		HNTB Corporation The HNTB Companies Engineers Architects Planners	
		CENTRAL TEXAS Regional Mobility Authority	
FIXED PRICE TOLLING STANDARDS MAINLANE GANTRY CROSS-LANE TANGENT ELEVATION VIEW			
G1-ML			
DESIGNED BY:	DESIGN NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6			15
DRAWN BY:	STATE	DIST.	COUNTY
DR	TEXAS	AUS	
CHECKED BY:	CONT.	SECT.	JOB HIGHWAY NO.
KK			

Toll System Implementation Work Authorization No. 14

Pen: Top level: \\oua00\pwork\Jobs\6837-CTRMA\Loop1\ML\Project Development\Design\CD\Files\01\MPAC\1117.dwg
 Design: F:\hansel\oua00\pwork\Jobs\6837-CTRMA\B3\Operations and Maintenance\101116\New Fixed Price Tolling Standards\1\lane\tangent\level\dwg\14.sdw
 Scale: 1:10



- NOTES**
- TWO (2) BRACKETS ARE REQUIRED FOR EACH LOCATION SHOWN. BRACKETS SHALL BE ADJUSTABLE TO ALLOW FOR POSITIONING IN ACCORDANCE WITH THE SYSTEMS INTEGRATOR'S SPECIFICATIONS. DESIGN BUILDER MUST COORDINATE INITIAL PLACEMENT LOCATION WITH THE SYSTEMS INTEGRATOR.
 - WALKWAYS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY TRUSSES. LADDERS ARE REQUIRED TO BE INSTALLED ON ALL GANTRY COLUMNS.

QUANTITY OF BRACKETS:
1 RAMP LANE = 8 BRACKETS

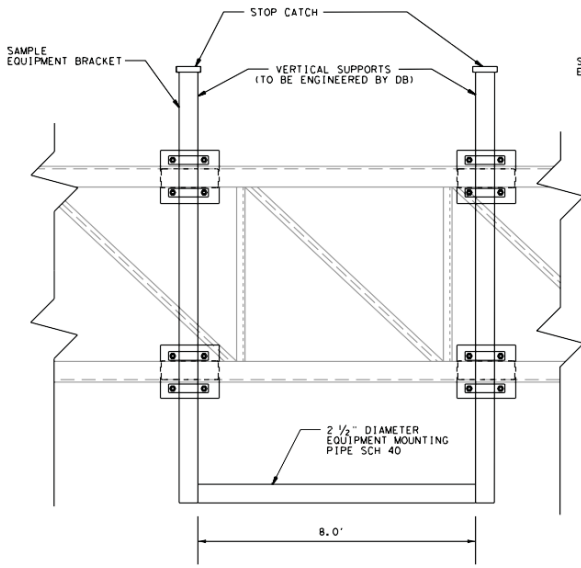
INITIAL REVIEW ONLY
 Document Incorporated: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93153
 Date: 15-NOV-2013

NOT TO SCALE

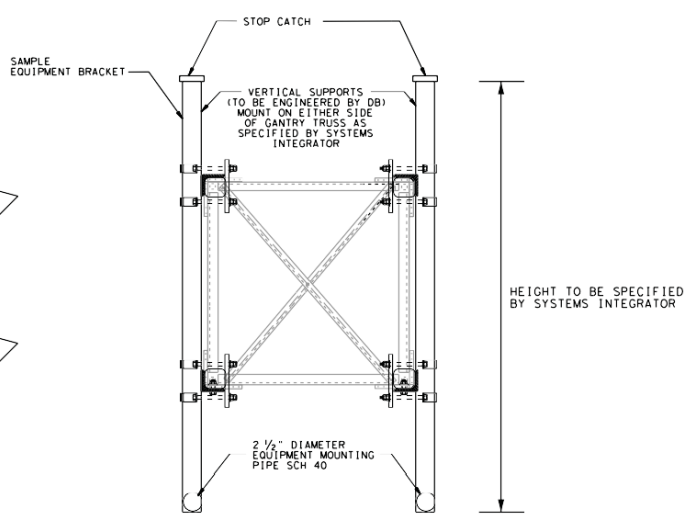
HNTB Corporation <small>The HNTB Companies</small> <small>Engineers Architects Planners</small>									
CENTRAL TEXAS Regional Mobility Authority									
FIXED PRICE TOLLING STANDARDS RAMP CROSS-LANE TANGENT ELEVATION VIEW									
G2-RMP									
DESIGNED BY:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DESIGN NO.</td> <td style="width: 25%;">FEDERAL AID PROJECT NO.</td> <td style="width: 25%;">SHEET NO.</td> <td style="width: 25%;">16</td> </tr> <tr> <td>6</td> <td></td> <td></td> <td></td> </tr> </table>	DESIGN NO.	FEDERAL AID PROJECT NO.	SHEET NO.	16	6			
DESIGN NO.	FEDERAL AID PROJECT NO.	SHEET NO.	16						
6									
DRAWN BY:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">STATE</td> <td style="width: 25%;">DIST.</td> <td style="width: 25%;">COUNTY</td> <td style="width: 25%;">JOB</td> </tr> <tr> <td>TX</td> <td></td> <td></td> <td></td> </tr> </table>	STATE	DIST.	COUNTY	JOB	TX			
STATE	DIST.	COUNTY	JOB						
TX									
CHECKED BY:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">CONT.</td> <td style="width: 25%;">SECT.</td> <td style="width: 25%;">JOB</td> <td style="width: 25%;">HIGHWAY NO.</td> </tr> <tr> <td>KK</td> <td></td> <td></td> <td></td> </tr> </table>	CONT.	SECT.	JOB	HIGHWAY NO.	KK			
CONT.	SECT.	JOB	HIGHWAY NO.						
KK									

Toll System Implementation Work Authorization No. 14

Score: 11.2
 Pen: T:\d:\e:\j\j\user\00\umwork\1\job\46837-CTRNA\loop1\M_L\Prj\0\ject\Development\Des\gn\CAD Files\1\0\MDP\0-11-17.dwg
 Design File Name: \source\umwork\1\job\46837-CTRNA\1\B3\operations and maintenance\Tolling\New Fixed Price Tolling Standards\Miscellaneous\miscellaneous.dgn
 Date: 15-NOV-2013



ELEVATION TOLL GANTRY BRACKET

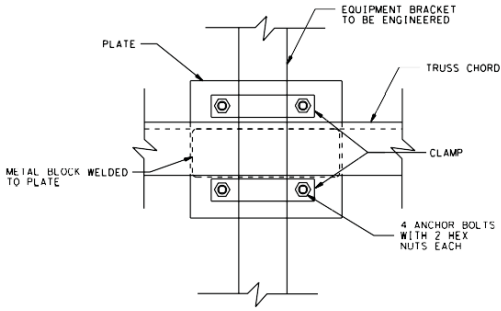


CROSS SECTION OF TOLL GANTRY BRACKET

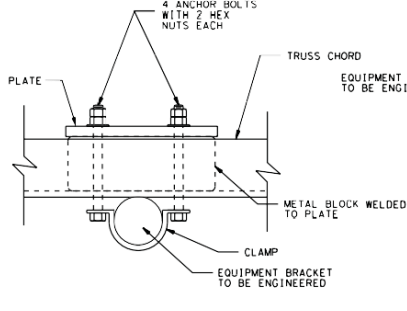
- GENERAL NOTES:
- 1) THESE DETAILS ARE FOR USE WITH TXDOT STANDARD OVERHEAD SIGN BRIDGE (OSB) OR CANTILEVER OVERHEAD SIGN SUPPORT (COSS).
 - 2) FOR CONNECTION DETAILS NOT SHOWN SEE OVERHEAD SIGN BRIDGE TRUSS DETAILS (OSBC) OR CANTILEVER OVERHEAD SIGN SUPPORT DETAILS (COSSD).
 - 3) ALL SHALL BE COMPATIBLE WITH THE EQUIPMENT STANDARDS OF THE ASSOCIATED REFERENCE SIGN BRIDGE STANDARDS.
 - 4) QUANTITY OF EQUIPMENT BRACKETS AND LOCATION TO BE SPECIFIED BY SYSTEM INTEGRATOR.
 - 5) DESIGN OF EQUIPMENT BRACKET AND CONNECTION TO OVERHEAD TRUSS TO BE PROVIDED BY DESIGN BUILDER. AVI ANTENNA AND CAMERA MOUNTING HARDWARE AND CONNECTION DETAILS TO BE PROVIDED BY SYSTEM INTEGRATOR.
 - 6) SHOP DRAWINGS FOR AVI ANTENNA AND VES CAMERA SUPPORT SHALL BE PROVIDED FOR ENGINEER'S REVIEW.
 - 7) DESIGNER BUILDER TO SPECIFY APPROPRIATE, SPAN, ICE LOADING, AND WIND ZONE. TRUSS DYNAMIC RESPONSE AND DEFLECTION SHALL BE COMPATIBLE WITH TOLL SYSTEM REQUIREMENTS.
 - 8) DESIGN OF OSB AND COSS COLUMNS, DRILLED SHAFTS, AND TRUSS TO COLUMN CONNECTION TO BE PROVIDED BY DESIGN BUILDER.
 - 9) EQUIPMENT BRACKET AND ALL MOUNTING HARDWARE SHALL BE HOT DIP GALVANIZED.

INTERIM REVIEW ONLY
 Document is preliminary; not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013

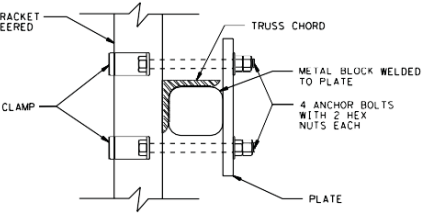
NOT TO SCALE



FRONT VIEW
(TOP CHORD SHOWN, FLIP HORIZ. FOR BOTTOM CHORD)



TOP VIEW
(TOP CHORD SHOWN, BOTTOM VIEW FOR BOTTOM CHORD)



SIDE VIEW
(TOP CHORD SHOWN, FLIP HORIZ. FOR BOTTOM CHORD)

HNTB HNTB Corporation
The HNTB Companies
Engineers, Architects, Planners

TYPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
Regional Mobility Authority

**FIXED PRICE
TOLLING STANDARDS
TOLL GANTRY
MISCELLANEOUS
DETAILS**

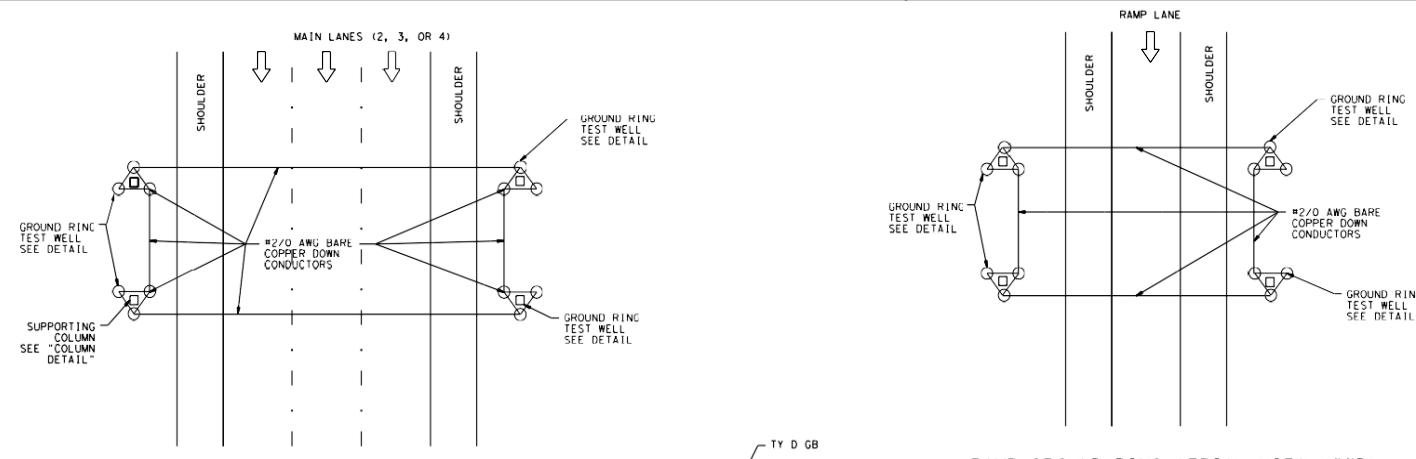
MG-1

DESIGNED BY:	610-101	FEDERAL AID PROJECT NO.	SHL1
	8		17
DRAWN BY:	STATE	DIST.	COUNTY
	TX	TEXAS	AUS
CHECKED BY:	CONT.	SECT.	JOB
	KK		HIGHWAY NO.

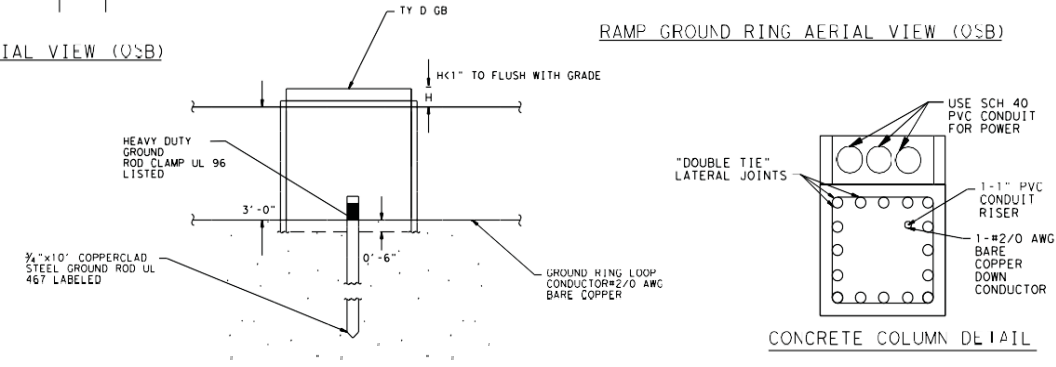
Toll System Implementation Work Authorization No. 14

Scale: 1:20

Pen: T:\Users\jgouge\OneDrive\K:\Jobs\46837-CTRMALoop+1\A\Project Development\Design\CAD Files\PILOT\MOPAC\111X17.dwg
 Designer: F:\names\jgouge\OneDrive\K:\Jobs\46837-CTRMALoop+1\A\Project Development\Design\CAD Files\PILOT\MOPAC\111X17.dwg
 Designer: F:\names\jgouge\OneDrive\K:\Jobs\46837-CTRMALoop+1\A\Project Development\Design\CAD Files\PILOT\MOPAC\111X17.dwg

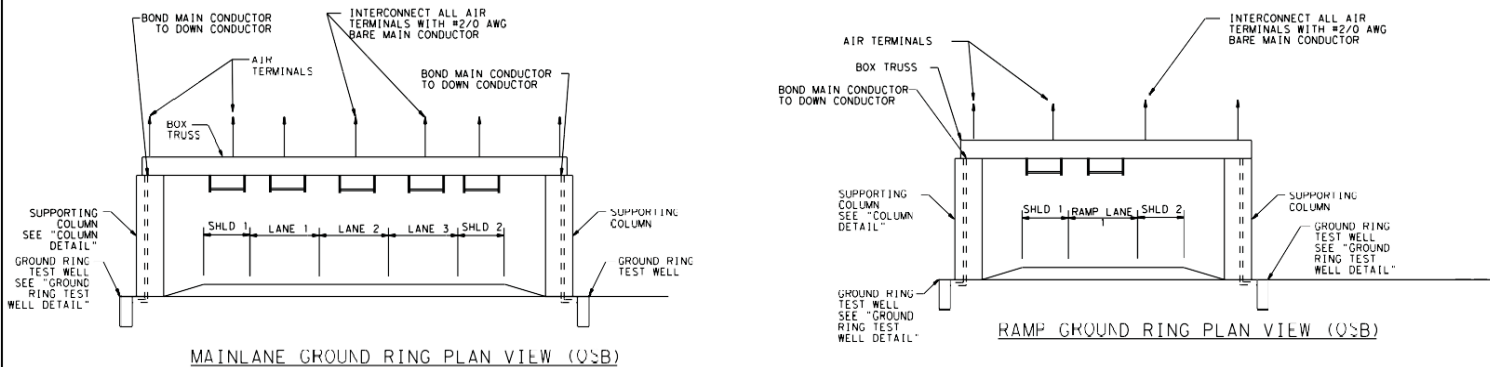


- NOTES:**
- 1) LIGHTNING PROTECTION SYSTEM DESIGN (LPS) IS PROVIDED FOR INFORMATION ONLY. ULTIMATE LPS DESIGN SHALL COMPLY WITH NFPA 780 AND CURRENT NATIONAL ELECTRIC CODE (NEC).
 - 2) ALL STRUCTURAL CONCRETE AND CONDUIT INSTALLATIONS SHALL COMPLY WITH ACI 318 CHAPTER 6.
 - 3) LPS SHALL BE INSTALLED BY A UL LISTED INSTALLER.
 - 4) LPS SHALL BE UL MASTER LABEL CERTIFIED.
 - 5) ALL LPS MATERIALS SHALL MEET NFPA 780 CLASS II REQUIREMENTS.
 - 6) ALL REBAR LATERAL ELEMENTS, LAP JOINTS, AND CONNECTIONS SHALL BE "DOUBLE TIED".
 - 7) FOR DETAILS OF TOLL COLLECTION SYSTEMS CONFIGURATION, COORDINATE WITH SYSTEM INTEGRATOR.
 - 8) AIR TERMINALS SHALL ACCOMMODATE A GUIDE EVERY 14'-0" CENTERED ON GANTRY TRUSS.
 - 9) FOR 2 MAIN LANES, REMOVE LANE 3.
FOR 4 MAIN LANES, ADD LANE 4.



INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: FABIAN KALBACH
 P.E. Serial No: 58100
 Date: 15-NOV-2013

NOT TO SCALE



HNTB HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TYPE FIRM REGISTRATION NO.: 420

CENTRAL TEXAS
Regional Mobility Authority

**FIXED PRICE
TOLLING STANDARDS
LIGHTNING PROTECTION
SYSTEM DETAILS**

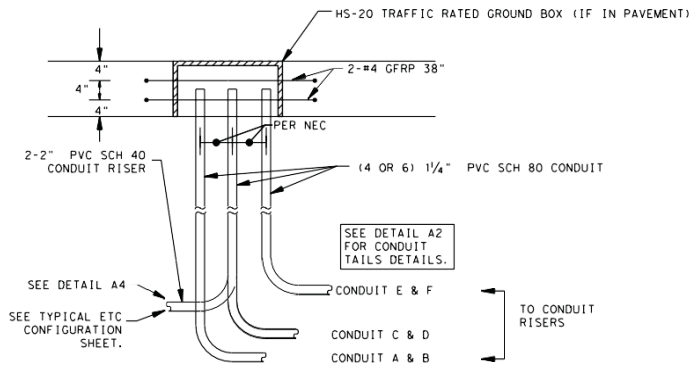
LP-1

DESIGNED BY: EJC/ML	FEDERAL AID PROJECT NO.	SHEET NO.
6		18
DRAWN BY:	STATE	DIST.
DR	TEXAS	AUS
CHECKED BY:	CONT.	SECT.
KK		

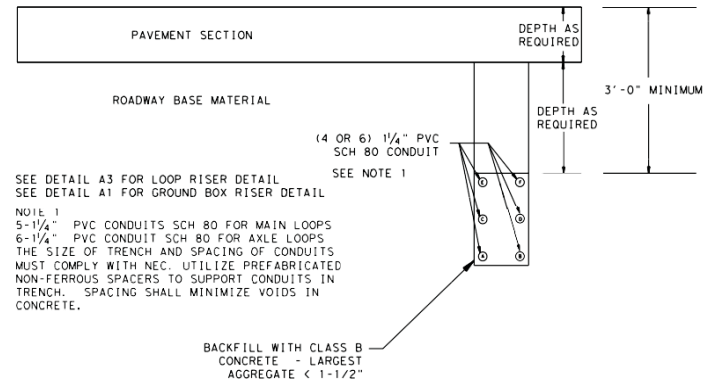
Toll System Implementation Work Authorization No. 14

Scale: 1:2

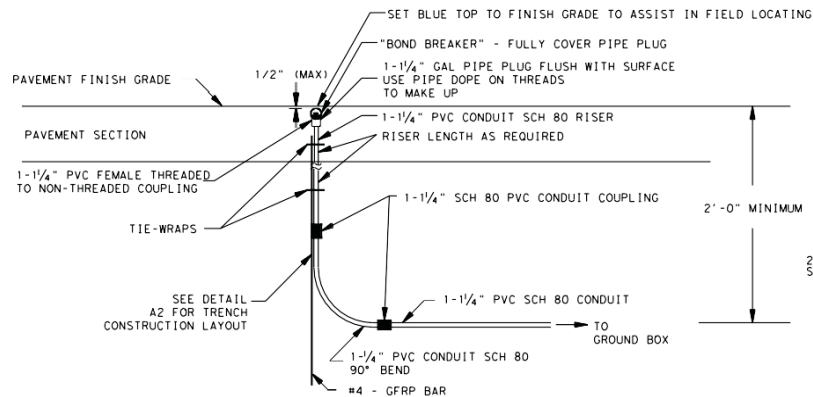
Per: T:\Users\j\Documents\Projects\SH45 SW Project\Development\Drawings\CAD Files\Plan\MPAC\11117.dwg
 Dis: T:\Users\j\Documents\Projects\SH45 SW Project\Operations and Maintenance\Tolling\New Fixed Price\Tolling Standards\Conduit Riser\Detail.rvt
 Plotted on: 8/24/2017 10:55:55 AM



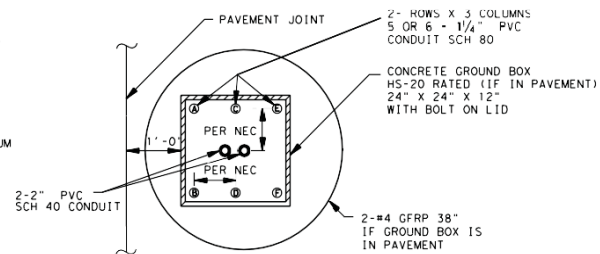
CONDUIT RISER DETAIL A1
 LOOP TAIL TO GROUND BOX
 CONDUIT TRENCH DETAIL



CONDUIT RISER DETAIL A2
 LOOP TAIL TO GROUND BOX
 CONDUIT TRENCH DETAIL



CONDUIT RISER DETAIL A3
 LOOP TAIL TO GROUND BOX
 CONDUIT LOOP RISER DETAIL



DETAIL A4

INTERIM REVIEW ONLY
 Document incomplete: not intended for
 permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No. 93753
 Date: 15-NOV-2013

NOT TO SCALE

HNTB HNTB Corporation
The HNTB Companies
 Engineers, Architects, Planners
 TYPE FIRM REGISTRATION NO. 420

CENTRAL TEXAS
 Regional Mobility Authority

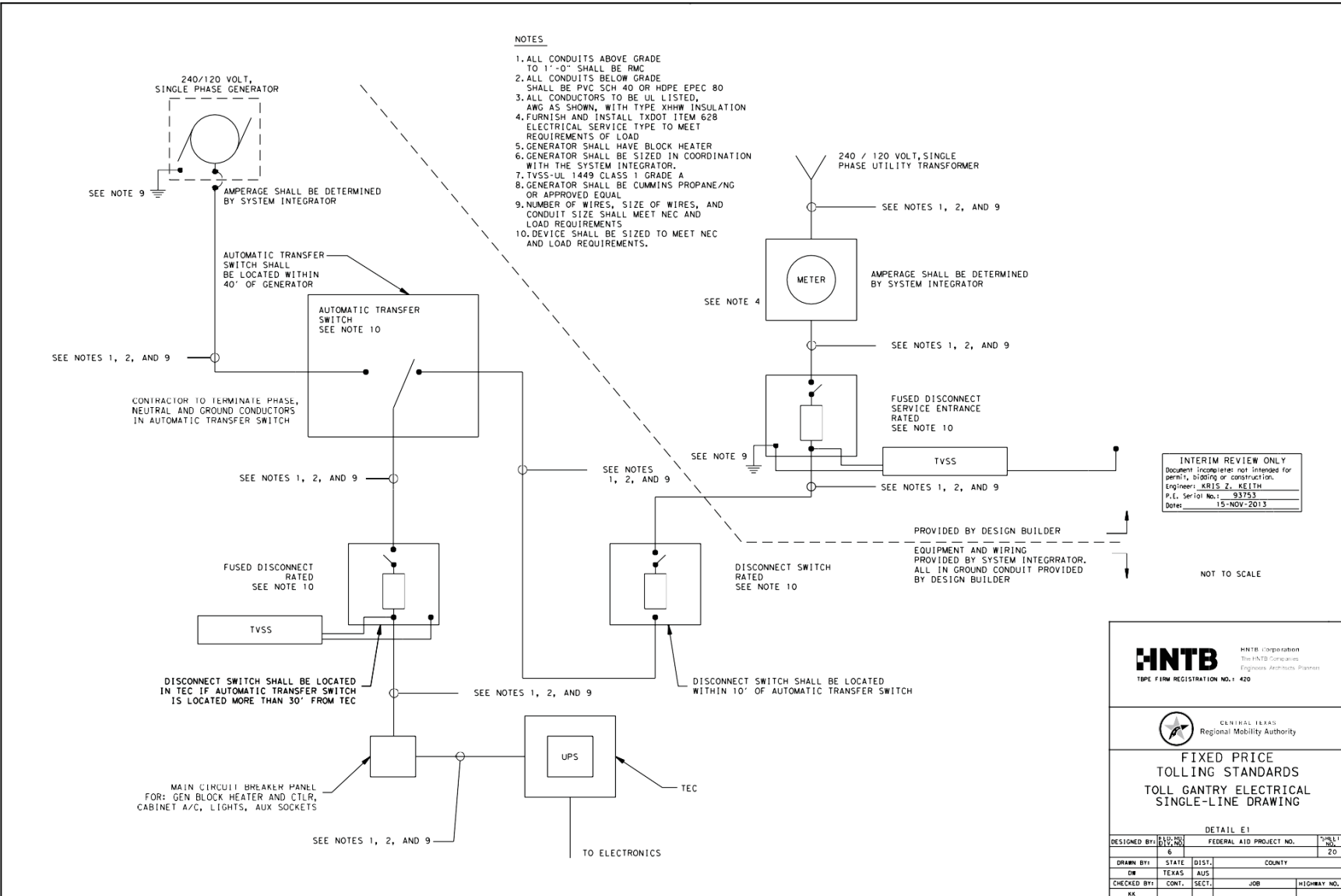
**FIXED PRICE
 TOLLING STANDARDS
 CONDUIT RISER
 DETAILS**

A1 - A4

DESIGNED BY: KZ	DATE: 6/15/17	FEDERAL AID PROJECT NO.	SHEET NO. 19
DRAWN BY:	STATE: TEXAS	DIST.:	COUNTY:
CHECKED BY: KK	CONT.:	SECT.:	JOB:
			HIGHWAY NO.:

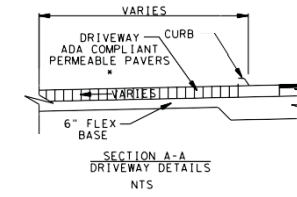
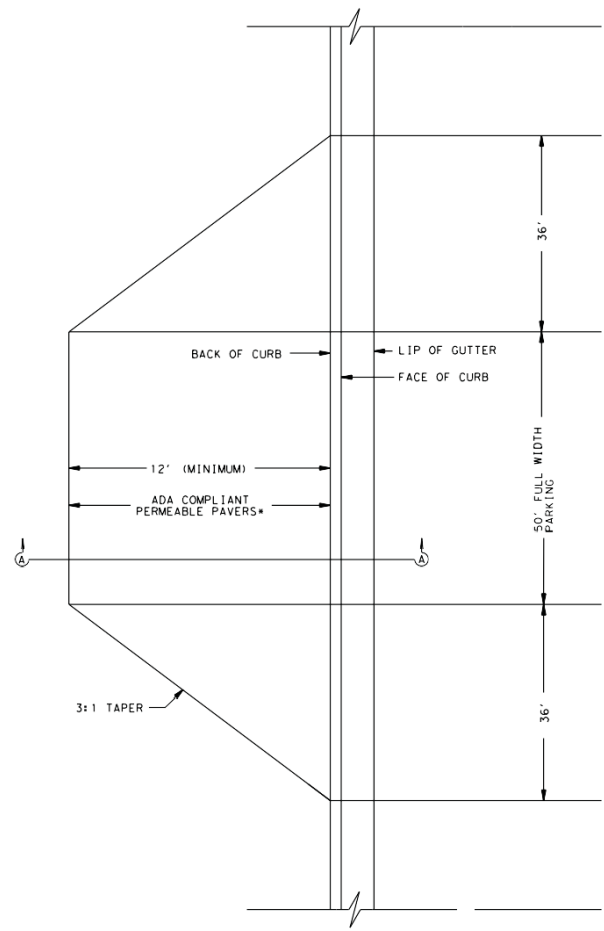
Toll System Implementation Work Authorization No. 14

Plan: T:\0145\SH45 SW Project\Drawings\Design\CD\Toll System\WPA14\WPA14-111111.dwg
 Title: TOLLING STANDARDS
 Date: 15-NOV-2013
 Author: KRIS Z. KEITH
 Project: SH 45 SW Project
 Drawing: TOLLING STANDARDS
 Sheet: 1111



Toll System Implementation Work Authorization No. 14

Plan Top: I:\out\00\work\Jobs\16837-CTBMA\Loop14\UProject_Development\Design\CD\Files\SP10\MPAC\11117.dwg
 Drawn by: J.Lindner, J.Gardner\work\Jobs\16837-CTBMA\Loop14\UProject_Development\Design\CD\Files\SP10\MPAC\11117.dwg
 Scale: 1:20
 Printed on: SDAT15-NOV-2013



ENSURE GRADE BREAK DOES NOT EXCEED 8% UNLESS OTHERWISE DIRECTED.
 DRIVEWAY CROSS SLOPE TO BE DESIGNED TO FACILITATE DRAINAGE AND SHALL NOT EXCEED +/- 5%. DRIVEWAY SECTIONS THAT CROSS EXISTING OR PROPOSED PEDESTRIAN FACILITIES SHALL NOT EXCEED +/- 2.0%.
 PORTIONS OF DRIVEWAYS THAT OVERLAP PEDESTRIAN FACILITIES SHALL MEET ALL REQUIREMENTS OF PEDESTRIAN FACILITIES, INCLUDING TEXAS ACCESSIBILITY STANDARDS.
 *THE PERMEABLE PAVER SURFACE MAY BE CONCRETE IF SPECIFIED BY MOBILITY AUTHORITY. DESIGN-BUILDER TO CONFIRM SURFACE TYPE WITH MOBILITY AUTHORITY.

INTERIM REVIEW ONLY
 Document incomplete: not intended for permit, bidding or construction.
 Engineer: KRIS Z. KEITH
 P.E. Serial No.: 93753
 Date: 15-NOV-2013

NOT TO SCALE

HNTB
HNTB Corporation
 The HNTB Companies
 Engineers, Architects, Planners
 TYPE FIRM REGISTRATION NO. 1 420

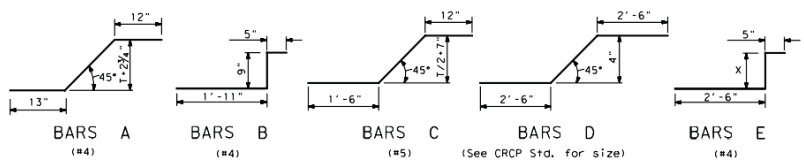
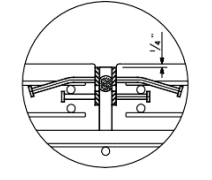
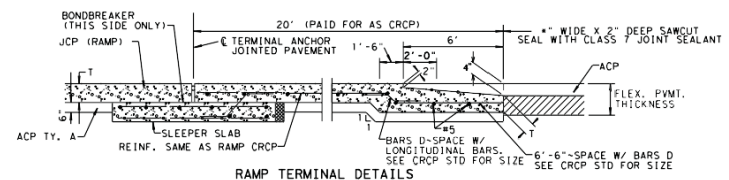
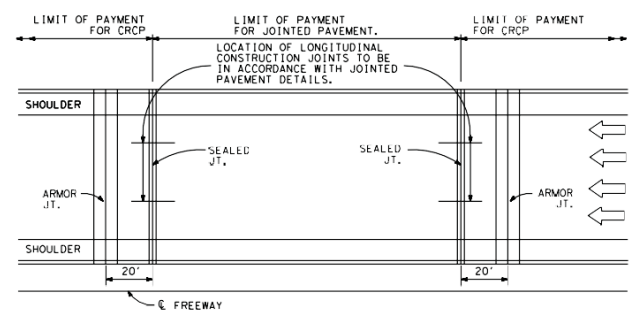
CENTRAL TEXAS
 Regional Mobility Authority

**FIXED PRICE
 TOLLING STANDARDS
 DRIVEWAY DETAIL**

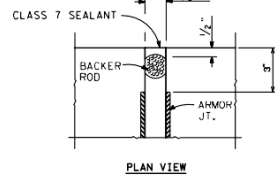
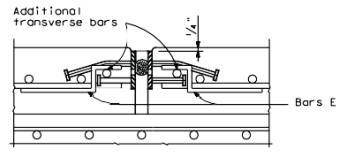
DW-1

DESIGNED BY:	6130	FEDERAL AID PROJECT NO.:		SHEET NO.:	21
DATE:	6				
DRAWN BY:	STATE	DIST.:	COUNTY		
OR:	TEXAS	AUS			
CHECKED BY:	CONT.	SECT.:	JOB	HIGHWAY NO.	
XX					

Plan Title: \p04\000\user\A\Jobs\48937-CTMA\Loop+HE\Project_Development\Design\CAD Files\SP on MPA\TAJ-11.Txd
 Design: F:\name: \p04\000\user\A\Jobs\48937-CTMA\Loop+HE\Operations_and_Maintenance\TAJ-11\Drawings\Fixed Price\01\TAJ-11\JCP.dwg
 Scale: 1:120
 Printed on: 08/21/2006 10:11:11 AM



T	X
8"	2 1/4"
9"	2 3/4"
10"	3 1/4"
11"	3 3/4"
12"	4 1/4"
13"	4 3/4"

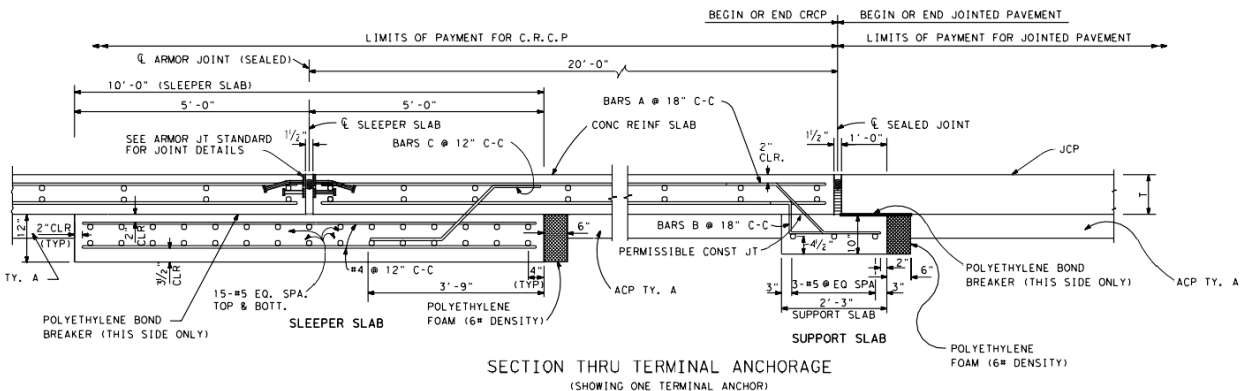


TREATMENT OF VERTICAL EDGE
Vertical edge shall be sealed with backer rod and class 7 sealant flush with pavement edge. Horizontal limits of backer rod along the length of the armor joint shall be extended to the outside of pavement. Joint shall be cleaned prior to sealing.

NOTES:
POLYETHYLENE FOAM (6* DENSITY), SAW CUTS, EXPANSION JOINTS, AND EXPANSION JOINT MATERIALS SUBSIDIARY TO PERTINENT ITEM.
EXCAVATION OF A.C.P. IN VICINITY OF SLEEPER AND SUPPORT SLABS SUBSIDIARY TO PERTINENT ITEM.

ITEM	PAVEMENT THICKNESS (INCHES)							
	8	9	10	11	12	13	14	15
SLEEPER SLAB	CONC (TERM ANCH)	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF	0.37 CY/LF
	REINF STL (TERM ANCH)	49.0 LBS/LF	49.1 LBS/LF	49.2 LBS/LF	49.3 LBS/LF	49.5 LBS/LF	49.6 LBS/LF	49.8 LBS/LF
	UNCL EXCAV (TERM ANCH)	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF	0.19 CY/LF
SUPPORT SLAB	CONC (TERM ANCH)	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF	0.07 CY/LF
	REINF STL (TERM ANCH)	7.3 LBS/LF	7.4 LBS/LF	7.5 LBS/LF	7.5 LBS/LF	7.6 LBS/LF	7.7 LBS/LF	7.9 LBS/LF
	UNCL EXCAV (TERM ANCH)	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF	0.03 CY/LF

SEALED JOINT
1/4" to 3/8" radius tool to be used at concrete edge. Joint shall be cleaned prior to sealing.

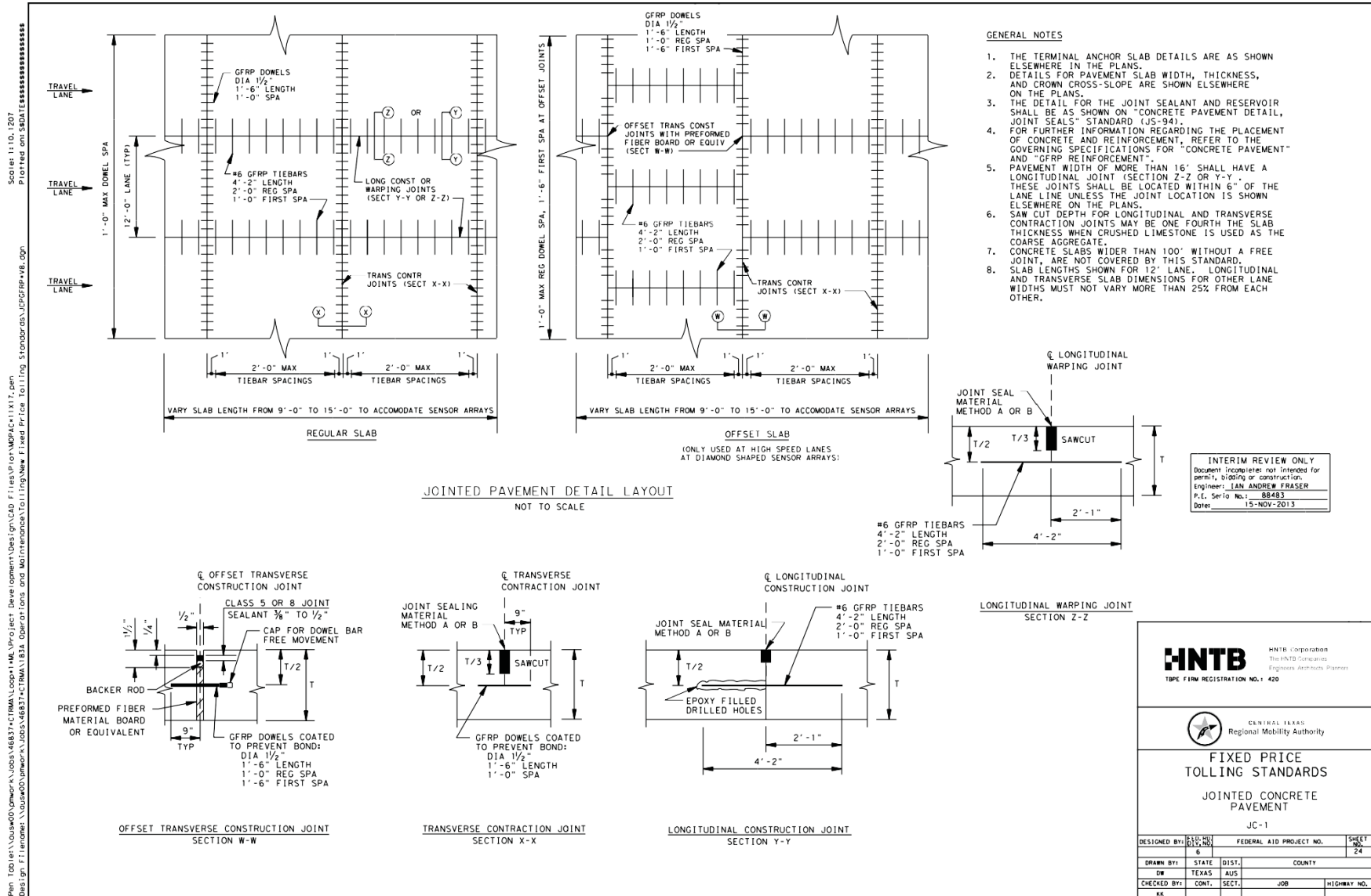


TERMINAL ANCHOR JOINT - JOINTED
TAJ-1
 Austin District Standard

01/001 2006	DIST	FED RES	FEDERAL AID PROJECT	SHEET
REVISIONS	AUS	6		22
	COUNTY	CONTROL	SECT	JOB
				HIGHWAY

FILE: TAJ-JCP.dwg

Toll System Implementation Work Authorization No. 14



ATTACHMENT E

Price Sheet

State Highway 45 SW Project

Price Sheet
Toll System Installation/Integration
State Highway 45 SW Project

Task No.	Description	Qty	Unit	Unit Price (US \$'s)	Extended Price (US \$'s)	Equipment / Subcontractors	Labor	Markup on Sub's & Equipment %	Total	Total Hours	
	System Integration										
1	Toll Zone - Materials / Equipment	1	Lot	617,840.96	617,840.96	514,867		102,973	20.0%	617,841	
2	Cooridor Devices - Equipment	1	Lot	408,445.76	408,445.76	340,371		68,074	20.0%	408,446	
3	Program Management	1	Lot	235,329.97	235,329.97		235,330			235,330	1,311
4	System Design & Documentation	1	Lot	183,990.19	183,990.19		183,990			183,990	1,242
5	SW Development	1	Lot	77,985.96	77,985.96		77,986			77,986	552
6	System Integration/Testing	1	Lot	191,187.54	191,187.54		191,188			191,188	1,224
7	Installation	1	Lot	376,701.30	376,701.30	134,054	215,837	26,811	20.0%	376,701	1,769
8	Fiber	1	Lot	255,683.01	255,683.01	198,361	17,650	39,672	20.0%	255,683	55
B	Bonding	1	LS	17,087.36	17,087.36	17,087				17,087	
	TOTAL				2,364,252.06	1,204,741	921,981	237,531		2,364,252	6,153

The Pricing shown above Excludes:

- All Recurring Data Communication Costs
- Lane Closures & MOT (if needed)
- Recurring 3rd-Party SW/HW Support Agreements & SW Licenses
- Spares Replenishment Costs
- System HW/SW Warranty/Maintenance Services & Support

Milestone-Based Payments for SH-45 Southwest System Implementation					
Payment Number	Payment Milestone	% Paid	Cum. % Paid	\$ Amount	Cum. \$'s
A. Non-Equipment Cost					
A-1	Notice to Proceed	7.5%	7.5%	111,805	111,805
A-2	Project Management Documents Approved (Baseline Project Management Plan, Project Schedule and Update Quality Assurance Plan)	7.5%	15.0%	111,805	223,609
A-3	System Design Documents Approved (System Requirements Document (SRD), Updated Business Rules Document (BRD) and System Detailed Design Document (SDDD)	10.0%	25.0%	149,073	372,682
A-4	Approval of Remaining Documents (Installation and Master Test Plans)	10.0%	35.0%	149,073	521,755
A-5	Approved Installation Drawing Packages	15.0%	50.0%	223,609	745,364
A-6	Approved Interface Test, Formal Full On-site First Installation Testing (OFIT) Completed	7.5%	57.5%	111,805	857,169
A-7	Approved and Approval of All Maintenance Manuals, Training Materials and User Manuals	7.5%	65.0%	111,805	968,973
A-8	All Sites Commissioned	7.5%	72.5%	111,805	1,080,778
A-9	Training Completed and Go-Live	7.5%	80.0%	111,805	1,192,582
A-10	Formal System Operational Testing Approved	10.0%	90.0%	149,073	1,341,655
A-11	SH-45 SW System Acceptance	10.0%	100.0%	149,073	1,490,728
B. Hardware, Equipment and Off-the-Shelf Software					
B-1	Ordering Verified	10.0%	10.0%	61,784	61,784
B-2	Purchased, Received and Verified	90.0%	100.0%	556,057	617,841
C. Fiber					
C-1	Start of Fiber Installation Activities	40.0%	40.0%	102,273	102,273
C-2	Fiber Installation Substantially Completed	52.5%	92.5%	134,234	236,507
C-3	Formal System Operational Testing Approved	7.5%	100.0%	19,176	255,683
TOTAL				\$	2,364,252

ATTACHMENT F

Preliminary Project Schedule and Milestones

State Highway 45 SW Project

(Dates and durations subject to change.)

Task	Duration and/or Milestone Date
Contractor Contract Executed	November 2016
Construction Duration (Approximate)	2.25 Years
Open to Traffic	February 2019

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 17-016

**RESOLUTION AUTHORIZING ACQUISITION OF PROPERTY RIGHTS
BY AGREEMENT OR CONDEMNATION OF CERTAIN PROPERTY IN
TRAVIS COUNTY FOR THE 183 SOUTH / BERGSTROM EXPRESSWAY
PROJECT (PARCEL E13B)**

WHEREAS, pursuant to and under the authority of Subchapter E, Chapter 370, Texas Transportation Code and other applicable law, the Central Texas Regional Mobility Authority ("Mobility Authority") hereby finds and determines that to promote the public safety, to facilitate the safety and movement of traffic, and to preserve the financial investment of the public in its roadways and the roadways of the State of Texas, the public convenience and necessity require acquisition of a utility easement, as that utility easement is described by metes and bounds in Exhibit A to this Resolution (the "Property"), owned by New Century Investment, LLC and Morning Star Projects, LLC (the "Owner"), located adjacent to the US Hwy 183S at 6000 FM 969, Austin, in Travis County, Texas for the construction, reconstruction, maintaining, widening, straightening, lengthening, and operating of the US 183 South / Bergstrom Expressway Project (the "Project"), as a part of the improvements to the Project; and

WHEREAS, an independent, professional appraisal report of the Property has been submitted to the Mobility Authority or its agent, and an amount has been established to be just compensation for the property rights to be acquired; and

WHEREAS, the Executive Director of the Mobility Authority, through agents employed or contracted with the Mobility Authority, has transmitted an official written offer to the Owner, based on the amount determined to be just compensation, and has entered into good faith negotiations with the Owner of the Property to acquire the Property; and

WHEREAS, as of the date of this Resolution, the Executive Director and the Owner have failed to agree on the amount determined to be just compensation due to said Owner for the Property; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors that the Executive Director is specifically authorized to negotiate and execute, if possible, an agreement to acquire the Property for consideration in an amount that does not exceed the official written offer previously transmitted to the Owner; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to negotiate an agreement to acquire the Property and all leasehold interests in the Property by agreement, subject to approval of the agreement and acquisition price by the Board of Directors; and

BE IT FURTHER RESOLVED that at such time as the Executive Director concludes that further negotiations with Owner to acquire the Property by agreement would be futile, the Executive Director or his designee is hereby authorized and directed to file or cause to be filed a suit in eminent domain to acquire the Property for the aforesaid purposes against the Owner and the owners of any interest in, and the holders of any lien secured by, the Property described in the attached Exhibit A; and

BE IT FURTHER RESOLVED that the Executive Director or his designee is hereby authorized and directed to incur such expenses and to employ such experts as he shall deem necessary to assist in the prosecution of such suit in eminent domain, including, but not limited to, appraisers, engineers, and land use planners.


Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March, 2017.

Submitted and reviewed by:



Geoff Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

Field Notes for Parcel 13B WE

BEING 0.044 OF ONE ACRE (1927 S.F.) OF LAND, MORE OR LESS, OUT OF AND A PART OF THE JESSE C. TANNEHILL SURVEY No. 29, ABSTRACT No. 22 IN TRAVIS COUNTY, TEXAS, SAME BEING A PORTION OF LOT C, R.F. BEARDEN SUBDIVISION, RECORDED IN BOOK 85, PAGE 184C OF THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS CONVEYED TO MORNING STAR PROJECT, LLC BY GENERAL WARRANTY DEED EXECUTED ON NOVEMBER 20, 2009, FILED FOR RECORD ON DECEMBER 7, 2009 AND RECORDED IN DOCUMENT 2009201195 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAID 0.044 OF ONE ACRE (1927 S.F.) OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS AND AS SHOWN ON THE ATTACHED SKETCH:

Beginning at a calculated point in the interior of said Lot C, same being in a southeasterly line of the 1.272 acre tract conveyed to Braker-Park LP by deed recorded in Document 2015161780 of the Official Public Records of Travis County, Texas and in a northerly line of the Water and Wastewater Easement recorded in Volume 10061, Page 369 of the Real Property Records of Travis County, Texas, for the Point of Beginning and a southwesterly corner of the herein described tract of land having grid coordinate (Texas State Plane, Central Zone, NAD 83(HARN) U.S. Feet, Surface Adjustment Factor of 1.00011) values of N=10077745.99 and E=3139087.26, from which TxDOT Type I Monument found at a corner in the easterly right-of-way line of U.S. Highway 183 (known locally as Ed Bluestein Boulevard-ROW Varies) and in the northerly right-of-way line of F.M. 969 (ROW varies), same being in a southerly line of said Lot C bears South 21°57'54" West, a distance of 20.00 feet to a 1/2 inch iron rod found at a southeasterly corner of said Braker-Park LP tract and North 68°02'45" West, a distance of 84.13 feet;

1. THENCE, North 21°57'54" East, a distance of 17.00 feet, with a southeasterly line of said Braker-Park LP tract, to a calculated point for a northwesterly corner of the herein described tract of land, from which a 1/2 inch iron rod found at a westerly corner of said Lot C and at a southeasterly corner of Lot B, of said R. F. Bearden Subdivision, same being a northwesterly corner of said Braker-Park LP tract bears North 21°57'54" East, a distance of 16.87 feet, North 52°00'54" East, a distance of 113.20 feet, North 37°40'49" West, a distance of 275.40 feet and South 51°57'52" West, a distance of 126.37 feet;


2. THENCE, South 68°02'45" East, a distance of 138.23 feet, leaving a southeasterly line of said Braker-Park LP tract, to a calculated point for a northeasterly corner of the herein described tract of land;

3. THENCE, South 21°57'15" West, a distance of 3.31 feet, to a calculated point in a northerly line of said Water and Wastewater Easement, for a southeasterly corner of the herein described tract of land;

4. THENCE, North 80°33'18" West, a distance of 63.18 feet, with a northerly line of said Water and Wastewater Easement, to a calculated point for a corner;

5. THENCE, North 68°02'45" West, a distance of 76.55 feet, to the Point of Beginning and containing an area of 0.044 of one acre (1927 s.f.) of land, more or less.

I hereby declare that this survey was made on the ground, under my supervision, and that it substantially complies with the current Texas Society of Professional Surveyors standards.



David Edward Martinez
Registered Professional Land Surveyor 5434

02/18/16
Date



MWM DesignGroup
305 East Huntland Drive, Suite 200
Austin, Texas, 78752 (512) 453-0767
TBPLS Firm Registration No. 10065600

Bearing Basis: The bearings described herein are Texas State Plane, Central Zone, NAD 83(Harn), U.S. Feet. For surface coordinates multiply grid coordinates by the Surface Adjustment Factor of 1.00011. The reference points for this project are MWM control point 112, a cotton spindle in the centerline of sidewalk on the east side of Springdale Road approximately 85' east of Rockhurst Lane, having surface coordinate values of N=10088638.55, E=3138681.05 and MWM control point 141, a cotton gin spindle on the south side of Smith Road, approximately 920 feet east of U. S. Highway 183 centerline, at the 90 degree bend, having surface coordinate values of N= 10068786.90, E= 3136881.27, having a grid bearing of South 05°10'49" West and a surface distance of 19,933.07 feet.

TCAD No.: 0213280710
City Grid: N24

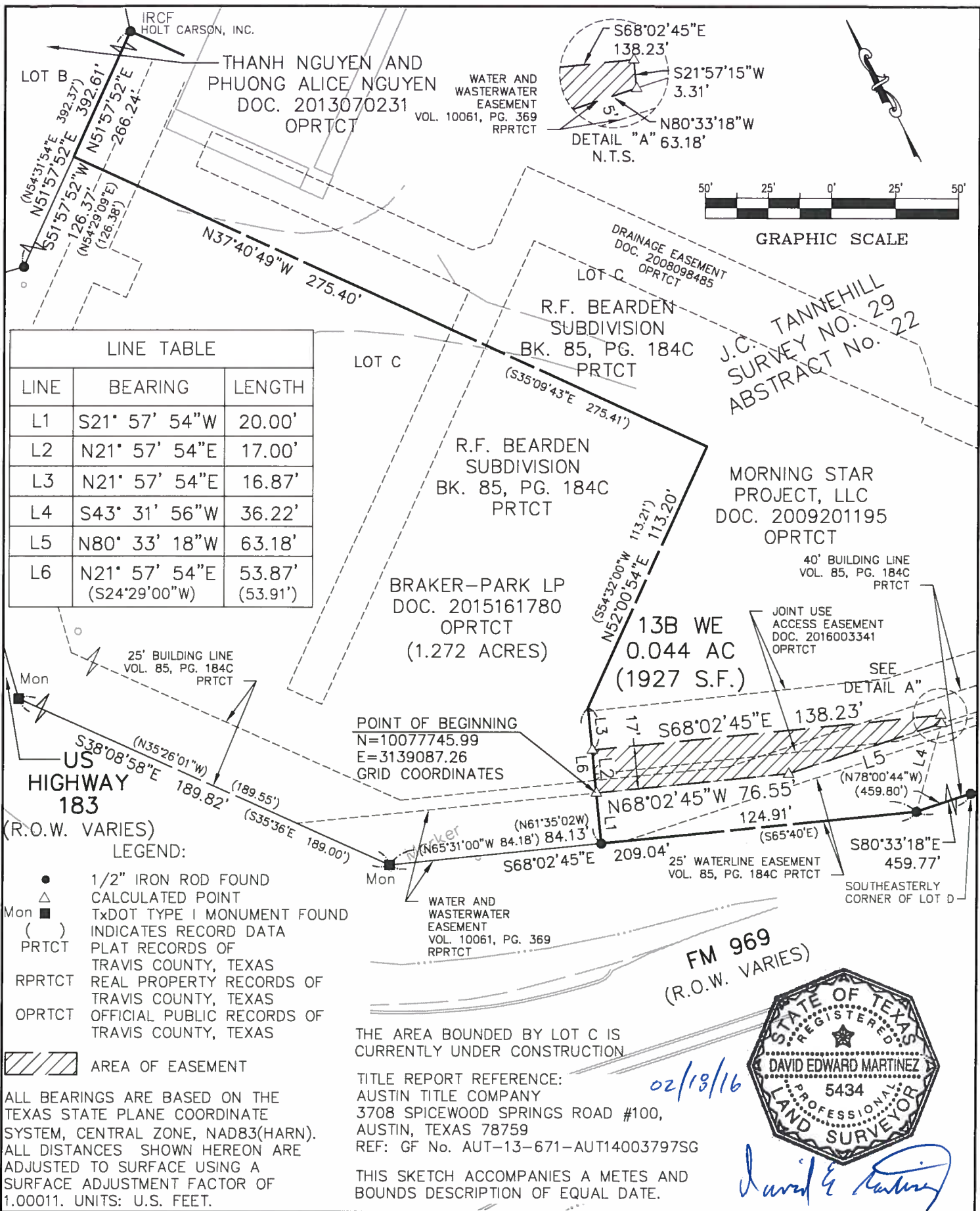
FIELD NOTES REVIEWED

By: _____

Date: _____

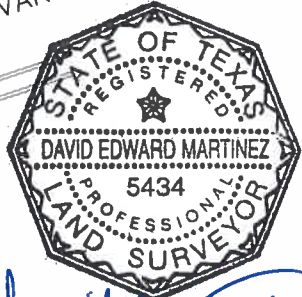
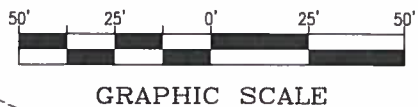
Signed: _____

Austin Water Utility



LINE TABLE

LINE	BEARING	LENGTH
L1	S21° 57' 54"W	20.00'
L2	N21° 57' 54"E	17.00'
L3	N21° 57' 54"E	16.87'
L4	S43° 31' 56"W	36.22'
L5	N80° 33' 18"W	63.18'
L6	N21° 57' 54"E (S24°29'00"W)	53.87' (53.91')



mwm
Design Group

305 East Huntland Drive
Suite 200
Austin, Texas 78752
p: 512.453.0767
f: 512.453.1734

TBAE 1452
TBPE F-1416
TBPLS 10065600

**SKETCH TO ACCOMPANY
FIELD NOTES**

TRAVIS COUNTY, TEXAS

DATE: 18 FEB 16
JOB NO: 658-01
FILE: 13B_WE.dwg

3
3 OF 3

Exhibit "A"



Parcel E13B – Approximately 1,927 Square Feet (0.044 Ac).

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO.17-017

**RESOLUTION AUTHORIZING ACQUISITION OF PROPERTY RIGHTS
BY AGREEMENT OR CONDEMNATION OF CERTAIN PROPERTY IN
TRAVIS COUNTY FOR THE 183 SOUTH / BERGSTROM EXPRESSWAY
PROJECT (PARCEL 118)**

WHEREAS, pursuant to and under the authority of Subchapter E, Chapter 370, Texas Transportation Code and other applicable law, the Central Texas Regional Mobility Authority ("Mobility Authority") hereby finds and determines that to promote the public safety, to facilitate the safety and movement of traffic, and to preserve the financial investment of the public in its roadways and the roadways of the State of Texas, the public convenience and necessity require acquisition of fee simple title and access control rights in and to that certain parcel of land which is described by metes and bounds in Exhibit A to this Resolution (the "Property"), owned by the City of Austin (the "Owner"), located at the Northeast corner of US183 South and Bolm Road, Austin, in Travis County, Texas for the construction, reconstruction, maintaining, widening, straightening, lengthening, and operating of the US 183 South / Bergstrom Expressway Project (the "Project"), as a part of the improvements to the Project; and

WHEREAS, an independent, professional appraisal report of the Property has been submitted to the Mobility Authority or its agent, and an amount has been established to be just compensation for the property rights to be acquired; and

WHEREAS, the Executive Director of the Mobility Authority, through agents employed or contracted with the Mobility Authority, has transmitted an official written offer to the Owner, based on the amount determined to be just compensation, and has entered into good faith negotiations with the Owner of the Property to acquire the Property; and

WHEREAS, as of the date of this Resolution, the Executive Director and the Owner have failed to agree on the amount determined to be just compensation due to said Owner for the Property; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors that the Executive Director is specifically authorized to negotiate and execute, if possible, an agreement to acquire the Property for consideration in an amount that does not exceed the official written offer previously transmitted to the Owner; and

BE IT FURTHER RESOLVED that the Executive Director is authorized and directed to negotiate an agreement to acquire the Property and all leasehold interests in the Property by agreement, subject to approval of the agreement and acquisition price by the Board of Directors; and

BE IT FURTHER RESOLVED that at such time as the Executive Director concludes that further negotiations with Owner to acquire the Property by agreement would be futile, the Executive Director or his designee is hereby authorized and directed to file or cause to be filed a suit in eminent domain to acquire the Property for the aforesaid purposes against the Owner and the owners of any interest in, and the holders of any lien secured by, the Property described in the attached Exhibit A; and

BE IT FURTHER RESOLVED that the Executive Director or his designee is hereby authorized and directed to incur such expenses and to employ such experts as he shall deem necessary to assist in the prosecution of such suit in eminent domain, including, but not limited to, appraisers, engineers, and land use planners.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of March, 2017.

Submitted and reviewed by:


Geoff Petrov, General Counsel

Approved:


Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

EXHIBIT _____

County: Travis
Highway: US 183
Limits: From: East of US 29 To: SH 71
RCSJ: 0151-09-037
Station: 444+54.81 to 465+14.33

DESCRIPTION FOR PARCEL 118

DESCRIPTION OF A 0.688 ACRE (29,966 SQ. FT.) PARCEL OF LAND LOCATED IN THE JAMES BURLERSON SURVEY NO. 19, ABSTRACT NO. 4, IN THE CITY OF AUSTIN, TRAVIS COUNTY, TEXAS, AND BEING A PORTION OF A CALLED 67.10 ACRE TRACT OF LAND DESCRIBED IN A SPECIAL WARRANTY DEED TO THE CITY OF AUSTIN AND RECORDED IN DOCUMENT NO. 2013117685 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS (O.P.R.T.C.TX.). SAID 0.688 ACRE (29,966 SQ. FT.) PARCEL, AS SHOWN ON A RIGHT-OF-WAY SKETCH PREPARED BY SAM, INC. FOR THIS PARCEL, BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING at a Texas Department of Transportation (TxDOT) Type I concrete monument found 213.37 feet left of Engineer's Centerline Station (E.C.S.) 465+63.04, being on the existing east right-of-way line of U.S. Highway 183 (variable width right-of-way) as conveyed to the State of Texas in Document No. 2001153258 of the O.P.R.T.C.TX., also being a point on the west line of said 67.10 acre tract;

THENCE N 27°47'38" E, with the existing east right-of-way line of said U.S. Highway 183, same being the west line of said 67.10 acre tract, a distance of 52.19 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 207.35 feet left of E.C.S. 465+14.33**, being on the proposed east right-of-way line of said U.S. Highway 183 for the **POINT OF BEGINNING** and the most southerly corner of the parcel described herein;

THENCE, with the existing east right-of-way line of said U.S. Highway 183, same being the west line of said 67.10 acre tract, the following two (2) courses and distances numbered 1 and 2:

- 1) N 27°47'38" E, passing at a distance of 345.62 feet a 1/2-inch iron rod found with cap stamped "C.O.A." for the beginning of an existing Access Denial Line (A.D.L.), continuing with the existing A.D.L., passing at a distance of 932.53 feet a 1/2-inch iron rod with cap stamped "C.O.A." for the end of an existing A.D.L., passing at a distance of 1,131.83 feet to a 1/2-inch iron rod with cap stamped "C.O.A." for the beginning of an existing A.D.L., with the existing A.D.L., passing at a distance of 1,536.01 feet, a TxDOT Type II concrete monument found, passing at a distance of 1,801.83 feet, a 1/2-inch iron rod with cap stamped "C.O.A." for the end of an existing A.D.L., departing existing A.D.L., passing at a distance of 1923.86 feet, a TxDOT Type II concrete monument found and continuing a total distance of 2,046.83 feet to a TxDOT Type II concrete monument found, and
- 2) N 27°42'36" E, a distance of 35.25 feet to a TxDOT Type II concrete monument found at the northwest corner of the parcel described herein, same being in the common line of the existing east right-of-way line of said U.S. Highway 183 and the existing south right-of-way line of Smith Road (no record information found);
- 3) **THENCE** S 64°59'09" E, with the existing south right-of-way line of said Smith Road, same being the north line of said 67.10 acre tract, a distance of 10.01 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 197.50 feet left of E.C.S. 444+54.81**, same being the beginning of the proposed east right-of-way line of said U.S. Highway 183;

EXHIBIT _____

County: Travis
Highway: US 183
Limits: From: East of US 29 To: SH 71
RCSJ: 0151-09-037
Station: 444+54.81 to 465+14.33

DESCRIPTION FOR PARCEL 118

4) **THENCE** S 27°46'58" W, departing the south right-of-way line of said Smith Road, and with the proposed east right-of-way line of said U.S. Highway 183, over and across said 67.10 acre tract, passing at a distance of 20.00 feet to a 5/8-inch iron rod with TxDOT aluminum cap stamped "A.D.L." set 197.38 feet left of E.C.S. 444+74.64** same being the beginning of the proposed Access Denial line of said U.S. Highway 183, and continuing for a total distance of 280.75 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 197.01 feet left of E.C.S. 447+34.20**, for the end of the proposed Access Denial line, same being the beginning of the transfer of Access Denial line;

THENCE, with the proposed east right-of-way and the transfer of Access Denial line of said U.S. Highway 183, over and across said 67.10 acre tract, the following three (3) courses and distances numbered 5 through 7:

- 5) S 27°47'38" W, a distance of 356.73 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 197.01 feet left of E.C.S. 450+90.92**,
- 6) S 27°47'45" W, a distance of 67.38 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 197.01 feet left of E.C.S. 451+58.30**, and
- 7) S 26°05'48" W, a distance of 245.99 feet to a 5/8-inch iron rod with TxDOT aluminum cap stamped "A.D.L." set 204.29 feet left of E.C.S. 454+04.18**, for the end of the transfer of Access Denial line;

THENCE, continuing with the proposed east right-of-way line of said U.S. Highway 183, over and across said 67.10 acre tract, the following two (2) courses and distances numbered 8 through 9:

- 8) S 26°05'48" W, a distance of 93.45 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 207.06 feet left of E.C.S. 454+97.59**, and
- 9) S 27°47'38" W, a distance of 105.89 feet to a 5/8-inch iron rod with TxDOT aluminum cap stamped "A.D.L." set 207.06 feet left of E.C.S. 456+03.49, for the beginning of the transfer of Access Denial line;

THENCE, continuing with the proposed east right-of-way and the transfer of Access Denial line of said U.S. Highway 183, over and across said 67.10 acre tract, the following two (2) courses and distances numbered 10 through 11:

- 10) S 27°47'38" W, a distance of 544.45 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 207.06 feet left of E.C.S. 461+47.93**, same being the beginning of a curve to the right, and
- 11) Southwesterly, with said curve to the right, having an arc distance of 42.64 feet, through a central angle of 00°50'31", having a radius of 2,901.79 feet, and a chord that bears S 28°12'54" W, a distance of 42.64 feet to a 5/8-inch iron rod with TxDOT aluminum cap stamped "A.D.L." set 206.88 feet left of E.C.S. 461+88.77, for the end of the transfer of Access Denial line;

EXHIBIT _____

County: Travis
Highway: US 183
Limits: From: East of US 29 To: SH 71
RCSJ: 0151-09-037
Station: 444+54.81 to 465+14.33

DESCRIPTION FOR PARCEL 118

THENCE, continuing with the proposed east right-of-way line of said U.S. Highway 183, over and across said 67.10 acre tract, the following two (2) courses and distances numbered 12 through 13:

- 12) Southwesterly, continuing with said curve to the right, having an arc distance of 159.94 feet, through a central angle of 03°09'29", having a radius of 2,901.79 feet, and a chord that bears S 30°12'54" W, a distance of 159.92 feet to a 5/8-inch iron rod with TxDOT aluminum cap set 205.19 feet left of E.C.S. 463+39.23**, and
- 13) S 31°47'38" W, a distance of 186.12 feet to the **POINT OF BEGINNING** and containing 0.688 acres (29,966 sq. ft.) of land more or less.

**This monument may be replaced by a TxDOT Type II right-of-way upon the completion of the highway construction project under the supervision of a RPLS either employed or retained by TxDOT.

This property description is accompanied by a plat of even date.

All bearings are based on the Texas State Plane Coordinate System, Central Zone, NAD 83(NonHARN). All distances shown hereon are adjusted to surface multiplying the grid coordinates by a surface adjustment factor of 1.00011.

THE STATE OF TEXAS
COUNTY OF TRAVIS

§
§
§

KNOW ALL MEN BY THESE PRESENTS:

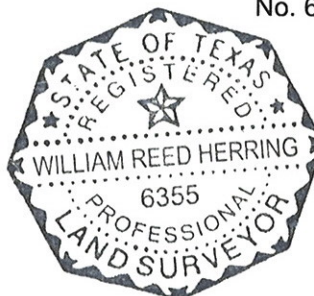
That I, William Reed Herring, a Registered Professional Land Surveyor, do hereby certify that the above description is true and correct to the best of my knowledge and belief and that the property described herein was determined by a survey made on the ground under my direction and supervision.

WITNESS MY HAND AND SEAL at Austin, Travis County, Texas this the 22nd of September, 2016 A.D.

SURVEYING AND MAPPING, LLC
4801 Southwest Parkway
Building Two, Suite 100
Austin, Texas 78704
Texas Firm Registration Number 10064300

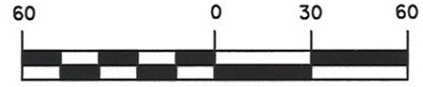


William Reed Herring
Registered Professional Land Surveyor
No. 6355 - State of Texas

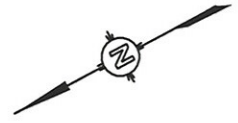


CURVE TABLE

NO.	DELTA	RADIUS	LENGTH	CHORD	CHORD BEARING
C1	00° 50' 31" RT	2,901.79'	42.64'	42.64'	S28° 12' 54" W
C2	03° 09' 29" RT	2,901.79'	159.94'	159.92'	S30° 12' 54" W



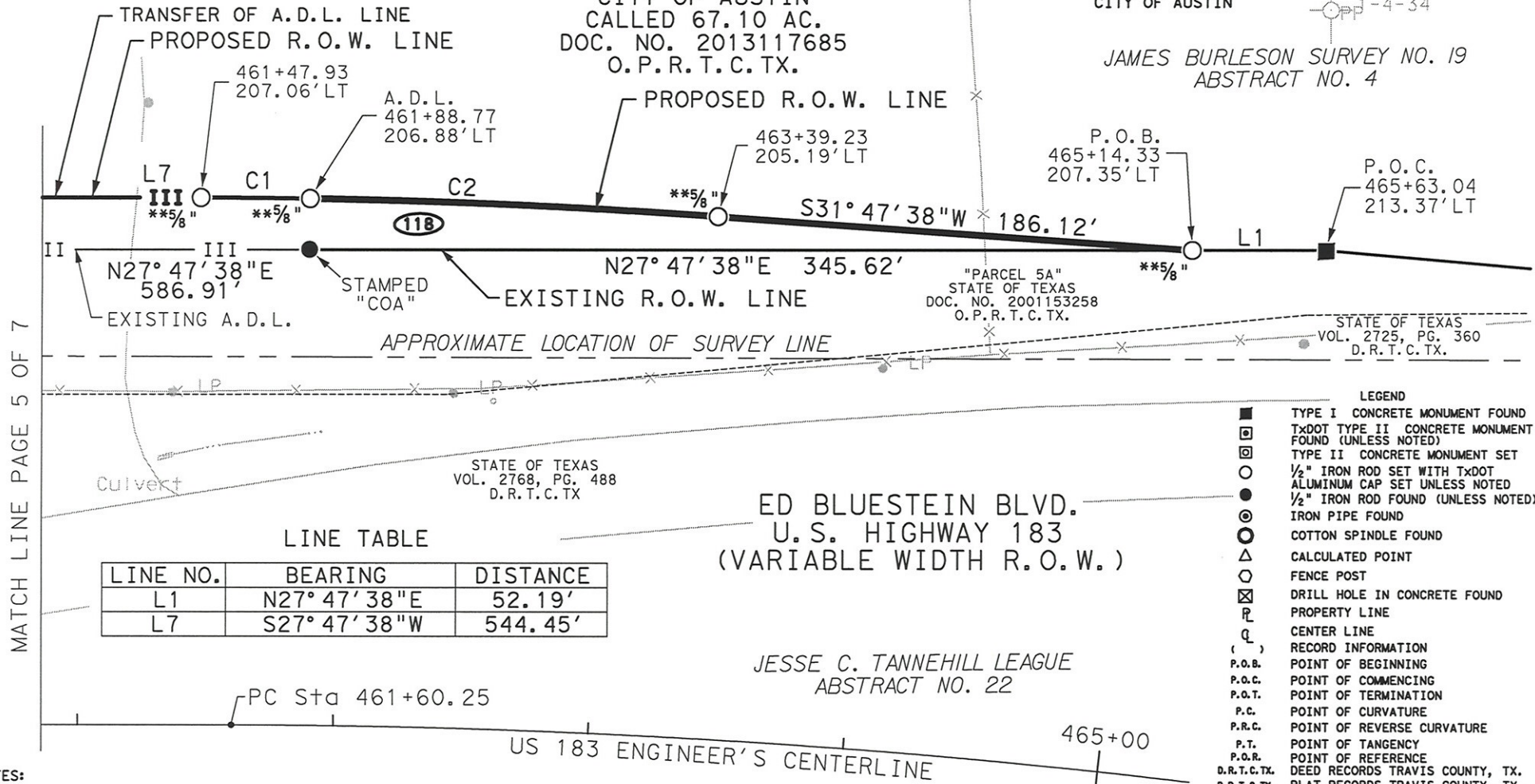
GRAPHIC SCALE
SCALE: 1" = 60'
TRAVIS COUNTY, TEXAS
CITY OF AUSTIN



-4-34

JAMES BURLESON SURVEY NO. 19
ABSTRACT NO. 4

CITY OF AUSTIN
CALLED 67.10 AC.
DOC. NO. 2013117685
O.P.R.T.C.TX.



MATCH LINE PAGE 5 OF 7

LINE TABLE

LINE NO.	BEARING	DISTANCE
L1	N27° 47' 38" E	52.19'
L7	S27° 47' 38" W	544.45'

- LEGEND
- TYPE I CONCRETE MONUMENT FOUND
 - TxDOT TYPE II CONCRETE MONUMENT FOUND (UNLESS NOTED)
 - ▣ TYPE II CONCRETE MONUMENT SET
 - 1/2" IRON ROD SET WITH TxDOT ALUMINUM CAP SET UNLESS NOTED
 - 1/2" IRON ROD FOUND (UNLESS NOTED)
 - ⊙ IRON PIPE FOUND
 - ⊚ COTTON SPINDLE FOUND
 - △ CALCULATED POINT
 - FENCE POST
 - ⊠ DRILL HOLE IN CONCRETE FOUND
 - ℓ PROPERTY LINE
 - ⊔ CENTER LINE
 - () RECORD INFORMATION
 - P.O.B. POINT OF BEGINNING
 - P.O.C. POINT OF COMMENCING
 - P.O.T. POINT OF TERMINATION
 - P.C. POINT OF CURVATURE
 - P.R.C. POINT OF REVERSE CURVATURE
 - P.T. POINT OF TANGENCY
 - P.O.R. POINT OF REFERENCE
 - D.R.T.C.TX. DEED RECORDS TRAVIS COUNTY, TX.
 - P.R.T.C.TX. PLAT RECORDS TRAVIS COUNTY, TX.
 - R.P.R.T.C.TX. REAL PROPERTY RECORDS TRAVIS COUNTY, TEXAS
 - O.P.R.T.C.TX. OFFICIAL PUBLIC RECORDS TRAVIS COUNTY, TEXAS
 - ACCESS DENIAL LINE [A.D.L.] (C. OF A. LINE) ["C.O.A."]

NOTES:

- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. RECORD INFORMATION ON THIS DRAWING IS BASED ON A PUBLIC RECORDS SEARCH BY THE SURVEYOR AND MAY NOT INCLUDE ALL EASEMENTS OR INSTRUMENTS PERTAINING TO THIS PROPERTY.
- ALL BEARINGS ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NAD 83 (NONHARN), ALL DISTANCES AND COORDINATES ARE ADJUSTED TO SURFACE USING THE PROJECT SURFACE ADJUSTMENT FACTOR OF 1.00011.
- IMPROVEMENTS SHOWN HEREON ARE BASED UPON TxDOT AERIAL SURVEY DIGITAL FILES.
- ALL VOLUME NUMBERS REFER TO THE DEED RECORDS OF TRAVIS COUNTY, TEXAS UNLESS OTHERWISE NOTED.
- ACCESS IS PROHIBITED ACROSS THE "ACCESS DENIAL LINE" TO THE TRANSPORTATION FACILITY FROM THE ADJACENT PROPERTY.

** THIS MONUMENT MAY BE REPLACED BY A TxDOT TYPE II RIGHT-OF-WAY UPON THE COMPLETION OF THE HIGHWAY CONSTRUCTION PROJECT UNDER THE SUPERVISION OF A RPLS EITHER EMPLOYED OR RETAINED BY TxDOT.

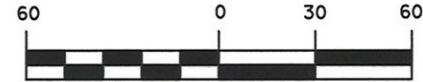
9/22/2016
PAGE 4 OF 7



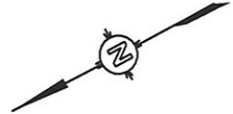
4801 Southwest Parkway
Building Two, Suite 100
Austin, Texas 78735
(512) 447-0575
Fax: (512) 326-3029
Texas Firm Registration No. 10064300

RIGHT-OF-WAY SKETCH SHOWING
PARCEL 118
0.688 AC. (29,964 SQ. FT.)
RCSJ NO. 151-09-039

JAMES BURLESON SURVEY NO. 19
 ABSTRACT NO. 4



GRAPHIC SCALE
 SCALE: 1" = 60'
 TRAVIS COUNTY, TEXAS
 CITY OF AUSTIN

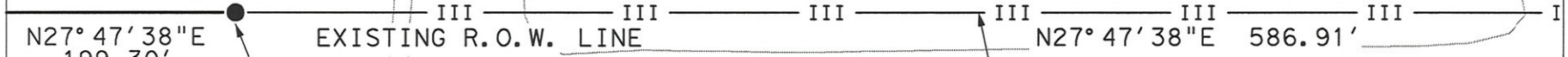
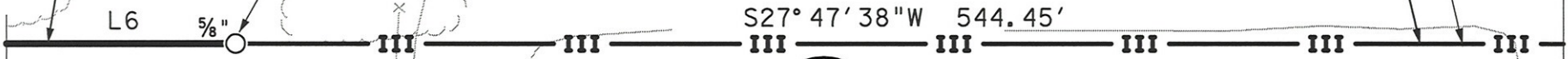


CITY OF AUSTIN
 CALLED 67.10 AC.
 DOC. NO. 2013117685
 O.P.R.T.C.TX.

PROPOSED
 R.O.W. LINE

A.D.L.
 456+03.49
 207.06' LT

TRANSFER OF A.D.L. LINE
 PROPOSED R.O.W. LINE



118

"PARCEL 5A"
 STATE OF TEXAS
 DOC. NO. 2001153258
 O.P.R.T.C.TX.

EXISTING ACCESS
 DENIAL LINE

APPROXIMATE LOCATION OF SURVEY LINE

ED BLUESTEIN BLVD.
 U.S. HIGHWAY 183
 (VARIABLE WIDTH R.O.W.)

STATE OF TEXAS
 VOL. 2768, PG. 488
 D.R.T.C.TX

LINE TABLE

LINE NO.	BEARING	DISTANCE
L6	S27° 47' 38"W	105.89'

JESSE C. TANNEHILL LEAGUE
 ABSTRACT NO. 22

460+00

US 183 ENGINEER'S CENTERLINE

MATCH LINE PAGE 6 OF 7

MATCH LINE PAGE 4 OF 7

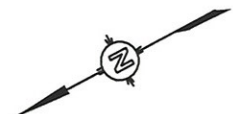
9/22/2016
 PAGE 5 OF 7



4801 Southwest Parkway
 Building Two, Suite 100
 Austin, Texas 78735
 (512) 447-0575
 Fax: (512) 326-3029
 Texas Firm Registration No. 10084300

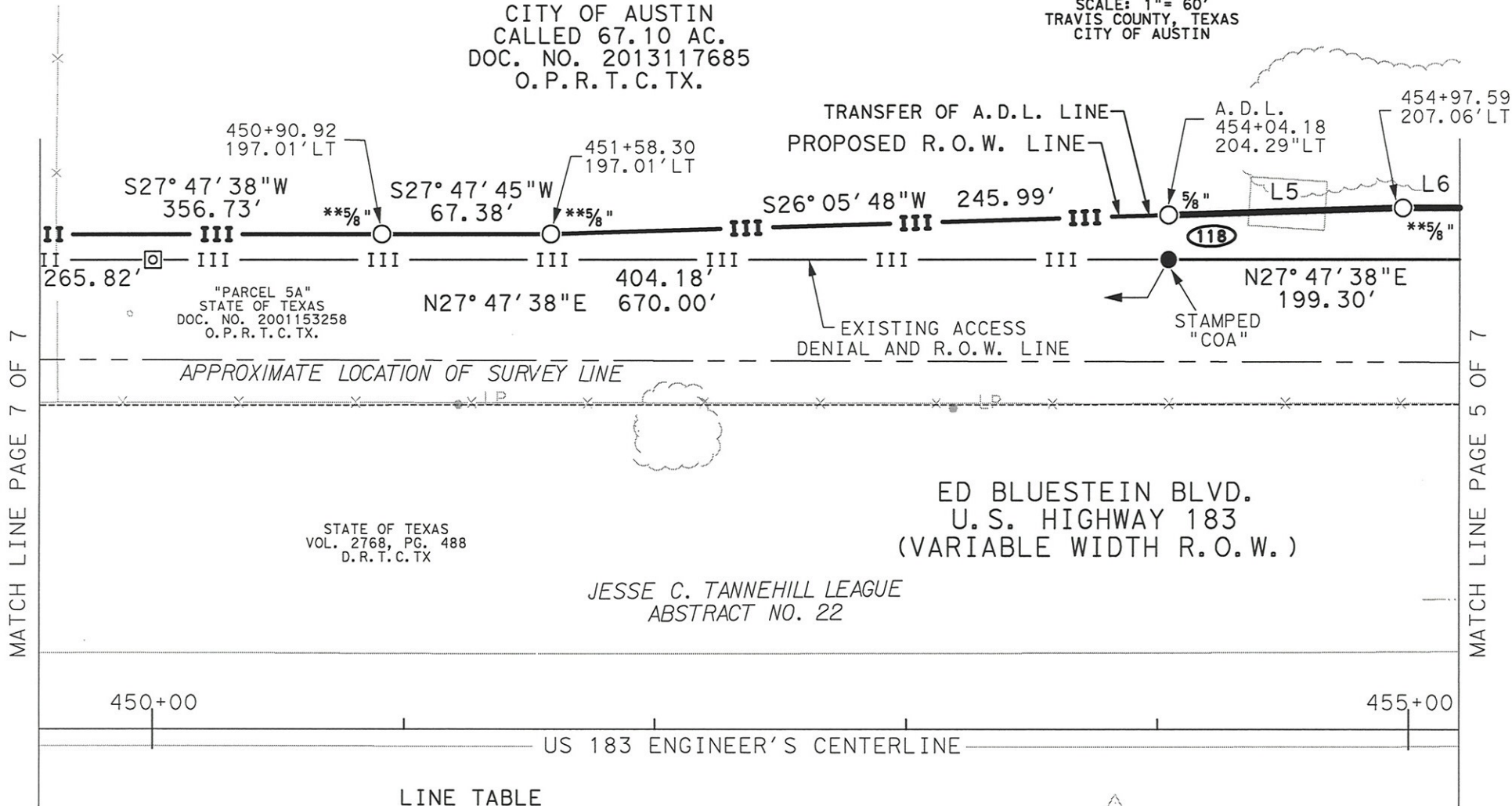
RIGHT-OF-WAY SKETCH SHOWING
 PARCEL 118
 0.688 AC. (29,964 SQ. FT.)
 RCSJ NO. 151-09-039

JAMES BURLESON SURVEY NO. 19
 ABSTRACT NO. 4



GRAPHIC SCALE
 SCALE: 1" = 60'
 TRAVIS COUNTY, TEXAS
 CITY OF AUSTIN

CITY OF AUSTIN
 CALLED 67.10 AC.
 DOC. NO. 2013117685
 O. P. R. T. C. TX.



MATCH LINE PAGE 7 OF 7

MATCH LINE PAGE 5 OF 7

"PARCEL 5A"
 STATE OF TEXAS
 DOC. NO. 2001153258
 O. P. R. T. C. TX.

STATE OF TEXAS
 VOL. 2768, PG. 488
 D. R. T. C. TX

JESSE C. TANNEHILL LEAGUE
 ABSTRACT NO. 22

ED BLUESTEIN BLVD.
 U.S. HIGHWAY 183
 (VARIABLE WIDTH R.O.W.)

LINE TABLE

LINE NO.	BEARING	DISTANCE
L5	S26° 05' 48" W	93.45'
L6	S27° 47' 38" W	105.89'

9/22/2016
 PAGE 6 OF 7

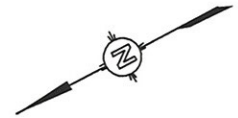
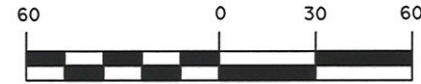


4801 Southwest Parkway
 Building Two, Suite 100
 Austin, Texas 78735
 (512) 447-0575
 Fax: (512) 326-3029
 Texas Firm Registration No. 10084300

RIGHT-OF-WAY SKETCH SHOWING
 PARCEL 118
 0.688 AC. (29,964 SQ. FT.)
 RCSJ NO. 151-09-039

LINE TABLE

LINE NO.	BEARING	DISTANCE
L2	N27° 42' 36" E	35.25'
L3	S64° 59' 09" E	10.01'
L4	S27° 46' 58" W	20.00'

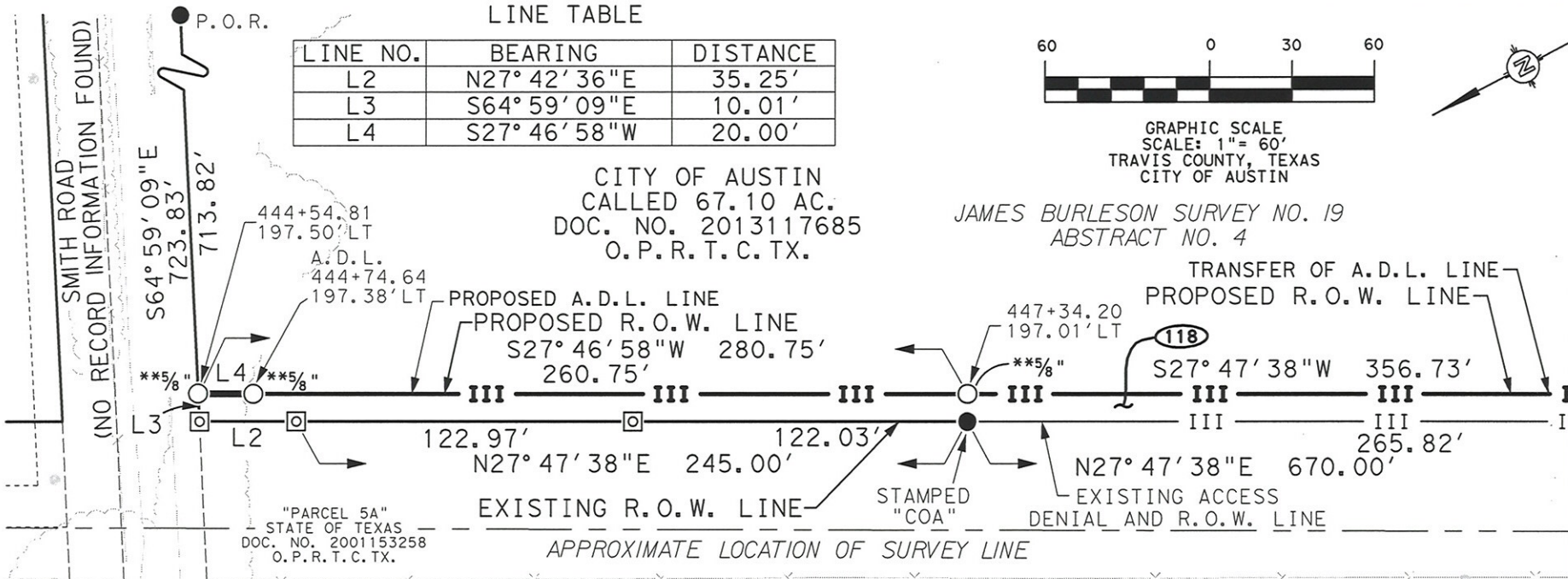


GRAPHIC SCALE
SCALE: 1" = 60'
TRAVIS COUNTY, TEXAS
CITY OF AUSTIN

CITY OF AUSTIN
CALLED 67.10 AC.
DOC. NO. 2013117685
O.P.R.T.C.TX.

JAMES BURLESON SURVEY NO. 19
ABSTRACT NO. 4

TRANSFER OF A.D.L. LINE
PROPOSED R.O.W. LINE



MATCH LINE PAGE 6 OF 7



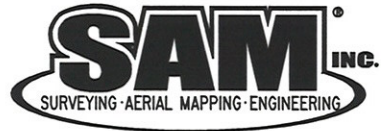
I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND UNDER MY DIRECTION AND SUPERVISION AND THAT THIS PLAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

William Reed Herring

9/22/2016
DATE

9/22/2016
PAGE 7 OF 7

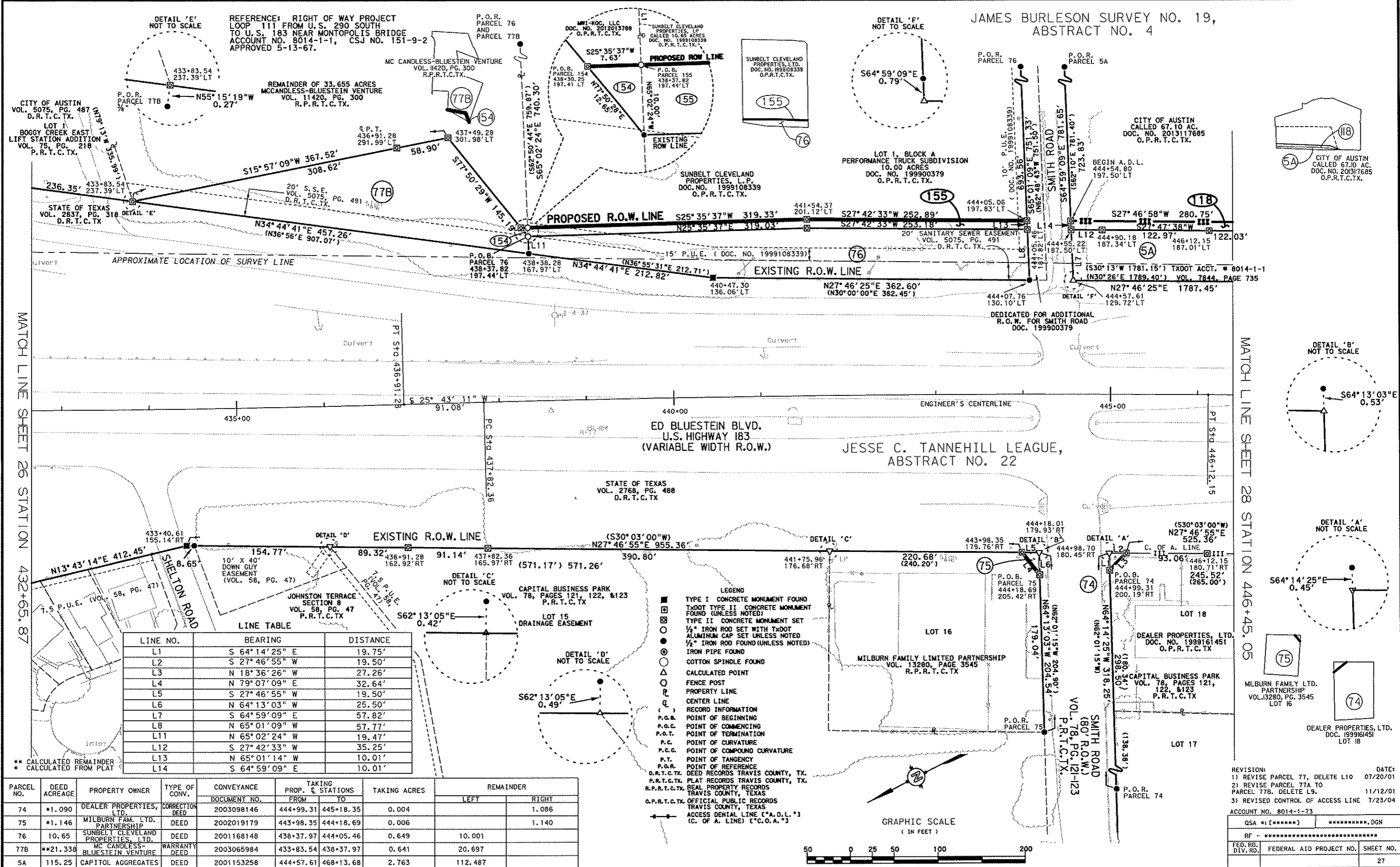
WILLIAM REED HERRING
REGISTERED PROFESSIONAL LAND SURVEYOR
NO. 6355, STATE OF TEXAS



4801 Southwest Parkway
Building Two, Suite 100
Austin, Texas 78735
(512) 447-0575
Fax: (512) 326-3029
Texas Firm Registration No. 10064300

RIGHT-OF-WAY SKETCH SHOWING
PARCEL 118
0.688 AC. (29,964 SQ. FT.)
RCSJ NO. 151-09-039

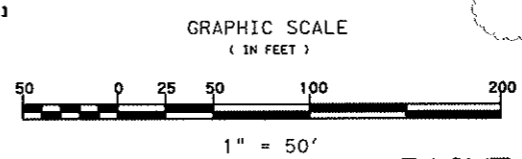
REFERENCE: RIGHT OF WAY PROJECT
LOOP 111 FROM U.S. 290 SOUTH
TO U.S. 183 NEAR MONTOPOLIS BRIDGE
ACCOUNT NO. 8014-1-1, CSJ NO. 151-9-2
APPROVED 5-13-67.



LINE TABLE

LINE NO.	BEARING	DISTANCE
L1	S 64° 14' 25" E	19.75'
L2	S 27° 46' 55" W	19.50'
L3	N 18° 36' 26" W	27.26'
L4	N 79° 07' 09" E	32.64'
L5	S 27° 46' 55" W	19.50'
L6	N 64° 13' 03" W	25.50'
L7	S 64° 59' 09" E	57.82'
L8	N 65° 01' 09" W	57.77'
L11	N 65° 02' 24" W	19.47'
L12	S 27° 42' 33" W	35.25'
L13	N 65° 01' 14" W	10.01'
L14	S 64° 59' 09" E	10.01'

PARCEL NO.	DEED ACREAGE	PROPERTY OWNER	TYPE OF CONV.	CONVEYANCE DOCUMENT NO.	TAKING PROP. & STATIONS		TAKING ACRES	REMAINDER	
					FROM	TO		LEFT	RIGHT
74	*1.090	DEALER PROPERTIES, LTD.	CORRECTION DEED	2003098146	444+99.31	445+18.35	0.004		1.086
75	*1.146	MILBURN FAM. LTD. PARTNERSHIP	DEED	2002019179	443+98.35	444+18.69	0.006		1.140
76	10.65	SUNBELT CLEVELAND PROPERTIES, LTD.	DEED	2001168148	438+37.97	444+05.46	0.649	10.001	
77B	**21.338	MC CANDLESS-BLUESTEIN VENTURE	WARRANTY DEED	2003065984	433+83.54	438+37.97	0.641	20.697	
5A	115.25	CAPITOL AGGREGATES	DEED	2001153258	444+57.61	468+13.68	2.763	112.487	
154	0.245	MHI-KOC, LLC			438+30.25	438+37.82	0.001	0.244	
155	10.00	SUNBELT CLEVELAND PROPERTIES, L.P.			438+37.82	444+05.06	0.13	9.87	
118	67.10	CITY OF AUSTIN			444+54.81	465+14.33	0.69	66.41	



RIGHT OF WAY
WIDENING PROJECT

REVISION:

QSA #	DATE
1) REVISE PARCEL 77, DELETE L10	07/20/01
2) REVISE PARCEL 77A TO PARCEL 77B, DELETE L9.	11/12/01
3) REVISED CONTROL OF ACCESS LINE	7/23/04

ACCOUNT NO. 8014-1-13

STATE	DIST.	COUNTY
TEXAS	AUSTIN	TRAVIS

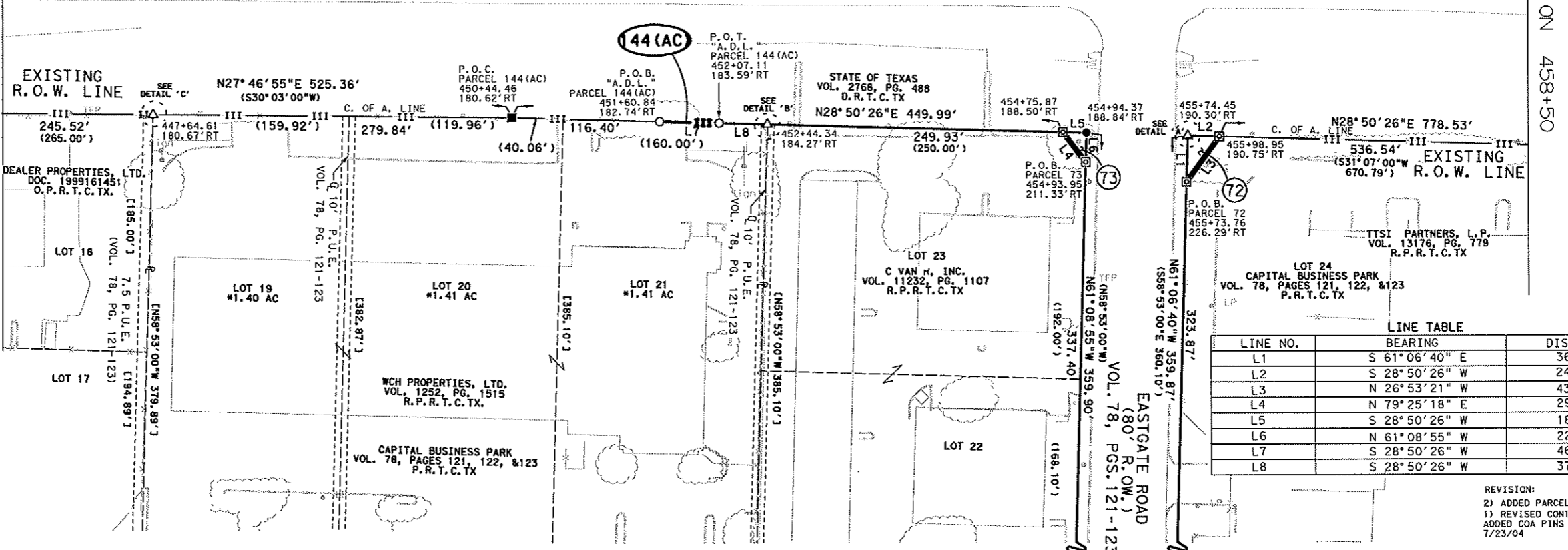
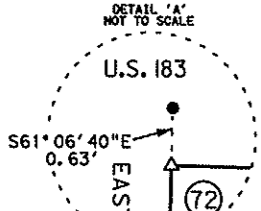
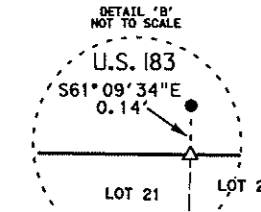
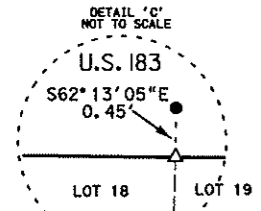
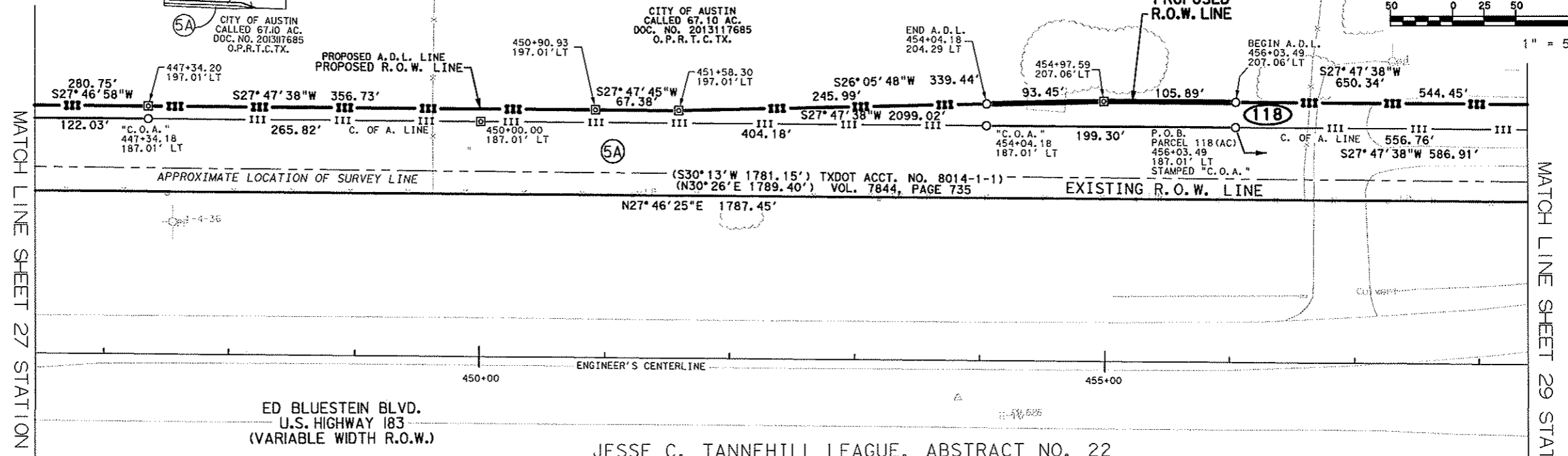
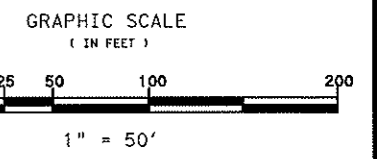
CONT.	SECT.	JOB	HIGHWAY NO.
0151	09	039	U.S. 183

- LEGEND
- TYPE I CONCRETE MONUMENT FOUND
 - TYPE II CONCRETE MONUMENT FOUND (UNLESS NOTED)
 - TYPE II CONCRETE MONUMENT SET
 - 1/2" IRON ROD SET WITH TXDOT ALUMINUM CAP SET UNLESS NOTED
 - 1/2" IRON ROD FOUND (UNLESS NOTED)
 - IRON PIPE FOUND
 - COTTON SPINDLE FOUND
 - CALCULATED POINT
 - FENCE POST
 - PROPERTY LINE
 - CENTER LINE
 - RECORD INFORMATION
 - P.O.B. POINT OF BEGINNING
 - P.O.C. POINT OF COMMENCING
 - P.O.T. POINT OF TERMINATION
 - P.C. POINT OF CURVATURE
 - P.C.C. POINT OF COMPOUND CURVATURE
 - P.T. POINT OF TANGENCY
 - P.O.R. POINT OF REFERENCE
 - D.R.T.C.T.X. DEED RECORDS TRAVIS COUNTY, TX.
 - P.R.T.C.T.X. PLAT RECORDS TRAVIS COUNTY, TX.
 - R.P.R.T.C.T.X. REAL PROPERTY RECORDS TRAVIS COUNTY, TEXAS
 - O.P.R.T.C.T.X. OFFICIAL PUBLIC RECORDS TRAVIS COUNTY, TEXAS
 - ACCESS DENIAL LINE (C.A.D.L.) (C. OF A. I TRF) (C.O.A.)

REFERENCE: RIGHT OF WAY PROJECT LOOP 111 FROM U.S. 290 SOUTH TO U.S. 183 NEAR MONTOPOLIS BRIDGE ACCTOUNT NO. 8014-1-1, CSJ NO. 151-9-2 APPROVED 5-13-67.

NOTE: SEE COVER SHEET FOR R.O.W. MAPSHEET NOTES

JAMES BURLESON SURVEY NO. 19 ABSTRACT NO. 4



LINE TABLE

LINE NO.	BEARING	DISTANCE
L1	S 61° 06' 40" E	36.00'
L2	S 28° 50' 26" W	24.50'
L3	N 26° 53' 21" W	43.56'
L4	N 79° 25' 18" E	29.13'
L5	S 28° 50' 26" W	18.50'
L6	N 61° 08' 55" W	22.50'
L7	S 28° 50' 26" W	46.27'
L8	S 28° 50' 26" W	37.39'

REVISION: 2) ADDED PARCELS 118AC & 119AC 8/24/06
 1) REVISED CONTROL OF ACCESS LINE ADDED COA PINS ON PARCEL 5A 7/23/04

* CALCULATED FROM PLAT

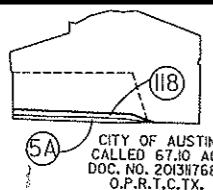
PARCEL NO.	DEED ACREAGE	PROPERTY OWNER	TYPE OF CONV.	CONVEYANCE DOCUMENT NO.	TAKING PROP. C STATIONS		TAKING ACRES	REMAINDER	
					FROM	TO		LEFT	RIGHT
5A	115.25	CAPITOL AGGREGATES, LTD.	DEED	2001153258	444+57.61	468+13.66	2.762	112.487	XX
72	8.079	YTSI PARTNERS, L.P.	DEED	2002028361	455+73.76	455+98.95	0.010		8.069
73	*2.203	C VAN R, INC.	DEED	2002019126	454+75.87	454+93.95	0.005		2.198
119 (AC)	8.079	YTSI PARTNERS, L.P.			455+98.95	461+35.39			
144 (AC)	*1.41	WCH PROPERTIES, LTD.			451+60.84	452+07.11			

SAM INC.
 SURVEYING - AERIAL MAPPING - ENGINEERING
 4601 Southwest Parkway
 Building Two, Suite 100
 Austin, Texas 78735
 (512) 447-0575
 Fax (512) 326-3029
 Texas State Registration No. 1000-0000

RIGHT OF WAY WIDENING PROJECT

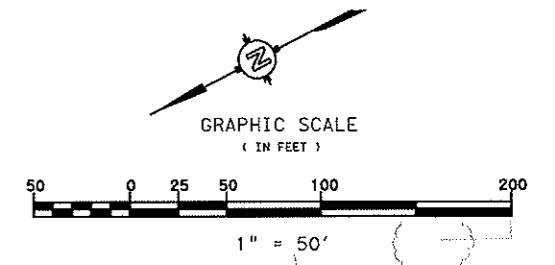
ACCOUNT NO. 8014-1-73

STATE	DIST.	COUNTY	
TEXAS	AUSTIN	TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
0151	09	039	U.S. 183

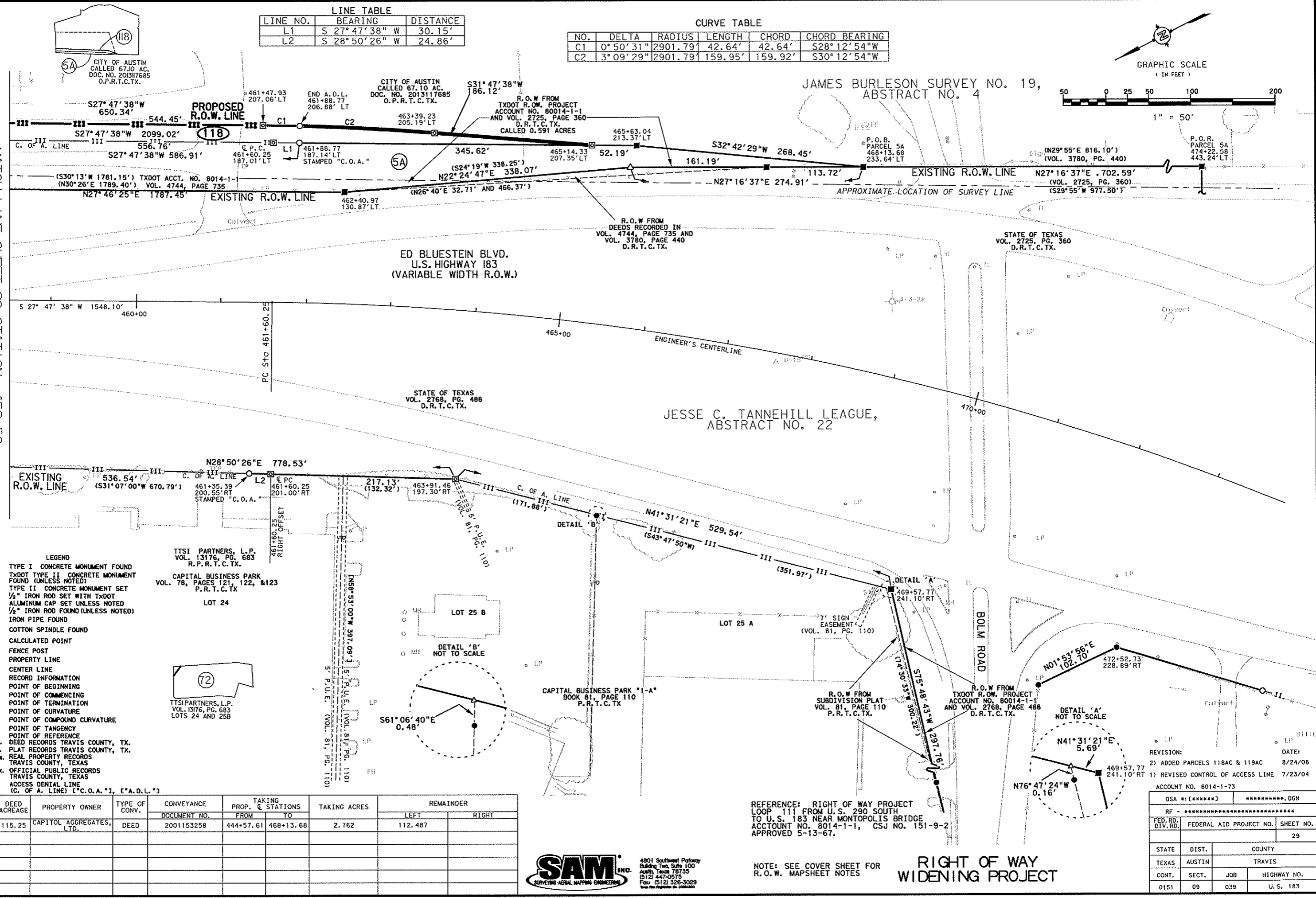


LINE NO.	BEARING	DISTANCE
L1	S 27° 47' 38" W	30.15'
L2	S 28° 50' 26" W	24.86'

NO.	DELTA	RADIUS	LENGTH	CHORD	CHORD BEARING
C1	0° 50' 31"	2901.79'	42.64'	42.64'	S28° 12' 54"W
C2	3° 09' 29"	2901.79'	159.95'	159.92'	S30° 12' 54"W



MATCH LINE SHEET 28 STATION 458+50



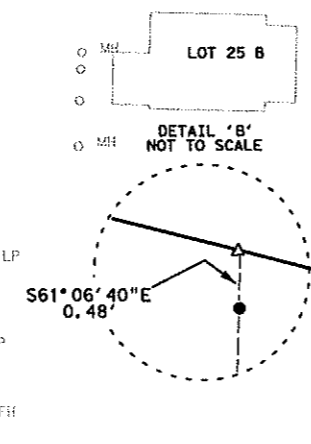
- LEGEND**
- TYPE I CONCRETE MONUMENT FOUND
 - TXDOT TYPE II CONCRETE MONUMENT FOUND (UNLESS NOTED)
 - ⊠ TYPE II CONCRETE MONUMENT SET
 - 1/2" IRON ROD SET WITH TXDOT ALUMINUM CAP SET (UNLESS NOTED)
 - 1/2" IRON ROD FOUND (UNLESS NOTED)
 - IRON PIPE FOUND
 - COTTON SPINDLE FOUND
 - CALCULATED POINT
 - FENCE POST
 - PROPERTY LINE
 - CENTER LINE
 - RECORD INFORMATION
 - P.O.B. POINT OF BEGINNING
 - P.O.C. POINT OF COMMENCING
 - P.O.T. POINT OF TERMINATION
 - P.C. POINT OF CURVATURE
 - P.C.C. POINT OF COMPOUND CURVATURE
 - P.T. POINT OF TANGENCY
 - P.O.R. POINT OF REFERENCE
 - D.R.T.C.TX. DEED RECORDS TRAVIS COUNTY, TX.
 - P.R.T.C.TX. PLAT RECORDS TRAVIS COUNTY, TX.
 - R.P.R.T.C.TX. REAL PROPERTY RECORDS TRAVIS COUNTY, TEXAS
 - O.P.R.T.C.TX. OFFICIAL PUBLIC RECORDS TRAVIS COUNTY, TEXAS
 - ACCESS DENIAL LINE (C. OF A. LINE) ["C.O.A."], ["A.D.L."]

TTSI PARTNERS, L.P.
VOL. 13176, PG. 683
R.P.R.T.C.TX.

CAPITAL BUSINESS PARK
VOL. 78, PAGES 121, 122, & 123
P.R.T.C.TX.

LOT 24

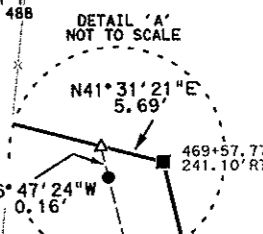
TTSI PARTNERS, L.P.
VOL. 13176, PG. 683
LOTS 24 AND 25B



CAPITAL BUSINESS PARK "A"
BOOK 81, PAGE 110
P.R.T.C.TX.

R.O.W. FROM SUBDIVISION PLAT VOL. 81, PAGE 110 P.R.T.C.TX.

R.O.W. FROM TXDOT R.O.W. PROJECT ACCOUNT NO. 80014-1-1 AND VOL. 2768, PAGE 488 D.R.T.C.TX.



PARCEL NO.	DEED ACREAGE	PROPERTY OWNER	TYPE OF CONV.	CONVEYANCE DOCUMENT NO.	TAKING PROP. & STATIONS		TAKING ACRES	REMAINDER	
					FROM	TO		LEFT	RIGHT
5A	115.25	CAPITOL AGGREGATES, LTD.	DEED	2001153258	444+57.61	468+13.68	2.762	112.487	

REFERENCE: RIGHT OF WAY PROJECT LOOP 111 FROM U.S. 290 SOUTH TO U.S. 183 NEAR MONTOPOLIS BRIDGE ACCOUNT NO. 8014-1-1, CSJ NO. 151-9-2 APPROVED 5-13-67.

REVISION: DATE:
2) ADDED PARCELS 118AC & 119AC 8/24/06
1) REVISED CONTROL OF ACCESS LINE 7/23/04

ACCOUNT NO. 8014-1-73	
QSA # [*****]	*****.DGN
RF - *****	
FED. RD. DIV. RD.	FEDERAL AID PROJECT NO. SHEET NO.
	29
STATE	DIST. COUNTY
TEXAS	AUSTIN TRAVIS
CONT. SECT.	JOB HIGHWAY NO.
0151	09 039 U.S. 183

SAM INC.
SURVEYING AERIAL MAPPING ENGINEERING

4901 Southwest Parkway
Building Two, Suite 100
Austin, Texas 78735
(512) 447-0575
Fax: (512) 326-3029
www.sam-inc.com

NOTE: SEE COVER SHEET FOR R.O.W. MAPSHEET NOTES

RIGHT OF WAY WIDENING PROJECT