



CENTRAL TEXAS REGIONAL  
**MOBILITY AUTHORITY**

May 29, 2019  
**AGENDA ITEM #9**

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Approve Amendment No. 4 to the Maintenance  
Services Contract with Kapsch TrafficCom USA,  
Inc.

Strategic Plan Relevance: Regional Mobility  
Department: Operations  
Contact: Tracie Brown, Director of Operations  
Associated Costs: \$586,741.63 for 45 SW and \$543,221.25 in FY 2020 for 183S Phase I; minor adjustments to other roads as well  
Funding Source: General Fund  
Action Requested: Consider and act on draft resolution

Summary:

In 2007, the CTRMA entered into a contract for maintenance services for Toll Collection System maintenance with Kapsch TrafficCom USA (formerly Caseta Technologies, Inc.). The scope of services was based on an anticipated implementation schedule for the various segments of the System through the initial term of the contract. Subsequently, the contract has been amended to add additional toll facilities as they've come online.

This proposed amendment to the contract with Kapsch TrafficCom USA provides for enhanced monthly maintenance services for the roadside lane equipment, project host system, intelligent transportation systems (ITS), wrong way detection and communication infrastructure installed by Kapsch TrafficCom USA for the 45SW and 183 South Phase 1 projects. This amendment also updates pricing for existing roadway maintenance and support services. The monthly and annual breakdown for each facility is outlined in the table below and outlines the amended pricing versus that in the prior year.

FACILITY	CURRENT PRICING		AMENDED PRICING	
	Monthly Fee	Annual Total	Monthly Fee	Annual Total
183A	\$ 68,400.00	\$ 820,800.00	\$ 93,358.95	\$ 1,120,307.39
290E	\$ 45,375.00	\$ 544,500.00	\$ 79,827.02	\$ 957,924.23
MoPac Express Lane	\$ 32,483.20	\$ 389,798.40	\$ 38,673.76	\$ 464,085.15
TIM Center Operations	\$ 24,549.00	\$ 294,588.00	\$ 34,823.50	\$ 417,881.99
TX-71	\$ -	\$ -	\$ 8,511.29	\$ 102,135.43
45 SW	N/A	N/A	\$ 49,872.36	\$ 598,468.31
183S Phase I	N/A	N/A	\$ 49,383.75	\$ 543,221.25
<b>TOTAL</b>	<b>\$ 170,807.20</b>	<b>\$ 2,049,686.40</b>	<b>\$ 354,450.63</b>	<b>\$ 4,204,023.75</b>

Under this amendment, Kapsch TrafficCom USA will provide monitoring, maintenance, repair and support of the toll system for 45SW and 183 South Phase 1 and the toll, ITS and traffic management system including traffic control devices, CCTV cameras, dynamic message signs, host systems and subsystems supporting image review as indicated in the Scope of Work. The amendment also lays out specific key performance indicators along with liquidated damages.

**Previous Actions** - The Central Texas Regional Mobility Authority entered into a contract with Caseta Technologies, Inc. April 27, 2005, for the design, procurement, and installation of a toll collection system on the Authority's turnpike system. Kapsch TrafficCom USA, Inc.) is the successor in interest to the contract with Caseta Technologies, Inc. Kapsch TrafficCom USA now serves as the Mobility Authority's toll system integrator. In this role, Kapsch is tasked with installing and maintaining the Authority's toll system equipment hardware, software and intelligent traffic systems (ITS). Kapsch also provides license plate image review and transcription services necessary to facilitate the billing of the Authority's Pay By Mail toll transactions.

**Action Requested/Staff Recommendation** - Under this proposed amendment, Kapsch TrafficCom USA will provide services required to assist the Mobility Authority in the maintenance of 45SW and 183 South Phase 1.

**Financing** - General Fund

**Backup Provided:** Draft Resolution  
Draft Fourth Amendment  
Kapsch Maintenance Letter

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

**RESOLUTION NO. 19-0XX**

**APPROVE AMENDMENT NO. 4 TO THE MAINTENANCE SERVICES AGREEMENT  
WITH KAPSCH TRAFFICCOM USA, INC.**

WHEREAS, in 2007 the Central Texas Regional Mobility Authority (Mobility Authority) entered into a Contract for Maintenance Services for Toll Collection System maintenance (the “Contract”) with Kapsch TrafficCom USA, Inc. (formerly Schneider Electric Mobility NA, Inc.); and

WHEREAS, by Resolution No. 16-023, dated May 3, 2016, the Board approved Amendment No. 3 to the Maintenance Services Contract with Kapsch TrafficComm USA, Inc. to provide maintenance and support services for the MoPac Improvement Project and SH 71; and

WHEREAS, the Mobility Authority requires additional services for the SH 45SW and 183 South Phase I Projects that will become operational in the near future; and

WHEREAS, the Executive Director also recommends adjustments to the current pricing for existing Mobility Authority toll facilities and the implementation of new performance requirements for all Mobility Authority toll facilities; and

WHEREAS, the Executive Director and Kapsch TrafficComm USA, Inc. have negotiated Amendment No. 4 to the Contract to incorporate monthly maintenance services for the SH 45SW and 183 South Phase I Projects, adjust the pricing for maintenance and support services on existing Mobility Authority toll facilities and implement new performance requirements for all Mobility Authority toll facilities; and

WHEREAS, the Executive Director recommends that the Board of Directors approve Amendment No. 4 to the Contract with Kapsch TrafficComm USA, Inc. in the form attached as Exhibit A hereto.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby approves Amendment No. 4 to the Contract with Kapsch TrafficComm USA, Inc.; and

BE IT FURTHER RESOLVED that the Executive Director is hereby authorized to finalize and execute Amendment No. 4 to the Contract with Kapsch TrafficComm USA, Inc. on behalf of the Mobility Authority in the form or substantially the same form as is attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29<sup>th</sup> day of May 2019.

Submitted and reviewed by:

Approved:

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Geoffrey Petrov, General Counsel

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Ray A. Wilkerson  
Chairman, Board of Directors

**Exhibit A**

**FOURTH AMENDMENT TO  
MAINTENANCE SERVICES CONTRACT  
FOR TOLL COLLECTION SYSTEM BETWEEN CENTRAL TEXAS REGIONAL  
MOBILITY AUTHORITY  
AND KAPSCH TRAFFICCOM USA, INC.**

This Amendment to the Maintenance Services Contract for Toll Collection System between Central Texas Regional Mobility Authority (“CTRMA”) and Kapsch TrafficComm USA, Inc. (the “Contractor”) is made effective as of the \_\_\_ day of May 2019, and is for the purpose of amending SCHEDULE 1.2 of the Maintenance Services Contract for Toll Collection System between CTRMA and Contractor, effective March 3, 2007 (the “Contract”).

Pursuant to action of the CTRMA Board of Directors, reflected in Resolution No. 19-0XX, dated May 29, 2019, Schedule 1.1 of the Contract is amended as described below.

SCHEDULE 1.2: PRICE SCHEDULE is amended by revising the monthly fee to reflect the current status of the 183A Phase I & II Toll project, 290E Phase I & II Toll project, the MoPac Express Lane project, SH 71 Toll project and the anticipated schedule for the implementation of new SH 45SW Toll and 183 South Phase I & II Toll projects as follows:

SCHEDULE 1.2 is deleted in its entirety and replaced with the attached SCHEDULE 1.3.

SCHEDULE 1.4: KEY PERFORMANCE INDICATORS has been added to guide Kapsch’s performance with regard to CTRMA’s Maintenance Services Contract. Testing frequencies and associated liquidated damages have been included where applicable.

By their signatures below, the parties of the Contract evidence, their agreement to the amendment set forth above.

CENTRAL TEXAS REGIONAL  
MOBILITY AUTHORITY

KAPSCH TRAFFICCOM  
USA, INC.

\_\_\_\_\_  
Mike Heiligenstein  
Executive Director

\_\_\_\_\_  
Michael Hofer, Chief Financial Officer

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Alfredo Escriba, President

## SCHEDULE 1.3

### MAINTENANCE SERVICES CONTRACT FOR TOLL COLLECTION SYSTEM

#### PRICE SCHEDULE

This section provides descriptions of the Method of Measurement and the Basis of Payment for the bid items necessary to complete the work for maintenance services on the toll collection systems on the CTRMA's Toll Road System.

#### Segment Payments

#### 1. Monthly Maintenance Services: 183A Toll Phases I & II and 290 Toll Phases I & II

Monthly Fee for maintaining the 183A Phases I & II as well as 290 Phases I & II Toll Projects, including Plaza System, Host System, Communications Equipment, all ETC Toll Lanes, System Administration, and the complete Intelligent Transportation System as furnished and installed shall be measured on a per month basis. Each per month unit shall include furnishing all labor, materials, and support services to perform Maintenance Services for that month in conformance with the requirements of the Specifications, the specified requirements of the ITS equipment, and as accepted by the CTRMA.

#### **Basis of Payment**

Payment will be made at the monthly price of \$173,185.97 for the Maintenance Services provided for 183A Phases I & II as well as 290 Phases I & II or \$93,358.95 and \$79,827.02 for each facility respectively.

Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	183A Phases I & II	
					QTY.	Per Month
110	Base Monthly Fee	1		\$ 745.34	25	\$18,663.42
111	Software Engineer	173	\$157.59		0.5	\$13,361.23
112	System Engineer	173	\$172.52		0.5	\$14,923.30
113	Technician	173	\$120.90		2	\$41,832.37
114	Technician ODC's	1		\$2,169.31	2	\$4,338.63
					Total \$	
					/Mo.	\$93,358.95

Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	290E Phases I & II	
					QTY.	Per Month
110	Base Monthly Fee	1		\$ 745.34	26	\$19,378.75
111	Software Engineer	173	\$157.59		0.25	\$6,815.61
112	System Engineer	173	\$172.52		0.25	\$7,461.65
113	Technician	173	\$120.90		2	\$41,832.37
114	Technician ODC's	1		\$2,169.31	2	\$4,338.63
					Total \$ /Mo.	\$79,827.02

**2. Monthly Maintenance Services: SH 71 Toll**

Monthly Fee for maintaining the SH71 Toll Project, including all ETC Toll Lanes, Communications Equipment, Security Access System, and System Administration as furnished and installed by Schneider Electric shall be measured on a per month basis. Each per month unit shall include furnishing all labor, materials, and support services to perform Maintenance Services for that month in conformance with the requirements of the Specifications, and as accepted by the CTRMA

**Basis of Payment**

Payment will be made at the monthly price of \$8,511.29 for the Maintenance Services provided for SH 71 Toll.

Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	SH 71	
					QTY.	Per Month
110	Base Monthly Fee	1		\$8,511.29	1	\$8,511.29
					Total \$ /Mo.	\$8,511.29

**3. Monthly Maintenance Services: MoPac Express Lane**

Monthly Fee for maintaining the MoPac Express Lane Project, including Project Systems, Host Systems, Communications Equipment, all ETC Toll Lanes, System Administration, and the complete Intelligent Transportation System as furnished and installed shall be measured on a per month basis. Each per month unit shall include furnishing all labor, materials, and support services to perform Maintenance Services for that month in conformance with the requirements of the Specifications, the specified requirements of the ITS equipment, and as accepted by the CTRMA. TIM Center Operations Support is compensated under a separate Agreement at the new rate of \$8,705.87 per operator per month.

**Basis of Payment**

Payment will be made at the monthly price of \$38,673.76 for the Maintenance Services provided for MoPac Express Lane.

Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	MoPac Express	
					QTY.	Per Month
110	Base Monthly Fee	1		\$745.34	4	\$2,981.35
111	Software Engineer	160	\$157.59		0.5	\$12,606.92
112	System Engineer	160	\$172.52		0	\$0.00
113	Technician	173	\$120.90		1	\$20,916.19
114	Technician ODC's	1		\$2,169.31	1	\$2,169.31
					Total \$ /Mo.	\$38,673.76

**4. Monthly Maintenance Services: 45SW Toll**

Monthly Fee for maintaining the 45SW Toll Project, including Plaza System, Host System, Communications Equipment, all ETC Toll Lanes, System Administration, and the complete Intelligent Transportation System as furnished and installed shall be measured on a per month basis. Each per month unit shall include furnishing all labor, materials, and support services to perform Maintenance Services for that month in conformance with the requirements of the Specifications, the specified requirements of the ITS equipment, and as accepted by the CTRMA.

**Basis of Payment**

Payment will be made at the monthly price of \$49,872.36 for the Maintenance Services provided for 45SW.



Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	45SW	
					QTY.	Per Month
110	Base Monthly Fee	1		\$ 745.34	4	\$2,981.35
111	Software Engineer	160	\$157.59		0.5	\$12,606.92
112	System Engineer	160	\$172.52		0.25	\$6,900.95
113	Business Analyst	160	\$157.59		1	\$25,213.83
113	Technician	173	\$120.90		0	\$0.00
114	Technician ODC's	1		\$2,169.31	1	\$2,169.31
					Total \$ /Mo.	\$49,872.36

**5. Monthly Maintenance Services: 183S Phases I & II**

Monthly Fee for maintaining the 183 South Phases I & II Toll Projects, including Plaza System, Host System, Communications Equipment, all ETC Toll Lanes, System Administration, and the complete Intelligent Transportation System as furnished and installed shall be measured on a per month basis. Each per month unit shall include furnishing all labor, materials, and support services to perform Maintenance Services for that month in conformance with the requirements of the Specifications, the specified requirements of the ITS equipment, and as accepted by the CTRMA.

**Basis of Payment**

Payment will be made at the monthly price of \$108,634.17 for the Maintenance Services provided for 183S Phase I and Phase projects or \$49,383.75 and \$59,250.39 respectively.

Maintenance Cost Elements						
Item No.	Description	Unit	Rate / Hr.	Unit Price per Month	183S Phase I	
					QTY.	Per Month
110	Base Monthly Fee	1		\$ 745.34	11	\$8,198.70
111	Software Engineer	160	\$157.59		1	\$25,213.83
112	System Engineer	160	\$172.52		0.5	\$13,801.90
113	Business Analyst	160	\$157.59		0	\$0.00
114	Technician	173	\$120.90		0	\$0.00

116	Technician ODC's	1		\$2,169.31	1	\$2,169.31
					Total \$	
					/Mo.	\$49,383.75

<b>Maintenance Cost Elements</b>						
<b>Item No.</b>	<b>Description</b>	<b>Unit</b>	<b>Rate / Hr.</b>	<b>Unit Price per Month</b>	<b>183S Phase II</b>	
					<b>QTY.</b>	<b>Per Month</b>
110	Base Monthly Fee	1		\$ 745.34	16	\$11,925.39
111	Software Engineer	160	\$157.59		0.5	\$12,606.92
112	System Engineer	160	\$172.52		0.5	\$13,801.90
113	Business Analyst	160	\$157.59		0	\$0.00
114	Technician	173	\$120.90		1	\$20,916.19
116	Technician ODC's	1		\$2,169.31	0	\$0.00
					Total \$	
					/Mo.	\$59,250.39

**The Hourly Rates in the “Maintenance Cost Elements” table above in Section-3 are CY2019 Fully Loaded Rates.**

**Out of Scope Services**

Hourly rates for out of scope services pursuant to Section 11 of the Toll Collection System Maintenance Services Contract:

Software Engineer	\$157.59
System/Hardware Engineer	172.52
Technician	120.90
Database Administrator	224.14
Documentation Clerk	161.66
Testing Engineer	171.17
Project Manager	224.14
Network Administrator	156.22
Business Analyst	157.59

**The Hourly Rates in Section-4 above are CY2019 Fully Loaded Rates**

## SCHEDULE 1.4

### MAINTENANCE SERVICES CONTRACT FOR TOLL COLLECTION SYSTEM PERFORMANCE REQUIREMENTS

This section provides descriptions of the Key Performance Indicators that shall guide the maintenance services on the toll collection systems on the CTRMA's Toll Road System. Liquidated damages and testing frequencies are outlined where applicable.

KPI ID	Key Performance Indicators Description	KPI	Maximum Liquidated Damages (per calendar month)	Testing Frequency
1	AVD The vehicle detection subsystem shall detect 99.9 percent of vehicles passing through the Toll Zone once and only once under all conditions within the Design specification described in the requirements, including vehicles in the shoulders and straddling the lane and shoulder. Kapsch will reconcile discrepancies from Fagan audits. Variance may be dependent on vehicle volume.	99.90%	N/A	Annual
2	AVC The AVC subsystem shall correctly classify 99.5 percent of all detected vehicles at speeds from 5 mph up to and including 100 mph, including vehicles straddling the lanes. Shoulders are excluded from this calculation. Kapsch will reconcile discrepancies from Fagan audits. Variance may be dependent on vehicle volume.	99.50%	N/A	Annual
3	AVI The AVI subsystem will correctly detect and read 99.9 percent of all properly installed Transponders on all detected vehicles at speeds from 5 mph up to and including 100 mph, including vehicles in the shoulders and straddling the lanes. Compare the itolls & tag reads between plazas.	99.90%	N/A	Annual
4	AVI Transponder Reporting and Assignment: Transponders that are detected and read by the AVI subsystem shall be reported to the zone controller and assigned to the correct vehicle with an accuracy of 99.9% under all conditions within the Design specification described in the requirements. Report on spurious tags to locate outliers & establish baseline/logic/trending.	99.90%	N/A	Annual
5	LPIC The LPIC subsystem will capture one front human readable license plate image or one rear human readable license plate image for 99 percent of all detected vehicles traveling at speeds from 5 mph up to and including 100 mph, including vehicles straddling the lane and shoulder. Measure using code-offs & annual audit.	99.00%	N/A	Annual

6	LPIC	Images associated by the LPIC subsystem shall be associated to the correct vehicle with an accuracy of 99.9% for all detected vehicles travelling at speed from 5 mph up to and including 100 mph, including vehicles straddling the lanes.	99.90%	N/A	Annual
7	IR	For transactions requiring manual review process, 99.5% shall be completed within 72 hours from the time the transaction qualified for manual review.	99.50%	N/A	Annual
8	IR	For transactions rejected by the manual review process, less than 1% shall be deemed human readable and not worthy of rejection.	<1.00%	N/A	Annual
9	Trip	99.5% of all transactions shall be correctly assembled into trips.	99.50%	N/A	Annual
10	Trip	99.99% of all trips shall be transmitted to the CTRMA primary host system within 4 calendar days of the trip end time.	99.99%	N/A	Annual
11	MVD	The volume provided by Traffic Detection Systems (MVD) shall be 90% accurate.	90.00%	N/A	Annual
12	Reports	The Monthly Maintenance Report shall be delivered within 10 business days of the end of the previous month.	N/A	Kapsch will not be allowed to invoice without delivery of the Monthly Maintenance Report	Monthly
13	Reports	Report Generation Data for summarized reports shall be organized and summarized in a manner to allow for report generation within no more than two (2) seconds for daily reports, and no more than twenty (20) seconds for monthly and annual reports, of a report generation request. Contingent on new host upgrade. Kapsch will provide proposals to report on this metric.	99.90%	\$350 if any summarized report fails to meet the run times of 2/20 seconds.	Monthly
14	Availability	Each ETC lane shall be available 99% of the time. An available lane is defined as a lane with the ability to collect revenue either through image capture or tag read and association.	99.50%	\$1000 per each 0.1% below threshold	Monthly
15	Availability	The Host Level system shall be available 99% of the time. An available host is defined as a fully operating host such that Reports, ROMS, and transaction processing are online (with the exception of approved downtime for maintenance purposes).	99.50%	\$1000 per each 0.1% below threshold	Monthly
16	Availability	CCTV, DMS and MVD's shall be available 95% of the time excluding scheduled maintenance.	95.00%	\$1000 per each 0.1% below threshold	Monthly
17	VTMS	The System will post and maintain the correct toll rate to the VTMS 99.5% of the time under all conditions within the Design specification described in the requirements.	99.50%	\$1000 per each 0.1% below threshold	Monthly

18	Time to Respond – Priority 1	On Average, all priority 1 tickets must be acknowledged within 1 hour of ticket creation. A Priority 1 Maintenance Event is defined as any malfunction or fault that will result in the immediate loss of revenue and/or hazard to personnel.	N/A	\$2k if average is > 1 hour	Monthly
19	Time to Repair - Priority 1	On Average, all priority 1 tickets must be repaired within 4 hours of ticket acknowledgement.	N/A	\$2k if average is > 4 hour	Monthly
20	Time to Respond – Priority 2	On Average, all priority 2 tickets must be acknowledged within 8 hour of ticket creation. Priority 2 Maintenance Event is defined as any malfunction or fault that will not result in immediate loss of revenue but will/may impact operational performance.	N/A	\$2k if average is > 12 hour	Monthly
21	Time to Repair - Priority 2	On Average, all priority 2 tickets must be repaired within 12 hours of ticket acknowledgement.	N/A	\$2k if average is > 12 hour	Monthly
22	Time to Respond – Priority 3	On Average, all priority 3 tickets must be acknowledged within 24 hours of ticket creation. A Priority 3 Maintenance Event is defined as any action or event reported that will/may impact operational performance, has potential of degrading the System performance, and has no impact to revenue collection.	N/A	\$2k if average is > 24 hour	Monthly
23	Time to Repair - Priority 3	On Average, all priority 3 tickets must be repaired within 36 hours of ticket acknowledgement.	N/A	\$2k if average is > 36 hour	Monthly