THE STATE OF TEXAS	§
COUNTY OF CAMERON	§

BE IT REMEMBERED on the 28th day of May, 2020, there was conducted a Regular Meeting of the Cameron County Regional Mobility Authority via a Telephonic /Audio Zoom Meeting due to the COVID – 19 health Emergency as authorized by V.T.C.A., 551.125, Texas Government Code for the purpose of transacting any and all business that may lawfully be brought before the same.

THE BOARD MET AT:	PRESENT:
12:00 Noon	FRANK PARKER, JR.
	CHAIRPERSON
	MICHAEL F. SCAIEF
	DIRECTOR
	ARTURO A. NELSON
	DIRECTOR
	AL VILLARREAL VIA PHONE
	DIRECTOR
	MARK ESPARZA
	DIRECTOR
	DR. MARIA VILLEGAS, M.D.
	DIRECTOR
	LEO R. GARZA
	ABSENT
	ABSENT
	ABSENT
	ABSENT

The Meeting was called to order by Chairman Parker, at 12:00 Noon. At this time, the Board considered the following matters as per CCRMA Agenda posted on the CCRMA's website and physically at 3470 Carmen Avenue, Suite 5, Rancho Viejo, Texas. on this 22nd day of May 2020.



IMPROVING MORE THAN JUST ROADS

AGENDA
Regular Meeting of the Board of Directors
of the
Cameron County Regional Mobility Authority
3470 Carmen Avenue, Suite 5
Rancho Viejo, Texas 78575
May 28, 2020
12:00 Noon

THIS MEETING WILL BE CONDUCTED AS A TELEPHONIC/AUDIO MEETING DUE TO THE COVID-19 HEALTH EMERGENCY AS AUTHORIZED BY V.T.C.A. 551.121-126, TEXAS GOVERNMENT CODE.

IF YOU WOULD LIKE TO COMMENT DURING THE PUBLIC COMMENT PERIOD, YOU MAY DO SO BY CALLING THE TOLL FREE NUMBER 1.877.853.5257, MEETING I.D. NO. 936 7047 1176, PASSWORD 651510. YOU MUST SUBMIT YOUR REQUEST NO LATER THAN 11:15 A.M. ELECTRONICALLY TO psepulveda@ccrma.org BECAUSE THE NUMBER OF DIAL-IN PARTICIPANTS IS LIMITED, PLEASE USE THE TOLL FREE NUMBER ONLY IF YOU ARE MAKING A COMMENT ON AN AGENDA ITEM.

AN ELECTRONIC COPY OF THE AGENDA PACKET FOR THE MEETING WILL BE POSTED AT https://ccrma.org/ BEFORE THE DAY OF THE MEETING. THE MEETING WILL BE RECORDED, AND THE AUDIO FROM THE OPEN PORTIONS OF THE MEETING WILL BE AVAILABLE THE FOLLOWING DAY AT THAT INTERNET ADDRESS.

PUBLIC COMMENTS:

1. Public Comments.

ITEMS FOR DISCUSSION AND ACTION:

- 2. Action Items.
 - A. Consideration and Approval of Minutes for the March 19, 2020 Regular Meeting and the May 01, 2020 Regular Meeting.
 - B. Acknowledgement of Claims.
 - C. Approval of Claims.
 - D. Consideration and Approval of the Financial Statements and Budget Amendments for the month of April 2020.
 - E. CCRMA Board presentation on Internal Controls.

- F. Consideration and Approval of an Amended Advance Funding Agreement and Resolution for the SH 550 Gap 2 Project and Authorization for Chairman Parker to sign Necessary Documents required by TxDOT associated with this Advance Funding Agreement.
- G. Consideration and Approval of WA 05 with Halff Associates, Inc. to provide preliminary engineering services for development of a design schematic and related services for improvements to Whipple Road.
- H. Consideration and Approval of WA 19 with S&B Infrastructure to provide engineering services for the preparation of Plans, Specifications & Estimates (PS&E) and Construction Management support services for the proposed roadway project East Loop.
- I. Consideration and Approval of Amendment Number One to Master Services Agreement for Toll System Maintenance between Kapsch TrafficCom USA, Inc., and CCRMA.
- J. Discussion and Possible Action Regarding Status of CCRMA Projects.
- K. Consideration and Approval of Application for New Account with Gulf Coast Paper, Co.
- L. Acknowledgement that all CCRMA employees have completed a cybersecurity training course that has been certified by Department of Information Resources (DIR) to fulfill the requirements of HB 3834.

ADJOURNMENT:

Signed this 22 day of May 2020.

Frank Parker, Jr.

Chairman

2-A CONSIDERATION AND APPROVAL OF MINUTES FOR THE MARCH 19, 2020 AND THE MAY 01, 2020 REGULAR MEETING

PUBLIC COMMENTS

1 PUBLIC COMMENTS

None.

ACTION ITEMS

2-A Consideration and Approval of Minutes for the March 19, 2020 Regular Meeting and the May 01, 2020 Regular Meeting.

Mr. Pete Sepulveda, Jr., RMA Executive Director went over the minutes and advised the Board that there were corrections for the May 01, 2020 minutes.

Director Esparza moved to approve the minutes subject to the changes on the May 01, 2020 minutes. The motion was seconded by Director Villegas and carried unanimously.

The Minutes are as follows:

2-B Acknowledgement of Claims

Mr. Victor Barron, RMA Controller went over the Claims and presented into the record.

Vice Chairman Scaief moved to approve the Claims as presented. The motion was seconded by Director Villegas and carried unanimously.

2-C Approval of Claims.

Mr. Victor Barron, RMA Controller went over the Claims and presented into the record.

Director Esparza moved to approve the Claims as presented. The motion was seconded by Secretary Nelson and carried unanimously.

The Claims are as follows:

2-D Consideration and Approval of the Financial Statements and Budget Amendments for the month of April 2020.

Mr. Victor Barron, RMA Controller went over the Financial Statements for April 2020 with the Board. Staff provided an update on revenues and toll collections. Staff advised the Board that they had gone through all line items in both the administrative budget and the tolls budget and that they had made some budget cuts to address the loss of revenues. Staff advised the Board that vehicle registration fees were down by 36% and toll transactions were down by 20%. Staff advised the Board that they would continue to monitor the expenses and revenues and make any other necessary changes.

Secretary Nelson moved to approve the Financial Statements for April 2020 as presented. The motion was seconded by Director Esparza and carried unanimously.

The Financial Statements are as follows:

2-E CCRMA Board Presentation on Internal Controls.

Mr. Victor Barron, RMA Controller went over a presentation with the Board regarding internal controls. The presentation was included in the Board packet and will be attached to the minutes.

Director Esparza moved to acknowledge the presentation on internal controls. The motion was seconded by Director Villegas and carried unanimously.

The Presentation is as follows:

2-F Consideration and Approval of an Amended Advance Funding Agreement and Resolution for the SH 550 Gap 2 Project and Authorization for Chairman Parker to sign Necessary Documents required by TxDOT associated with the Advance Funding Agreement.

Mr. Pete Sepulveda, Jr., RMA Executive Director went over the need and purpose for the amended Advance Funding Agreement.

Vice Chairman Scaief moved to approve the Amended Advance Funding Agreement. The motion was seconded by Director Esparza and carried as follows:

The Amended Advance Funding Agreement is as follows:

2-G Consideration and Approval of WA 05 with Halff Associates, Inc. to provide preliminary engineering services for development of design schematic and related services for Improvements to Whipple Road.

Mr. Pete Sepulveda, Jr., RMA Executive Director advised the board that this work authorization was for the environmental document and schematics for Whipple Road in the Los Fresnos area. Staff recommends final approval subject to final legal and TxDOT approval.

Secretary Nelson moved to approve Work Authorization 05 with Halff Associates, subject to final approval by Legal and TxDOT. The motion was seconded by Treasurer Villarreal and carried unanimously.

The Work Authorization is as follows:

2-H Consideration and Approval of WA 19 with S&B infrastructure to provide engineering services for the preparation of Plans, Specifications, & Estimates (PS&E) and Construction Management support services for the proposed roadway project East Loop.

Mr. Pete Sepulveda, Jr., RMA Executive Director advised the Board that a scope and fee had been negotiated with S&B Infrastructure. TxDOT approved the scope but were still reviewing the fee schedule. Staff recommends approval subject to final legal and Tx approval on the fee schedule.

Director Esparza moved to approve Work Authorization 19 with S&B Infrastructure, subject to final Legal and TxDOT approval. The motion was seconded by Secretary Nelson and carried unanimously.

The Work Authorization is as follows:

2-I Consideration and Approval of Amendment Number One to Master Services Agreement for Toll System Maintenance between Kapsch TrafficCom USA, Inc., and CCRMA.

Mr. Pete Sepulveda, Jr., RMA Executive Director advised the Board that the Maintenance Agreement with Kapsch expires on May 31, 2020. The 90-day extension will allow for the negotiation of a long term lease.

Vice Chairman Scaief moved to approve the Agreement. The motion was seconded by Director Villegas and carried unanimously.

The Agreement is as follows:

2-J Discussion and Possible Action Regarding Status of CCRMA projects.

Pete Sepulveda, Jr., went over the status of CCRMA projects including, South Port Connector road, Veterans Bridge CBP POV project, East Loop, West Blvd., Morrison Road, Indiana Ave. and SH 550 Gap 2.

Director Esparza moved to acknowledge the update on the status of CCRMA projects. The motion was seconded by Director Villegas and carried unanimously.

2-K Consideration and Approval of Application for New Account with Gulf Coast Paper, Co.

Pete Sepulveda, Jr., advised the Board the application was a new credit application. Supplies will be personal protective equipment.

Vice Chairman Scalef moved to approve the credit application. The motion was seconded by Secretary Nelson and carried unanimously.

The Application is as follows:

2-L Acknowledgement that al CCRMA employees have completed a cybersecurity training course that has been certified by Department of Information Resources (DIR) to fulfill the requirements of HB 3834.

Pete Sepulveda, Jr., CCRMA Executive Director advised the Board that all staff had taken the training and presented the individual certificates for each employee.

Director Villegas moved to acknowledge that all employees took the cybersecurity training. The motion was seconded by Director Esparza and carried unanimously.

ADJOURNMENT

There being no further business to come before the Board and upon motion by Secretary Nelson and seconded by Director Esparza and carried unanimously the meeting was **ADJOURNED** at 12:54 P.M.

APPROVED this 25th day of June	_ 2020.
	CHAIRMAN FRANK PARKER, JR.
ATTESTED:	

2-B ACKNOWLEDGEMENT OF CLAIMS

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY Claims May 4, 2020



100 Operations

Vendor Name	Invoice Number	Cas	sh Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
AGC Solutions LLC Gexa Energy, LP Gexa Energy, LP Gexa Energy, LP TML Health Benefits	Rent May 2020 2511066 30473336 30473737 1212005A	\$	A. C. Select St. De.	OBTAIT COMMISSION	Indirect Indirect Indirect Indirect Indirect	Y Y Y Y	Local Local Local Local	Ope Ope Ope Ope
Pool				Benefits May 2020		Y	Local	Ope
Toshiba Financial Services	35419520		311.23	Toshiba Admin May 2020	Indirect	Y	Local	Ope
	Operations		12,083.21	24				

100 - Interlocal Agreements

Vendor Name	Invoice Number	Cas	h Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
Pathfinder Public Affairs, Inc	26-В	\$	8,000.00	Consulting Services CC- Indirect Interlocal	Indirect	Y	Local	Ope
	Interlocal		8,000.00					

525 Tolls

Vendor Name	Invoice Number	Ca	sh Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
Angel Timoteo Perez	04272020AP	\$	210.00		Indirect	Y	Local	Tolls
Angel Timoteo Perez	04282020AP		245.00		Indirect	Y	Local	Tolls
Daniel Huerta Dustin Ramos	04272020DH 04282020DR		210.00 210.00	SD Daniel Huerta SD Dustin Ramos	Indirect Indirect	Y	Local	Tolls
				4.28.20		Y	Local	Tolls
Gexa Energy, LP	3050899		178.80	Gexa 1505 FM 511, 1705 FM 511 Apr	Direct Connector	Y	Local	Tolls
Gexa Energy, LP	30607935		623.64	Gexa 570 Fm 511 & 1895 Fm 511 Unit 1	Direct Connector	Y	Local	Tolls
E.A. Stone dba Gulf Data	Gulf Data Apr 202		3,100.00	Gulf Data TPS	Indirect	Y	Local	Tolls
MPC Studios, Inc	28962		125.00	MPC Studios May	Indirect	Y	Local	Tolls
Public Utilities Board	600710 Apr 2020		263.48	PUB 600710 Apr	Direct	Y	Local	Tolls
Ruben Ibanez	RI 5.1.20		174.23	RI Travel	Indirect	Y	Local	Tolls
Jorge J. Marquez	04282020JM		210.00	SD Jorge Marquez	Indirect	Y	Local	Tolls
Jorge J. Marquez	04292020JM		70.00	SD Jorge Marquez	Indirect	Y	Local	Tolls
Mario Gonzalez	04302020MG		87.50	SD Mario Gonzalez	Indirect	Y	Local	Tolls
Ruben Garcia	04282020RG		245.00	SD Ruben Garcia	Indirect	Y	Local	Tolls
TML Health Benefits	1212005A		7,253,42	TML Health	Indirect			
Pool	Shitedists.		3,63333	Benefits May 2020		Y	Local	Tolls
	Tolls		13,206.07					
	Operations	\$	12,083.21					
	Interlocal		8,000.00					
	Tolls		13,206.07					
	Total Transfer	\$	33,289.28					

Reviwed by:

Monica Ibarra, Accounting Clerk

Monica Sbarra

Victor J. Barron, Controller Victor J. Barron

Pete Sepulveda Jr, Executive Director

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY Claims May 13, 2020



100 Operations

Vendor ID	Vendor Name	Invoice Number	Cash Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
American Express	American Express	AMEX 4.17.20	\$ 3,464.65	AMEX Apr 2020 Culligan Apr	Indirect	Y	Local	Ope
Culligan	Valley	320895 4.29.20	12.95	2020	Indirect	Y	Local	Ope
David Anthony Garza	ROL Consulting LLC	108 Operations	10,550.00	-	Indirect	Y	Local	Ope

750,3.20

525 Tolls

Vendor ID	Vendor Name	Invoice Number	Cash Required	Invoice/Credit Description	PROJ	Transfer Funds	Funding Source	Bank Account
American Express	American Express Culligan of the	AMEX 4.17.20	\$ 2,112.87	AMEX Apr 2020 Culligan Apr	Indirect	Y	Local	Tolls
Culligan	Rio Grande	320895 4.29.20	52.99	2020	Indirect	Y	Local	Tolls
Duncan Solutions	Law Enforcement Systems LLC Fagan Consulting	DS0000006160	392.08	Solution Apr 2020 Fagan Apr	Indirect	Y	Local	Tolls
Fagan Consulting	LLC	CCR-2004	368.16	2020	Indirect	Y	Local	Tolls
Quadient	Quadient Leasing USA, Inc.	N8284622	1,061.10	Quadient May 2020	Indirect	Y	Local	Tolls
Ruben Ibanez	Ruben Ibanez	RI 5.8.20	150.65	RI Travel Reimburstmen t 5.8.20 Marquez	SH 550	Y	Local	Tolls
SD Jorge Marquez	Jorge J. Marquez	05062020	175.00		Indirect	Y	Local	Tolls
SD Ruben Garcia	Ruben Garcia	05062020	175.00	Garcia 5.7.20 Collection	Indirect Reynos	Y	Local	Tolls
Tecsidel SA	Tecsidel SA Temp Control,	320	2,500.00	System March Temp Control		Y	Local	Tolls
Temp Control, Inc.	Inc.	300625	107.00		Indirect	Y	Local	Tolls
Verizon Wireless	Verizon Wireless	9853186125 Tolls	89.32 7,184.17		Indirect	Y	Local	Tolls
		Operations	\$14,027.60					
		Tolls Total Transfer	7,184.17 \$21,211.77					

Reviwed by:

Monica Ibarra, Accounting Clerk	Monica Sbarra	5.13.20
Victor J. Barron, Controller	Victor J. Barron	5.13.20
Pete Sepulveda Jr,	Pis	



CAMERON COUNTY REGIONAL MOBILITY AUTHORITY Claims May 21, 2020

100 Operations

Vendor Name	Invoice Number	Ca	sh Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
				BNY Admin & Agent Fees CCRMA VRF bonds series 2010				
Bank of New York Mellor	252.2287919	\$	1,050.00	A & 2010 B	Indirect	Y	Local	Ope
FRANCISCO J				IT Reimbursement for Office				
SANMIGUEL	FSM 12.26.19		199.56	Supplies	Indirect	Y	Local	Ope
Pathfinder Public Affairs,	20			Pathfinder Consulting Services	further a			1 5 70
Inc Rio Grande Valley	28		12,000.00		Indirect	Y	Local	Ope
Mobility Task Force	MTF 2008		10,000.00	RGV Mobility Task Force Apr 2020	Indirect	Y	Local	Ope
Valley Municipal Utility	VMUD STE 3 Apr		10,000.00				Local	Орс
District	2020		34.17	VMUD STE 3 Apr 2020	Indirect	Y	Local	Ope
Valley Municipal Utility	VMUD STE 4 Apr							
District	2020		34.17	VMUD STE 4 Apr 2020	Indirect	Y	Local	Ope
Valley Municipal Utility District	VMUD STE 5 Apr 2020		34.17	VMUD STE 5 Apr 2020	Indirect	Y	Local	Ope
Valley Municipal Utility District	VMUD STE 6 Apr 2020		34.92	VMUD STE 6 Apr 2020	Indirect	Y	Local	Ope
Valley Municipal Utility	VMUD STE 7 Apr		34,92	1110D 01D 0 11pi 2020	mancet	1	Local	Оре
District	2020		34,55	VMUD STE 7 Apr 2020	Indirect	Y	Local	Ope
	Operations		23,421.54					
			100 - 1	nterlocal Agreements				
						Transfer	Funding	Bank
Vendor Name	Invoice Number	Ca	sh Required	Invoice/Credit Description	PROJ Title	Funds	Source	Account
					CC- Los Indios LPOE Bld &			
	110000 00			Los Indios LPOE Export	Lot		7.5.5	
S&B Infrastructure	U2973-07	\$	1,790.95	Building & Lot Modification	Modification	Y	Local	Ope
	Interlocal Agreement	_	1,790.95					

525 Tolls

Vendor Name	Invoice Number	Cash Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
FRANCISCO J SANMIGUEL	FSM 10.31.19	\$ 81.97	IT Reimbursement for Network Cables	Indirect	Y	Local	Tolls
Kapsch TrafficCom USA, Inc	486021SI00251	14,274.00	March 2020 Toll System	Indirect	Y	Local	Tolls
Kapsch TrafficCom USA, Inc	486021SI00256	14,274.00	April 2020 Toll System Maintenance Support	Indirect	Y	Local	Tolls
LexisNexis Risk Solutions FL Inc	1546392-20200430	213.84	Lexis Nexis Apr 2020	Indirect	Y	Local	Tolls
Matus Contractor Company	185	6,000.00	MCC Grass, Garbage and Herbicide May 2020	Indirect	Y	Local	Tolis
Professional Account Management, LLC	PAM Eclipse Logistic	625.15	PAM Eclipse Logistic Solution Settlement	Indirect	Y	Local	Tolls
Public Utilities Board	588837 May 2020	235.84	PUB May 2020	Port Spur - SH550	Y	Local	Tolls
Time Warner Cable Business Class	0121858050920	2,200.20	Spectrum May 2020 Internet/Phone Systems	Indirect	Y	Local	Tolls
Valley Municipal Utility District	VMUD Tolls Apr 2020 Tolls	34.92 37,939.92	_VMUD Tolls Apr 2020	Indirect	Y	Local	Tolls
	Operations	\$ 23,421.54	-				
	Interlocal Tolls	1,790.95 37,939.92	•				
	Total Transfer	\$ 63,152.41	 				

Reviwed by:

Monica Ibarra, Accounting Clerk	Monica Sbarra	5.21.10
Victor J. Barron, Controller	Victor J. Barron	5.21.20
Pete Sepulveda Jr, Executive Director		05.21.20

2-C APPROVAL OF CLAIMS

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY BOD Claims May 28, 2020



100 - Interlocal Agreements

Vendor Name	Invoice Number	Ca	ash Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
S&B Infrastructure S&B	U2716-210-03	\$	31,324.73	Morrison Road APD East Loop APD	Morrison Road	Y	Local	Ope
Infrastructure	U2716.500-06r Interlocal Agreement	Ξ	129,612.50 160,937.23	_WA:5	East Loop	Y	Local	Ope
		525	Tolls Intero	cal Agreement				
Vendor Name	Invoice Number	Ca	sh Required	Invoice/Credit Description	PROJ Title	Transfer Funds	Funding Source	Bank Account
TollPlus LLC	O19071	S	6,150.00	Tolls Plus Maintence & Support Dec 2019				
TollPlus LLC	O20028		6,303.75	Toll Plus Maintence & Support Apr 2020	Pharr- Reynosa Int'l Bridge	Y	Local	Tolls
	Interlocal Agreements		12,453.75			Y	Local	Tolls

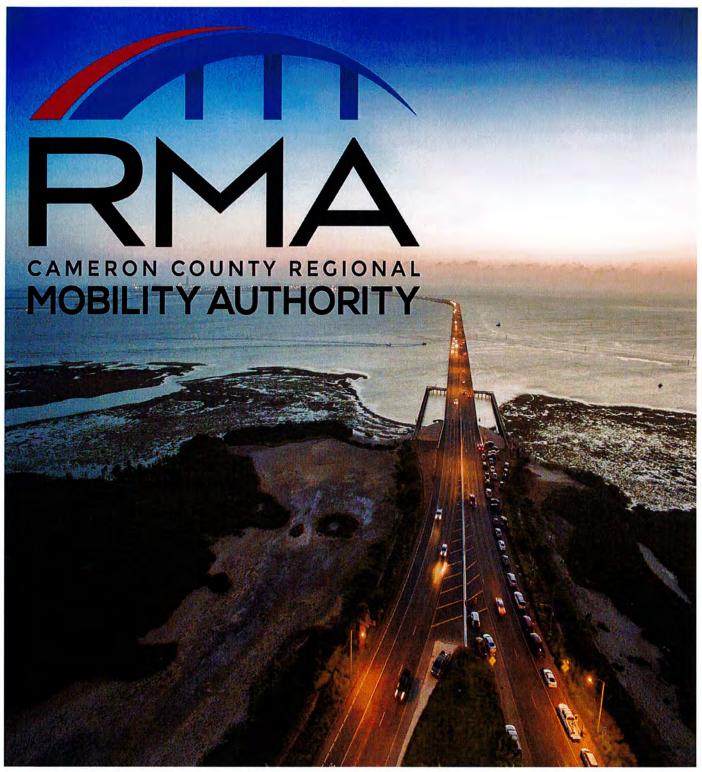
525 Tolls

Vendor Name	Invoice Number	_ C	ash Required	Invoice/Credit Description	PROJ	Transfer Funds	Source Source	Bank Account
TollPlus LLC	O19071	\$	15,148.02	Tolls Plus Maintence & Support Dec 2019				
					Indirect	Y	Local	Tolls
TollPlus LLC	O20028		15,271.91	Toll Plus Maintence & Support Apr 2020				
					Indirect	Y	Local	Tolls
	Tolls		30,419.93	5				
	Ope Interlocal Agreement	\$	160,937.23					
	Tolls Interlocal Agreement		12,453.75					
	Tolls		30,419.93					
	Total Transfer	\$	203,810.91	7 4. 4				

Reviwed by:

Victor J. Barron, Controller Victor J. Barron

Pete Sepulveda Jr, Executive Director 2-D CONSIDERATION AND APPROVAL OF THE FINANCIAL STATEMENTS AND BUDGET AMENDMENTS FOR THE MONTH OF APRIL 2020



APRIL 2020 FINANCIAL REPORT

PETE SEPULVEDA, JR., EXECUTIVE DIRECTOR VICTOR J. BARRON, CONTROLLER

CCRMA MONTHLY FINANCIAL

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REVENUES & EXPENSES	
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FINANCIALS	
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Statement of Revenues and Expenditures - Monthly R&E - Unposted Transactions Included In Report From 4/1/2020 Through 4/30/2020
(In Whole Numbers)

	Current Period Actual	Current Year Actual	Annual Budget - Original	Annual Budget Variance - Original	Prior Year Actual
Operating Revenues					
Vehicle registration fees	201,690	1,773,544	3,250,000	(1,476,456)	1,908,700
Interlocal agreement revenues	19,552	106,716	120,000	(13,284)	10,335
Other revenues	0	0	0	. 0	167,081
Total Operating Revenues	221,242	1,880,260	3,370,000	(1,489,740)	2,086,116
Operating Expenses					
Personnel costs	70,732	572,802	846,528	273,726	504,365
Professional services	22,550	195,219	306,642	111,423	105,716
Contractual services	2,376	17,681	110,000	92,319	33,272
Advertising & marketing	254	5,015	18,500	13,485	3,924
Data processing	3,179	5,620	10,000	4,380	5,011
Dues & memberships	10,000	17,738	20,000	2,262	1,588
Education & training	0	920	10,000	9,080	3,967
Fiscal agent fees	0	5,995	50,000	44,005	7,370
Insurance	0	411	5,000	4,589	1,332
Maintenance & repairs	0	172	10,000	9,828	1,530
Office supplies	156	12,349	22,500	10,151	9,672
Rent	4,060	35,718	62,420	26,702	32,499
Travel	0	12,810	30,000	17,190	22,330
Utilities	1,068	6,704	12,000	5,296	6,557
Total Operating Expenses	114,375	889,154	1,513,590	624,436	739,132
Total Operating Income (Loss)	106,867	991,106	1,856,410	(865,304)	1,346,984
Non Operating Revenues					
Grant revenues	0	0	0	0	705,909
Interest income	4,597	40,619	68,200	(27,581)	25,544
Total Non Operating Revenues	4,597	40,619	68,200	(27,581)	731,453
Non Operating Expenses					
Debt interest	0	1,253,431	1,799,750	546,319	478,464
Debt interest-LOC	0	3,771	25,500	21,729	4,255
Total Non Operating Expenses	0	1,257,202	1,825,250	568,048	482,719
Total Changes in Net Position	111,464	(225,478)	99,360	(324,837)	1,595,718

Toll Operations Revenues & Expenses - Cash - Toll Operations Revenues & Expenditures - Cash - Unposted Transactions Included In Report From 4/1/2020 Through 4/30/2020

(In Whole Numbers)

	Current Period Actual	Current Year Actual	Annual Budget - Original	Annual Budget Variance - Original	Prior Year Actual
Toll Operating Revenues					
TPS Revenues	123,909	1,116,312	1,900,000	(783,688)	1,120,231
Interop Revenues	daling		1000000		
Interop revenues	45,824	454,382	700,000	(245,619)	384,261
Bridge interoperability	34,906	309,517	525,000	(215,483)	214,374
Total Interop Revenues	80,730	763,899	1,225,000	(461,101)	598,634
Other Toll Revenues					
Interlocal agreement revenues	11,493	81,565	136,000	(54,435)	26,462
Other	0	0	0	0	10,000
Total Other Toll Revenues	11,493	81,565	136,000	(54,435)	36,462
Total Toll Operating Revenues	216,132	1,961,775	3,261,000	(1,299,225)	1,755,327
Toll Operating Expenses					
Personnel costs	54,213	439,115	909,077	469,962	383,983
Transaction processing costs	25,222	197,109	411,500	214,391	188,645
Toll system maintenance/IT	26,685	174,691	350,000	175,309	130,380
Roadside maintnenace	43,010	272,956	500,485	227,529	262,866
CSC indirect/overhead costs	6,752	91,689	225,550	133,861	66,404
Total Toll Operating Expenses	155,881	1,175,561	2,396,612	1,221,051	1,032,277
Total Operating Income (Loss)	60,251	786,214	864,388	(78,174)	723,050
Non Operating Revenues					
Pass through grant revenues	0	0	1,385,000	(1,385,000)	0
Total Non Operating Revenues	0	0	1,385,000	(1,385,000)	0
Non Operating Expenses					
Debt interest	20,762	1,254,113	2,249,388	995,275	843,352
Project expenses	0	0	0	0	74,201
Total Non Operating Expenses	20,762	1,254,113	2,249,388	995,275	917,553
Changes in Net Position	39,488	(467,899)	(0)	(467,899)	(194,503)

Combined Statement of Revenues and Expenses - Unposted Transactions Included In Report From 4/1/2020 Through 4/30/2020
(In Whole Numbers)

	Current Period Actual	Current Year Actual	Annual Budget - Original	Annual Budget Variance - Original	Prior Year Actual
Operating Revenues					
Vehicle registration fees	201,690	1,773,544	3,250,000	(1,476,456)	1,908,700
Interlocal Agreement Revenue	31,045	188,281	256,000	(67,719)	36,797
Toll revenues	204,638	1,880,211	3,125,000	(1,244,789)	1,718,865
Other revenue	0	0	0	0	177,081
Total Operating Revenues	437,374	3,842,035	6,631,000	(2,788,965)	3,841,443
Operating Expenses					
Personnel costs	124,944	1,011,918	1,755,606	743,688	888,348
Accounting software and services	0	1,206	10,000	8,794	4,143
Professional services	22,550	194,013	296,642	102,629	102,037
Contractual services	2,390	21,839	135,000	113,161	39,815
Advertising & marketing	434	36,238	78,500	42,262	18,782
Data processing	4,642	7,083	10,000	2,917	5,011
Dues & memberships	10,000	20,678	27,000	6,322	6,714
Education & training	0	920	20,000	19,080	5,702
Fiscal agent fees	2,650	8,645	50,000	41,355	7,370
Insurance	16,291	56,440	80,485	24,045	55,983
Maintenance & repairs	145	9,899	40,000	30,101	13,318
Office supplies	18,971	130,072	214,500	84,428	105,411
Road maintenance	53,561	397,302	755,000	357,698	330,620
Rent	5,510	56,180	106,970	50,790	41,557
Toll services	5,668	61,607	226,500	164,893	82,690
Travel	199	19,464	42,000	22,536	33,366
Utilities	4,950	33,862	62,000	28,138	30,545
Total Operating Expenses	272,906	2,067,365	3,910,203	1,842,837	1,771,409
Net Change from Operations	164,468	1,774,670	2,720,797	(946,127)	2,070,034
Non Operating Revenue					
Grant revenues	0	0	0	0	951,849
Pass through grant revenues	0	0	1,385,000	(1,385,000)	0
Interest income	4,597	40,619	68,200	(27,581)	25,544
Total Non Operating Revenue	4,597	40,619	1,453,200	(1,412,581)	977,392
Non Operating Expenses					
Bond Debt Expense	18,112	2,504,894	4,048,688	1,543,794	1,321,815
Debt Interest - LOC	0	3,771	25,950	22,179	4,255
Total Non Operating Expense	s 18,112	2,508,666	4,074,638	1,565,972	1,326,071
Changes in Net Position	150,952	(693,376)	99,359	(792,736)	1,721,356

Statement of Revenues and Expenditures - Monthly Project I/S - Unposted Transactions Included In Report From 4/1/2020 Through 4/30/2020

(In Whole Numbers)

	Current Period Actual	Current Year Actual
Non Operating Revenues		
Project revenues		
West Blvd. Project	0	150,000
SH 32 (East Loop)	29,963	541,924
Indiana Road - COB	0	62,500
CC- Veterans Bridge	3,252	159,801
CC - Old ALice Road	83,557	83,557
CC - Parks Circulation Study	0	11,628
CC - Bridge Maintenance Projects	46,617	478,718
CC - Gateway Bridge	0	155
CC - Parks Traffic Circulation Study	0	1,762
CC - Los Indios LPOE Bldg & Lot Modification	5,373	17,909
CC - International Bridge	0	447,000
CC - Parks	0	479,980
Total Project revenues	168,761	2,434,935
Total Non Operating Revenues	168,761	2,434,935
Total Holl Operating Revenues	100,701	2,151,555
Non Operating Expenses		
Project expenses		
Indirect	0	1,109
South Padre Island 2nd Access	0	227
West Blvd. Project	90,956	285,847
Outer Parkway	0	227
West Rail Relocation	0	600
SH 550	760	148,033
SH 32 (East Loop)	14,034	898,710
South Port Connector - SH32	489	7,342
Whipple Road	1,450	36,221
FM 509	1,134	45,853
Morrison Road	14,670	37,257
Indiana Road - COB	814	1,739
CC- Veterans Bridge	522	62,870
CC - Old ALice Road	20,983	114,912
CC BRIDGE ADVISORY SERVICES	0	1,136
CC - Parks Circulation Study	244	244
CC - Bridge Maintenance Projects	30,349	481,462
CC - Gateway Bridge	8,982	12,090
CC - Parks Traffic Circulation Study	0	17,497
CC - Los Indios LPOE Bldg & Lot Modification	1,791	17,909
CC - International Bridge	2,227	281,894
CC - Parks	1,446	544,646
Total Project expenses	190,852	2,997,826
Total Non Operating Expenses	190,852	2,997,826
Total Changes in Net Position	(22,091)	(562,891)

Balance Sheet As of 4/30/2020 (In Whole Numbers)

	Current Year
ASSETS	
Current Assets:	
Cash and cash equivalents	3,598,970
Restricted cash accounts - debt service	5,425,597
Accounts receivable, net	3,342,713
Accounts receivable - other agencies	1,383,960
Accrued interest	3,780
Total Current Assets:	13,755,020
Non Current Assets:	13/100/020
Capital assets, net	102,369,990
Capital projects in progress	23,414,858
Unamortized bond prepaid costs	104,532
Net pension asset	5,150
Total Non Current Assets:	125,894,530
Deferred Outflow of Resources	123,03 1,000
Deferred outflows related to bond refunding	193,715
Deferred outlflow related to pension	168,350
Total Deferred Outflow of Resources	362,065
Total ASSETS	140,011,614
LIABILITIES	
Current Liabilities	
Accounts payable	478,793
Deferred revenue	364,075
Total Current Liabilities	842,868
Non Current Liabilities	*
Due to other agencies	16,184,188
Long term bond payable	76,418,371
Total Non Current Liabilities	92,602,558
Deferred Inflows of Resources	11-7-1-1-1
Deferred inflows related to pension	11,943
Total LIABILITIES	93,457,369
NET POSITION	
Beginning net position	15 105 000
Total Beginning net position	45,105,290 45,105,290
Changes in net position	76/1/2/33
	1,448,955
Total Changes in net position	1,448,955
Total NET POSITION	46,554,245
TOTAL LIABILITIES, DEFERRED INFLOWS AND NET POSITION	140,011,614

Statement of Cash Flows As of 4/30/2020 (In Whole Numbers)

	Current Period	Current Year
Cash Flows from Operating Activities		
Receipts from Vehicle Regisration Fees	0	1,170,480
Receipts from Interop Toll revenues	139,376	992,624
Receipts from TPS Toll Revenues	97,498	1,303,237
Receipts from Other Operating Revenues	27,712	178,281
Payments to Vendors	(106,263)	(1,035,508)
Payments to Employees	(85,402)	(858,885)
Total Cash Flows from Operating Activities	72,922	1,750,228
Cash Flows from Capital and Related Financing Activities		
Acquisitions of Construction in Progress	51,346	(1,604,775)
Payments on principal and interest	(18,112)	(2,897,156)
Line of credit payment	(511,961)	0
Proceeds related to redevelopment assets	608,073	2,401,583
Payment on interlocal project expenses	(134,402)	(1,800,275)
Total Cash Flows from Capital and Related Financing Activities	(5,056)	(3,900,624)
Cash Flows from Investing Activities		
Receipts from Interest Income	2,566	36,839
Total Cash Flows from Investing Activities	2,566	36,839
Beginning Cash & Cash Equivalents		
	8,954,135	11,138,124
Ending Cash & Cash Equivalents	9,024,567	9,024,567

2-E CCRMA BOARD PRESENTATION OF INTERNAL CONTROLS



CCRMA Board Presentation Internal Controls May 28, 2020



INTERNAL CONTOLS CONSIST OF 5 MAJOR COMPONENTS

- CONTROL ENVIRONMENT Sets the tone of an organization (tone at the top) and serves as a foundation for all other components
- RISK ASSESMENT Identifies and analyzes risks to achieving objectives
- procedures, which ensures management's directives are carried out. **CONTROL ACTIVITIES - Encompass policies, practices and**
- information to use as a basis for decision making. Also, effectively communicates roles and responsibilities for maintaining internal INFORMATION AND COMMUNICATION - Captures relevant
- MONITORING ACTIVITIES Provides the ongoing assessment of internal control quality. Ŋ.



CONTROL ENVIRONMENT

5 Principles of Effective Control Environment

- strategy and carries out risk governance responsibilities to support Board Risk Oversight- Board of Directors provides oversight of the management in achieving strategy and business objectives.
- **Establishes Governance and Operating Model-** Establishes governance and operating structures in the pursuit of strategy and business objectives. 7
- behaviors that characterize the entity's core values and attitudes Defines Desired Organizational Behaviors – Defines the desired toward risk. m
- risk management, and holds itself accountable for providing standards Enforces Accountability – Holds individuals at all levels accountable for and guidance. 4
- committed to building human capital in alignment with the strategy and Attracts, Develops, and Retains Talented Individuals – Organization is business objectives. S.



Risk Assessment

5 Principles of Risk Assessment

- Considers Risk and Business Context The organization considers potential effects of business context on risk profile.
- Defines Risk Appetite The organization defines risk appetite in the context of creating, preserving, and realizing value.
- Evaluates Alternative Strategies- The organization evaluates alternative strategies and impact on risk profile.
- organization considers risk while establishing the business objectives at various levels that align and support strategy Considers Risk while Establishing Business Objectives – The
- defines acceptable variation in performance relating to strategy Defines Acceptable Variation in Performance – The organization and business objectives 5



Control Activities

6 Principles of Control Activities

- execution that impacts the achievement of business objectives. Identifies Risk in Execution - The organization identifies risk in
- Assesses Severity of Risk- The organization assesses the severity
- Prioritizes Risks The organization prioritizes as a basis for selecting responses to risks. m
- Identifies and Selects Risk Responses The organization identifies and selects risk responses. 4
- Assesses Risk in Execution The organization assesses operating performance results and considers risk. Ŋ.
- Develops Portfolio View The organization develops and evaluates a portfolio view of risk. 9



Information and Communication

4 Principles of Information and Communication

- Uses Relevant Information The organization uses information that supports enterprise risk management.
- Leverages Information Systems- The organization leverages the entity's information systems to support enterprise risk management.
 - Communicates Risk Information The organization uses communication channels to support. m
- Reports on Risk, Culture, and Performance The organization reports on risk, culture, and performance across the entity. 4



Monitoring 2 Principles of Monitoring

- assesses internal and external changes that may substantially 1. Monitoring Substantial Change - The organization identifies and impact strategy and business objectives.
- Monitors Enterprise Risk Management The organization monitors enterprise risk management performance. 7



Tools for Strengthening of Controls

- transparency of Board oversight of operations. Examples of **Board Subcommittees' – Improves documentation and** Committees (Finance, Audit, Budget, etc...)
- **Board Workshops** Opportunities for more detailed discussion and understanding of operations. 7

2-F CONSIDERATION AND APPROVAL OF AN AMENDED ADVANCED FUNDING AGREEMENT AND RESOLUTION FOR THE SH 550 GAP 2 PROJECT AND AUTHORIZATION FOR CHAIRMAN PARKER TO SIGN NECESSARY DOCUMENTS REQUIRED BY TXDOT ASSOCIATED WITH THIS ADVANCE FUNDING AGREEMENT

THE STATE OF TEXAS

COUNTY OF CAMERON

RESOLUTION

BE IT RESOLVED THAT ON THE <u>28th</u> DAY OF <u>May</u>, 2020, THE CAMERON COUNTY REGIONAL MOBILITY AUTHORITY BOARD OF DIRECTORS CONVENED IN REGULAR SESSION, AND UPON THE REQUEST OF THE CAMERON COUNTY REGIONAL MOBILITY AUTHORITY BOARD OF DIRECTORS, THE FOLLOWING ITEM WAS OFFERED AND ADOPTED, TO WIT:

"Consideration and Approval of a Resolution and an Amended Advanced Funding Agreement between the Cameron County Regional Mobility Authority and the Texas Department of Transportation for the SH Gap 2 Project"

- WHEREAS: the Cameron County Regional Mobility Authority is in the process of entering into an Amended Advance Funding Agreement with the Texas Department of Transportation (TxDOT) for Preliminary Engineering, including Plans Specification and Estimate (PS&E) and Geotechnical, Construction, and Construction Engineering for the construction of SH 550, as a controlled access tolled facility, from 0.203 miles South of FM 1847 to 1.136 miles South East of Union Pacific Railroad Overpass at FM 3248, and
- WHEREAS: Cameron County Regional Mobility Authority by this Resolution authorizes the Chairman to execute an Amended Advance Funding Agreement for Preliminary Engineering, including Plans Specification and Estimate (PS&E) and Geotechnical, Construction, and Construction Engineering for the construction of SH 550, as a controlled access tolled facility, from 0.203 miles South of FM 1847 to 1.136 miles South East of Union Pacific Railroad Overpass at FM 3248, and

WHEREAS: this Amended Advance Funding Agreement will fund the above mentioned tasks for the SH Gap 2 Project.

NOW THEREFORE BE IT FURTHER PROCLAIMED, that the Cameron County Regional Mobility Authority Board of Directors approves the Amended Advance Funding Agreement and authorizes the Chairman to execute said Amended Advance Funding Agreement and any other documents required by TxDOT.

Passed, Approved and Adopted on this <u>28th</u> day of <u>May</u>, 2020.

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY

Jeen FRAN	K PARKER, JR. CHAIRMAN	
MICHAELF, SCAIEF VICE CHAIRMAN	ARTURO A. NELSON SECRETARY	
AL VILLARREAL TREASURER	MARK ESPARZA DIRECTOR	
DR. MARIA VILLEGAS, M.D. DIRECTOR	LEO GARZA DIRECTOR	

2-G CONSIDERATION AND APPROVAL OF WA 05 WITH HALFF ASSOCIATES, INC. TO PROVIDE PRELIMINARY ENGINEERING SERVICES FOR DEVELOPMENT OF A DESIGN SCHEMATIC AND RELATED SERVICES FOR IMPROVEMENTS TO WHIPPLE ROAD

WORK AUTHORIZATION

WORK AUTHORIZATION NO. 5

This Work Authorization is made as of this 28th day of May , 2020 , under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING ENGINEERING SERVICES, dated as of May 10, 2018 (the "Agreement"), between the Cameron County Regional Mobility Authority ("Authority") and Halff Associates, Inc. ("GEC"). This Work Authorization is made for the following purpose, consistent with the Services defined in the Agreement:

Preliminary Engineering for development of a design schematic and related services for improvements to Whipple Road in Cameron County, Texas.

Section A. - Scope of Services

A.1. GEC shall perform the following Services:

See Appendix A, Scope of Services

A.2. The following Services are not included in this Work Authorization, but shall be provided as Additional Services if authorized or confirmed in writing by the Authority.

No additional services.

A.3. In conjunction with the performance of the foregoing Services, GEC shall provide the following submittals/deliverables (Documents) to the Authority:

Deliverables shall be as identified in Appendix A

Section B. - Schedule

GEC shall perform the Services and deliver the related Documents (if any) according to the following schedule:

See Appendix B, Schedule. All services under this Work Authorization shall be completed within 12 months of the date of the agreement (_______), unless otherwise agreed in writing by both parties.

Section C. - Compensation

- C.1. In return for the performance of the foregoing obligations, the Authority shall pay to the GEC the amount not to exceed \$380,822.33, based on the attached fee estimate (Appendix C). Compensation shall be in accordance with the Agreement.
- C.2. The Authority shall pay the GEC under the following acceptable payment method:
- (i) lump sum
- C.3. Compensation for Additional Services (if any) shall be paid by

Appendix E

the Authority to the GEC according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the following in a timely manner so as not to delay the Services of the GEC. Unless otherwise provided in this Work Authorization, the Authority shall bear all costs incident to compliance with the following:

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization: *No other provisions*.

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY

By:	Level Railes	
Name: F	rank Parker, Jr., Chairman	
Date: _	7/20/20	
HALFF AS	SOCIATES, INC.	
Ву:	the state of the s	
Name/Title:	Menton J. "Trey" Murray, III, PE, LEED AP Senior Vice President	
Date:		

SERVICES TO BE PROVIDED BY CCRMA

Subject to availability, the services to be provided or performed by CCRMA will include, but not be limited to, the following items:

- Records available that would assist in the completion of the schematic design and the support of environmental services being provided.
- Review of recommendations offered by the Engineer and approval or rejection of any or all work performed under this contract.
- Review of progress of work and final acceptance of all documents.
- Coordination as necessary with other agencies.
- Processing of all periodic payment requests submitted by Engineer.
- Submittal of documentation to regulatory agencies for review and comment when specified.
- Available existing Right-of-Way (ROW) maps of state highway facilities in/near the project corridor. Information for ROW acquisition for corner clips to intersecting FM roads will be provided as needed
- Available interface data for any projects adjacent to the project corridor.
- Assistance as necessary in obtaining the required data and information from other local, regional, state, and federal agencies.
- Timely reviews of deliverables in accordance with the project schedule
- Distribution of environmental document and schematic layout to the appropriate agencies and the public.
- Crash Data from at least 3 previous years, if available.
- Will schedule and furnish location of public meetings.
- Traffic data and projections, if available.
- · Railroad coordination as required

Page 1 of 31 Appendix A

SERVICES TO BE PROVIDED BY THE ENGINEER

The work to be performed by the Engineer shall consist of providing preliminary engineering services for development of a design schematic; development of environmental documents/studies, public involvement; field surveying, subsurface utility engineering (SUE), and utility coordination for improvements to approximately 1.32 miles of Whipple Road in Cameron County, Texas.

The proposed plan is to widen Whipple Road. The proposed typical section would be a two-lane roadway with shoulders and continuous left turn lane with no curb and gutter proposed. The existing roadway is a two-lane road approximate 20 ft wide within an existing 50' to 70' ROW.

Schematic design project limits:

 CSJ: 0921-06-292, Whipple Road from FM 1575 to FM 1847 in City of Los Fresnos, Cameron County, Texas.

All work elements shall be prepared in accordance with the latest version of the applicable TxDOT design and process manuals, and CCRMA requirements.

TASK 1: PROJECT MANAGEMENT

The Engineer shall direct and coordinate the various elements and activities associated with this work authorization, including: project management and administration, monthly reporting and billing, and QA/QC of all deliverables.

1. Project Management

The Engineer will manage Project activities (including documenting emails, phone and conference calls, maintain project files for the length of the project, meeting agendas, meeting minutes, and schedule meetings), direct Engineer's team/staff, correspond with the CCRMA and its representatives, and assist the CCRMA and its representatives in preparing responses to Project-related inquiries. The engineer will attend periodic (monthly) coordination meetings with CCRMA.

The Engineer shall prepare subcontracts for subconsultants, direct and monitor subconsultants activities, and review subconsultant work and invoices.

2. Reporting

The Engineer shall prepare the detailed a Project Work Schedule. The Project Work Schedule will depict the order of the various tasks, milestones, and deliverables.

The Engineer shall prepare and submit written monthly Progress Reports, invoices and schedule updates to CCRMA.

3. QA/QC

The Engineer shall provide ongoing quality assurance and quality control to ensure completeness of product and compliance with the CCRMA and State procedures.

4. Deliverables

- Monthly invoices and progress reports
- Meeting minutes, sign-in sheets and agendas
- Project Schedule and updates
- QA/QC Documentation as requested

TASK 2: FEASIBILITY STUDIES

No activity under this task.

TASK 3: SCHEMATIC DEVELOPMENT

Part A Conceptual Layout

The Engineer shall develop one (1) conceptual widening layout in MicroStation format. The conceptual layout will be plan view only.

The Engineer shall utilize available LIDAR aerial imagery and topography for the conceptual layout

development. The layout shall contain the following design elements:

- Main lanes roadway alignment
- · Pavement edges and shoulder lines
- · Typical sections of proposed roadway
- Drainage structure locations (if applicable)
- Preliminary ROW requirements
- Direction of traffic flow and the number of lanes
- Existing (cross streets) and preliminary projected traffic volumes (if available)
- Existing cross drainage structures, irrigations canals and railroad and utility lines within the project limits.

1. Preliminary Design Conference

The Engineer shall prepare and submit a preliminary Design Summary Report (DSR) to CCRMA and TxDOT for review and approval and shall attend an initial Design Concept Conference to establish and agree on fundamental aspects and concepts and to establish the basic features and design criteria for the project. This meeting will be coordinated with any adjacent projects to ensure continuity.

2. Data Collection

The Engineer shall conduct field reconnaissance and collect data as necessary to complete the schematic design. Data shall include the following information. Items "a" to "f" will be obtained from CCRMA, if available, while items "g" to "k" will be obtained from other agencies as required.

- a. Available Corridor Major Investment Studies
- b. Design data from record drawings of existing and proposed facilities
- c. Publicly available aerial photos, planimetric mapping, and DTM
- d. Environmental Data
- e. Previously prepared drainage studies
- f. As-built plans
- g. Adopted land use maps and plans as available
- h. Federal Emergency Management Agency (FEMA) Flood Boundary Maps and Flood Insurance Studies and Models
- i. Public and private utility information

- j. Plat research for adjacent properties as available.
- k. Local Master Thoroughfare Plan.

3. Develop Base Maps

The base maps to be used for the analysis shall be developed by the Engineer. The Engineer shall establish the centerline horizontal alignments for all roadways, identify ROW, property owners and the approximate location of major utilities based on a SUE in the preparation of base map. Publicly available aerial images and Digital Terrain Modeling (DTM) will be used for the preparation of the conceptual layout.

4. Analyze Existing Conditions

Using collected data and base maps, the Engineer shall develop an overall analysis of the existing conditions. The analysis shall include, but not be limited to the following:

- ROW determination
- Roadway alignment
- · Impacts to critical constraints
- Drainage
- Develop Conceptual Layout

Part B Final Schematic

Upon approval of the conceptual layout, the Engineer shall develop the design schematic. In development of the schematic, the Engineer shall develop typical sections, geometric schematic, cross sections and other geometric elements to fully and accurately depict the proposed improvements.

1. Geometric Design Schematic

The Engineer shall develop one (1) geometric design schematic based on the preferred conceptual layout.

Page 5 of 31 Appendix A

The geometric schematic plan view shall contain the following design elements:

- Open Roads calculated roadway alignments for mainlanes and cross streets.
- Horizontal curve data shown in tabular format
- Pavement edges, curb lines, sidewalks for all roadway improvements
- Typical sections of proposed roadways
- Existing and proposed major utilities
- Existing property lines and respective property ownership information
- Existing ROW and easements, where applicable
- ROW and easements requirements adequate for preparation of ROW maps
- Waters of the US (WOUS)
- Existing (cross streets) and projected traffic volumes
- Lane lines, shoulder lines, and direction of traffic flow arrows indicating the number of lanes on all roadways

The geometric schematic profile view shall contain the following design elements:

- Calculated profile grade and vertical curve data including "K" values for the mainlanes
- Existing ground line profiles along the mainlanes
- Grade separations and overpasses including preliminary bent locations, girder type, and span lengths (if applicable)
- Calculated vertical clearances at grade separations and overpasses (if applicable)

This sub-task will be limited to:

- Develop Roadway Design Criteria, prepare DSR and Form 1002.
- Develop Preliminary Design Schematic (Plans & Profile) based on TPA approved by CCRMA and TxDOT (Open Roads)
- Determine location, size and ownership of impacted property for the proposed ROW.
- Submit schematic to the CCRMA and TxDOT for review and comments, 5 hardcopy and electronic (.pdf and .kmz) submittals at 30%, 60%, 90%, 100% and sealed.
- Update Schematic to incorporate comments received.
- Coordinate with and provide pdf exhibits for Environmental Consultant limited to developed Schematic.

2. Cross Sections

The Engineer shall generate preliminary cross-sections every 100 feet and at culvert locations in conjunction with the Geometric Schematic. The Engineer shall determine earthwork volumes for use in the cost estimate and shall prepare 11"x17" or roll plots of the cross-sections.

3. Miscellaneous Items

In conjunction with development of the geometric schematic, the Engineer shall develop the following items.

• Typical Sections

The Engineer shall develop both existing and proposed typical sections that depict the number and type of lanes, shoulders, median width, curb offsets, cross slope, border width, clear zone widths, and ROW limits. Typical sections will be depicted on the schematic.

ROW Requirements

No ROW is anticipated for this project. If required, the Engineer shall determine the ROW requirements based on the proposed alignment, typical sections, design cross sections, access control, terrain, construction requirements, drainage, clear zone, maintenance, and environmental mitigation requirements if necessary (to be provided to the Engineer by CCRMA).

Preliminary Construction Sequence

The Engineer shall consider the requirements for construction and traffic control throughout the development of schematic design to ensure that the proposed design of the preferred alternative can be constructed. The Engineer shall provide construction phasing assumptions to CCRMA and TxDOT as requested and provide preliminary Traffic Control Plan (TCP) typical sections.

• <u>Design Exceptions</u>

The Engineer shall identify design exceptions and waivers and shall document the necessity for each design exception or waiver for approval.

• Bicycle and Pedestrian Accommodations

The Engineer shall comply with the federal policy statement on Bicycle and Pedestrian Accommodations Regulations and Recommendations by United States Department of Transportation (USDOT). This policy encourages the incorporation of safe and convenient walking and bicycling facilities into transportation projects. The inclusion of bicycle and pedestrian facilities shall be considered when the project is scoped. Public input when applicable, as well as local city and metropolitan planning organization for bicycle and pedestrian plans shall be considered.

Retaining Walls

If retaining walls are necessary, prepare preliminary retaining wall concepts to be shown on schematics, typical sections, and cross sections.

Preliminary Cost Estimate

The Engineer shall prepare a preliminary cost estimate for the project, including the costs of construction, required ROW and associated improvements, and eligible utility adjustments. Current State unit bid prices will be used in preparation of the estimate. Estimate will be maintained and updated at a minimum 6 month intervals.

4. Engineering Technical Memo

The Engineer shall prepare a memo to summarize the design criteria, preliminary cost estimate and basis of estimate, construction sequence description, and utility conflict issues.

5. Deliverables

Draft and final copies of the Engineering Technical Memo

- Draft and final copies of the Geometric Design Schematic layouts (1 inch = 100 feet); Design Schematic will be submitted at 30%, 60%, 90% and 100% stages
- Draft and final copies of the design schematic Cross Sections in 11"x17" Cut sheets or roll plot format as requested; Cross Sections will be submitted at 60%, 90% and 100% stages
- Copies of the preliminary construction sequence typical sections in 11"x17" format
- Design Exception/Waiver documents (if applicable)
- Cost Estimates for each milestone submittal
- All deliverables shall be submitted in hardcopy and electronic (.pdf and .kmz) format.

TASK 4: HYDROLOGY AND HYDRAULICS

The tasks described within the Drainage section are to be completed for the preferred alternative design once the conceptual alternative layouts have been completed and evaluated.

1. Inventory of Existing Conditions

As part of this preliminary drainage analysis, the Engineer shall provide an inventory of existing drainageways. The latest available terrain surface data and current aerial imagery will be used to identify elevations and details of any existing drainage features such as channels, roadside ditches, roadways, or structures.

Other data obtained will include and is not limited to:

- FEMA Flood Insurance Studies (FIS) and FIRMS
- Latest available terrain surface data and contours maps (from local County, TNRIS or TxDOT)
- Land Use maps
- Soils maps
- Aerial imagery (latest available)
- Culvert and drainage maintenance reports
- Historic Flooding reports
- As-built plans and data for impacted hydraulic structures

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Digital Models

2. Hydrology

The Engineer shall perform a preliminary hydrologic analysis to determine discharges for the 5-, 10-, 25-, 50-, and 100-year storm frequency events. Methods as described in the TxDOT Hydraulic Design Manual will be used.

The Engineer shall determine the existing and proposed conditions drainage area boundaries to be used for determining discharges for cross drainage structures and roadside ditches. The delineations will be based on available terrain surface data, contour maps, as-built data, and aerial imagery. Site visit by the Engineer is required to identify critical hydrologic and hydraulic areas not visible on maps.

Discharges will be calculated and compared between pre- and post-project conditions. The USACE HEC-HMS Program will be used to calculated flows for the SCS Curve Number Method. Standard Excel spreadsheets can be used for Rational Method calculations.

3. Hydraulics

The Engineer shall perform hydraulic evaluation of the existing and proposed hydraulic features within the project area. This includes cross drainage structures, storm drains and roadside ditches.

Cross Drainage Structures Storm Drain and Roadside Ditch Design: The Engineer shall provide layouts, and preliminary designs for cross culverts in the project area. The Engineer shall provide preliminary design of conventional cross culverts, storm drains and roadside ditches. Based on preliminary site review, proposed storm drains would outfall to the Resaca on each end of the project and/or into a proposed drainage easement if determined necessary. The drainage designers will work with the roadway designers to minimize the encroachment into the resacas as possible and the encroachment will be reported to environmental for inclusion in the report. This scope of work does not include the hydrologic or hydraulic analyses of driveway culverts, or adjacent roadway culverts.

Preliminary cross culvert design shall be performed using software such as HY-8, HEC-RAS, and

Geopak Drainage. Cross culverts should be designed to convey the 25-year discharge with a 100-year check. The Engineer shall be responsible for sizing the roadside ditches in areas where road improvements are being proposed. Preliminary ditch cross sections will be designed based on the outfall flowrate to the receiving stream using the Slope Conveyance Method and Manning's Equation. Channel sections will be designed to convey the 5-year discharge with a 100-year check. .

The Engineer shall prepare preliminary exhibits that illustrate the proposed improvements and develop an opinion of probable cost for construction of the proposed design.

4. Drainage Report

Results of the hydrologic and hydraulics tasks shall be presented to CCRMA and TxDOT as a draft Preliminary drainage report, for review and comment. A meeting shall be scheduled to discuss the design. The report shall be presented in hard copy and electronically (.pdf) along with supporting modeling and computations. The Drainage Study Report shall be signed and sealed by a professional engineer. The Engineer shall address up to one (1) round of review comments.

5. Deliverables

- Draft and Final Preliminary Drainage Report
- Drainage Area Map
- Culvert Hydraulic Data Sheets and Preliminary Culvert Layout Sheets

TASK 5: TRAFFIC AND OPERATIONAL ANALYSIS

No effort in this task.

TASK 6: ENVIRONMENTAL STUDIES

The Engineer will prepare environmental documentation to support a Categorical Exclusion (CE) in compliance with the National Environmental Policy Act (NEPA). The proposed project is anticipated to satisfy the criteria for a CE per 23 CFR 771.117(c)(26). Each resource will be addressed in accordance

with applicable regulations as well as the requirements of the TDOT Environmental Tool Kit. Reevaluations in accordance with 23 CFR 771.129 are not included in this scope of work.

The Engineer shall prepare the following technical reports:

- Species Analysis Form with Tier 1 Site Assessment
- Biological Evaluation (consultation with US Fish and Wildlife Service)
- Air Quality Analysis
- Archeological Background Study
- Texas Antiquities Permit
- Community Impacts Assessment
- Hazardous Materials Initial Site Assessment (ISA)
- Historic Resources Project Coordination Request (PCR)
- Surface Water Analysis Form/Delineation Report

The proposed project is not anticipated to impact the following resources:

- Traffic Noise Analysis: should not be considered a Type I project, therefore not required.
- Coastal Zone and Barrier impacts: not applicable.

The Engineer will be responsible for obtaining right of entry as required for field activities.

1. Biological Evaluation

A. Threatened and Endangered Species: The Engineer shall perform biological services to assess the potential for protected species or habitat of protected species to occur within the project area based on the most current State and TPWD Memorandum of Understanding (MOU Effective 2013). The project area for federally listed species will include a larger geographical extent than for state-listed species in order to account for potential indirect and cumulative impacts. This assessment will include:

 All species listed by the United States Fish and Wildlife Service (USFWS) as threatened or endangered or proposed for listing as threatened or endangered (50 CFR 17.11-12),

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- All species that are candidates for review for listing by USFWS as threatened or endangered (per most recently updated list in Federal Register),
- Species listed as threatened or endangered species or species of greatest conservation need (SGCN) by the State of Texas Threatened and Endangered Species Listings, Texas Park and Wildlife Department (TPWD),
- Species protected by the Migratory Bird Treaty Act (50 CFR 10.13) and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c).

The Engineer will:

- Examine existing data to determine the likelihood that rare species, protected species, their
 habitat, or designated critical habitat (per 50 CFR §17.94-95) could be impacted by the
 Transportation Activity. Existing data shall include the Element Occurrence Identification (EOID)
 records of the TPWD Natural Diversity Database, following the Guidelines set forth in the most
 current version of TPWD's Guidelines for TXNDD Data Analysis in TxDOT Environmental
 Documents.
- Perform an effect determination pursuant to the Endangered Species Act (ESA) for all federally listed species. A determination of impact must be included for all state-listed species. The determination of effect and impact must be supported by evidence and may require a detailed assessment. Any technical reports used to support the determination(s) must be referenced and provided to CCRMA and the State.
- Determine whether critical habitat is present in the study area and whether the Transportation
 Activity will affect that critical habitat.
- Furnish CCRMA and the State with completed Species Analysis Form/Tier 1 and Engineer's Technical Expert's field notes.
- If effects to federally listed species may occur, then additional technical reporting may be
 necessary for informal/formal coordination with the U.S. Fish and Wildlife Service. Consultation
 with the US Fish and Wildlife Service is assumed and a preparation of a Biological Evaluation
 relying upon the potential habitat assessment and available literature will be completed.
 Preparation of a Biological Assessment and absence and presence surveys are not included in
 this scope.

Permitting with the U.S. Fish and Wildlife service is not included in this scope.

The Engineer shall perform an analysis and characterization of habitat and habitat impacts for the study area and documented on the Species Analysis Form and Tier 1 Site Assessment. The habitat analysis shall be based on the most current State and TPWD MOU and associated Programmatic Agreements. Since this project is anticipated to have no new right-of-way or easements, this effort includes:

- The habitat descriptions of habitat types (e.g., forested, prairie, riparian, floodplain, rangeland, agricultural) in the study area are based upon the 2013 MOU.
- The habitat description shall indicate the vegetative type(s) listed for the project area in the 2013
 MOU.
- The habitat description shall include a description of the existing vegetation within and adjacent to the right-of-way, as per the 2013 MOU.
- The habitat description shall describe habitat for protected species if such habitat occurs within or adjacent to the right-of-way.
- The description shall be supplemented with topographic maps (based on USGS 7.5' maps, aerial photos, on-site photographs and per the 2013 MOU).
- If the vegetation within the right-of-way does not match the description as per the 2013 MOU or
 if there is an unusual difference between the vegetation in the right-of-way and outside the rightof-way, details shall be included in the description to clearly explain the differences in vegetative
 content between the existing vegetation and the 2013 MOU.
- For transportation activities involving new right-of-way or easements, including temporary easements, the habitat description shall address the entire study area. For projects with multiple alternatives, all alternatives shall be described to the same level of detail. If lack of access to the new location right-of-way limits field observation for the habitat description, existing published sources shall be used to provide an estimate. All elements of description required for projects with no new right-of-way (above) shall be included. Land use within and outside the proposed right-of-way shall be described. In addition, the description of vegetation in the new right-of-way or easements shall include the following:

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- Dominant Species for each vegetation stratum (i.e., tree, shrub, vine, herbaceous [grass and forbs]) present,
- o Percent canopy cover of trees, if present,
- o Acreage for each vegetation type present.
- The habitat analysis shall contain a description of anticipated impacts to the following:
 - Any vegetation, broken down by plant community (as above),
 - o Unusual vegetation features (as above),
 - Special habitat features (as above),
 - Habitat for any protected species (as above),
 - O Any other habitat feature identified by and considered to be important to the State's District. Coordination with TPWD is anticipated to address resacas. The Engineer will provide technical support during this process. A Tier II Site Assessment may be prepared under a supplemental agreement.
- B. Invasive Species: The Engineer will address Invasive Species in accordance with Executive Order 13112.
- C. Essential Fish Habitat: The Engineer shall perform Essential Fish Habitat studies. Studies shall fulfill the requirements of 50 CFR 600.920 to determine if habitat is present in the project area, if the project will adversely affect said habitat, and if adverse impacts would require consultation. A formal consultation can be addressed under a supplemental agreement.
- D. Beneficial Landscaping: The Engineer will address Executive Memorandum on Beneficial Landscaping of April 26, 1994 as per the Ecological Resources Handbook (TxDOT Environmental Online Toolkit).
- E. Farmland Impacts: The Engineer will determine farmland impacts in accordance with the Farmland Protection Policy Act (FPPA) (7 USC 4201 et. seq.) and the Ecological Resources Handbook (TxDOT Environmental Online Toolkit) guidance on addressing FPPA, which includes determining whether the project is exempt or completion of form AD 1006 or CPA 106 as appropriate.

2. Air Quality Analysis

The Engineer shall perform air quality studies in accord with the current version of TxDOT's Air Quality Handbook, and Air Quality toolkit. The Engineer shall prepare the following air quality elements in the format prescribed in the specific SOP documents or other Air Quality toolkit documents:

1. Applicable disclosure statements as prescribed in the SOP for Preparing Air Quality Statements, and Response to public comments received on air quality issues.

Proposed Scope of Services

The Engineer will perform an air quality analysis following the Texas Department of Transportation (TxDOT) Air Quality Guidelines. It is assumed this analysis will be based on information and data provided by the Traffic Engineer for the Build and No-Build scenarios for the baseline, estimate time of completion (ETC), and design year. The Project will be located in Cameron County, Texas, an area that is designated as in attainment/unclassified for air pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established. It is assumed the Project will meet the requirements for a Categorical Exclusion (CE) under 23 CFR § 771.117.

Mobile Source Air Toxics (MSAT) Analysis

The U.S. Environmental Protection Agency (EPA) has identified nine compounds with significant contributions from mobile sources that are categorized as MSAT. It is assumed the Project will meet the requirements for a CE; therefore, an MSAT analysis is not required per TxDOT guidance.

Carbon Monoxide Traffic Air Quality Analysis (CO TAQA)

If a Project in Cameron County is adding capacity and would reach average annual daily (AADT) traffic greater than 140,000 by the design year, a CO Traffic Air Quality Analysis (TAQA) is required to demonstrate compliance with the air quality NAAQS for CO. It is assumed the Project will not provide for added capacity and is, therefore, exempt from an CO TAQA analysis per TxDOT guidance.

Report Write-up

A statement will be provided in the environmental review document discussing the exemptions from the MSAT analysis and the CO TAQA using the appropriate disclosure language format as presented in the TxDOT's Standard Operating Procedure for Preparing Air Quality Statements, as appropriate.

Management/Coordination

The air quality task leader will coordinate with team members internally and will participate in internal and external conference calls related to the project, as appropriate.

Deliverable

Documentation in environmental review document.

Assumptions

- All project information requested by The Engineer from the Traffic Engineer will be provided in a timely manner.
- It is assumed the Project will meet the requirements for a CE and will add not capacity to the roadway system; and therefore, will be exempt from the MSAT analysis and CO TAQA.
- It is assumed that all traffic related data, such as project-specific data and roadway geometries, schematics, etc., will be provided by the Traffic Engineer, as necessary and requested by The Engineer.

3. Archeological Background Studies

The Engineer shall perform archeological studies as described below related to compliance with Section 106 and Section 110 of the National Historic Preservation Act (36 CFR 800).

Archeological Background Studies

The Background Study shall be produced by a professional archeologist as defined in 13 TAC §26.4(2) and shall conform to the State's 08/2019 *Review Standard for Archeological Background Studies*, available from the Environmental Compliance Toolkit.

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- The Archeological Background Study must define and consider the Build alternatives selected for detailed study, including all existing ROW, all proposed new ROW, easements (temporary and permanent), and any other project-specific location designated by the State. The Archeological Background study shall consider the likely depth of impacts resulting from the proposed project. The location of the build alternative selected for detailed study shall be presented on a map or maps as part of the Archeological Background Study.
- To conduct the Archeological Background Study, the professional archeologist shall undertake a review of existing data, including, but not limited to, the Atlas, geologic maps, soil maps, Potential Archeological Liability Map (PALM) of the project area, aerial photographs, and historic maps. Based on this review, the Archeological Background Study shall identify and map the areas that require field investigation to evaluate the project's effects on archeological resources and cemeteries and shall identify the areas in which the proposed project would have no effect on archeological resources and cemeteries. The Archeological Background Study shall identify any areas proposed for field investigation where impacts are deep, extending beyond three feet in depth.

Archeological Survey Investigations

- If the State decides upon submittal of the Archeological Background Study, that an archeological survey is warranted, the THCs Texas Antiquities Permit (TAP) application will be required prior to any archeological survey investigations and shall conform to the State's 05/2011 Review Standard for Antiquities Permit Applications, available from the Environmental Compliance Toolkit. The Engineer shall submit the TAP application to the State and upon approval, the State will submit it to the THC for approval and issuance of a TAP number.
- The Archeological Survey Investigations shall be performed pursuant to the National Historic Preservation Act, Section 106 and the Antiquities Code of Texas and shall conform to the THC's survey standards. Shovel tests will focus on areas with the potential for intact, subsurface archeological deposits and exclude portions of the APE that have been disturbed by development or in upland settings. Any deviations from the standards will be explained and discussed in the resulting report of investigations.

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Archeological Survey Report

• Subsequent to archeological field work, the Engineer will submit documentation of all archeological sites encountered to the Texas Archeological Research Lab (TARL) for the assignment of state site numbers. The Engineer will produce and submit a draft archeological report to the State detailing the results of the field efforts in accordance with the THC, Council of Texas Archeologists reporting guidelines, and the State's 05/2011 Review Standards for Archeological Survey Reports. The report will include the methods and results for the background study and the field effort complete with maps showing the location of any recorded archeological sites. The report will also include State Antiquities Landmarks (SAL) and National Register of Historic Places (NRHP) evaluations and recommendations for each site recorded under ACT and Section 106 respectively, and recommendations for further work, if any.

4. Community Impacts

A. Community Impacts: The Engineer shall perform Community Impact Assessments including displacements, changes to access and travel pattern, changes to cohesion, and Environmental Justice analysis (in accordance with Executive Order 12898) and Limited English Proficiency analysis (in accordance with Executive Order 13166). Community Impacts includes environmental justice, limited English proficiency, and other issues as addressed in TxDOT Environmental guidance and toolkits.

B. Section 4(f) and 6(f) evaluations: The Engineer shall provide up to two (2) Section 4(f) de minimis determinations that meet the requirements set forth in TxDOT's Environmental Compliance Toolkit guidance. A full Section 4(f) Evaluation is not included in this scope of work. The Engineer shall determine if Land and Water Conservation Fund Act funds were used for any proposed ROW or easements in accordance with the regulatory requirements and TPWD guidelines. An indirect and cumulative impacts (ICI) analysis is not anticipated to be required for this project because it is assumed to meet the requirements for processing as a CE. An ICI analysis and reporting is not included in this scope of work.

5. Initial Site Assessment of Hazardous Materials

The Engineer shall perform an Initial Site Assessment (ISA) for potential hazardous materials impacts for the limits of the study area. The completed ISA will include applicable copies of list search reports, including maps depicting locations, copies of agency file information, photographs, recommendations, and any other supporting information gathered by the Engineer to complete the ISA.

Based on the ISA information, the Engineer shall provide CCRMA and the State a report discussing the known or potential hazardous materials impacts. The report of hazardous materials impacts will include, when applicable:

- A concise summary of relevant information gathered during the ISA, including sufficient information to show that the study area for the Transportation Activity was adequately investigated for known or potential hazardous material contamination.
- A concise description of the scope of the hazardous materials ISA, disclosure of any limitations
 of the assessment, and a statement indicating who performed the assessment.
- A concise summary of the findings of the assessment for each alternative considered, along with an opinion of the potential of an identified site to impact the project during construction.
- A discussion of any commitments recommended for performing further investigation of suspect areas, and justification for postponement of further investigation.
- A summary of efforts to be employed to avoid or minimize involvement with known or suspected hazardous material contamination sites during construction, and justification for not avoiding contaminated sites within the preferred alternative or corridor alignment.
- Disclosure of known or suspected hazardous material contamination that is anticipated to be encountered during construction.
- A discussion of any required or recommended special considerations, contingencies or provisions to handle known or suspected hazardous material contamination during right-of-way negotiation and acquisition, property management, design and construction.
- A summary of any early coordination or consultation conducted with the regulatory agencies, local entities or property owners.
- A discussion of any further hazardous materials related coordination with, and approvals or permits required from, the regulatory agencies or other entities.

The Engineer will review appropriate findings with CCRMA and the State for further actions

Asbestos surveys and mitigation may also be required. Limitations and assumptions for that effort will be specified in the cost estimate.

6. Historic Resource Identification, Evaluation and Documentation Services

Project Coordination Request (PCR)

- Prior to conducting formal historic resource investigations, a PCR must be prepared and approved by the State to determine if further studies are warranted. The PCR shall comply with the State's 05/2019 PCR for Historic Studies.
- The PCR will include mapping and a written review of previously identified historic resources within a ¼ mile radius of the Project area, proposed ROW acreages and locations, proposed easements acreages and locations, and identification of property parcels. In addition, the PCR will include representative photographs of the proposed project area. Upon submittal, the State will then make the final determination of the level historic resources survey investigation.

Historic Resources Research Design

• If the State determines that a survey for historic resources is necessary, the Engineer will complete an Historic Resources Research Design in accordance with the State's 08/2017 Documentation Standard for Preparing an Historic Resources Research Design for the appropriate level of survey determined by TxDOT. The research design will include information from the PCR as well as define the Area of Potential Effect (APE) for historic resources for the Project, proposed survey methodology, methodology for special studies, discussion of anticipated resource types, and a historic context based upon the Project area and anticipated resource types. The research design will be submitted to the State for approval.

Historic Resources Survey

Upon approval of the Research Design, the Engineer will perform an historic resources survey
adhering to the State's standards for the type of historic resources previously determined. All
buildings, structures, and objects 45 years of age or older from the determined Project letting

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Whipple Road

date located within the in the historic resources APE shall be documented, photographed, and located on a field map. In consultation with the Historic Resources Survey Report.

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Historic Resources Survey Report

- Following the Historic Resources Survey, the Engineer shall submit a Reconnaissance Survey
 for Non-Archeological Historic-Age Resources Survey Report (HRSR) following the State's
 10/2017 Documentation Standard for Preparing an Historic Resources Survey Report. This
 report will include the information from the research design, methodology, historic context, and
 descriptions, photographs, and SAL/ NRHP evaluations and assessments for each historic
 resource recorded within the historic resources APE.
- The State will be responsible for transmitting the HRSR to the THC, as applicable under the First Amended Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU) and transmitting the THC comments to the Technical Expert. The Engineer shall revise the HRSR to reflect comments by the State and THC. The HRSR shall be revised pursuant to the State's errors and omissions policy.
- The Engineer shall contact interested parties in order to determine local knowledge of historic resources in the project area. Interested parties include but are not limited to: Certified Local Governments, Historic Preservation Offices, County Historical Commissions, Main Street Managers, the Historic Bridge Foundation, and other consulting parties.

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7. Water Resources

A. Water Quality: The Engineer shall address Section 303(d) of the Clean Water Act as administered by the Texas Commission on Environmental Quality (TCEQ). The Engineer will identify potential impacts to impaired assessment units, and potential pollutants that would create this impact, including assessment of impact to Total Maximum Daily Load and any approved Implementation Plan. The Engineer will assess methods to be used to prevent or reduce the likelihood of a discharge. The Engineer will also assess Best Management Practices that could be used to meet water quality regulations and compliance with the Texas Pollutant Discharge Elimination System (TPDES).

- B. Waters of the United States: The Engineer will address Section 404 of the Clean Water Act by:
 - Identifying all waters within the boundaries of the project area.
 - Delineating potential waters of the United States (WOUS), including wetlands (delineated in accordance with the USACE Wetlands Delineation Manual).
 - Calculating impacts to the potential WOUS to determine permitting requirements (Nationwide or Individual Permit). Permit preparation and submittal is beyond this scope.
 - In accordance with the new TxDOT process, a Delineation Report will only be prepared and submitted if project impacts trigger the need for notification to the U.S. Army Corps of Engineers.
- C. Floodplain Impacts: The Engineer will determine the project potential to impact floodplains in accordance with Executive Order 11988 and 23 CFR 650, subpart A. The Engineer will identify the characteristics of watersheds and existing streams in the study area and the locations of FEMA-mapped floodplains, by type and map panel number. The Engineer will identify those jurisdictions having control over floodplains within the study area. The Engineer will Identify the locations where an alternative will encroach on the base (100-year) floodplain ("encroachments"), where an alternative will support incompatible floodplain development and the potential impacts of encroachments and floodplain development. For each alternative encroaching on a designated or regulatory floodplain, the Engineer will assess whether the encroachment would be consistent with or require a revision to the regulatory floodplain. If the preferred alternative encroaches on a regulatory floodplain, the Engineer will determine the consistency of the action with the regulatory floodplain and document coordination with FEMA and

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local or state agencies with jurisdiction indicating that revision would be acceptable or that a revision is not required.

- D. USACE Permits: The Engineer shall determine whether the Transportation Activity requires a Section 10 permit (33 USC 403). The Engineer shall determine whether the Transportation Activity requires a Section 404 permit (Regional General or Nationwide or Individual Permit [IP]). Development of or securement of permit is not included in this scope. It can be provided under a supplemental agreement.
- E. Stormwater Permits: The Engineer will address Section 402 of the Clean Water Act by:
 - Describing the need to use the TPDES General Permit, TX 150000, and how the project will comply with the terms of the TPDES, including the Stormwater Pollution Prevention Plan.
 - Describing the need for Municipal Separate Storm Sewer System (MS4) notification and listing MS4 participating municipalities.
- F. USCG Section 9 Permit: The Engineer will determine whether streams or other water bodies crossed by a proposed transportation facility are navigable as defined in the USCG Commandant Publication P16591.3A, "Bridge Permit Application Guide." *This scope of work does not include consultation with the USCG or a permit application for bridges crossing navigable waters, if required. It can be provided under a supplemental agreement.*
- G. Fish and Wildlife Coordination Act: The Engineer will also identify water body modifications and impacts to wildlife in accordance with the Fish and Wildlife Coordination Act (FWCA) and determine the need for a 404 permit due to such impacts.

8. Deliverables

- Draft and final technical memorandums for each environmental area studied
- Draft, revised, and final PCR (if necessary, delivered electronically as a .pdf)
- Draft, revised, and final Archeological Background Study (if necessary, delivered electronically as a .pdf)

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TASK 7: PUBLIC INVOLVEMENT

1. Agency Coordination and Public Involvement

The Engineer shall assist CCRMA and TxDOT in conducting up to four (4) meetings with various agencies to discuss and review the schematic design. The Engineer shall document and respond to issues related to the schematic design.

2. Public Meetings

The Engineer shall assist CCRMA and TxDOT with one (1) virtual public meeting. The Engineer will:

- Attend pre-meetings with CCRMA and TxDOT in preparation for each meeting.
- · Provide copies of the schematic and other exhibits required for each meeting.
- · Assist in staffing each meeting.
- Assist with the responses to public comments related to the schematic design received from the public.

All other activities required for the meetings shall be completed by CCRMA.

3. Deliverables

- Meeting minutes, sign-in sheets and agendas
- · Schematic roll plots and exhibits for public meeting.
- · Assist CCRMA with Public Meeting Presentation (Power Point)
- Meeting summary report and responses to public comments.

TASK 8: RIGHT-OF-WAY (ROW) DATA

The Engineer shall provide ROW Mapping for two (2) corner clips at FM 1575 and FM 1847, if needed, to include the performance of on the ground surveys and right-of-way maps.

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1. Abstract Map (Working Sketch)

The Engineer shall prepare an abstract map sufficient to determine the following:

- Any and all interests of public record held in the land to be acquired.
- The total record holdings to be acquired from an owner contiguous to a land.
- Any and all interests in land held in common to be acquired (shopping mall parking lots, subdivision reserves, etc.)
- Any and all improvements proposed by other agencies which may have a bearing on project development.
- All called monuments, bearings, and distances as per recorded information.

2. Right of Entry

The Engineer shall secure permission to enter private property for purposes of survey.

3. Deliverables

- Abstract Map (Working Sketch) of the current record title holders.
- Title commitments, reports, parcel plats and property corners.
- A Preliminary Map showing the proposed schematic and existing right of way in GIS and .kmz format.

Right of way acquisition, if required, will be performed by CCRMA.

TASK 9: DESIGN SURVEY

Upon completion of the conceptual layout and determination of a preferred alternative, the Engineer shall complete full topographic ground survey along the route within the existing ROW along the project corridor. Additionally, the topographic survey shall be provided for 200' in each direction from intersections with existing roadways.

1. Survey Datum

All surveying for this project shall be provided in the following datum:

- Texas State Plane Zone: 4205 (South Zone)
- Units: US Survey FT

Whipple Road

Horizontal Datum: NAD83 (epoch 2010)

Vertical Datum: NAVD88

Surface Adjustment Factor(s): Cameron – 0.99996

2. Survey Control

The Engineer shall establish primary GPS control monuments at approximately 2-mile intervals and secondary control points at approximately 1,500-foot intervals within the project mapping limits. The Engineer shall provide hard copies and pdf files for signed and sealed Control Sheet (11" x 17") with a Control Index Sheet showing primary and secondary control for the project with accompanying title sheet, (8-1/2" x 11") datasheets for primary control with recovery sketch and photographs, the dgn files for control sheets.

3. Design Survey

The Engineer shall perform surveying sufficient for schematic design, including:

- Obtain or collect data to create cross-sections and digital terrain models.
- Locate existing utilities from above ground evidence.
- Locate topographical features and existing improvements.
- Provide details of existing bridge structures.
- Provide details of existing drainage features, (e.g., culverts, manholes, etc.).
- Locate wetlands if marked by others.
- Locate existing rights-of-way and property boundaries.
- Review right-of-way maps.
- Locate geotechnical soil boreholes.

4. Right of Way (ROW) Verification

- The surveyor shall conduct property research, ownership research and easement identification by obtaining recorded deed and easement documents.
- The surveyor shall contact property owners for Right of Entry (if necessary).

- Existing Right of Way (ROW)
- The surveyor shall locate and verify Existing ROW.

5. Deliverables

- Digital Terrain Models (DTM) and the Triangular Irregular Network (TIN) files in a format acceptable by TxDOT.
- Maps, plans, or sketches prepared by the Engineer's Surveyor showing the results of field surveys.
- Maps, plans, sketches, or other documents acquired from utility companies, private corporations,
 or other public agencies, the contents of which are relevant to the survey.
- Survey Control Sheets and Survey Index Sheets.
- Field survey notes and survey reports, as electronic and hard copies.

TASK 10: Subsurface Utility Engineering (SUE)

Subsurface Utility Engineering shall include utility investigations subsurface and above ground prepared in accordance with AASHTO standards [ASCE C-1 38-02 (http://www.fhwa.dot.gov/programadmin/asce.cfm)] and Utility Quality Levels defined in cumulative order as follows:

- Quality Level D Existing Records: Utilities are plotted from review of available existing records. Quality Level D will be performed in areas of private property.
- Quality Level C Surface Visible Feature Survey: Quality Level D information from existing records is correlated with surveyed surface-visible features. Includes Quality Level D information. If there are variances in the designated work area of Level D then a new schematic or plan layout, if needed, is required showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right-of-way, additional areas outside the proposed right-of-way, and distances or

areas to be included down existing intersecting roadways. Quality Level C will be performed in areas of public, existing ROW and access.

- Quality Level B Designate (Not in Scope): Two-dimensional horizontal mapping. This information is obtained through the application and interpretation of appropriate non-destructive surface geophysical methods. Utility indications are referenced to established survey control. Incorporates Quality Levels C and D information to produce Quality Level B. If there are variances in the designated work area of Level D then a new schematic or plan layout, if needed, is required showing the limits of the proposed project and limits of the work area required for this work authorization; including highway stations, limits within existing or proposed right-of-way, additional areas outside the proposed right-of-way, and distances or areas to be included down existing intersecting roadways. Quality Level B is excluded and will be completed at a later date or during PS&E as deemed necessary.
- Quality Level A Locate (Test Hole) (Not in Scope): Three-dimensional mapping and other characterization data. This information is obtained through exposing utility facilities through test holes and measuring and recording (to appropriate survey control) utility and environment data. Incorporates quality levels B, C and D information to produce Quality Level A. Quality Level A is excluded and will be completed at a later date or during PS&E as deemed necessary.

1. Utility Base Map

The Engineer shall obtain information on existing utilities from utility owners and shall conduct investigations to identify and evaluate known existing public utilities within the preferred alternative alignment. The Engineer shall identify potential conflicts and attempt to minimize the potential adverse utility impacts in the preparation of the schematic design. The Engineer shall prepare a Quality Level C and D base map depicting the utility locations. The engineer shall create a utility conflict matrix along with a utility conflict exhibit identifying potential known conflicts.

2. Utility Coordination

The Engineer shall assist CCRMA in conducting one (1) utility coordination meeting with utility companies to facilitate utility conflict identification and introduce the project. Major utility facilities shall

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be discussed and analyzed to avoid relocation, if possible. The Engineer shall create agenda and exhibits for the coordination meeting as directed by CCRMA and TxDOT.

3. Deliverables

- Preliminary & Final set of 11" x 17" colored drawings depicting Quality Level C and D utility information.
- Scanned record information in .pdf format if received from each utility.
- Utility Conflict Matrix and Utility Conflict Exhibit. The Utility Conflict Exhibit will be on 11x17 sheets and include callouts to indicate the conflict ID#, utility owner, type of line (water, sewer, high pressure gas, etc.), material (if it is an AC pipe line), and size (if known).
- Utility Contacts list in excel and pdf format.
- Utility Summary to indicate major utility facilities or time sensitive items pertaining to utilities that need to be addressed in PS&E.

Task 11: Geotechnical Borings and Investigations

No effort for this task.

County: Cameron

Appendix B: FEE SCHEDULE SUMMARY Whipple Road

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TASKS	Description							
1	Project Management	\$ 37,	37,561.28 \$	-	\$	1		37,561.28
2	Feasibility Studies (not used)	\$	\$	•	\$	1	₩	
3	Schematic Development	°.2 \$	7,417.96 \$	ı	\$ 69,508.39	8.39 \$		76,926.35
4	Hydrology and Hydraulics	\$ 48,	48,315.28 \$	1	↔	<i>₽</i>		48,315.28
5	Traffic and Operational Analysis (not used)	\$	\$ -	•	\$	-	₩	,
9	Environmental Studies	\$ 76,	76,287.84 \$	20,737.82	\$	٠		97,025.66
7	Public Involvement	\$ 16,	16,673.22 \$	1	\$	\$	İ	16,673.22
Basic Service Sub Totals	otals	\$ 186,	186,255.58 \$	20,737.82	\$ 69,508.39	8.39 \$		276,501.79
Special Services								
8	Right-of-Way (ROW) Data	\$ 27,	27,941.58 \$	•	\$	€	İ	27,941.58
6	Design Survey	\$ 41,	41,261.86 \$	-	€9	€		41,261.86
10	Subsurface Utility Engineering (SUE)	\$ 20,	20,162.20 \$	•	↔	€	ĺ	20,162.20
11	Geotechnical Borings and Investigations (not used)	\$	٠	ŧ	€	€)		
SUE	Utility Engineering & Coordination Services (not used)	\$	\$	•	€9	€		'
Special Services Sub Totals	b Totals	\$ 89,	89,365.64 \$	•	\$	₽		89,365.64
							-	
Direct Expenses Sub Totals	b Totals	\$ 7,	7,820.00 \$	4,056.00	\$ 3,07	3,078.90	\$ 14	14,954.90
SUB TOTALS		\$ 283,	283,441.22 \$	24,793.82	\$ 72,587.29	7.29	\$ 380	380,822.33
PERCENTAGE		74.4%	%:	6.5%	19.1%		100	100.0%
HUB %					19.1%			19.1%
TOTAL WORK						€		380,822.33

Appendix B: FEE SCHEDULE Half Associates, Inc. Whipple Road Method of Payment: Lump Sum

COST PER TASK		15,149,70 6 4,249.88 18,161,70		37,661.28			\$ 7,417.96		5 7,417.96	4,424.44	5 14,791,92 5 14,123,88		\$ 48,315,28			;		15,806.92 14,373.40 5,242.34 3,547.06 8,749.86 7,439.78 3,547.42 16,371,42	78,287,84	5,049,92 8,023,30 5,500,00 16,673,22
SUE MANAGER \$175.00			\$175.00		\$175.00			\$175.00 \$0.00	Ĭ		0	\$0.00			0	\$175,00		0.000	20.00	0 0 \$175.00 \$0.00
UTILITIES COORDINATOR \$125,00			\$125.00 \$0.00		5125.00 \$10.00			\$125.00 \$0.00			0	\$0.00			0	\$125,00		0 \$125.00	30.08	0 \$125.00 \$0.00
2-MAN SURVEY CREW \$170.86			\$170.85		\$170.85			\$170.85			0	\$0.00			o	\$0.00		0 05170.85	90.00	0 \$170.85 \$0.00
ADMINISTRATIVE / CLERICAL \$66,00		9	\$65.00 \$390.00		0 \$65.00 \$0.00		10.0	\$65.00			80.80	\$520.00			0	\$0.00		1 1 1 1 1 1 1 6 6 855,00	9230.00	2 2 4 565.00 \$260.00
CADD OPERATOR \$95,00			\$95.00		\$95.00			\$95.00			0	80.00			o	\$0.00		00.368	onine	00.08 00.08
SENIOR CADD OPERATOR \$115.01			\$115.01 \$0.00		\$115.01			5115.01 \$0.00		32	91 98 88	\$10,120.88			o	\$0.00		\$115.0:	\mathbf{I}	12 16 \$115.01 \$1,840,16
GIS MANAGER \$137.80			\$137.90 \$0.00		0 \$137.90 \$0.00			\$137.90 \$0.00		12	8 52 52 53 50	\$7,170.80			o	\$0.00		8 6 6 6 12 12 12 12 54 24 24 86 86	DF:000-114	0 \$137.90 \$0.00
GIS OPERATOR \$100.00	7.7		\$100.00		0 \$100.00 \$0.00			\$100.00 \$0.00			0 00	\$0.00			٥	\$0.00		0 \$100.00	111	0 \$100.00 \$0.00
PUBLIC INVOLVEMENT REP \$120.01	1000		\$120.01 \$0.00		5120.01 \$0.00			\$120.01			0	\$0.00			o	\$0.00		\$120.01	200	6 6 8 120.01 \$720.06
ENVIRONMENTAL SCIENTIST III \$90,01			\$90.01		0 \$90.01 \$0.00			\$90.01			0	\$0.00			O	\$0.00		29 29 0 40 32 32 252 252 280,01	70.700,776	0 890.01 0 0.00
ENVIRONMENTAL SCIENTIST IV \$150,00			\$150.00		0 \$150.00 \$0.00			\$150.00			0 000	\$0.00			o	\$150.00		8 37 12 16 16 17 30 30 3150,00	20,400,400	4 8 8 24 24 36 \$150,00 \$5,400.00
ENVIRONMENTAL SCIENTIST V \$171.61			5177.61 \$0.00		0 \$171.61 \$0.00			\$171.61			0 E	\$0.00			٥	\$177,61		22 77 77 77 77 77 77 77 77	916,900.06	5171.61 \$0.00
ENGINEER IN TRAINING \$100,00			\$100.00		\$100.00			\$100.00		12	108	\$10,800.00			o	\$0.00		4 8100.00	000000	00.03 00.0012 00.0012
ENGINEER \$137.90			\$137.90 \$0.00		\$137.90			\$137.90 \$0.00			0 643	\$0.00			o	\$0.00		0 0 5137.90	8	8 8 5137.90 51,103.20
ENGINEER II \$150.16		12	12 \$150.16 \$1,801.92		0 \$150,16 \$0.00			5150.16 \$0.00			0	80.00			О	\$150,16		0 0 0 \$150.16		0 \$150.16 \$0.00
ENGINEER III \$162.42		Ш	\$162.42 \$0.00		5162.42 \$0.00		24	24 \$162.42 \$3,898.08		20 4	2 2 2 2	\$12,343.92		Ш	ь	\$162.42		0 \$162.42	33	0 \$162.42 \$0.00
ENGINEER V			\$183.87 \$0.00		\$183.87			\$183.87 \$0.00			0	\$0.00			o	\$183.87		0 \$183.87	000	0 \$183.87 \$0.00
SENIOR ENGINEER		32	22 \$229.99 \$5,059.78		0 0 \$229.99 \$183.87 \$0.00 \$0.00			\$229.99		4 6	12 32 32 60 60 60	\$7,359.68			0	\$0.00		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00.00	0 \$229.99 \$0.00
DEPUTY PROJECT MANAGER \$228.89		30	42 229 5229 5183.87 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		\$229.99		12	12 \$229.99 \$2,759.88				\$0.00			1 1	\$0.00		0 \$272.99	111	12 8 20 \$229.99 \$4,599.80
QUALITY MANAGER \$260,00		32	32 \$250.00 \$8,000.00		\$250.00			\$250.00			0 000	\$0.00			0	\$0.00		24 24 \$250,00	80,000	0 \$250.00 \$0.00
RPLS - PROJECT MANAGER \$189,20			\$199.20 \$0.00		\$199.20			\$199.20			0 0	\$0.00			11	\$199.20		0 8199.20	00.00	0 \$199.20 \$0.00
PROJECT MANAGER \$275.00		30	46 \$275.00 \$12,650.00		0 \$275.00 \$0.00			\$275.00			0 00	80.00			o	\$0.00		8 8 8 8 8 8	37,000,00	4 6 6 10 10 \$275.00 \$2,750.00
PRIME PROVIDER NAME: HALFF ASSOCIATES, INC. 7 ASY DESCRIPTION CONTRACT PATE FER HOUR	TASK 1: PROJECT WANAGEMENT	1. Project Management 2. Reporting 3. GA/ICC	HOJRS SUBJECTALS CONTRACT RATE RE HOJR TOTAL LIBER COSTS	SUBTOTAL TASK 1	HOURS SIG.TOTALS COMTRACT PALE DER HOLR TOTAL LAGIOR COSTS	SUBTOTAL TASK 2	TASK 3: SCHEMATIC DEVELOPMENT 1. Contrinsion of design offerts	HOURS USE HOUR CONTRACT RATE PER HOUR TOTAL LIBOR COSTS	SUBTOTAL TASK 3	7ASK 4: HYDROLLOGY AND HYDRAULICS 4.1 Inventory of Exeting Conditions 4.2 Inventory			SUBTOTAL TASK 4 TYRKE TATA REBOATION ANALYSE JUNT HEEN	A ST. INVESTIGATION OF CONTROL SECTION OF CONTROL OF CO	HOURS SUB-TOTALS	CONTRACT RATE PER HOUR TOTAL LABOR COSTS	SUBTOTAL TASK 6	TASK 6. BROWNONINGTIME, STUDIES Environmental Separation and Control and Separation and Control and Control and Separation and Control an	TOTAL DADA COSTS SUBTOTAL TASK 6	TARKY, TARKY THE DEVOLUTION OF THE CONTROL OF THE C

Appendix B: FEE SCHEDULE Half Associates, Inc. Whipple Road Method of Payment: Lump Sum

PRIME PROVIDER NAME: HALFF ASSOCIATES, INC.																						
TASK DESCRIPTION	PROJECT	RPLS - PROJECT MANAGER	QUALITY	DEPUTY PROJECT MANAGER	SENIOR ENGINEER	ENGINEER V	ENGINEER ENGINEER	EER ENGINEER	ENGINEER IN TRAINING	ENVIRONMENTAL SCIENTIST V	ENVIRONMENTAL SCIENTIST IV	ENVIRONMENTAL SCIENTIST IN	L PUBLIC INVOLVEMENT REP	T OPERATOR	GIS	SENIOR CADD OPERATOR	CADD A OPERATOR	ADMINISTRATIVE /	2-MAN SURVEY CREW	UTILITIES	SUE	COST PER TASK
CONTRACT RATE PER HOUR	\$276.00	\$189.20	\$250.00	\$228.88	\$229.99	\$183.87 \$16	\$162.42 \$150.	\$150,16 \$137.90	\$100.00	\$171.61	\$150.00	\$90.01	\$120.01	\$100.00	\$137,90	\$115,01	\$96.00	\$65,00	\$170,85	\$126.00	\$176.00	
	L			ı																		
TASK 8: RIGHT-OF-WAY (ROW) DATA																						
Abstract Map		2			+											79						\$ 7,759.04
Right-of-Entry	-		1		1	3,			2					-		2			ļ			\$ 429.22
Drawing two (2) popping, 13 11X17 shoots)	- -				. 4	9	9		200								1		,,			9,876.66
HOURS SUB-TOTALS	- -	-	8	°		33	0 16	٥	48	°	0	۰	٥			99		9	,	0		9,870,00
CONTRACT RATE PER HOUR	\$275.00	\$199.20	\$250.00	\$229.99	\$229.99	H	\$15	16 \$137.90	\$100.00	\$171,61	\$150.00	\$90.01	\$120.01	\$100.00	\$137.90	\$115.01	\$95.00	\$65.00	\$170.85	\$125.00	\$175.00	
TOTAL LABOR COSTS	\$550.00	\$2,191,20	\$2,000.00	Н	Н	Н	-	30,00	\$4,800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$7,590.66	\$0.00	\$0.00	\$683.40	80.00	\$0.00	
	1																					
SUBTOTAL TASK 8	$\left \right $																					\$ 27,941.58
VIII OF THE PROPERTY OF THE PR																						
ANN STORMEN SORVET		46		-										-			-					
Delorming Apparent Royal		2														7			3 5			7,064.24
Secondary Survey Control (America)		-														2	†		\$ 6			2 757 757
Design Survey		8														32			120			\$ 25,775,92
														L								
HOURS SUB-TOTALS	0	28	0	~	Н	Н	Н	Н	0	0	0	٥	0	9	0	95		٥	170	٥		
CONTRACT RATE PER HOUR	\$275.00	\$199.20	\$250.00	+	\$229.99	H	_	"	\$100.00	\$171.61	\$150.00	\$30.01	\$120.01	\$100.00	\$137,90	\$115,01	\$95,00	\$65.00	\$170.85	\$125.00	\$175.00	
TOTAL LABOR COSTS	20.00	\$5,776.80	\$0.00	\$0.00	4	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,440.56	\$0.00	\$0.00	\$29,044.50	\$0.00	\$0.00	
SUBTOTAL TASK 9																						\$ 41,261.86
TASK 40- RIBSIDEACE LITE IT ENGINEEPING (SUE																						
				-										L			\mid					
SUE Quality Lavel C.& D	2			H													50	2	8	8	16	\$ 7,946.00
Utility Conflict Matrix / Meeting	4	1	1	1	8	1	9	1									v	7				\$ 12,216,20
100 100 01 0 100 100 100 100 100 100 10	ľ				20		90	c	c	c	c	·	4	ľ			ì	ì	1			
CONTRACT RATE DER HOUR	\$275,00	\$199.20	\$250.00	T	╀	t	t	16 \$137,90	\$100.00	\$171.61	\$150.00	\$90.01	\$120.01	\$100.00	\$137.90	\$115.01	00 265	\$65.00	\$470.85	\$125.00	6475.00	
TOTAL LABOR COSTS		\$199.20	\$0.00	П	H	Н	Н	A0 \$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	80.00	\$0.00	\$2,280.00	\$260.00	\$1,366.80	\$1,000.00	\$2,800.00	
SUBTOTAL TASK 10																						\$ 20,162,20
And the second s																						
					-	-	-							-								
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LOUIS G. D. TOTAL G			ď		c	١	c	G	c		•	ŀ	ļ			,		_	ļ	Š	ľ	
CONTRACT RATE PER HOUR	\$275.00	\$199.20	\$250.00	Т	+	\$183.87 \$162.42	2.42 \$150.16	16 \$137.90	\$100.00	\$171.61	\$150.00	\$30,01	\$120.01	\$100,00	$^{+}$	\$115.01	\$95.00	\$65.00	\$170.85	\$125.00	\$175.00	
TOTAL LABOR COSTS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	Н	m	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0,00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
2004																						
TOTAL HOURS	22	41	64	14	82	H	99 00	8	160	72	172	252	9	-	138	┕	32	86	182	a	45	
CONTRACT RATE PER HOUR	\$275.00	5	g		8	\$183,87 \$16	\$162,42 \$150,16	16 \$137.90	5	\$171.61	\$150.00	\$90.01	\$120,01	\$100,00	\$137.90	\$115.01	\$95.00	\$65.00	\$170.85	\$125,00	\$175.00	
	000000	00 000 000 000	000000	247.000.00	00 000 00	F	0000	00 000 000	000000	ı	000000	00 000 000	200000		000000							
SUBTOTAL LABOR EXPENSES	319,800,00	38,187.20	\$15,000,000 at 7,000,000 at 8,000,000 at 8,000 at	\$ 1 97.610,714	\$ 81.909.91	Η.	642.00 \$10,21	37,103,00	00.000,414 02.501,76 \$10.242,010,000	312,355.97	925,800.00	\$22,662.52	\$720.06	\$0.00	\$19,030,20	\$25,992.26	\$3,040.00	\$1,820.00	\$31,094.70	\$1,000.00	\$2,800.00	\$275,621.22
SUBTOTAL SUE DIRECT EXPENSES																						\$0.00
SUBTOTAL DIRECT EXPENSES							-															\$7,820,00
			-																			
																					TOTAL	\$283,441.22

County: Cameron

FIRM: ATKINS NORTH AMERICA, INC.

Appendix B: FEE SCHEDULE Atkins North America, Inc. Whipple Road Method of Payment: Lump Sum

\$ 24 703 89	\$ INTOT								
\$ 4,056.00								SUBTOTAL DIRECT EXPENSES	
\$20,737.82	\$780.00	\$3,118.94	\$152.68	\$4,711.20	\$11,450.00	\$525.00	\$0.00	SUBTOTAL LABOR EXPENSES	
	\$65,00	\$141.77	\$76.34	\$98.15	\$114.50	\$175.00	\$250.00	CONTRACT RATE PER HOUR	
	12	22	2	48	100	3	0	TOTAL HOURS	
\$ 20,737,82								SUBTOTAL TASK 6	
	\$780.00	\$3,118.94	\$152.68	\$4,711.20	\$11,450.00	\$525.00	\$0.00	TOTAL LABOR COSTS	
	\$65.00	\$141.77	\$76.34	\$98.15	\$114.50	\$175.00	\$250.00	CONTRACT RATE PER HOUR	
	12	22	2	48	100	8	0	HOURS SUB-TOTALS	
69									
\$ 7,392.90	4	6		8	40	2		Historic Resource Identification, Evaluation and Documentation Services- PCR	
\$ 13,344,92	8	12	2	40	09	1		Archeological Background Studies	
69									
		A TOTAL CONTRACT						SK 6; ENVIRONMENTAL STUDIES	SK 6:
	\$65.00	\$141.77	\$76.34	\$98.15	\$114,50	\$175.00	\$250.00	CONTRACT RATE PER HOUR	
COST PER TASK	ADMINISTRATIVE / CLERICAL	GIS MANGER	ENVIRONMENTAL SCIENTIST III	ENVIRONMENTAL SCIENTIST III	ENVIRONMENTAL SCIENTIST IV	ENVIRONMENTAL SCIENTIST V	QUALITY MANAGER	TASK DESCRIPTION	
									۱

Appendix B: FEE SCHEDULE

<u>TEDSI</u>
Whipple Road
Method of Payment: Lump Sum

TASK DESCRIPTION CONTRACT RATE PER HOUR TASK 3: SCHEMATIC DEVELOPMENT Part A (Conceptual Layout)	QUALITY	Y DEPUTY PROJECT	IN GOUND							
CONTRACT RATE PER HOUR SCHEMATIC DEVELOPMENT Part A (Conceptual Layout)	MANAGER		TRAINING	DESIGN ENGINEER	GIS OPERATOR	SENIOR CADD OPERATOR	CADD OPERATOR	ADMINISTRATIVE / CLERICAL	UTILITIES	COST PER TASK
SCHEMATIC DEVELOPMENT Part A (Conceptual Layout)	\$244.02	2 \$229.99	\$85.01	\$145.01	\$100.00	\$106.76	\$91.51	\$65.00	\$125.00	
SCHEMATIC DEVELOPMENT Part A (Conceptual Layout)										
Part A (Conceptual Layout)	:				the state of the s	A second of the second			The second of the second of	1.7
										8
1. Preliminary Design Conference										69
Preliminary Design Kick Off Meeting (include preparation)		4		9						1 790 02
Develop Roadway Design Criteria (DSR) and Form 1002		4		9						1 790.02
Sub-Total 1 Preliminary Design Conference										8
										69
2. Data Collection										69
Field site visit/Compiling field notes and photos along proposed roadway	oadway		4			9	9			\$ 1,529.66
Sub-Total 2 Data Collection										
3. Develop Base Maps, Analyze Existing Condition and Develop Conceptual Layout	lop Conceptual									9
Develop base maps, Analyze Existing Condition and Develop Conceptual widening layout (plan view only) (Microstation V8.I/OpenRoad)	nceptual widening	4	12	12	24	40				\$ 10,350.60
Part B (Final Schematic)										
1. Geometric Design Schematic										
Develop Preliminary Design Schematic (Plans & Profile) based on best fit roadway widening (Microstation V8.I/OpenRoad)	n best fit roadway	88	24	32	40	48				\$ 17,644,96
Identify irrigation systems impacted by proposed improvements, show proposed location for irrigation systems relocation.	show proposed location		4			8	80			\$ 1,926.20
Determine location, size and ownership of impacted property for the proposed ROW.	the proposed ROW.		4			9	9			\$ 1529.66
Submit schematic to the CCRMA and TxDOT for review and comments, 3 submittals at 60%, 90%, and 100% signed and sealed	ments, 3 submittals at	3		g		80	80	6		\$ 3,341,19
Update Schematic to incorporate comments received		4	8	4		8	8			\$ 3.766.24
Coordinate with and provide pdf exhibits for Environmental Consultant limited to developed Schematic.	ultant limited to		8	4		80	80			\$ 2,846.28

Appendix B: FEE SCHEDULE

TEDSI
Whipple Road
Method of Payment: Lump Sum

FIRM: TEDS! INFRASTRUCTURE GROUP, INC.

Appendix B: FEE SCHEDULE

Halff Associates, Inc. ODE

Whipple Road

Method of Payment: Specified Rate

Δ	DIRECT EXPENSES	LINNIT	QTY	UNIT PRICE	QTY UNIT PRICE FIXED / MAX RATE	MAX RATE	TOTAL	AL
	Lodging/Hotel - Taxes and Fees	Day/Person	8	\$ 50.00	M		\$	400.00
	Lodging/Hotel (Taxes/fees not included)	Day/Person	8	\$ 94.00	M	Federal per	\$	752.00
	Meals (Excluding alcohol & tips) (Overnight stay required) (taxes included)	Day/Person	16	\$ 25.00	Σ	Federal per	8	880.00
	Mileage	Mile	1000	\$ 0.545	Ш	Current	\$	545.00
	Rental Car Fuel	Day	4	\$ 30.00	Σ		\$	120.00
	Rental Car (Includes taxes and fees; Insurance costs will not be reimbursed)	Day	4	\$ 60.00	Σ		\$	240.00
	Air Travel - In State - Short Notice (Coach)	Rd Trip/Person	4	00.009 \$	Σ		\$ 2,4	2,400.00
	Parking	Day	4	\$ 20.00	M		€	80.00
	Courier Services	Each	9	30.00	M		8	180.00
	Materials and Shipping (non US Mail)	Per Package	2	\$ 40.00	M		€	80.00
	Photocopies B/W (11" x 17")	Each	40	\$ 0.20	Э Е		69	8.00
	Photocopies B/W (8 1/2" x 11")	Each	1600	\$ 0.10	Э (\$	160.00
	Photocopies Color (11" x 17")	Each	200	1.25	. F		\$	250.00
	Photocopies Color (8 1/2" x 11")	Each	200	\$ 0.75	M		3	375.00
	Hazardous Materials Database Search	Per Search	1	\$ 350.00	M		€ €	350.00
	Type II ROW Monument - Poured 2-3 Feet (includes One Call, crew time, equipment, materials, rentals, labor). Brass Marker not supplied.	Each	5	\$ 200.00	F		\$ 1,0	1,000.00
	SUBTOTAL DIRECT EXPENSES						\$ 7,8	7,820.00

County: Cameron

Appendix B: FEE SCHEDULE **Atkins North America ODE**

Whipple Road

Method of Payment: Specified Rate

Day/Person 4 \$ 50.00	M \$ 200.00
Day/Person 4 \$ 94.00 M	- "
Day/Person 6 \$ 55.00	Federal per diem rate for the location \$ 330.00 and month of travel
Mile \$ 0.545	Current \$ - Federal Rate
Day 3 \$ 60.00	
Day 3 \$ 30.00	\$ 90.00
Rd Trip/Person 2 \$ 600.00	\$ 1,200.00
Each 4 \$ 25.00	\$ 100.00
Day 6 \$ 20.00	\$ 120.00
Mile 2 \$ 100.00	\$ 200.00
Per Project 1 \$ 900.00	\$ 900.00
Day 2 \$ 50.00	\$ 100.00
	\$ 4,056.00
6 \$ 55.00 3 \$ 0.545 3 \$ 60.00 2 \$ 600.00 4 \$ 25.00 6 \$ 20.00 7 \$ 900.00 2 \$ 100.00 2 \$ 100.00	

County: Cameron

Appendix B: FEE SCHEDULE <u>TEDSI ODE</u> Whipple Road Method of Payment: Specified Rate

DIRECT EXPENSES	LIND	QTY	QTY UNIT PRICE FIXED / MAX MAX RATE	FIXED / MAX	MAX RATE	TOTAL
Mileage	Mile	300	\$ 0.55	L	Current Federal Rate	\$ 163.50
Standard Postage	Letter	10	\$ 0.50	Ь	Current Postal Rate	\$ 5.00
Certified Letter Return Receipt	Each	6	\$ 3.45	F	Current Postal Rate	\$ 20.70
Overnight Mail - letter size	Each	6	\$ 24.70	M	Current Postal Rate	\$ 148.20
Overnight Mail - oversized box	Each	3	\$ 50.00	W	Current Postal Rate	\$ 150.00
Photocopies B/W (11" x 17")	Each	100	\$ 0.20	Ь		\$ 20.00
Photocopies B/W (8 1/2" x 11")	Each	100	\$ 0.10	Ь		\$ 10.00
Photocopies Color (11" x 17")	Each	50	\$ 1.25	Ь		\$ 62.50
Photocopies Color (8 1/2" x 11")	Each	50	\$ 0.75	M		\$ 37.50
Plots (Color on Bond)	Square Foot	300	\$ 1.50	J		\$ 450.00
Plots (Color on Photographic Paper)	Square Foot	100	\$ 4.00	Ł		\$ 400.00
Color Graphics on Foam Board	Square Foot	100	\$ 7.00	Ь		\$ 700.00
Presentation Boards 30" x 40" Color Mounted	Each	4	\$ 150.00	Μ		\$ 600.00
Report Printing	Each	4	\$ 50.00	M		\$ 200.00
Report Binding and tabbing	Each	4	\$ 5.00	M		\$ 20.00
Reproduction of CD/DVD	Each	3	\$ 4.50	M		\$ 13.50
CDs	Each	3	\$ 1.00	Э		3.00
128 GB Flash Drive	Each	1	\$ 75.00	Ь		\$ 75.00
SUBTOTAL DIRECT EXPENSES						\$ 3,078.90

2-H CONSIDERATION AND APPROVAL OF WA 19 WITH S&B INFRASTRUCTURE TO PROVIDE ENGINEERING SERVICES FOR THE PREPARATION OF PLANS, SPECIFICATIONS & ESTIMATES (PS&E) AND CONSTRUCTION MANAGEMENT SUPPORT SERVICES FOR THE PROPOSED ROADWAY PROJECT EAST LOOP

WORK AUTHORIZATION NO. 19

This Work Authorization is made as of this __28th__ day of ______, 2020, under the terms and conditions established in the AGREEMENT FOR GENERAL CONSULTING CIVIL ENGINEERING SERVICES, dated as of May 10, 2018 (the "Agreement"), between the Cameron County Regional Mobility Authority (the "Authority") and S&B Infrastructure, Ltd. (the "GEC" or "Engineer").

This Work Authorization is made for the following purpose, consistent with the Services defined in the Agreement: Professional services including: providing engineering services for the preparation of Plans, Specifications & Estimates (PS&E) and Construction Management support services for the proposed roadway project as identified in Contract as East Loop from Interstate 69E to 1.57 Miles East of the intersection of SH 4 and FM 1419 along with levee relocation -- Project Roadway Length = 11.4 Miles Project Levee Length 1.7 Miles.

Section A. - Scope of Services

A.1. GEC shall perform the following Services:

GEC shall perform the Services as listed in Exhibit B and as requested by the Authority.

Section B. - Schedule

GEC shall perform the Services and deliver the related Documents (if any) according to the following schedule as shown on Exhibit C.

Section C. - Compensation

- C.1. In return for the performance of the foregoing obligations, the Authority shall pay to the Engineer the amount not to exceed \$3,424,587.32, based on the attached fee estimate shown on Exhibit D. Compensation shall be in accordance with the Agreement.
- C.2. The Authority shall pay the GEC under the following acceptable payment method Lump Sum Payment Method.
- C.3. Compensation for Additional Services (if any) shall be paid by the Authority to the GEC according to the terms of a future Work Authorization.

Section D. - Authority's Responsibilities

The Authority shall perform and/or provide the services as stated in Exhibit A in a timely manner so as not to delay the Services of the Engineer.

Section E. - Other Provisions

The parties agree to the following provisions with respect to this specific Work Authorization: None.

-SIGNATURES ON NEXT PAGE-

Except to the extent expressly modified herein, all terms and conditions of the Agreement shall continue in full force and effect.

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY

Frank Parker Ir Chairman

Date: (0 /30 /30)

S&B INFRASTRUCTURE, LTD.

By: Nant U. D.C.

Daniel O. Rios, PE, President

LIST OF EXHIBITS

Exhibit A - Authority's Responsibilities

Exhibit B - Services to be Provided by Engineer

Exhibit C - Work Schedule

Exhibit D - Cost Proposal

EXHIBIT AAuthority's Responsibilities

The following provides an outline of the services to be provided by the **Authority** in the development of the **Project** for this work authorization.

GENERAL

The **Authority** will provide to the **Engineer** the following:

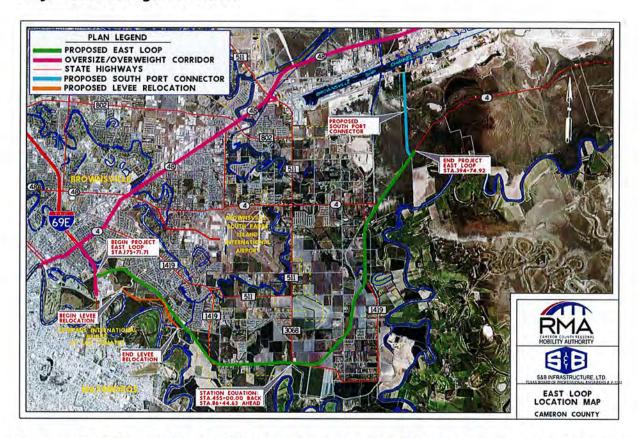
- (1) Provide Engineer with a Notice to Proceed.
- (2) Payment for work performed by the **Engineer** and accepted by **Authority** in accordance with this Agreement.
- (3) Assistance to the **Engineer**, as necessary, to obtain the required data and information from other local, regional, **State** and Federal agencies that the **Engineer** cannot easily obtain.
- (4) Provide timely review and decisions in response to the **Engineer's** request for information and/or required submittals and deliverables, in order for the **Engineer** to maintain an agreed-upon work schedule.
- (5) Coordinate with TxDOT for items as needed. The Authority will negotiate and approve all change orders and other contract revisions that the Authority finds necessary or convenient to accomplish the construction activities for the Project. For change orders and other contract revisions that affect prior environmental approvals or result in non-conformity with the specifications and standards agreed upon for the Project, the Authority must assess any potential environmental effects and any additional or revised environmental permits, issues, coordination, mitigation, and commitments required as a result of the contract revisions.
- (6) Provide the **Engineer** the previous obtained mylars and electronic MicroStation files for the project.
- (7) Assist the **Engineer** in notifying previous Engineer Designers of modifications being made to existing plan designs.

EXHIBIT "B"

Services to be Provided by the Engineer

GENERAL

The work to be performed by the **Engineer** under this contract consists of providing engineering services required for the preparation of Plans, Specifications and Estimates (PS&E) and Construction Management support services for the proposed roadway project as identified in Contract as **East Loop from Interstate 69E to 1.57 Miles East of the intersection of SH 4 and FM 1419 along with levee relocation -- Project Roadway Length = 11.4 Miles Project Levee Length 1.7 Miles.**



The existing traffic capacity on existing roadways and number of main lanes must be maintained at all times during construction of the new facility, with any exceptions to be approved by the **State/Authority**. The Levee relocation must be completed to the Top of Levee Elevation (TOLE) without freeboard before the existing levee is removed. The **Engineer** shall prepare plans, details and compute quantities to include roadway design, grading, paving, sidewalks, drainage including pump stations, traffic signals, signing, pavement markings, illumination – safety lighting, traffic control plans, storm water pollution prevention plans, retaining walls – noise walls, levee relocations, border fence relocation, specifications, and cost estimates. The **Engineer** shall prepare the bridge layouts and furnish the structural details, confirm the layouts and/or structural details with the **Authority**, and bridge quantities for the designated bridges. The **Engineer** shall also provide Construction Phase Services. (Construction Management Services are not included in this scope at this time)

The **Engineer** shall collect, review and evaluate the available existing data pertaining to the project and prepare the Plans, Specifications and Estimates in accordance with the requirements and policies of the **State/Authority**.

The **Engineer** shall identify, prepare exhibits and complete all necessary forms for Design Exceptions and/or Waivers within project limits <u>prior</u> to the 30% Submittal. These exceptions shall be provided to the **State/Authority** for coordination and processing of approvals. If subsequent changes require additional exceptions, the **Engineer** shall notify the **State/Authority** as soon as possible after identification.

The **Engineer** shall provide field surveying services necessary to produce the Digital Terrain Model (DTM), produce topographic maps, establish the project baseline on the ground, locate and tie existing utilities to the project baseline. Coordinate geometry shall be based on and tied into **State** plane surface coordinate system. During all surveying operations the traffic shall be controlled in accordance with the latest edition of the Texas Manual on Uniform Traffic Control Devices-Part IV.

It shall be the responsibility of the **Engineer** to secure permission to enter private property for the purpose of performing any surveying, environmental and engineering/geotechnical activities. In pursuance of the **State/Authority**'s policy with the general public, the **Engineer** shall not commit acts which will result in damages to private property and the **Engineer** will make every effort to comply with the wishes and address the concerns of private property owners. The **Engineer will**, at all times, contact the property owner prior to any entry onto the owner's property.

The **Engineer** shall coordinate with adjacent Engineers on all controls at interfaces. In the event agreement cannot be reached, each **Engineer** shall meet jointly with the **State/Authority** for resolution. The **State/Authority** shall have authority over the Engineers' disagreements and its decision shall be final.

The **Engineer** shall perform their work in accordance with the **State**'s <u>Utility Accommodation Policy</u>. The **Engineer** shall prepare drawings early in the design phase (30 %) to be used as exhibits in utility agreements. The exhibits shall be prepared using English units. The **Engineer** shall show existing utilities, including those in conflict with construction on this project. The **Engineer** shall prepare plans to avoid utility adjustments, where feasible. The **Engineer** shall be responsible for sending out notices, with copies of exhibits and plans, including all milestone submittals.

The **Engineer** shall compile, maintain and update a Utility Conflict List. The **Engineer** shall provide the most current copy of the conflict list to the **State/Authority** at each milestone submittal and shall be responsible for coordination with utility companies to resolve conflicts. The Utility Conflict List shall identify the owner of the facility, the contact person (with address and telephone number), location of conflict (station and offset), type of facility, expected clearance date and type of adjustment necessary.

The **Engineer** shall prepare any exhibits necessary for IBWC, CBP and/or Utility approvals, and other governmental/regulatory agencies, specific to the project.

The **Engineer** shall coordinate through the **Authority**'s Project Manager for the development of the PS&E with any local entity having jurisdiction or interest in the project (e.g. city, county, municipal utility district, irrigation district, drainage district, etc.)

The **Engineer** shall conduct traffic counts, prepare Traffic Signal Warrant Studies and traffic signal plans for temporary, existing and permanent locations at designated intersections.

The **Engineer** shall prepare Traffic Control Plans (TCP) in coordination with the **State/Authority**. The TCP shall include interim signing for every phase of construction. This is to include regulatory, warning, construction, route, and guide signs. The **Engineer** shall interface and coordinate phases of work, including the TCP, with adjacent Engineers, which are responsible for the preparation of the PS&E for adjacent projects.

The **Engineer** shall maintain continuous access to abutters during all phases of the TCP. The **Engineer** shall develop a list of all abutters along its alignment. The **Engineer** shall prepare exhibits for and attend meetings with the public, as requested by the **State/Authority**.

The **Engineer** shall provide safety lighting at all intersections and interchanges required within the Project limits. The **Engineer** shall prepare exhibits as required to obtain agreements with adjacent municipalities. The **Engineer** shall tabulate all quantities and provide summary sheets.

The **Engineer** shall make every effort to prevent detours and utility relocations from extending beyond the proposed Right-of-way lines. If it is necessary to obtain additional permanent or temporary easements and/or Right-of-Entry, the **Engineer** shall notify the **State/Authority** in writing of the need and justification for such action. The **Engineer** shall identify and coordinate with all utility companies for relocations required.

The PS&E shall be complete and organized in accordance with the most current TxDOT-PS&E Preparation Manual. The PS&E package shall be suitable for the bidding and awarding of a construction contract, and in accordance with the latest **State/Authority**'s policies and procedures.

The **Engineer** shall use CADD to fully develop all drawings. The **Engineer** shall utilize corridor modeling software for the earthwork and cross-section data files in a GEOPAK format at each milestone submittal as an evolving electronic data file.

The **Engineer** shall design, develop and prepare all documents, including PS&E, in English units. The final plan sheets shall be size $11'' \times 17''$, signed, sealed and dated by a Professional Engineer registered in the **State** of Texas (where required). The plans shall be noted as copyrighted with the **Authority's** and **State's** logo.

PS&E for the above work shall be prepared in accordance with the applicable requirements of the **State**'s Specifications, Standards and Manuals (latest revision). Whenever possible, the **State**'s standard drawings, standard specifications, or previously approved special provisions and/or special specifications shall be used. If a special provision or a special specification must be developed or modified for this project, it shall be in the **State**'s format and, to the extent possible, incorporate references to approved **State** test procedures. Any specifications developed by the **Engineer** shall be submitted to the **State/Authority** for approval prior to

inclusion in the PS&E. The **Engineer** shall sign, seal, and date all project specific modifications to standard drawings.

The **Engineer** shall make submittals, as defined by the milestones in Exhibit C, and in accordance with the latest **State/Authority**'s policies and procedures. The submittals shall consist of electronic .pdf submittals. The **Engineer** shall reply to each comment either within the plan set or by separate cover letter. The **Engineer** shall make all agreed upon changes to the submitted documents before the next scheduled submittal.

The **Engineer** may be required to meet with the **Authority**'s Project Manager to report on progress. After each meeting with the **State** and any other meeting, the **Engineer** shall prepare meeting minutes, solicit and incorporate participants' comments, distribute the minutes, submit a memorandum summarizing the events, including an ACTION ITEM LIST, within five (5) working days of the meeting.

The **Engineer** shall invoice monthly according to Function Code breakdowns in accordance with the format provided at the Kick-off meeting and shall include Form 132 version 9-90 or equivalent. This invoice shall include a completed Form 132, a written progress report, a Projected vs. Actual Contract Invoices by Month form and a bar chart indicating the percentage of completion of each task shown in Attachment E. The written progress report shall describe activities during the reporting period; activities planned for the following period; problems encountered, and actions taken to remedy them; list of meetings attended; and overall status, including a per cent complete by task.

The **Engineer** shall design all conventional storm drainage and cross drainage systems. The **Engineer** shall evaluate the hydraulic grade line throughout the whole system, within the project limits, for the design frequency(ies) and make necessary system adjustments for conformance to program criteria. Should there be adjacent projects under design, the **Engineer** shall coordinate with the **State/Authority** and designers of adjacent projects such that all proposed drainage systems accommodate the proposed construction phasing plan.

The **Engineer** shall include the Storm Water Pollution Prevention Plans (SW3P) items for each phase of constructions, including details and pay quantities with respect to the Construction phase. The **Authority** will provide the Notice of Intent.

The **Engineer** shall prepare both a design time schedule, and an estimated construction contract time schedule, using the latest version of Excel, Primavera or SureTrak software in accordance with the **State**'s *Administrative Circular No. 17-93*. The schedules shall indicate tasks, production rates, subtasks, critical dates, milestones, deliverables and review requirements in a format that depicts the interdependence of the various items. The **Engineer** shall aid **State/Authority** personnel in interpreting the schedules. Milestone submittals shall be at 30 %, 60 %, 90%, 95% and final. If the **Engineer** cannot meet the scheduled milestone review date they are to advise the **State/Authority** in writing.

In addition to scheduling software set forth above, reports and/or spreadsheets prepared in connection with these services shall be in the Microsoft (MS) Office software compatible with the versions to the **State/Authority**'s software packages.

The project's engineering work may be inspected by both the **State/Authority** and the Federal Highway Administration in the offices of the Engineer, except for the field work which shall be performed on-site, and the sub-consultant work which will be performed in the office of the sub-consultant. After notice to proceed is given in writing, the PS&E for the work outlined above shall be completed and submitted to the **State/Authority** within the negotiated contract period per the identified milestones in the schedule.

All documents submitted to the **State/Authority** shall be accompanied by a letter of transmittal which shall include, but need not be limited to, the highway number, project limits, county, CSJ, and contract number.

The **Engineer** shall designate one Texas Registered Professional Engineer to be responsible throughout the project for project management and all communications, including billing, with the **State/Authority**. The **State/Authority** must approve any replacement to the Engineer's designated Project Manager.

The **Engineer** shall prepare and execute contracts with sub-consultants, monitor sub-consultant activities (staff and schedule), and review and recommend approval of sub-consultant invoices.

The **Engineer** shall implement their Quality Assurance/Quality Control program prior to submitting plans to the **State/Authority** for each of the milestones. The **Engineer** is responsible for design errors and/or omissions that become evident before, during or after construction of the project. The **Engineer**'s responsibility for all questions arising from design errors and/or omissions will be determined by the **State/Authority** and all decisions shall be final and binding. This would include, but not necessarily be limited to:

- (1) All design errors and/or omissions resulting in additional design work to correct the errors and/or omissions.
- (2) Preparation of design documents and detail drawings necessary for a field change due to design errors and/or omissions.
- (3) Revisions of original tracings to the extent required for a field change due to design errors and/or omissions.

The **Engineer** shall promptly make necessary revisions or corrections resulting from the Engineer's errors, omissions or negligent acts without additional compensation. Acceptance of the work by the **State/Authority** will not relieve the **Engineer** of the responsibility for subsequent correction of any such errors or omissions or for clarification of any ambiguities.

WORK OUTLINE

ROUTE AND DESIGN STUDIES (Function Code 110)

A. Data Collection. The **Engineer** shall collect, review and evaluate data described below. The **Engineer** shall notify the **State/Authority** in writing whenever the **Engineer** finds disagreement with the information or documents:

- 1. Data, if available, from the **State/Authority**, including "as-built plans", existing schematics, right-of-way maps, SUE mapping, existing cross sections, existing planimetric mapping, environmental documents, existing channel and drainage easement data, existing traffic counts, accident data, BRINSAP records, PMIS data, identified endangered species, identified hazardous material sites, current unit bid price information, current special provisions, special specifications, and standard drawings.
- 2. Documents for existing and proposed development along proposed route from local municipalities and local ordinances related to project development.
- 3. Utility plans and documents from appropriate municipalities and agencies.
- 4. Readily available flood plain information and studies from the Federal Emergency Management Agency (FEMA), the U. S. Army Corps of Engineers, local municipalities and other governmental agencies in addition to that provided by the **State/Authority**.
- **B. Field Reconnaissance.** The **Engineer** shall conduct field reconnaissance and collect data including a photographic record (to be maintained in Engineer's office) of notable existing features.
- C. Design Concept Conference. The Engineer, in cooperation with the State/Authority shall plan, attend and document a Design Concept Conference (DCC). Personnel from the State's Pharr District will participate. The conference will provide for a brainstorming session in which decision makers, stakeholders, including USIBWC and technical personnel may discuss and agree on:
 - 1. Roadway and drainage design parameters
 - 2. Engineering and environmental constraints
 - 3. Project development schedule
 - 4. Other issues as identified by the **State/Authority**
- **D.** Roadway and Hydraulic Design Criteria. The Engineer shall design the project using the State's design criteria. The Engineer shall supply project specific design criteria (typical sections, estimate, design exceptions, etc.) to be inserted into the Design Elements form for discussion at the DCC.

The Engineer shall develop the roadway design criteria based on the controlling factors specified (i.e. 4R, 3R, 2R, or special facilities), by use of the funding categories, design speed, functional classification, roadway class and any other set criteria as set forth in Roadway Design Manual, Bridge Design Manual, Hydraulic Design Manual, and other deemed necessary State approved manuals. In addition, the Engineer shall prepare the Design Summary Report, DSR.

FIELD SURVEYING AND PHOTOGRAMMETRY (Function Code 150)

A. Field Surveying. The **Engineer** shall verify and reset existing benchmarks previously set in previous work orders.

The **Engineer** shall:

- 1. Stake Project Baseline: The project base line must be coincidental with, or parallel to, the stationed "Design Center Line." Base line control points shall be established using 15M(ASTM) (5/8 inch) iron rods, 36 inches long, at P.C.'s, P.I.'s and P.T.'s of horizontal curves and at 1000 feet maximum intervals on tangents. Baseline control points shall be offset with set iron rods on both sides near the existing ROW lines at a measured distance. If available, coordinate to field tie to the Project baseline set by adjacent Engineers for consistency and accuracy.
- Vertical Control for existing Benchmarks: Locate previously set benchmarks established by Engineer (In accordance to the horizontal control of North American Datum of 1983 (NAD 83) with elevations being based on the North American Datum 88 (NAVD88); establish benchmark circuit (run levels) throughout the Project; establish additional benchmarks at intervals not to exceed 1,000 feet for the limits of the Project; tie benchmarks (station/offset) to Project baseline. Benchmarks shall be 20M (ASTM) (3/4-inch) diameter, 48 inches long, located near the existing ROW line at a measured distance. All benchmark circuits shall be tied to the State's elevation datum. Perform the benchmark circuits in accordance with good surveying practices. The Surveyor shall verify the closure and submit adjustments to State/Authority for approval prior to beginning the field surveys.
- 2A. Vertical Control for new Benchmarks: Shall meet the following requirements:
 - TxDOT GPS Level 3 (VRS) Survey guidelines and shall have (X, Y, & Z) coordinates assigned to them. (Access will be provided to State's Real Time Kinematic (RTK) Virtual Reference Station (VRS) Network via license agreement)
 - Provide Station and Offset.
 - Perform a three wire level routine in SDMS to establish the elevations of the benchmarks.
 - 3. Profile and cross section intersecting streets and driveways (to 50 feet outside ROW for driveways, and 200 feet for intersecting streets and 500 feet for intersecting streets greater than two lanes wide) for tie into project.
 - 4. Cross section drainage channels for a distance of 200 feet each way outside the ROW lines. Cross sections shall not exceed 100 feet intervals and shall be taken at right angles to the channels.
 - 5. Secure right-of-entry (short of litigation), as needed for the project.
 - 6. Tie to existing underground and overhead utilities (location, elevation, size and direction), in accordance with Attachment A.
 - 7. ROW staking for additional field topography related to design work.

- 8. Determine and make changes to topography from outdated maps due to development, erosion, etc.
- 9. Determine type of existing material, pavements, etc.
- 10. Obtain profiles of existing drainage facilities.
- 11. Obtain measurement of hydraulic opening under existing bridges.
- 12. Obtain top of manhole and flowline elevations, type and size, etc. of manholes, inlets, and valves of utilities.
- 13. Provide temporary signs, traffic control, flags, safety equipment, etc. and obtain necessary permits.
- 14. Obtain ties to existing bridges or culverts that may conflict with new construction.
- 15. Verify DTM (cross sections at panel points). Obtain additional existing ground cross sections as necessary to supplement the DTM files. Obtain cross sections at the center panel points to verify the DTM.
- 16. Obtain line (PGL) and the edges of slab at bent location.
- 17. Perform datum ties as required. If required, establish an elevation base on the **State**'s datum to other public entities published benchmarks.
- 18. The Surveyor using wetlands delineation information provided by the **State/Authority** shall stake the areas containing wetlands. The Surveyor is to information back to the **Engineer** in an electronic file to be incorporated onto the P&P sheets
- 19. The Surveyor shall provide all traffic control, labor and equipment while performing their services and comply with the latest edition of the *Texas Manual on Uniform Traffic Control Devices*. In the event field personnel must divert traffic or close traveled lanes, a Traffic Control Plan shall be prepared by the **Engineer**'s surveyor and approved by the **State/Authority** prior to commencement of field work. A copy of the approved plans shall be in the possession of field personnel on the job site at all times and shall be made available to **State/Authority** personnel upon request.
- 20. All standards, procedures and equipment used by the Surveyor shall be such that the results of survey will be in accordance with Board Rule 663.15, as promulgated by the Texas Board of Professional Land Surveyors. At a minimum, the following standards of accuracy shall be met:

B. Horizontal Ground Control

The coordinate location of the traverse points shall be based on traverses conducted by the Surveyor meeting standards of accuracy as set forth below.

Reference may be made to standards of accuracy for Second Order, Class II, horizontal control traverses as described in the Federal Geodetic Control Committee publication

entitled *Standards and Specifications for Geodetic Control Networks*, reprinted February 1991.

- Azimuth closure shall not exceed 4.5 seconds times the square root of the number of traverse segments.
- Position closure after azimuth adjustment shall not exceed 1 in 20,000.
- In cases where a traverse approaches but does not entirely meet these standards of accuracy and the Surveyor has assured itself that gross errors, mistakes and blunders have been eliminated, the Surveyor shall submit the traverse data to the **State/Authority** for further review. The **State/Authority** will make a determination as to the acceptability of the traverse as an exception to the standard and notify the Surveyor accordingly.

C. Vertical Ground Control

Elevations established on the benchmarks shall be conducted by the Surveyor meeting standards of accuracy as set forth below. Reference may be made to standards of accuracy for third order vertical control traverses as described in the Federal Geodetic Control Committee publication entitled *Standards and Specifications for Geodetic Control Networks*, reprinted February 1991.

- Vertical closure shall not exceed 0.05 feet times the square root of the distance in miles.
- In case where a traverse approaches but does not entirely meet these standards of accuracy and the Surveyor has assured itself that gross errors, mistakes and blunders have been eliminated, the Surveyor shall submit the traverse data to the State/Authority for review. The State/Authority will make a determination as to the acceptability of the traverse as an exception to the standard, and the State/Authority will notify the Surveyor accordingly.
- Document field work and submit field data to the State/Authority.

ROADWAY DESIGN (Function Code 160)

A. Roadway & Levee Design. All roadway and levee design will be based on the approved Schematics provided by the Authority. The Engineer shall provide roadway and levee plan and profile drawings using CADD standards as required by the State/Authority. The drawings shall consist of a planimetric file of existing features and files of the proposed improvements. The roadway and levee base map shall contain line work that depicts existing surface features obtained from the schematic drawing. Existing major subsurface and surface utilities shall be shown. Existing and proposed right-of-way lines shall be shown.

The plan view shall contain the following design elements:

- Calculated roadway centerlines for new eastbound and/or westbound mainlanes, ramps, and cross streets. Horizontal control points shall be shown. The alignments shall be calculated using GEOPAK.
- 2. Pavement edges for all improvements (mainlanes, ramps, cross streets access roads, maintenance roads and driveways).

- 3. Lane and pavement width dimensions.
- 4. The geometrics of ramps, auxiliary and managed lanes.
- 5. Proposed structure locations, lengths and widths.
- 6. Direction of traffic flow on all roadways. Lane lines and/or arrows indicating the number of lanes shall also be shown.
- 7 Drawing scale shall be 1"=100'
- 8. Access Denial line & ROW lines and easements.
- 9. Begin/end superelevation transitions and cross slope changes.
- 10. Limits of riprap block sod and seeding.
- 11. Existing utilities and structures.
- 12. Benchmark information.
- 13. Radii callouts, curb location, CTB, guard fence, crash safety items and American with Disabilities Act Accessibility Guidelines (ADAAG) compliance items.

The profile view shall contain the following design elements:

- 1. Calculated profile grade for proposed roadways, including mainlanes, direct connectors, ramps, cross streets and frontage roads. Vertical curve data, including "K" values shall be shown.
- 2. Existing and proposed profiles along the proposed centerline of the mainlanes, the outside shoulder line of ramps, and the outside gutter line of frontage roads.
- 3. Water surface elevations at major stream crossing for 10-, 25-, 50-, and 100- year storms.
- 4. Calculated vertical clearances at grade separations and overpasses, taking into account the appropriate superelevation rate, superstructure depth and required clearance.
- 5. The location of interchanges, mainlanes, grade separations and ramps (shall include cross sections of any proposed or existing roadway, structure, or utility crossing).
- 6. Drawing vertical scale to be 1''=10'.
- 7. For the Levee sheets the Design Water Surface profile shall also be shown.
- **B. Typical Sections:** Typical sections shall be required for all proposed and existing roadways, levees, and structures. Typical sections shall include width of travel lanes, shoulders, outer separations, border widths, curb offsets, managed lanes, and ROW. The typical section shall also include PGL, centerline, pavement design, longitudinal joints, side slopes, sodding/seeding limits, concrete traffic barriers, station limits, common proposed/existing structures including retaining walls, riprap, limits of embankment excavation, etc.
- **C. Roadway Design:** The **Engineer** shall provide the design of all roadways, including mainlanes, entrance and exit ramps, managed lanes and auxiliary lanes. The design shall be consistent with the approved schematic and the current *Roadway Design Manual*. If managed lanes are to be designed this work shall be coordinated through the **State/Authority**.
- **D. Levee Design:** The **Engineer** shall provide the design of the levee relocation in coordination with the USIBWC. A continuous maintenance road shall be provided. The

- design shall be consistent with the approved schematic and the current *Design and Construction of Levees Manual.*
- **E. Cross Streets:** The **Engineer** shall provide an intersection layout detailing the pavement design and drainage design at the intersection of each designated major cross street. The layout shall include the curb returns, geometrics, transition length, stationing, pavement and drainage details. The **Engineer** shall design for full pavement width to the ROW and provide a transition to the existing roadway.
- **E. Cut and Fill Quantities.** The **Engineer** shall develop an earthwork analysis which will be based on Open Roads utilizing 3d modeling. Cross sections shall be delivered in standard GEOPAK format on 11"x17" sheets and electronic files. The **Engineer** shall provide all criteria and input files used to generate the design cross sections. Cross sections and quantities shall consider existing pavement removals. Two sets of drawings shall be submitted by the **Engineer** at the 30%, 60%, and 90%, and final submittals, respectively.
- **F. Border Fence Relocation.** The Engineer shall coordinate through the **Authority** with United States Department of Homeland Security (DHS) for the requirements and regulations for the border fence relocation. The temporary fence shall be salvaged as per DHS guidelines.
- **H. Plan Preparation.** The **Engineer** shall prepare roadway plans, profiles and typical sections for the proposed improvements. This scope of services and the corresponding cost proposal are based on the **Engineer** preparing plans to construct east and west bound lanes, ramps, and cross streets at intersections. Wetlands information as provided by the **State/Authority** is to be staked by the **Engineer** for delineation and this data shall be electronically transferred to the P&P sheets.
- **I. Pavement Design**. The **Engineer** shall incorporate the pavement design developed by the **State/Authority** for this project.
- J. Pedestrian and Bicycle Facilities. The Engineer shall coordinate with the State/Authority to incorporate pedestrian and bicycle facilities as required. All pedestrian facilities must be designed in accordance with the latest Americans with Disabilities Act Accessibility Guidelines (ADAAG), the Texas Accessibility Standards (TAS), and the AASHTO Guide for the Development of Bicycle Facilities".
- K. Driveway Details. The Engineer shall design all driveways in accordance TxDOT's, "Regulations for Access Driveways to State Highways", any approved latest version of the "Access Management Manual", and the Pharr District Standard Driveway Details. The Engineer shall notify the State/Authority early in the design process when a construction license agreement is needed to construct a portion of the driveway outside of the State's Right of Way. The Engineer shall design the intersection by preventing the bottom of the vehicles to be wedged when accessing onto an adjacent property.
- **L. Miscellaneous.** The **Engineer** shall design all longitudinal barriers (railing and guardrail), raised median, fencing, bus bays, parking areas, mailboxes, and shoulder texturing in accordance to the criteria set forth in the roadway design manual and

standards. Miscellaneous Details Sheet(s) may be developed to illustrate any necessary additional construction details not covered by the Standards. Standards that have not been approved for use in the Pharr District shall be signed, sealed, and dated by a Registered Professional Engineer in Texas for use as details. Approval shall be requested at the early stage of the plan preparation from the **State/Authority** regarding the use of these details. In addition, as part of the approval process, these details shall be accompanied by the appropriate general notes, special specifications, special provisions, and method of payment.

DRAINAGE DESIGN (Function Code 161)

- **A. Drainage Report.** The **Engineer** shall design all of the project drainage elements and coordinate all drainage design.
 - 1. The **Engineer** will prepare a comprehensive drainage study and two reports for the project. The report for roadway elements shall be divided into two phases. The first phase will include the following items:
 - Obtain existing HEC-2 models from applicable drainage authorities to the extent possible, for use in analysis and determination the existing 2, 5, 10, 25, 50, 100 and 500 year (if available), water surface elevations at bayous, creeks, and ditch crossings along the project. This data will be utilized in the development of design roadway profiles.
 - Profile of natural ground along each proposed grade line of the roadway.
 - Profile of tentative proposed grade line of the roadway.
 - Profile of existing roadway.
 - Identify the existing drainage outfalls.
 - Pump Station design if applicable
 - 2. These profiles will be superimposed on a drawing along with the 2, 5, 10, 25, 50, 100 and 500-year (if available) water surface elevations. The profile drawing will provide an overall view of the roadway/existing ground elevations with respect to the various storm design frequencies for the length of the project. This will enable the State/Authority to determine the most feasible proposed roadway profile. These profiles must be submitted to the State/Authority and approved before continuing with the preparation of the comprehensive drainage report. NOTE: THE ENGINEER WILL COORDINATE WITH ALL GOVERNMENT AGENCIES THROUGH THE AUTHORITY.
 - 3. Manhole headlosses are to be computed as per the **State/Authority**'s direction. Also, GEOPAK Drainage with a pressure flow equation generally applicable to pipe running full flow. A hydraulic grade line starting at the outfall channel will be determined for each storm sewer system in order to obtain a design tailwater for each existing system. The design tailwater will be the starting basis for the design of the proposed storm sewer system.

- 4. For drainage areas, the **Engineer** will limit the outfalls into existing storm sewer to existing capacity flows, which will be determined by the **Engineer**. Alternate flow routes, if feasible, will be looked into for relieving storm sewer overload. The amount of the total detention storage to control storm sewer runoff for the design frequency will be determined, as well as a rough estimate of the available on-site volume. The method for handling the required off-site storage volume is not part of this scope.
- 5. Drainage areas and flows for cross culvert drainage systems will be determined as part of the comprehensive drainage report. Sizing of the drainage crossings and hydrologic information once determined will be provided to the **State/Authority**.
- 6. The **Engineer** will prepare a letter report which shall include the preliminary findings of the storm sewer capacities, requirement for line rerouting, preliminary detention storage volumes and initial recommendations on how to mitigate the storm impact on the receiving streams. The report will also include preliminary sizing of the trunkline for the proposed gravity storm sewer within the limits of the project, conceptual and generic discussions of the alternatives considered, a comparative cost associated with each alternative and a recommended solution.
- 7. Recommendations at this point should be generic and conceptual in nature, mainly for discussions with the **State/Authority** and the local government entities.
- 8. An impact analysis is required on the ditches as related the **State/Authority** and FEMA criteria 100-year storm. The **State/Authority** required approach for impact prediction is as follows:
 - Drainage areas for the existing and proposed conditions.
 - The **Engineer** will identify the existing drainage outfalls.
 - Compute right of way corridor 100-year flood plain volumes for existing and proposed roadway elevations. A decrease in 100-year flood plain volumes is not allowed by the **State/Authority** or other governmental agencies, without adequate offsite mitigation.
 - Compute existing and proposed peak flows by using hydraulics and hydrologic methodology and computer models. The additional lanes should be accounted for by increasing percent development.
 - Storage computations will be based on hydrograph calculations and peak flows obtained in the item above. A mitigation volume for the 100-year storm will be computed.
 - Analyze existing and proposed drainage system and quantify the increase in 100-year peak flows resulting from the roadway improvements.
 - Hand calculations shall be provided which quantify the cut and fill within the 100-year flood plain, if any occur.
 - Prepare conceptual 100-year sheet flow analysis for project utilizing existing and proposed conditions.
 - Obtain current hydrologic and hydraulic computer models from government agencies and review and comment on the models.

- Current models will be updated to existing condition using the available **State/Authority** aerial photographs and submitted to governmental agencies as the revised existing condition model.
- Analyze proposed roadway and outfall drainage improvements to quantify impacts top revised existing condition model.
- 1. At this point, a separate report (signed, sealed and dated by a professional Engineer) including results will be summarized and presented to the **State/Authority** for discussion. If mitigation is needed, location of storage volume and/or approaches to satisfy government agencies is not a part of this scope. After the **State/Authority** has reviewed and approved the floodplain impact analysis report, the **Engineer** will be compensated 80 percent of the total task shown in the fee proposal for the work order. The remaining 20 percent will be paid after the other agencies involved have approved the report.
- 2. The **Engineer** will also be responsible for the second report which will include the Levee relocation analysis with respect to the USIBWC guidelines. This will be a separate report from the one above to include the results/impacts of the levee relocation. Coordination with USIBWC shall be documented in this report along with obtaining the appropriate license agreement from the agency.
- B. Scour Analysis to be provided at the bridge and bridge class culvert locations.
- Culvert, Pump Station and Storm Drain Design. The Engineer shall develop design details that minimize the interference with the passage of traffic or incur damage to the highway and local property. The Engineer shall provide layouts, drainage area maps, and design of all drainage components. The Engineer shall design all conventional storm drainage and cross drainage in conformance with the latest edition of the State Hydraulic Manual and any specific program guidance provided by the State. Storm drain design shall be performed using WinStorm or GEOPAK Drainage. Cross drainage design shall be performed using THYSYS, THYSYS CULVERT, HEC 2 or HEC RAS. The Engineer shall evaluate the hydraulic gradeline throughout the whole system, within project limits, for the design frequency(ies) and make necessary system adjustments for conformance to program criteria. The Engineer shall coordinate with the State/Authority and designers of adjacent projects to check that all proposed drainage systems accommodate the proposed construction phasing plan.

The **Engineer** shall perform the following:

- 1. Prepare culvert cross sections.
- 2. Identify areas requiring trench protection, excavation, shoring and de-watering.
- 3. Prepare drainage area maps.
- 4. Prepare plan/profile sheets for storm drain systems and outfall ditches.
- Select standard details from **State/Authority** or District's list of standards for items such as inlets, manholes, junction boxes and end treatment, etc.
- 6. Prepare details for pump station, non-standard inlets, manholes and junction boxes.

- 7. Prepare drainage details for outlet protection, outlet structures and utility accommodation structures.
- 8. Identify pipe strength requirements.
- 9. Prepare drainage facility quantity summaries.
- 10. Identify potential utility conflicts and design around them, wherever possible.
- 11. Take into consideration pedestrian facilities, utility impacts, driveway grades, retaining wall and concrete traffic barrier drainage impacts.
- 12. Identify existing ground elevation profiles at the ROW lines on storm sewer plan and profile sheets.
- 13. If applicable, prepare Hydraulic Data Sheets for Bridge Class Culvert(s).
- **D. Storm Water Pollution Prevention Plans (SW3P).** The **Engineer** shall minimize potential impact to receiving waterways. The SW3P shall include text describing the plan, quantities, type, phase and locations of erosion control devices and any required permanent erosion control measures.
- **E. Temporary drainage facilities.** The **Engineer** shall develop plans for all temporary drainage facilities necessary to allow staged construction of the project and to conform with the phasing of adjacent construction projects without significant impact to the hydraulic capacity of the area.
- F. Layout, Structural Design and Detailing of Drainage Features.

The **Engineer** shall perform layout, structural design and detailing for the following:

- 1. Culverts: New culverts; culvert replacement.
- 2. Storm Sewers: New or modified storm sewers; inlets; manholes; trunk lines.
- 3. Subsurface drainage at retaining walls.
- 4. Outfall channels within or outside of the existing ROW
- 5. Bridge deck drainage systems, including internal drainage piping within the bents where required on structures.

The **Engineer** shall use standard details where practical.

SIGNING, MARKINGS AND SIGNALIZATION (Function Code 162)

A. Signing. The **Engineer** shall prepare drawings, specifications and details for all signs. The **Engineer** shall coordinate with the **State/Authority** (and other Engineers as required) for overall temporary, interim and final signing strategies and placement of signs outside contract limits. Sign detail sheets shall be prepared for large guide signs showing dimensions, lettering, shields, borders, corner radii, etc., and shall provide a summary of large and small signs. The **Engineer** shall also designate the shields to be attached to guide signs. The proposed signs shall be illustrated and numbered on plan sheets. Sign foundation shall be selected from **State** Standards.

The **Engineer** shall provide the following information on sign/pavement marking layouts:

Roadway layout.

- 2. Center line with station numbering.
- ROW lines.
- 4. Designation of arrow used on exit direction signs.
- 5. Culverts and other structures that present a hazard to traffic.
- Location of utilities.
- 7. Existing signs to remain, to be removed, or to be relocated.
- 8. Proposed signs (illustrated and numbered).
- 9. Existing overhead sign bridges to remain, to be revised, removed or relocated.
- 10. Proposed overhead sign bridges, indicating location by plan.
- **B.** Pavement Markings. The Engineer shall detail permanent and temporary pavement markings and channelization devices on plan sheets. The Engineer shall coordinate with the State/Authority (and other Engineers as required) for overall temporary, interim, and final pavement marking strategies. Pavement markings shall be selected from the latest State/Authority standards.

The **Engineer** shall provide the following information on sign/pavement marking layouts:

- 1. Proposed markings (illustrated and quantified) which include pavement markings, object markings and delineation.
- 2. Quantities of existing pavement markings to be removed.
- 3. Proposed delineators and object markers.
- 4. The location of interchanges, mainlanes, grade separations, frontage roads and ramps.
- 5. The number of lanes in each section of proposed highway and the location of changes in numbers of lanes.
- 6. ROW limits.
- 7. Direction of traffic flow on all roadways.
- C. Traffic Signals. The Engineer shall identify and prepare Traffic Signal Plans for all traffic signal work needed. (Signals are currently planned for the Intersection of IH 69E and FM 3068.) If necessary, the Engineer shall perform Traffic Signal Warrant Studies to justify both existing and proposed signals, and provide traffic counts, to perform these studies. The Engineer shall confirm the power source for all signals and coordinate with the appropriate utility agency. Traffic Signal Plans shall be signed and sealed by a Texas Registered Professional Engineer. The Engineer shall develop all quantities, general notes, and specifications and incorporate appropriate agency standards required to complete construction.

The following information shall be provided in the Traffic Signal Plans:

- 1. Layout
 - a. Estimate and quantity sheet
 - (1) List of all bid items
 - (2) Bid item quantities
 - (3) Specification item number
 - (4) Paid item description and unit of measure

- b. Basis of estimate sheet (list of materials)
- c. General notes and specification data.
- d. Condition diagram
 - (1) Highway and intersection design features
 - (2) Roadside development
 - (3) Traffic control including illumination
- e. Plan sheet(s)
 - (1) Existing traffic control that will remain (signs and markings)
 - (2) Existing utilities
 - (3) Proposed highway improvements
 - (4) Proposed installation
 - (5) Proposed additional traffic controls
 - (6) Proposed illumination attached to signal poles.
- f. Notes for plan layout
- g. Phase sequence diagram(s)
 - (1) Signal locations
 - (2) Signal indications
 - (3) Phase diagram
 - (4) Signal sequence table
 - (5) Flashing operation (normal and emergency)
 - (6) Preemption operation (when applicable)
 - (7) Contact responsible Agency to obtain interval timing, cycle length and offset
- h. Construction detail sheets(s)
 - (1) Poles (State standard sheets)
 - (2) Detectors
 - (3) Pull Box and conduit layout
 - (4) Controller Foundation standard sheet
- i. Marking details (when applicable)
- j. Aerial or underground interconnect details (when applicable)
- 2. General Requirements
 - a. Contact local utility company
 - (1) Confirm power source
 - b. Prepare governing specifications and special provisions list
 - c. Prepare project estimate
 - d. Conduct traffic counts and prepare Traffic Signal Warrant Studies for all proposed and existing traffic signals.
- 3. Summary of Quantities
 - a. Small signs tabulation
 - b. Large signs tabulation including all guide signs
- 4. Sign Detail Sheets
 - a. All signs except route markers
 - b. Design details for large guide signs

- c. Dimensioning (letters, shields, borders, etc.)
- d. Designation of shields attached to guide signs

MISCELLANEOUS (Function Code 163)

A. Retaining Walls/Sound Walls. The Engineer shall provide layouts (scale 1"=100'), elevations, quantity estimate, summary of quantities, typical cross sections and structural details of all retaining walls within the project.

If applicable, architectural standard drawings will be provided by the **State/Authority** and shall be incorporated into design details. The specific requirements for each item are as follows:

- Layout Plan
 - a) Designation of reference line
 - b) Beginning and ending retaining wall stations
 - c) Offset from reference line
 - d) Horizontal curve data
 - e) Total length of wall
 - f) Indicate face of wall
 - g) All wall dimensions and alignment relations (alignment data as necessary)
 - h) Soil core hole locations
- 2. Elevation:
 - a) Top of wall elevations
 - b) Existing and finished ground line elevations
 - c) Vertical limits of measurement for payment
 - d) Type, limits and anchorage details of railing (only if Traffic Railing foundation standard is not being used on this project)
 - e) Top and bottom of wall profiles and soil core hole data plotted at correct station & elevation. Groundwater elevations shall be shown.
- 3. Foundation Studies: The **Engineer** shall coordinate with the **State/Authority** to determine the location of soil borings to be drilled along the retaining wall alignments. The core holes shall extend a minimum of 15 feet below the footing elevation or deeper as soil conditions warrant. Spacing of core holes shall not exceed 500 feet. The **Engineer** shall provide a boring layout for the **State/Authority** to review and provide their recommendations.
- 4. The **Engineer** shall incorporate soil core hole data sheets prepared, signed, sealed, and dated by the Engineer. The soil boring sheets shall be in accordance with TxDOT WINCORE software as can be found on the Texas Department of Transportation website.
- 5. General Guidelines for Retaining Walls
 - a) The **Engineer** shall make final design calculation and final detail

- drawings in accordance with standard requirements of the **State/Authority**.
- b) For retaining walls that the total estimated project quantity exceeds 30,000 square feet, preliminary retaining wall layouts shall be submitted to Austin Division for approval.
- B. Traffic Control Plan, Detours and Sequence of Construction. The Engineer shall prepare Traffic Control Plans (TCP) for the project. A detailed TCP shall be developed in accordance with the latest edition of the *Texas Manual on Uniform Traffic Control Devices for Streets and Highways* (Texas MUTCD). The Engineer is to implement the current Barricade and Construction (BC) standards as applicable. The Engineer shall interface and coordinate phases of work, including the TCP, with adjacent Engineers.
 - 1. The **Engineer** shall provide a written narrative of the construction sequencing and work activities per phase and determine the existing and proposed traffic control devices (regulatory signs, warning signs, guide signs, route markers, construction pavement markings, barricades, flag personnel, temporary traffic signals, etc.) to be used to handle traffic during each construction sequence. The **Engineer** shall show proposed traffic control devices at grade intersections during each construction phase (stop signs, flag person, signals, etc.). The **Engineer** shall show temporary roadways, ramps, structures and detours required to maintain lane continuity throughout the construction phasing.
 - 2. Where detours are required, the **Engineer** shall develop typical cross sections, calculate quantities, and show horizontal and vertical alignment (if necessary) information. The **Engineer** shall provide a detailed layout and arrangement of construction signs, construction pavement marking, traffic control devices (including temporary signals and signal heads).
 - 3. The **Engineer** shall be responsible to coordinate with the **State/Authority** in scheduling a Traffic Control Workshop and submittal of the TCP for Safety Review Committee (SRC) approval. The **Engineer** shall assist the **State/Authority** in coordinating mitigation of impacts to adjacent schools, emergency vehicles, pedestrians, bicyclists and neighborhoods.
 - Continuous, safe access to all properties during all phases of construction is mandatory. The **Engineer** shall develop TCP to preserve existing curb cuts. Approval from the **State/Authority** is required for any elimination of existing access capacity.
 - 5. The **Engineer** shall design temporary drainage to replace existing drainage disturbed by construction activities or to drain detour pavement. The **Engineer** shall show horizontal and vertical location of culverts and required cross sectional area of culverts.
- C. Illumination. The Engineer shall provide safety lighting at all intersections and interchanges, as well as at all other locations identified by the State/Authority. The Engineer shall prepare exhibits as required to obtain agreements with adjacent municipalities. The Engineer shall tabulate all quantities and provide summary sheets.

- **D. Estimate.** The **Engineer** shall independently develop and report quantities in standard **State/Authority** bid format at the 60%, 90% and Final PS&E submittals. The **Engineer** shall identify and report quantity variances by means of a quantity variance report, to be provided with each submittal. The **Engineer** shall be prepared the estimate at the 60%, 90%, 95% and Final PS&E submittals.
- **E. Specifications.** The **Engineer** shall develop the list of standard specifications with the appropriate reference items the estimate. The **Engineer** shall also identify the need for any special specifications, and special provisions. The **Engineer** shall prepare General Notes from the Pharr District's *Master List of General Notes*, Special Specifications and Special Provisions for inclusion in the plans and bidding documents. The **Engineer** shall provide General Notes, Special Specifications and Special Provisions in rich text format.
- F. Construction Schedule. The Engineer shall prepare a construction contract time schedule using the latest version of Primavera or SureTrak software in accordance with the State's Administrative Circular No. 17-93. The schedule shall indicate tasks, subtasks, critical dates, milestones, deliverables and review requirements in a format which depicts the interdependence of the various items, and adjacent construction packages. The Engineer shall aid the State/Authority in interpreting the schedule.
- **G. Bidding services.** The **Enginee**r will provide the contract proposal/upfront bidding documents.

PROJECT MANAGEMENT (Function Code 164)

- A. The **Engineer** will continue to coordinate with **AUTHORITY** staff, local municipal agencies and utility companies.
- B. The **Engineer** will develop geometric and design criteria to establish uniform practices to be followed. Assemble existing TxDOT standard plans and prepare supplemental details for use as standard or guide plans for pavement, drainage, structures, traffic interchange facilities, traffic control, and other necessary appurtenances, all subject to the approval of the Authority.
- C. The **Engineer** will provide the **Authority** with monthly reports of progress and a summary of key decisions that have been made or need to be made.
- D. The **Engineer** will recommend approved designs, plans, and specifications and deliver to the **Authority** for bid advertisement. Assist the **Authority** in the process of bidding and award of construction contracts. Prepare final estimates of construction costs prior to the opening of construction bids.
- E. Professional engineers' seals shall conform to the guidelines and regulations adopted by the Texas Board of Professional Engineers.

BRIDGE DESIGN (Function Code 170)

All bridge structures shall be designed for **LRFD** guidelines.

A. Bridge Layout. The Engineer shall Prepare Bridge Layout plans and elevations for all bridge types listed below in accordance with the latest edition of the State's Bridge Design Manual, Bridge Project Development Manual and Bridge Detailing Manual. Submit to the State/Authority for approval before proceeding to structural detail design. Coordinate with the State/Authority to determine the location of soil borings to be drilled by the Engineer.

The Bridge layouts in Plan View shall contain the following information:

- 1. Horizontal curve information or bearing of centerline
- 2. Including horizontal, vertical and template information of all roadways or railroads crossed
- 3. Bearing of centerline or reference line
- 4. Skew angle(s)
- 5. Slope for header banks and approach fills
- 6. Control stations at beginning and ending of bridge (with deck elevation)
- 7. Approach pavement and crown width
- 8. Bridge roadway width and curbs, face of rail, shoulders or sidewalks
- 9. Approach slab and curb returns
- 10. Limits and type of riprap
- 11. Proposed features under structure
- 12. Location of profile grade line
- 13. North Arrow
- 14. Typical bridge roadway section including preliminary proposed beam types and spacings.
- 15. Cross slope and superelevation data
- 16. Minimum horizontal and vertical clearance
- 17. Location of soil core holes (station and offset)
- 18. Bent stations and bearings
- 19. Retaining wall locations
- 20. Traffic flow directional arrows
- 21. Railing types shown
- 22. Joint types and seal size, if used
- 23. Beam line numbers consistent with span details
- 24. Critical horizontal clearances (location of railroad tracks, nearby structures and utilities)

Bridge Layouts in Elevation View should contain the following:

- 1. Type of foundation
- 2. Finished grade elevations at beginning and end of bridge
- 3. Overall length of structure
- 4. Length, type of spans and units
- 5. Type of railing
- 6. Minimum calculated vertical clearance(s)
- 7. Existing and proposed ground lines clearly marked
- 8. Grid elevations and stations

- 9. Bent numbers encircled
- 10. Standard Title
- 11. Profile grade data
- 12. Type of riprap
- 13. Soil Core Hole information with penetrometer test data
- 14. Fixed/expansion condition of all bents
- 15. Column "H" heights
- 16. Number, size and length of foundations

Additional layout requirements for waterway structures and bridge classification culverts:

- 1. Design and 100-year peak discharges
- 2. Design and 100-year high water (HW) Any recorded HW data available?
- 3. Natural and through bridge velocities for design and 100-year floods
- 4. Calculated backwater for design and 100-year floods
- 5. Direction of flow for waterway crossings
- 6. Contours for water crossing

The substructure for simple span prestressed concrete U-beam girders shall be inverted T beam caps on rectangular columns. If necessary, the **State/Authority** will provide standard architectural details. The **Engineer** shall incorporate these drawings and make appropriate reference to these details.

The **Engineer** shall develop bridge layouts from the schematic provided by the **State/Authority** and submit an 80% complete layout to the **State/Authority** at the 30% submittal to provide ample review and design time.

- **B.** Final Design Calculations and Details. The Engineer shall make final design calculations and final detail drawings, per structure, in accordance with standard requirements of the **State/Authority**. All bridge design shall be in conformance with the latest edition of the **State**'s *Bridge Design Manual*, *Bridge Project Development Manual*, *Bridge Detailing Manual*, and AASHTO *Standard Specifications for Highway Bridges*. The **Engineer**'s designer and checker shall both check all calculations and initial each page. The **Engineer** shall submit for review all structural design calculations and quantity calculations at the 90% submittal.
- C. The **Engineer** shall perform a global stability analysis on fill areas on bridge approaches and other areas where the height of fill is determined to be greater than 15 feet. No geotechnical investigations are to be initiated until the **State/Authority** has given the **Engineer** written approval. The **Engineer** shall prepare an engineering report showing all material testing locations, with a summary of all geotechnical investigations, project background, and a summary of recommendations.
- D. Bridges/Overpasses/Underpasses/Ramp Structures.

The **Engineer** shall prepare *bridge layouts, typical sections, structural details* (with appropriate scale) and estimated quantities for structures, as listed below:

Description	Approx Length	Approx. Width	Number of spans	Comments
Elevated Canal Crossing	100	80	1	New Bridge facilitated at the Tie in Realignment
SH 4 Overpass	272	80	3	80-112-80 Span Configuration

- **E. Bridge Classification Culvert.** The **Engineer** shall prepare layouts, typical sections, structural details (with appropriate scale) and estimated quantities.
- **F. Staged Construction:** The **Engineer** shall review and evaluate the need for phased construction for all structures in the project limits and advise the **State/Authority** of their recommendations. The **Engineer** shall review the as-builts and perform any necessary analysis to determine the structural integrity of any part of the structure that would remain open to traffic.

CONSTRUCTION PHASE SERVICES (Function Code 309)

The **Engineer** shall provide Construction Phase Services. These services shall include, but are not limited to the following:

Pre- Construction Award

The **Engineer** shall assist the **Authority** with the following:

- (1) Pre-bid RFI's
- (2) Pre-bid Conference
- (3) Bid Opening
- (4) Bid Tabulation & Review

Post - Construction Award

- (1) Upon Award of Contract coordinate and attend Pre-Construction Meeting.
- (2) Answer Construction RFI's.
- (3) **Shop Drawings.** The Engineer shall review and check all shop or working drawings furnished by the Contractor that are related to the Project. Below is the listing of the proposed drawings to be reviewed.

Elevated Canal Bridge

- Abutments
- Girders
- Footings
- Rail
- Slab and Framing

Falsework

SH 4 Overpass Bridge

- Abutments
- Girders
- Footings
- Rail
- Slab and Framing
- Falsework

Culverts

- Pre-Cast Culverts
- Pre-Cast Inlets

Large Guide Signs

- Foundations
- Frames
- (4) Change Orders. When applicable, the Engineer will prepare the engineering data, including plan sheet drawings, specifications, and estimates, for the preparation of construction contract change orders, which may be required due to actual field conditions encountered or new requirements directed by the Owner. This work will be handled through a supplemental work order.

DELIVERABLES

- **I. Hydraulic Deliverables.** The **Engineer** shall submit the two Hydraulic Reports signed and sealed by a Registered Professional Engineer in the State of Texas.
- **II. Survey Deliverables.** The **Engineer** shall submit, after completion of PS&E, all original field books containing all survey information requested for this work authorization. The field book shall contain all information gathered in the field. The survey information provided shall be to the surveyor's best knowledge, accurate, and complete.

Electronic files (*.txt) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system. The x-coordinate corresponding to the east bearing, the y-coordinate corresponding to the north bearing, and the z-coordinate corresponding to the vertical elevation.

Electronic 2d and 3d Microstation files (*.dgn) containing survey information with proper identification and with the following data format x, y, and z NAD-83 coordinate system. The Survey deliverables shall include the digital terrain model (DTM), aerial maps, and Subsurface Utility Engineering (SUE).

III. Plan Deliverables including 3D Corridor model. The Engineer shall forward to the State/Authority, upon completion of the work authorization, four (4) sets of Memory Sticks with all the files containing the information and layouts used to prepare the PS&E.

Each CD shall be labeled and include the following:

CSJ

Documents

- County
- Highway
- Date of the CD Burn
- INTERIM (in 1" letters) Note: As-built shall specified FINAL
- Volume sequence (ie. Disk 1 of 3)

Each CD created shall have the standard directory structure, as follows:

Directory:\Control-Section - Job Number

Exceptions/ Variances, Traffic Control Safety Review Approval Form, Hydraulic Report, Geotechnical Report, Summaries, General Project Correspondence,

Types of Data

and Excel files.

Schematic All .DGN files – Mapping, Sheet

> Files, Master Design Files, dat files .gpk files, .prj files, design cross section

Form 1002, Design Summary Report (DSR), Design

files, etc.

Environmental Environmental documentation can include but not

> limited to Categorical Exclusion (CE), Environmental Assessment (EA),

Environmental Impact Statement (EIS), noise analysis and Water Pollution Abatement Plans.

Utilities Existing utility information as provided by the

affected utility company including

correspondence.

ROW ROW Maps and Parcel sketches as furnished

By surveyor

All .DGN files – Mapping, Sheet Design

> Files, Master Design Files, dat files .gpk files, .prj files, design cross section

files, etc.

Hydraulics Drainage Input & Output Culvert

Analysis, Bridge Analysis

Electrical Electrical input and output files, correspondence,

everything except .dan files

Signing input and output files, correspondence, Signing

everything except .dgn files

Standards

All Standard Sheets used for the Job

Construction

Field change documentation except for .dgn files.

A "readme" file should be created and placed under the "documents" subdirectory. The readme file should be composed of the minimum directory structure detailed above and modified to list particular files that are contained under the various subdirectories. This information will guide the end user to the location of particular files. In addition to the file information, the readme file should contain the general project information such as the CSJ, Limits of Construction and Type of Improvements.

All CADDSEALS placed on finished documents are to remain on that document. Do Not remove CADDSEALS.

The file naming convention will be as shown below. Not all plan sets will have all of the listed sheets.

Sheet File Type Naming Convention

Title Sheet *TTL*.DGN

Supplemental Index *INDX*.DGN

General Notes & Spec. Data *GNOT*.DGN

Estimate & Quantities *E&Q*.DGN

Consolidated Summaries *SUM*.DGN

Project Layout *PRJLO*.DGN

Typical Sections *TYP*.DGN

Traffic Control Plans *TCP*.DGN

Horizontal Alignment Data *HAD*.DGN

Benchmark Data *BM*.DGN

Table of Cross Slopes *CS*.DGN

Plan & Profile Sheets *PP*.DGN

Landscape Sheets *LAND*.DGN

Irrigation Sheets *IRRI*.DGN

Detail Sheets (any) *DET*.DGN

Drainage Area Maps *DA*.DGN

Hydraulic Data Sheets *HD*.DGN

Storm Sewer Plan & Profiles *SS*.DGN

Culvert Cross Sections *CUL*.DGN

Water Quality Facilities *WQ*.DGN

Retaining Wall Sheets *RET*.DGN

Bridge Layouts *BR*.DGN

Bridge Quantities/Bearing Seat Info *BRQUAN*.DGN

SW3P Info Sheet *SW3P*.DGN

Erosion Control (Temp & Perm) *EC*.DGN

Signing Layouts *SIGN*.DGN

Pavement Markers (incl. Delineation) *PMLO*.DGN

Signalization Sheets *SIG*.DGN

(includes electrical service sheets)
Illumination Sheets *ILLI*.DGN
Roadway Cross Sections *XS.DGN
Master Design File *MDF.DGN
Alignment File *ALN*.DGN

Where an * (wildcard) appears in the filename, the user is free to describe the file as they see fit as long as the required letters appear in the filename somewhere.

The Engineer shall submit a CADD file structure listing in spreadsheet format. This CADD file structure shall consist of the following fields of information for each design file created to produce the final plan sheets for PS&E:

Active Design File Name (xxx.dgn)
Levels ON (1-63)
Plot Scale (1" = 100')
File date (Nov. 30, 2004)
File size (xxx bytes or KB)
Sheet Number (202)

Sheet Description (Typical Sections, Sheet 3 of 4)

Reference file names Logical Name of Reference files (xxxdrn.dgn) Levels ON (1-2, 5-17, 36-45, 50-63)

In addition, the Engineer shall include on the staple side of the sheet border (left side) by the use of a pen table the reference file information listed above for each reference file attached; i.e. Reference file name (xx.dgn), Levels ON, when this particular file is attached as a reference to the Active design file.

On the lower right-hand side, next to the title block, in a 90-degree orientation to the bottom of the sheet, also by the use of a pen table, the file name of the design file and date shall be shown when printed.

PS&E Deliverables. The **Engineer** shall deliver to the **Authority** an electronic copy of the 30%, 60%, and 90% submittals. For the final 100% submittal, the Engineer shall submit one electronically sealed plan portfolio with all backup data. The **Engineer** shall develop Exhibit C, Work Schedule for all project submissions.

30% Submittal -

- a. Approved (signed form) Design Summary Report
- b. Title Sheet
- c. Typical Sections (existing and proposed)
- d. Traffic Control Plan
- e. Utility Layout (conflicts identified)
- f. Plan & Profile (Roadway and Levee)
 - 1. Vertical Alignment (existing and proposed)
 - 2. Horizontal Alignment (existing and proposed)

- g. Bridge Layouts (including bridge class structures)
- h. Miscellaneous Details (including Border Fence Relocation)
- i. Corresponding Quantity Summary Sheets
- j. Corresponding Standard Detail Sheets for all Items of Work in this submittal
- k. Preliminary Estimate
- I. Design Exceptions/Waivers required
- m. Newly created Special Provisions/Specifications to be used (Form 1814)
- n. R.O.W. (issues identified)
- o. Electronic Copy of Cross Sections

60% Submittal -

- a. Index Sheet
- b. Hydrologic Computation Sheets
- c. Hydraulic Data Sheets
- d. Drainage Area Maps
- e. Drainage Plan & Profile
- f. Pump Station Layouts/Details
- g. Drainage Structure Details
- h. Storm Sewer Details
- i. Storm Water Pollution Prevention Plan
- j. Bridge Details
- k. Retaining Walls Sound Walls
- I. Miscellaneous Details
- m. Corresponding Quantity Summary Sheets
- n. Corresponding Standard Detail Sheets for all Items of Work in this submittal
- o. Updated Estimate
- p. Utility Adjustment/Relocation Details
- g. R.O.W. Acquisition Detail
- r. Electronic Copy of Cross Sections

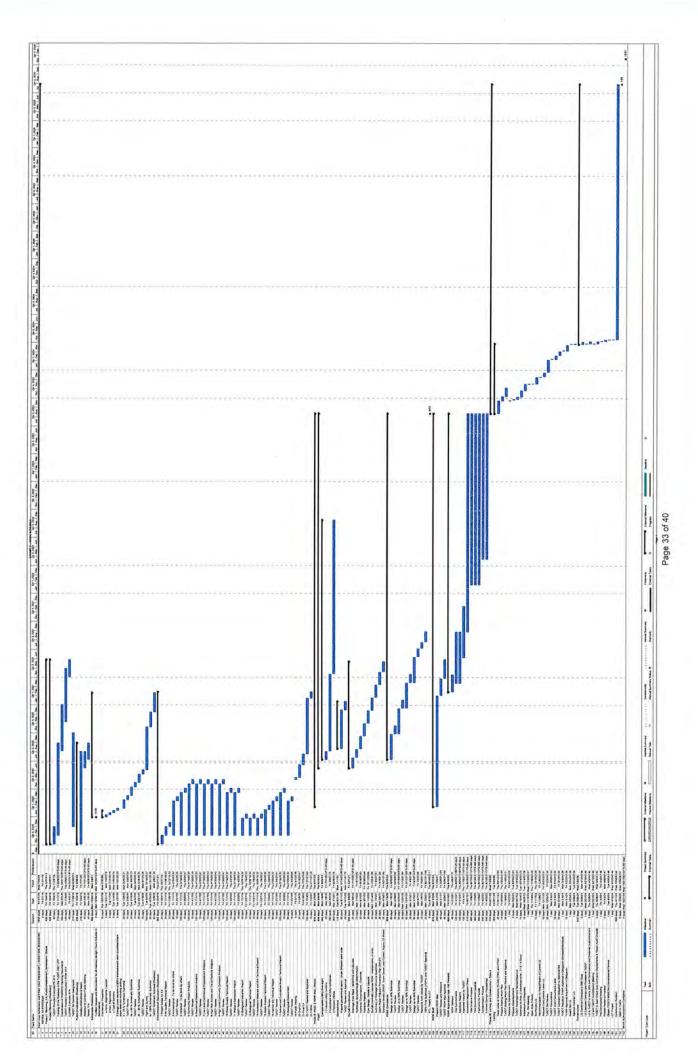
III. 90% Submittal -

- a. Final Index of Sheets
- b. Pavement Marking Layout/Details
- c. Signalization (existing and proposed)
- d. Illumination
- e. Traffic Management Items
- f. Miscellaneous Details
- g. Corresponding Quantity Summary Sheets
- h. Corresponding Standard Detail Sheets for all Items of Work in this submittal
- i. Final Estimate
- General Notes
- k. Certifications
- Form 1002
- m. Cross Sections

IV. 100% Submittal -

- a. PS&E Package 100% complete.
- g. Six Months prior to letting.

- c. Construction Estimate in Estimator® format and Excel format
- d. Form 1002
- e. General Notes
- f. Special Specifications and Special Provisions with a completed Form 1814 in TxDOT format
 - (2) each signed and sealed Specification Certifications
- g. Utility, ROW Encroachment, ROW Acquisition, ROW Relocation Certification) originals of each signed and sealed.
- i. Special Specifications, Special Provisions and applicable reference items to all items involved in the PS&E in Excel spreadsheet format
- j. Construction CPM Schedule (Signed and Sealed)
- k. Cross Sections



06/26/20		TOTALS			03 102 018	00121012			\$18,887.94			\$84,035.60								\$827,742.46														S1 021 689 44
90	ESTIMATED	Ē		58,941.68	51,789,92		\$10,023.40	\$8,864,54			\$84,035.60			875.548.80	\$7,339.84	\$13,639,68	\$25,099.84	\$12,739,76	\$599,575.82			\$27,699.20	\$70,997.60	\$30,398.40	\$20,498.80	\$49,797.60	\$35,098.80	\$558,185.12	00 000 013	\$14,689.20	\$14,689.20	\$13,073.52	\$21,738.40	
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East Lop PS&E CCRNA GEC Contract x Cameron U2716.139		DESCRIPTION from Attachment B	ROUTE AND DESIGN STUDIES	Pesign Concept Conference Meeting Notes &	Nevise USH Sub Total (110 - ROUTE AND DESIGN STUDIES)	SOCIAL & ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT	Prespare EPIC sheets	Prespare EPIC sheets (Seg 1) (See L&G Cost Proposal)	Sub Total (120 - SOCIAL & ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT)	FIELD SURVEYING AND PHOTOGRAMMETRY	Field Surveying and Setting Benchmarks for Construction Plans	Sub Total (150 - FIELD SURVEYING AND PHOTOGRAMMETRY)	ROADWAY DESIGN	Geometric Design - Roadway geometrics and P&P Sheets (30)	Exhibit for Airway/Highway Clearance Permits	Grading Design - Typical Sections Grading Design - Corridor Model	Grading Design - Determine Cut and Fill Quantities	Levee Design Plan Details to Supplement Std Shts	ROADWAY DESIGN SEGMENT 1 (See L&G Cost Proposal)	Sub Total (160 - ROADWAY DESIGN)	DRAINAGE	Drainage Area Maps - determine and calculate	Hydraulic Computations	Hydraulic Report Roadway	FEMA floodway requirements Culv Design Details & Lavouts	Outfall channel(s) outside ROW - analyze exist, or prop.	Summary of Drainage Structure Quantities Storm Water Pollution Prevention Plan (SW3P)	DRAINAGE DESIGN SEGMENT 1	Develop Model of Existing and Proposed Levee	Perform H&H Modeling for Existing Levee Conditions	Perform H&H Modeling for Proposed Levee Conditions Preliminary H&H Report for Levee for IBWC/CILA.	Final H&H Report for submittal to the IBWC/CILA.	liconse	Sub Total (161 - DRAINAGE)
PROJECT: CLIENT: CONTRACT: CSJ: COUNTY: S & B JOB NO.:		CODE	110			120				150	Ī		160								161													
		CODE						1		j				Ĭ		1						1									1			Ī

9/20	TOTALS							\$465,118.22																				\$453,182,24									00 070 7000
06/26/20	ESTIMATED FEE		\$22,599.20	\$14,999.68	\$9,999.92	\$150,116.04	\$171,550.78	20.000.000			\$26,906.40	\$15,396,40	\$17,539.60	\$4,781,28	\$6,631.28	337,399,20	\$4.679.84	\$24,349.20	\$14,149.20	\$9,549.20	\$9,349.52	\$19,749.20	\$29,198,40	\$12,149.68	\$1,514.92	\$5,234.68	\$151.847.08		\$48 011 BO	\$41,266,48	\$22,241.12	\$13,672,56	\$4,351.28	\$58,010,40	\$10,282.24	\$2,881.28	
	TOTAL		136	172	72	0	0 0	484			204	06	98	36	200	536	24	202	82	42 86	99	162	176	86	9 80	33.53	0	2,133	264	236	136	88 88	26	987	99	16	1 286
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East Loop PS&E CCRMA CCRMA GEC Contract CAmeron Cameron U2716.119		SIGNING, MARKINGS AND SIGNALIZATION	Signing and Markings Layouts	Summary of Large Signs Tabulation	Sign Detail Sheets & Standards	Proposal)	Signalization (See ETSI Cost Proposal) Traffic Counts and Signal Warrants (See ETSI Cost. Proposal)	Sub Total (162 - SIGNING, MARKINGS AND SIGNALIZATION)	MISCELLANEOUS ROADWAY	Sound Walls	Alternate Patented Retaining Walls	Foundation Studies	Stability Analysis	Summary of Quantities	Typical X-soction,	Transcond Fan	Coordinate with & Prepare TCP layouts for TxDOT review Illumination Layouts	Compute and Tabulate Quantities for Revised Limits	Special Utility Details (Water, Sanitary Sewer, etc.)	Estimates	Specifications	Prepare Construction Time Schedule	Project Submittals 30%, 60%, 95% and 100% Accembals of Final Documents (Graphic Files of Plan	Sheets and Geopak Files)	ADA Non-Standard Details	TOLR Cost Justification/Comparisons	misc. items (aeginem i) (aed tad cost rioposal)	(1011 000 100 100 100 100 100 100 100 10	BRIDGE DESIGN New Structure(s) Structural Details	Preparation of Bridge Layouts (Two Bridges)	Bridge Class Culv Layouts	Bridge Class Culv Estimate & Quantities	Bridge Class Culv Specifications Redne Foundation Design	Likean Loannan - aknun	Bridge Total Quantities and Cost Estimates (each bridge)	Bridge Special Provisions and Specifications (each bridge) Bearing seat elevations for each beam or girder.	Sub Total (170 - BRIDGE DESIGN)
PROJECT: CLIENT: CONTRACT: CSJ: COUNTY: S & B JOB NO	FUNCTION	162							163																			5	170								
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1,20		TOTALS							\$237,884.16								_										\$50,925.20	\$3,398,169.74								\$26,417.58			\$3,424,587.32
06/26/20	ESTIMATED	33	00000	\$57,200.00	\$28,644.48	\$3,849,92	\$13,000.00	\$26,592.96			\$7,489,72	\$2,129,92	\$1,999.92		\$2,469.92	\$955.00	\$955.00	NO.CORS	\$2,301.28	\$2,301.28	\$2,301,28	\$2,301.28	\$2,301,28	\$2,301,28	\$1,320,64	\$2,301.28					\$5,600.00	\$834.60	\$1,872.50	\$10,800.00	\$7,286.40		\$26,417,58	3,228,158.82	
	-	TOTAL	900	104	160	38	200		1,030		54	101	80		4 0	6	6 0	n	10	01 4	10	10	10	10	10	01	285	10,738	П	-			H	\dagger	t			nn	1
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		Senior							0						İ									1			0	3,216	30,49	T		Milage Rat	Milage Rate (\$/ml.)-	Milage Rat	1				
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		3-Man Survey Crew							0						1												0		188.59										
		Engineer (I,II)							0						I												D		169.73										
		Engineer (V)				4			36		14	4	40 4		4												99		59.65										1
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	-	Quality				320			320																		0		249.99			ad per trip -	Mileage per trip =	Nights=					
STIMATE		Principal							٥																		0	0	79.53			Miles	П						
- 766		SERVICE	500	BASIC	BASIC	BASIC	BASIC	BASIC			SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL	SPECIAL		œ			SPECIAL	SPECIAL	SPECIAL	SPECIAL					
EXHIBIT D FEE ESTIMATE		FIRM	200	SAB	S&B	SSB	S&B	186			SAB	SeB	S & B	SaB	S&B	S&B	SAB	S&B	S&B	S&B	S&B	Sen	S&B	S&B	288	S&B		MULTIPLIER	3,7717		Ses	88	00 c	0 00 00 0 00 0 00	201				
East Loop PS&E CCHMA GEC Contract X Cameron U2716.19		DESCRIPTION from Atlachment B	GENERAL COORDINATION GENERAL COORDINATION	Project Manager (Proj Coologic micrywy) Project Manager Weekly Meeting (Prog. Rpis)	Proj. Meelings (DCC, 30% 60%, 100% Submittals)	Prepare Proj. Moetings Notes Oualtiv Control - 4 Submittals	Project Secretary /CLERICAL (2 hrs/week)	General Coordiantion (Segment 1) See L&G's Cost Proposal	Sub Total (164 - GENERAL COORDINATION)	CONSTRUCTION PHASE SERVICES	CONSTUCTION BIDDING RFFS/Addendums	Pre Bid Conference	Bid Opening Bid Tabulation/Recommendation of Award	DURING CONSTUCTION	Attend Preconstruction Meeung Review of Shop Drawings	Sign Bridges	Concrete Mix Design Hot Mix Design (Bond Breaker)	Canal Bridge	Prestressed Concrete I Beams Design	Prestressed Concrete I Beams Detail Bearing Pads	Prestressed Concrete Layout	Bridge Ralling	Prestressed Concrete I Beams Design	Prestressed Concrete I Beams Detail	Bearing Pads Prestressed Concrete Layout	Bridge Railing	Sub Total (350 - CONSTRUCTION PHASE SERVICES)		CONTRACT RATES: (\$MAN-HOUR) BASE RATES: (\$MAN-HOUR)	NON LABOR	Outside reproduction (16 Sets @ 1000 Sheet Avg @ \$0,35 11X17 B/W)			Survey Crow Lodging Including Laxos Travel to District Ava Office - Mileage 5 Meetings	Ī	Sub Total (F.C. 160)	NON LABOR TOTAL	BASIC SERVICE TOTAL SPECIAL SERVICE TOTAL	PROJECT TOTAL
CONTRACT: COUNTY: COUNTY: S& B JOB NO.:		CODE	164			Ī				350																				160		Ī							
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6/26/2020

EXHIBIT B "FEE SCHEDULE" - WARRANT STUDIES' Along East Loop: From IH 69E to SH 4

Ergonomic Transportation Solutions, Inc.

			A STATE OF THE PARTY OF THE PAR	THE PART OF THE PART		
	WARRANT STUDIES	Project Manager	Traffic Engineer III	CADD Operator	Administrative Assistant	Total
TASK						
~	Collect Data and Conduct Field Investigations	12	09	34		106
2	Assess Collected Data	4	20			24
3	Accident Analysis	∞	44	80		9
4	Collision Diagram	2	4	18		24
5	Intersection Exhibits	4	12	24		40
9	Signal Warrant Analysis	26	120	26		172
7	Photo Album		2	14	80	24
8	Recommendations	12	12			24
6	Traffic Signal Warrant Study Report	ω	36	16	12	72
	Subtotal	76	310	140	20	546

Total Sheets/Labor Hours	92		310	14			20	-	546
Contract Rates	\$ 221.07	s	127.12	69	71.85	မာ	60.79		
Total Costs	\$ 16,801.32	8	39,407.20	\$ 10,0	00.650,0	S	1,215.80	9	7,483.32

			2	1	200		2		24		240
Contract Rates		0,	\$ 221.07	8	127.12	↔	71.85	မာ	60.79		
Total Costs	51	5	16,801.32	\$ 39	39,407.20	\$ 10	0,059.00	s	1,215.80	8	67,483.32
EXDENSES											
	(2 people)(2 nights)(\$96/night)							69	384.00		
	(2 people)(3 days)(\$36/day)							S	216.00		
Rental Car	(3 days)(\$60/day)							Ø	180.00		
Rental Car Fuel	(3 days)(\$30/day)							G	90.00		
Airfare	(2 people)(\$600/ea)(1 trip)							Ø	1,200.00		
								69	i		

ETSI Total Cost Total Expenses

69,553.32

2,070.00

EXHIBIT C"FEE SCHEDULE" - FLASHING BEACON & TRAFFIC SIGNAL DESIGN

Along East Loop: From IH 69E to SH 4

Ergonomic Transportation Solutions, Inc.

					MANHOURS	SS		
FLASHING BEA	FLASHING BEACON AND TRAFFIC SIGNAL DESIGN	No. of sheets (estimated)	Project Manager	Senior Traffic Engineer	Traffic Engineer III	CADD Operator Administrative Assistant	Administrative Assistant	Total
TASK								
-	General Notes	n/a	2	4	12		9	24
2	Basis of Estimate		4	9	16	10		36
က	Condition Diagram	7	14	22	09	44		140
4	Proposed Signal Plan Layout	7	58	98	262	176		582
2	Signal Phasing/Timing	n/a	4	9	16	10		36
9	Electrical Schedules	7	18	26	82	52	1	174
7	IntSigns, Pav.Markings, Curb Ramps	n/a	4	9	16	10		36
8	Standard Sheets List	14	4	9	16	10		36
6	Specifications and Cost Estimate	n/a	8	12	98	26		82
10	Coordination and Meetings	n/a	40					40
11	TEMPORARY TRAFFIC SIGNALS	4	14	22	09	44		140
	Subtotal	40	170	196	572	382	9	1326
							,	
				-				

Total Sheets/Labor Hours	40	170	196		572	382	9	1326
Contract Rates		\$ 221.07	\$ 165.80	30 \$	127.12	\$ 71.85	5 \$ 60.79	
Total Labor Costs		\$ 37,581.90	\$ 32,496.80	63	72,712.64	\$ 27,446.70	364.74	\$ 170,602.78

	(1 person)(1 night)(\$96/night)	(1 person)(2 days)(\$36/day)	(2 days)(\$60/day)	(2 days)(\$30/day)
EXPENSES	Lodging	Meals	Rental Car	Rental Car Firel

(z days)(accorday)	(2 days)(\$30/day)	(1 person)(\$600/ea)(1 trip)	
Reillal Cal	Rental Car Fuel	Airfare	

	a)(1 trip)	
(Sp. 100+)/0(sp. 1)	erson)(\$600/ea	
1	5	
0		

Total Expenses

ETSI Total Cost

Page 38 of 40

\$ 171,550.78

948.00

96.00 72.00 120.00 60.00 600.00

99999

L&G Consulting Engineers, Inc.

East Loop (Limits: 169E to FM3068 - Approx. 5.4 Miles) S&B Infrastructure (via CCRMA) GEC Confract

PROJECT: CLIENT: CONTRACT: CSJ: COUNTY:

Cameron

EXHIBIT D - L&G ENGINEERING FEE ESTIMATE

TOTALS			\$8,864.54									\$599,575.82												\$558,185,12					0.00	\$150,116.04													\$151,847.08
FEE		\$8,864.54			\$18 287 68	\$27.163.90	\$94,056.30	\$226,849.00	\$98,126.80	546,333.78	\$42,228.90			\$24,778.60	\$84,224.10	\$45,369.20	\$47,416,56	\$74,453.00	320,4/4,80	\$65,400.32	\$67,240.10	\$49,954,04	\$43,392.20			\$45,707.24	\$41,239.90	\$42,112.60	06,000,126			\$47,079.92	211 GGR 22	\$2.629.08	\$3,978.52	\$12,214.60	\$12,214.60	\$9,166.80	\$16,484.10	919,427.00	\$10,237.16	\$6,747.08	
TOTAL		06	8		89	290	1,110	2,100	840	448	420	5,852		160	620	290	296	02/	2002	532	510	454	450	4,602		414	350	400	200	1,364		442	110	19	24	100	100	48	154	200	80	48	1 664
Admin / Clerical		9	9					20	20	06	30	90						200	02	20			20	80					ľ	0				Ī					40		12	20	7.0
Utilities Coord,	ī		0	i	Ī		120	100	80			300	7							360				360				1	,	0		09	0			80	80		1				280
CADD	T	18	18		Ī	120	300	300		120	2	840	1							Ī				0				1				20/	2	l						Ī			140
Senior CADD (Operator		32	32	Ī	120	120	480	480	160	120	160	1,810			170		0.0	120	200	202	170	240	160	1,300		180	140	160	3	nac		001	40						40		32		312
Engineer in Training (16	9				120	480	180	000	120	1,130			80	Ī	010	120	031	Ì			120	999	Ī	100	80	120	200	200		90	35						35	İ			184
Engineer (III)			0			İ	40	340	240	809	3	260				1	1	ľ		İ			-	0				Ī		0		080	0						Ì	l			160
Engineer (IV)			0	Ī		T					9	9		100	120	0/1	160	021	220	037	170	170	09	1,190		20	40	900	200	001		ľ	24	ω	12			00		İ			52
Engineer E (V)		12	12		33	30	30	210	100	48	30	510		60	170	021	021	001	80	120	170	40	40	096		40	30	40	00,	000		900	12	9	as			16	80 24	8	20	16	282
Project E		9	φ		16	20	20	170	900	18	20	352		3	80	15	91		l	32		4	20	152		44	9	50	, ,	2	1	12	2 2	2	4	50	20	24	18	OF.	16	12	182
SERVICE		BASIC			BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC			BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	1		BASIC	BASIC	BASIC	200		0.00	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	DEAD	BASIC	BASIC	
FIRM	TN.	L&G			L&G	L&G	L&G	L&G	L&G	186	L&G			L&G	L&G	LAG	582	80	280	L&G	L&G	L&G	L&G		1	L&G	L&G	L&G	200			180	L&G	L&G	L&G	L&G	L&G	L&G	280	race	L&G	L&G	
DESCRIPTION (Attachment B)	SOCIAL & ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT General FC 120 Categories	Update EPIC sheets	Sub Total (120 - SOCIAL & ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT)	ROADWAY DESIGN CONTROLS	Geometric Design - Horiz & Vert Align Finalize From Schematic 1 Based on Field Surveys		3 Intersection Layouts ~ 6 Intersections	П		7 Plan Details to Supplement Std Shts	Н	Sub Total (160 - ROADWAY DESIGN CONTROLS)	DRAINAGE			Za Hydraulic Computations - Roadside Dilches & Currails		3a Cullity & Diamage Streets 3b Storm Sewer Side-Drain Details & Lavoirte		3d Coordinate with Permitted Utilities	1		П	Sub Total (161 - DRAINAGE)	SIGNING and MARKINGS			3 Sign Detail Sheets & Standards		טטט וטנפן (102 - סומווויטק פוום ווואטורטואס	MISCELLANEOUS ROADWAY	2 Traffic Coultof Plan (w/o Signal Modifications)	1				7 Prepare Utility Status Sheet (Compensable)			Assembely of Final Documents (Graphic Files of Plan Sheets	11 and Geopak Files)	12 ADA/TDLR Coordination	Sub Total (163 - MISCELLANEOUS ROADWAY)
FUNCTION	120			160									161												162						163												İ

L&G Consulting Engineers, Inc.

EXHIBIT D - L&G ENGINEERING FEE ESTIMATE

East Loop (Limits: 169E to FM3068 - Approx, 5.4 Miles) S&B Infrastructure (via CCRMA) GEC Contract PROJECT: CLIENT: CONTRACT: CSJ: COUNTY:

Cameron

	TOTALS				\$26,592.96				\$1,495,181.56					\$7,286.40			
ESTIMATED	3		\$25,825.20	\$767.76							\$1,920.00	\$4,200.00	\$1,166.40	i	\$7,286.40	\$1,495,181.56	\$1,502,467.96
	TOTAL		120	12	132	13.704											
	Admin / Clerical			12	12	260	\$63.98	\$22.00			\$ 40.000	\$ 0.350	ш				
	Utilities Coord.				0	940	\$98.88	\$34.00				= (12	Milage Rate (\$/mi.)= \$				
	CADD				0	80	\$69.80	\$24.00				Photocopies B/W (11" x 1	Milage Ra				
	Senior CADD Operator				0	4.014	\$75.62	\$26.00				Photocopies					
	Engineer in Training				0	2.250	\$84.34	\$29.00									
	Engineer (III)				0	920	\$127.97	\$44.00									
	Engineer (IV)				0	1,482	\$139.60	\$48.00									
	Engineer (V)				0	1,894	\$180,31	\$62.00	i				Miles				
	Project Manager		120		120	946	\$215.21	\$74.00			48	12,000	2,160 Miles				
	SERVICE		BASIC	BASIC													
	FIRM		U&G	L&G							L&G	L&G	L&G				
	DESCRIPTION (Attachment B)	GENERAL COORDINATION for Bid Packaging and Letting	1 Project Manager (Proj Coord)(2 HRS/WK)	5 Project Secretary /CLERICAL (2 hrs/week)	Sub Total (164 - GENERAL COORDINATION for Bid Packaging and Letting)	LABOR TOTALS Total Hours	CONTRACT RATES: (\$/MAN-HOUR)	BASE RATES: (\$/MAN-HOUR)		NON LABOR	a Courier Services	b Plan Development Prints (11" x 17")	c Travel - Mileage During Plan Development	Sub Total (F.C. 160)	NON LABOR TOTAL	BASIC SERVICE TOTAL SPECIAL SERVICE TOTAL	PROJECT TOTAL
	FUNCTION	164								160							

2-I CONSIDERATION AND APPROVAL OF AMENDMENT NUMBER ONE TO MASTER SERVICES AGREEMENT FOR TOLL SYSTEM MAINTENANCE BETWEEN KAPSCH TRAFFICCOM USA, INC. AND CCRMA



AMENDMENT NUMBER ONE

TO

MASTER SERVICES AGREEMENT FOR TOLL SYSTEM MAINTENANCE

This Amendment Number One (the "Amendment") to the Master Services Agreement for Toll System Maintenance Services ("Agreement") entered by and between Kapsch TrafficCom USA, Inc., a Delaware corporation doing business at 8201 Greensboro Drive, Suite 1002, McLean, VA 22102 ("Company") and Cameron County Regional Mobility Authority ("CCRMA") dated November 12, 2015, is hereby amended by mutual agreement of the parties as of June 1, 2020 ("Effective Date"). Company and CCRMA are referred herein collectively as the "Parties".

RECITALS

WHEREAS, the Parties entered into the Agreement on November 12, 2015 for Company to furnish and provide to CCRMA toll system maintenance services;

WHEREAS, the Parties entered into Work Authorization No. 2 for Company to provide Software and System Maintenance Services

WHEREAS, the Parties now wish to amend the Agreement to extend the term of the Agreement, as set forth below, while leaving the remainder of the Agreement in full force and effect as unchanged and unamended.

NOW, THEREFORE, the Parties hereby agree to amend the Agreement in accordance with its terms as follows:

The Agreement and Work Authorization No. 2, which will terminate on May 31, 2020 per its terms, are hereby extended and will remain in effect for an additional 3 months, to terminate on August 31, 2020. During the 3-month period, the parties will negotiate in good faith on a new maintenance agreement. Company will continue to provide all Software and System Maintenance Services and any other services being provided as of the date of this Amendment.

Including the above modification, the Parties hereby acknowledge that the Agreement remains in full force and effect.

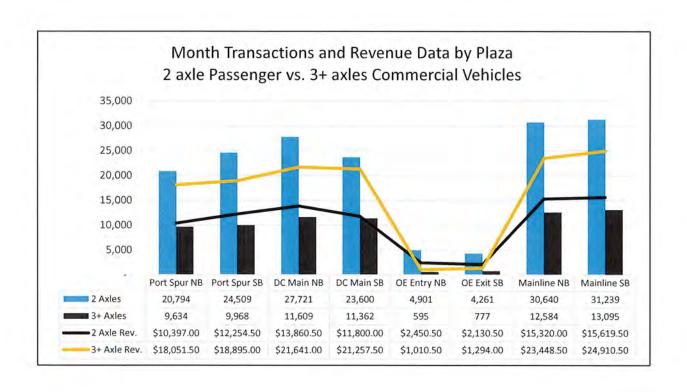
IN WITNESS WHEREOF, the parties have executed this Amendment as of the date first written above.

/ 0.	MOBILITY AUTHORITY
Sign: Lel Yel	Sign: Lecul Paules.
Name: Peter Aczel	Name: Frank Parker, 50
Title: Vice President Delivery & Operations	Title: Chairfan
Date: June 10, 2020	Date: 6/8/20

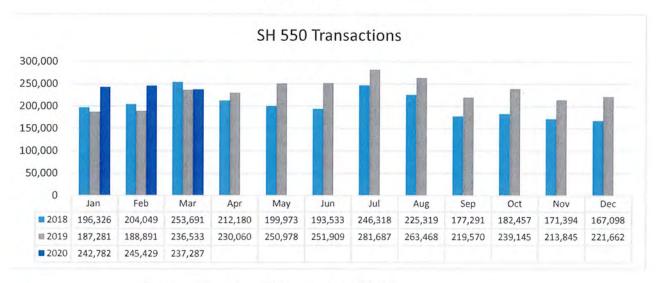
2-J DISCUSSION AND POSSIBLE ACTION REGARDING STATUS OF CCRMA PROJECTS



N	larch Transact	ion and Rev	enu	e Data by Ax	le					
2 Axle F	assenger Veh	icle vs. 3+ Ax	des	Commercial	Ve	hicle				
		per Plaza								
Plaza	2 Axles	3+ Axles	2	2 Axle Rev.	111	3+ Axle Rev.				
Port Spur NB	20,794	9,634		\$10,397.00		\$18,051.50				
Port Spur SB	24,509	9,968		\$12,254.50		\$18,895.00				
DC Main NB	27,721	11,609		\$13,860.50		\$21,641.00				
DC Main SB	23,600	11,362		\$11,800.00		\$21,257.50				
OE Entry NB	4,901	595	-	\$2,450.50	1	\$1,010.50				
OE Exit SB 4,261 777 \$2,130.50 \$1,294.00										
Mainline NB	30,640	12,584		\$15,320.00)	\$23,448.50				
Mainline SB	31,239	13,095		\$15,619.50		\$24,910.50				
Total by Axles	167,665	69,624	\$	83,832.50	\$	130,508.50				
Month	Total	237,289	\$			214,341.00				



Year to Year Traffic Comparison 2018-2020



There was less than 1% increase from 2019

Payment Processing

TPSCCRMA

Source	Payment Mode	JAN	FEB	MAR	APR	M	MAY	NOC	TOC	AUG	(5	SEPT	DCT	1	NON		DEC	ľ
	Bank					Ī			ı									
	Cashier Check	\$419.78	78 \$61.67	\$48.34														
	Cash	\$2,402.46	46 \$2,952.00	\$1,620.76														
	Check	\$16,679.67	67 \$11,993.05	\$12,138.04														
CSC Payments	CreditCard	\$18,331.67	67 \$14,735.98	\$11,811.11														
	DebitCard	\$33,506.63	63 \$30,152.58	\$28,790.47														
	MoneyOrder	\$1,622.45	45 \$743.06	\$915.08														
	Total Amount	\$72,962.	\$72,962.66 \$ 60,638.34 \$ 55,323.80	\$ 55,323.80	65	,	•	69	65		*	63			65		69	•
	Bank	\$2,962.77	77 \$2,868.40	\$3,101.63		F				-								
	CreditCard	\$30,023.07	07 \$24,883.35	\$20,042.03														
	DebitCard	\$42,895.06	06 \$36,678.20	\$40,831.30						1								
WEB Payments	Total Amount	\$ 75,880.90	0 \$ 64,429.95	\$ 63,974.96	65			69	69	5		65	•		4		44	•
	Combined Total \$ 148,843.56 \$125,068,29 \$119,298.76	\$ 148,843.5	\$ 125,068.29	\$ 119,298.76	4	*		\$	65			49	•					\$0.00
															4		4	202 240 64

Mail Batch Summary Report



	0.000					2020						_	I PS CCKIMA
Manuelle		Toll Bill			1st Notice			2nd Notice			Final Notice	0	
MOUTH	Generated	Completed	Completed Bad Address	Generated	Completed	Completed Bad Address	Generated	Completed	Generated Completed Bad Address	Generated	Completed	Generated Completed Bad Address	Iotal Completed
anuary	10,998	11,897		6,178	5,346	947	4,725	3,704	901	4,691	4,177	1,250	28,222
February	10,605	10,350		4,683	4,023	191	3,871	3,286	936	4,080	3,101	866	23,461
March	13,197	11,309		5,579	4,146	761	4,474	2,956	849	4,023	2,414	838	23,273
April		2,491			842	159		920	151		692	208	5,193
May													•
nne													1
uly													4
August													,
September													9.
October													1
November													
December													•
	34,800	36,047		16,440	14,357	2,634	13,070	10,596	2,837	12,794	10,384	3,294	80,149

Out Of State Billing and Payments



2020

Month	Invoiced Amount (w/fees)	Amount Paid	Outstanding Amount
January	\$7,044.65	\$2,632.54	\$4,412.11
February	\$9,940.97	\$4,673.30	\$5,267.67
March	\$6,801.49	\$3,124.37	\$3,677.12
April			\$0.00
May			\$0.00
June			\$0.00
July			\$0.00
August			\$0.00
September	1		\$0.00
October			\$0.00
November			\$0.00
December			\$0.00
Total	\$23,787.11	\$10,430.21	\$13,356.90

Amounts change due to nonpayment and accrural of fees. New payments also affect balance.



OPERATION OVERVIEW

2020

Month	1st Review	2nd Review	3rd Review	3rd Review %	Total
Misread			203		203
January	73,003	58,693	4,480	3%	136,176
February	74,184	73,143	4,948	3%	152,275
March	68,607	64,745	4,890	4%	138,242
April				#DIV/0!	
May				#DIV/0!	
June				#DIV/0!	1 6
July				#DIV/0!	4.0
August				#DIV/0!	
September				#DIV/0!	
October				#DIV/0!	J. 3-0
November				#DIV/0!	
December				#DIV/0!	
Total p/Review	215,794	196,581	14,318	3%	
	*	Total Im	ages Processed		426,896

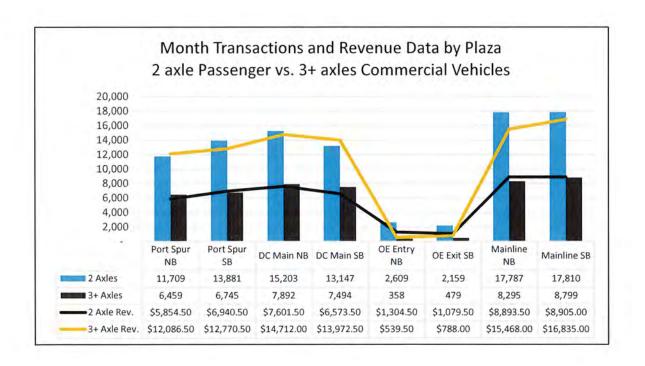
OPERATION OVERVIEW

March 2020

CSR	1st Review	2nd Review	3rd Review	Total
Misread			64	64
Selina	14,636	15,487		30,123
Brenda	167	5,900		6,067
Robert	14,509	7,080		21,589
Alex	6,612	406		7,018
Cris	6,816	8105		14,921
Eduardo	7,525	6405		13,930
Luis	5347	16,927		22,274
Nena	2,094	3,990		6,084
Ema	593	23	2455	3,071
Janett	420	70	2,435	2,925
Ruben	630			630
Liz				
Jose Luis	9,258	352		9,610
		Total Im	ages Processed	138,306

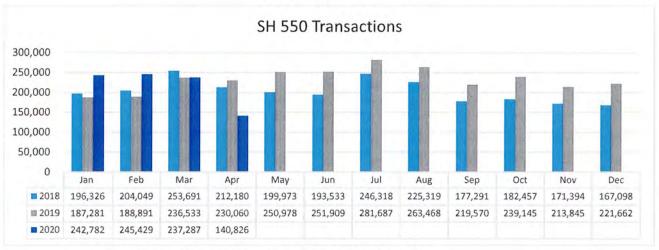


4	April Transacti	on and Reve	nue	Data by Axl	e	
2 Axle I	Passenger Veh	icle vs. 3+ Ax	des	Commercial	Vel	nicle
		per Plaza				
Plaza	2 Axles	3+ Axles	2	Axle Rev.	3	+ Axle Rev.
Port Spur NB	11,709	6,459	\$	5,854.50	\$	12,086.50
Port Spur SB	13,881	6,745	\$	6,940.50	\$	12,770.50
DC Main NB	15,203	7,892	\$	7,601.50	\$	14,712.00
DC Main SB	13,147	7,494	\$	6,573.50	\$	13,972.50
OE Entry NB	2,609	358	\$	1,304.50	\$	539.50
OE Exit SB	2,159	479	\$	1,079.50	\$	788.00
Mainline NB	17,787	8,295	\$	8,893.50	\$	15,468.00
Mainline SB	17,810	8,799	\$	8,905.00	\$	16,835.00
Total by Axles	94,305	46,521	\$	34,357.50	\$	87,172.00
Month	Total	140,826	\$			134,324.50



Year to Year Traffic Comparison

2018 - 2020



Transactions for the year decreased 39% from 2019

Tag Penetration for the Month

April 2020

	DNT	HCTRA	KTA	ОТА	PHARR 6C	TEX	OTHER	Grand Total
Good Tag	2,212	6,613	300	355	12,960	28,527	178	51,145
Invalid Tags	340	1,001	13	135	736	1,001	4,226	7,452
Negative	35					2,955		2,990
Non Tag							79,239	79,239
Grand Total	2,587	7,614	313	490	13,696	32,483	83,643	140,826
Percent Inv/Neg	14%	13%	4%	28%	5%	12%		7%
Tag Penetration								41%
Valid Tag Penetration								36%
Estimated PBM (89,681)								64%
Estimate Tag Revenue								\$ 56,601.00
Estimate PBM Revenue								\$ 77,723.50
Estimated Total Revenue	е							\$ 134,324.50



Payment Processing

Source	Payment Mode	JAN		FEB	MAR	APR	MAY	NOC	JUL		AUG		SEPT	OCT	2	NOV	DEC	
	Bank				1 2									-				
	Cashier Check		\$419.78	\$61.67	\$48.34													
	Cash		\$2,402.46	\$2,952.00	\$1,620.76	\$14.70												
	Check		\$16,679.67	\$11,993.05	\$12,138.04	\$8,681.40												
CSC Payments	CreditCard		\$18,331.67	\$14,735.98	\$11,811,11	\$8,317.71												
	DebitCard		\$33,506.63	\$30,152,58	\$28,790.47	\$23,967.96												
	MoneyOrder	2	\$1,622.45	\$743.06	\$915.08	\$820.12												
	Total Amount		\$72,962.66	\$72,962.66 \$ 60,638.34 \$ 55,323.80	\$ 55,323.80	\$ 41,801.89 \$	s	5		•	4	•	44	4		64	69	,
	Bank		\$2,962.77	\$2,868.40	\$3,101.63	\$3,209.09												
	CreditCard		\$30,023.07	\$24,883.35	\$20,042.03	\$22,609.39												
	DebitCard		\$42,895.06	\$36,678.20	\$40,831.30	\$47,239.13												
WEB Payments	Total Amount	65	75,880.90	75,880.90 \$ 64,429.95	\$ 63,974.96	\$ 73,057.61 \$	s	65			55		64	4	,	•	69	
		3									Š							
	Combined Total \$ 148.843.56 \$ 125.068.29 \$ 119.298.76	69	148.843.56	\$ 125.068.29	\$ 119.298.76	\$ 114.859.50 \$	65				4	The state of the s						0000





						2020						-	I PS CCRIMA
***************************************		Toll Bill			1st Notice			2nd Notice			Final Notice		Transfer Inch
Month	Generated	Completed	Completed Bad Address	Generated	Completed	Completed Bad Address	Generated	Completed	Generated Completed Bad Address	Generated	Completed	Generated Completed Bad Address	lotal Completed
anuary	10,998	11,897		6,178	5,346	947	4,725	3,704	901	4,691	4,177	1,250	28,222
February	10,605	10,350		4,683	4,023	167	3,871	3,286	986	4,080	3,101	866	23,461
March	13,197	11,309	1	5,579	4,146	761	4,474	2,956	849	4,023	2,414	838	23,273
April	7,124	9,148		5,281	5,661	589	3,233	3,550	624	3,181	3,765	575	23,912
May		467			462	18		333	20		108	09	1,498
une													
uly													
August													
September													
October													
November													
December													
	41,924	43,171		21,721	19,638	3,082	16,303	13,829	3,360	15,975	13,565	3,721	100,366

Out Of State Billing and Payments



2020

Month	Invoiced Amount (w/fees)	Amount Paid	Outstanding Amount
January	\$7,044.65	\$2,632.54	\$4,412.11
February	\$9,940.97	\$4,673.30	\$5,267.67
March	\$6,801.49	\$3,124.37	\$3,677.12
April	\$3,911.97	\$1,584.54	\$2,327.43
May			\$0.00
June			\$0.00
July			\$0.00
August			\$0.00
September			\$0.00
October			\$0.00
November	1		\$0.00
December			\$0.00
Total	\$27,699.08	\$12,014.75	\$15,684.33

Amounts change due to nonpayment and accrural of fees. New payments also affect balance.



OPERATION OVERVIEW

2020

Month	1st Review	2nd Review	3rd Review	3rd Review %	Total
Misread			256		256
January	73,003	58,693	4,480	3%	136,176
February	74,184	73,143	4,948	3%	152,275
March	68,607	64,745	4,890	4%	138,242
April	39,401	35,013	3,142	4%	77,556
May				#DIV/0!	-
June			0	#DIV/0!	
July				#DIV/0!	
August				#DIV/0!	
September				#DIV/0!	-
October				#DIV/0!	-
November				#DIV/0!	
December				#DIV/0!	3 - 3 -
Total p/Review	255,195	231,594	17,460	4%	
		Total Im	ages Processed		504,505

OPERATION OVERVIEW

April 2020

CSR	1st Review	2nd Review	3rd Review	Total
Misread			53	53
Selina	2,716	15,287		18,003
Brenda				-
Robert	1,085	1,876		2,961
Alex	8,361			8,361
Cris	765	2680		3,445
Eduardo	733	125		858
Luis	3576	12,702		16,278
Nena	1,157	2,343		3,500
Ema			1063	1,063
Janett			2,079	2,079
Ruben	506			506
Liz				
Jose Luis	20,502			20,502
		Total Ir	nages Processed	77,609

2-K CONSIDERATION AND APPROVAL OF APPLICATION FOR NEW ACCOUNT WITH GULF COAST PAPER, CO.

GULF COASTPAPER CO., INC.

NEW ACCOUNT INFORMATION FORM

ACCOUNT NAME: Cameron Cour	nty Regional M	obility Aut	hority				
BILLING ADDRESS: 3461 Carmen	Ave.			PHONE:	956-621-	5571	
CITY, ST, ZIP+4 Rancho Viejo	TX 78575			FAX:			
SHIPPING ADDRESS: 3461 Carme			***************************************	PHONE:	956-621	1-5571	
CITY, ST, ZIP+4 Rancho Viejo		1.7.42 - 1419		FAX:	12101	20016	
NAME OF OWNER PRESIDENT	ete Sepulveda,	Ir.		PHONE:	956-621-	-5571	
SOCIAL SECURITY NO. OR FEDER	ON OL LAS	39-2050620			700 021		-
PERSON TO CONTACT FOR ACCO							····
PERSON TO CONTACT FOR PURC	HASES:	Monica					
		Womca	IDaira				
CREDIT REFERENCES				Towns II			
NAME: Staples Business Advantag	e			PHONE #	877-457	-6424	
NAME: Amazon				PHONE #	1-866-6	534-8381	
NAME: Republic Services				PHONE #	956-42	23-7316	
TERMS: ALL SUMS DUE BY REASON VICTORIA, VICTORIA COUNTY, TEMONTH (18% PER YEAR) WILL BE ESTIMATED MONTHLY PURCHASE	XAS. TERMS AF	RE NET 15 I	IE AND P. DAYS. A I	FINANCE C	THE OFF	F 1 1/2% P	
PLEASE ADVISE OF ANY SPECIAL (EXAMPLE; MUST HAVE P.O. # ON			NG YOUF	R PURCHAS	SES		
FOR OFFICE USE ONL	Y PLEASE			==		UBLE LIN	IE
NAME	OPEN	HIGH CREDIT	BAL. NOW	PAID	DUE FOR	TERMS	RATING
		V					
GULF COAST SALESPERSON:							
CREDIT APPROVED BY:		DATE:	-	CREDIT L	IMIT:		
COMMENTS:							
						_	

2-L ACKNOWLEDGEMENT THAT ALL CCRMA EMPLOYEES HAVE COMPLETED CYBERSECURITY TRAINING COURSE THAT HAS BEEN CERTIFIED BY DEPARTMENT OF INFORMATION RESOURCES (DIR) TO FULFILL THE REQUIREMENTS OF HB 3834

CAMERON COUNTY REGIONAL MOBILITY AUTHORITY

House Bill 3834 Certification for Local Governments

According to Section 2054.5191, Government Code, the governing body of a local government, shall:

- e verify and report on the completion of a cybersecurity training program by employees of the local government, and
- require periodic audits to ensure compliance with this section.

By signing below, you indicate that you agree with the following statements:

- I certify that the local government is in compilance with the employee security awareness training requirements of Section 2054.5191, Government Code.
- I certify that the local government is in compliance with the audit requirements of Section 2054,5191,
 Government Code.

Transpara Para .	6/8/20 Date
Frank Hanker, 51	Chair MAN
Printed Name	Title OS/28/20
Signature Mask Espasza Printed Nume	Board Member Title
Signature Villagres Printed Name	Treasure Date Title
Biguature Some Printed Nume	Vice - chair Title OUBBOOD
Signature Les Garen Printed Name	Date Board Member Title

This form does not need to be submitted to the Texas Department of Information Resources. It is for your records.

From: Security Training Verification Site Guest User
To: TXTrainingCert@dir.texas.gov; Lulu Mayorga

Subject: Confirmation of Cybersecurity Training Certification (STV-1095)

Date: Saturday, May 23, 2020 7:58:41 AM

This email confirms that you have successfully submitted the required annual Cybersecurity Training Certification for Fiscal Year 2020 for Cameron County Regional Mobility Authority.

Thank you.

Texas Department of Information Resources

TXTrainingCert@dir.texas.gov

	Catego Source	Action	Initiated By	Date	Target Nan New Value Old Value Sent To Subject
Actions	Victor J. Barron	Module Completed	Victor J. Barron	5/22/2020 6:53	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Francisco San Miguel	Module Completed	Francisco San Miguel	5/21/2020 18:47	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Pete Sepulveda, Jr.	Module Completed	Pete Sepulveda, Jr.	5/21/2020 17:40	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Eduardo J. Trevino	Module Completed	Eduardo J. Trevino	5/21/2020 15:12	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Alexandra Silva	Module Completed	Alexandra Silva	5/21/2020 14:31	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Cristhian Wilt-Cuevas	Module Completed	Cristhian Wilt-Cuevas	5/21/2020 12:21	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Jose L. Rodriguez	Module Completed	Jose L. Rodriguez	5/20/2020 23:31	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Mark A. Iglesias	Module Completed	Mark A. Iglesias	5/20/2020 20:04	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Selina Serna	Module Completed	Selina Serna	5/20/2020 17:05	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Ericka G. Trevino	Module Completed	Ericka G. Trevino	5/20/2020 11:14	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Herendida Martinez	Module Completed	Herendida Martinez	5/20/2020 10:23	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Monica R. Ibarra	Module Completed	Monica R. Ibarra	5/20/2020 9:50	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Ema P. Jaramillo	Module Completed	Ema P. Jaramillo	5/20/2020 9:42	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Maria D. Mayorga	Module Completed	Maria D. Mayorga	5/19/2020 23:26	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Luis Perez	Module Completed	Luis Perez	5/19/2020 18:54	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Janett Huerta	Module Completed	Janett Huerta	5/19/2020 18:30	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Lizbeth J. Ponce	Module Completed	Lizbeth J. Ponce	5/19/2020 18:29	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)
Actions	Robert Slaid Slaid	Module Completed	Robert Slaid Slaid	5/19/2020 17:31	TAC Cybersecurity Awareness Training (Certified State-Mandated Course)



Cristhian Wilt-Cuevas has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Ericka G. Trevino

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad hy tho







Eduardo J. Trevino

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Ema P. Jaramillo

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the

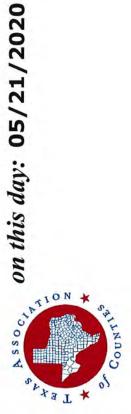






Francisco San Miguel has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Herendida Martinez has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Janett Huerta has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Provided his the





Jose L. Rodriguez has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Lizbeth J. Ponce

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Luis Perez

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Maria D. Mayorga has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Mark A. Iglesias has successfully completed TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Monica R. Ibarra

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidod has the





Pete Sepulveda, Jr.

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Robert Slaid Slaid

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Aextiticate of Completion

Selina Serna

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the





Victor J. Barron

has successfully completed

TAC Cybersecurity Awareness Training for Other Entities (Certified State-Mandated Course)

Drawidad has the



