



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

February 23, 2022
AGENDA ITEM #7

Discuss and consider approving
Supplement No. 4 to Work
Authorization No. 13 with Kapsch
TrafficCom USA Inc. for fiber optic
infrastructure on the 183 South
Project

Strategic Plan Relevance: Regional Mobility
Department: Operations
Contact: Tracie Brown, Director of Operations
Associated Costs: Amount not to exceed: \$117,435.98
Funding Source: Project Contingency
Action Requested: Consider and act on draft resolution

Project Description/Background: This supplement to the work authorization compensates the Toll System Integrator for installing an additional 144 strand single mode fiber run on the 183 South Project. This additional installation provides a redundancy in communications for Mobility Authority corridor technology; the infrastructure backbone for seamless future expansion of such technology; and the opportunity for TxDOT to expand its future ITS network as applicable. This additional fee will increase the not to exceed value for Work Authorization No. 13 to \$13,739,251.98.

Previous Actions & Brief History of the Program/Project: On August 29, 2015, the Board approved work Authorization No. 13 with Kapsch TrafficCom for 183S Toll System Integration Services. In June 2017, Supplement No. 1 to Work Authorization No. 13 was approved. On September 6, 2017, the Board approved Supplement No. 2 to Work Authorization No. 13. On October 27, 2021, the Board approved Supplement No. 3 to Work Authorization No. 13, increasing the previously executed not to exceed value to \$13,621,816.

Financing: Project Contingency

Action requested/Staff Recommendation: Staff recommends the Board approve this

Supplement No. 4 to Work Authorization No. 13 with Kapsch TrafficCom.

Backup provided:

Draft Resolution

Draft Supplement No. 4 to Work Authorization No. 13

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

RESOLUTION NO. 22-0XX

**APPROVE SUPPLEMENT NO. 4 TO WORK AUTHORIZATION NO. 13
WITH KAPSCH TRAFFICOM USA, INC. FOR FIBER OPTIC
INFRASTRUCTURE ON THE 183 SOUTH PROJECT**

WHEREAS, by Resolution No. 15-044, dated August 29, 2015, the Board approved Work Authorization No. 13 with Kapsch TrafficCom USA, Inc. (Kapsch) for toll system integration services for the Bergstrom Expressway (183 South) Project; and

WHEREAS, by Resolution No. 21-063, dated October 27, 2021, the Board approved Supplement No. 3 to Work Authorization No. 13 in the amount of \$284,245 to fund additional software licenses for tolling infrastructure on the 183 South Project which increased the total not to exceed amount for Work Authorization No. 13 to \$13,621,816; and

WHEREAS, the Executive Director and Kapsch have negotiated draft Supplement No. 4 to Work Authorization No. 13 in the amount of \$117,435.98 for the installation of an 144 strand single mode fiber run on the 183 South Project which increases the total not to exceed amount for Work Authorization No. 13 to \$13,739,251.98; and

WHEREAS, this additional fiber optic infrastructure provides a redundancy in communications for 183 South corridor technology and acts as the infrastructure backbone for future expansion of Mobility Authority and Texas Department of Transportation intelligent transportation systems along the corridor; and

WHEREAS, the Executive Director recommends the Board approve Supplement No. 4 to Work Authorization No. 13 in the form or substantially the same form as attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors hereby approves Supplement No. 4 to Work Authorization No. 13 in an amount not to exceed \$117,435.98 for the installation of an additional 144 strand single mode fiber run on the 183 South Project in the form or substantially the same form attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 23rd day of February 2022.

Submitted and reviewed by:

Approved:

James M. Bass
Executive Director

Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

SUPPLEMENTAL WORK AUTHORIZATION NO. 4
TO WORK AUTHORIZATION NO. 13
CONTRACT FOR TOLL COLLECTION AND INTELLIGENT TRANSPORTATION
SYSTEMS IMPLEMENTATION

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 1 of the GENERAL PROVISIONS, Attachment A to the original Contract for Toll System Implementation, dated April 27, 2005 (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the “Mobility Authority”), and Kapsch TrafficCom Transportation NA, Inc. (the Contractor).

The following terms and conditions of Work Authorization No. 13 are hereby amended as follows:

PART I. This Contractor will support the Mobility Authority’s request for fiber connectivity between 183 South and the 290 Toll by installing an additional 144 strand single mode fiber run along the 183 South corridor. This installation provides a redundancy in communications for Mobility Authority corridor technology, infrastructure backbone for seamless future expansion across Mobility Authority corridors, and provides for an enhanced communications network amongst regional partners.

PART II. Part II is modified to increase the maximum payable by **\$117,435.98**. The revised maximum payable is increased from \$13,621,816.00 to **\$13,739,251.98**. The amended increased cost is included in Attachment B, Fee, which is attached and made a part of this Supplemental Work Authorization. This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. 13 not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Supplemental Work Authorization is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE CONTRACTOR



(Signature)

Mark Stewart

(Printed Name)

Operations Manager

(Title)

February 2, 2022

(Date)

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**

(Signature)

James Bass

(Printed Name)

Executive Director

(Title)

(Date)

ATTACHMENT A

SCOPE

This supplement to the work authorization compensates the Toll System Integrator for installing an additional 144 stand single mode fiber run along the 183 South corridor. This installation was requested by the Mobility Authority and provides a redundancy in communications for Mobility Authority corridor technology, infrastructure backbone for seamless future expansion across Mobility Authority corridors, and provides for an enhanced communications network amongst regional partners.

ATTACHMENT B

FEE

Kapsch TrafficCom USA, Inc.
7701 Metropolis Dr., Building 14, Suite 100
Austin, TX 78744
www.kapsch.net



1/12/2022

Invoice No.: 4860022SI01705

To:
Central Texas Regional Mobility Authority
3300 North IH 35, Suite 300
Austin, Texas 78705

CTRMA Contract: 183S SWA #2 - WA #13
Project No.: GP0000005673-001
Billing Period: TxDOT Fiber & VES Server

Terms: Net 30 days

183S SWA #2 - WA #13

Amount Due This Invoice \$ **355,398.00**

*Note: Amount due on this invoice shall be considered as **partial payment only**; resolution of SWA NTE discrepancy still required.*

Electronic Payments

Bank: Bank of America
Name on Account: Kapsch TrafficCom Transportation NA, Inc.
Account Number: 334037110657
Wire Routing #: 026009593
ACH Routing #: 061000052
Swift Code: BOFAUS3N

Live Checks

Kapsch TrafficCom Transportation NA, Inc.
2855 Premiere Parkway, Suite F
Duluth, Georgia 30097
Attn: Accounts Receivable

Mark Stewart
Printed Name
Toll Collection Systems Project Manager



Signature

01/12/22

Tracie Brown
Printed Name
Central Texas Regional Mobility Authority

Signature

Date

COST SUMMARY

Project: 183S SWA #2 - WA #13
Project No.: GP0000005673-001
Billing Period: TxDOT Fiber & VES Server
Invoice No.: 4860022SI01705

Payment Number	Task/Milestone	Milestone Amount	Previously Invoiced	Amount Due This Invoice
	VES and Storage Upgrade	\$ 200,691.70	\$ -	\$ 200,691.70
	Fiber Connectivity Option #1	\$ 272,142.28	\$ -	\$ 154,706.30
Total Amount Due		\$ 472,833.98	\$ -	\$ 355,398.00

Note: Fiber Connectivity Option #1 - \$154,706.30 should be considered a partial payment. Balance of \$117,435.98 is still unresolved.

Fiber Connectivity Breakdown

Fiber Connectivity Total = \$272,142.28
Amount Paid in Invoice F-1 = \$154,706.30
Amount Remaining = \$117,435.98

Supplemental #4 NTE = \$117,435.98

VES and Storage Upgrade				Approved Bid		\$190,859.60
Item	Item	Item Total	Equipment / Materials fee (20%)	Subcontractor fee (20%)	ODCs/Travel fee (15%)	Total
A	Equipment	\$116,715.00	\$23,343.00			\$140,058.00
B	Labor	\$59,196.20				\$59,196.20
C	Subcontractor	\$0.00		\$0.00		\$0.00
D	ODCs/Travel	\$1,250.00			\$187.50	\$1,437.50
	Total	\$177,161.20	\$23,343.00	\$0.00	\$187.50	\$200,691.70

Fiber Connectivity Option (1)				Executed Bid		\$346,322.83
Item	Item	Item Total	Equipment / Materials fee (20%)	Subcontractor fee (20%)	ODCs/Travel fee (15%)	Total
A	Equipment	\$212,466.35	\$42,493.27			\$254,959.63
B	Labor	\$15,119.32				\$15,119.32
C	Subcontractor	\$0.00		\$0.00		\$0.00
D	ODCs/Travel	\$1,794.20			\$269.13	\$2,063.33
	Total	\$229,379.87	\$42,493.27	\$0.00	\$269.13	\$272,142.28

1835 SWA #2 - VES/NAS

Name	Description	Item #	Amount Excl Taxes	Markup	Total	Purchase Order No.	Vendor Invoice No.	Notes
SHI International Corp.	4U-60 BAY JBOD, 6TB 512E, 360TB SAS DRIVES INSTALL	A-1	\$35,590.00	\$ 7,118.00	\$42,708.00	486018PO10037	B07280004	Quantity should have been 2 on bid, not 1
SHI International Corp.	1.0M EXTERNAL CABLE LSI00339 EXTERNAL MINI SAS HD	A-2	\$464.00	\$ 92.80	\$556.80	486018PO10037	B07280004	Quantity should have been 4 on bid, not 2
SHI International Corp.	INTEL ETHERNET CONVERGED NW ADAPTER X540-T2	N/A	\$970.00	\$ 194.00	\$1,164.00	486018PO10037	B07280004	Not captured in bid
SHI International Corp.	MegaRAID SAS 9380-8e Storage Controller - 8 Channel LSI00438	A-3	\$1,710.00	\$ 342.00	\$2,052.00	486018PO10037	B07280004	Quantity should have been 2 on bid, not 1
SHI International Corp.	PowerEdge R730	A-4	\$32,193.00	\$ 6,438.60	\$38,631.60	486018PO10032	B07297128	Split shipment
SHI International Corp.	Dell Networking N4032, 24x 10GBASE-T Ports	A-5	\$1.00	\$ 0.20	\$1.20	486018PO10032	B07297128	
SHI International Corp.	Dell Networking N4032, 24x 10GBASE-T Ports	A-6	\$9,005.00	\$ 1,801.00	\$10,806.00	486018PO10032	B07297128	
SHI International Corp.	EMC - part# PS-BAS-UXIMBP	A-7	\$0.00	\$ -	\$0.00			
SHI International Corp.	Unity syspack 6x1.8TB 10k sas 25x2.5	A-8	\$5,019.00	\$ 1,003.80	\$6,022.80	486018PO10823	B07690896	PART#: D3SP-S6X1800-10K
SHI International Corp.	Unity 300 2U DPE 25x2.5 Drive Fld Rck	A-9	\$11,467.00	\$ 2,293.40	\$13,760.40	486018PO10823	B07690896	PART#: D32D32AF25; 400 INSTEAD OF 300
SHI International Corp.	Unity 1.8TB 10k SAS 25x2.5 Drive	A-10	\$12,555.00	\$ 2,511.00	\$15,066.00	486018PO10823	B07690896	part#: D3FC-2S10-1800; quantity should have been 15 on bid, not 1
SHI International Corp.	Unity 400GB FAST CACHE 25x2.5 Drive	N/A	\$3,348.00	\$ 669.60	\$4,017.60	486018PO10823	B07690896	Not captured in bid
SHI International Corp.	Unity 2x4 Port 10GB ISCSI/ETH OPT IO	N/A	\$1,275.00	\$ 255.00	\$1,530.00	486018PO10823	B07690896	Not captured in bid
SHI International Corp.	Hardware Installation	A-11	\$0.00	\$ -	\$0.00			
SHI International Corp.	Premium Hardware Support	A-12	\$3,118.00	\$ 623.60	\$3,741.60	486018PO10823	B07690896	PART #: M-PS-HWE-004
SHI International Corp.	SHI Shipping - Inv B07280004	D-1	\$450.00	\$ 67.50	\$517.50	486018PO10037	B07280004	Shipment 1 of 2 for VES
SHI International Corp.	SHI Shipping - Inv B07297128	D-1	\$300.00	\$ 45.00	\$345.00	486018PO10032	B07297128	Shipment 2 of 2 for VES
SHI International Corp.	SHI Shipping - Inv B07690896	D1	\$500.00	\$ 75.00	\$575.00	486018PO10823	B07690896	Shipping 1 or 2 for NAS
			\$117,965.00	\$ 23,530.50	\$141,495.50			

Item	Item	Item Total	Equipment / Materials fee (20%)	Subcontract or fee (20%)	ODCs/Travel fee (15%)	Total
A	Equipment	\$116,715.00	\$23,343.00			\$140,058.00
B	Labor	\$59,196.20				\$59,196.20
C	Subcontractor	\$0.00		\$0.00		\$0.00
D	ODCs/Travel	\$1,250.00			\$187.50	\$1,437.50
	Total	\$177,161.20	\$23,343.00	\$0.00	\$187.50	\$200,691.70

183S SWA #2 - Fiber

Name	Phase	Item #	Total Amount	TXDOT 144SM w/o Taxes	20% markup	Total	Purchase Order No.	Vendor Invoice No.	Notes
S&S CABLE COMMUNICATIONS, INC	PHI	A-1+	74,119.18	36,555.58	\$ 7,311.12	\$43,866.70	486020PO01608	KAP0109	Regular fiber & 144ct fiber were not broken out for this invoice - 49.32% of total is for 144ct
S&S CABLE COMMUNICATIONS, INC	PHI	A-1+	135,359.50	66,759.31	\$ 13,351.86	\$80,111.17	486020PO02291	KAP0111	Regular fiber & 144ct fiber were not broken out for this invoice - 49.32% of total is for 144ct
S&S CABLE COMMUNICATIONS, INC			54,473.56	0.00	\$ -	\$0.00	486021PO00884	KAP0113	Regular fiber
S&S CABLE COMMUNICATIONS, INC	PH II A&B	A-1	48,458.26	48,458.26	\$ 9,691.65	\$58,149.91	486021PO01396	KAP0115	TXDOT 144ct fiber
S&S CABLE COMMUNICATIONS, INC	PH II A&B	A-1	27,382.32	27,382.32	\$ 5,476.46	\$32,858.78	486021PO01396	KAP0116	TXDOT 144ct fiber 183S Phase II: less than bid
S&S CABLE COMMUNICATIONS, INC			76,450.00	0.00	\$ -	\$0.00	486021PO00884	KAP0117	Regular fiber
S&S CABLE COMMUNICATIONS, INC			76,450.00	0.00	\$ -	\$0.00	486021PO00884	KAP0118	Regular fiber
S&S CABLE COMMUNICATIONS, INC	PH III	A-1	33,310.89	33,310.89	\$ 6,662.18	\$39,973.07	486022PO00579	KAP0124	TXDOT 144ct fiber 183S Phase III (PHIIB)
			\$526,003.71	\$212,466.35	\$42,493.27	\$254,959.63			

Item	Item	Item Total	Equipment / Materials fee (20%)	Subcontractor fee (20%)	ODCs/Travel fee (15%)	Total
A	Equipment	\$212,466.35	\$42,493.27			\$254,959.63
B	Labor	\$15,119.32				\$15,119.32
C	Subcontractor	\$0.00		\$0.00		\$0.00
D	ODCs/Travel	\$1,794.20			\$269.13	\$2,063.33
	Total	\$229,379.87	\$42,493.27	\$0.00	\$269.13	\$272,142.28



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

Checklist

Project: 183 South (Bergstrom Expressway) / 290 EAST

Vendor: Kapsch TrafficCom

Contract Description: Supplement No. 2 to Work Authorization No. 13 - This Supplemental Work Authorization is to replace the existing Violation Enforcement System Server that is out of warranty and reaching the end of useable service and support the Mobility Authority's request for fiber connectivity between the 183S project and the existing Manor Expressway project. Please note, this incorporates Kapsch name change.

Existing Expiration Date:

Proposed Expiration Date:

Amount: Not to exceed \$355,398.00

Proposed Amount:

Funding Source: PROJECT FUNDS?

Contract Form: STANDARD MODIFIED

Form 1295: YES NO

Target Review Date: September 26, 2017

Consultant:

Director:

Deputy Executive Director:

Controller:

Legal Assistant:

General Counsel:

Board Authorization Required:

YES NO

Board Authorization/Res. No.:

17-050

Date: 9/6/17

Executive Director:

Mike Holmgren

Date: 10-5-17

Who's note is this?

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

RESOLUTION NO. 17-050

**APPROVE SUPPLEMENT NO. 2 TO WORK AUTHORIZATION NO. 13 WITH
KAPSCH TRAFFIC COM FOR TOLL SYSTEM INTEGRATION SERVICES
ON THE BERGSTROM EXPRESSWAY (183 SOUTH) PROJECT**

WHEREAS, by Resolution No. 15-044, dated August 29, 2015, the Board of Directors approved Work Authorization No. 13 with Kapsch TrafficCom for Toll System Integration Services for the Bergstrom Expressway (183 South) Project; and

WHEREAS, the Executive Director has determined that additional system integration services are required to (1) replace the existing Violation Enforcement System Server that is out of warranty and reaching the end of usable service, and (2) support fiber connectivity between the Bergstrom Expressway (183 South) Project and the Manor Expressway (290E) Project; and

WHEREAS, the Executive Director and Kapsch TrafficCom have negotiated draft Supplement No. 2 to Work Authorization No. 13 in an amount not to exceed \$355,398.00 to provide these services; and

WHEREAS, the Executive Director recommends that the Board authorize him to finalize and execute Supplement No. 2 to Work Authorization No. 13 in the form or substantially the same form as attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the Board of Directors authorizes and directs the Executive Director to finalize and execute Supplement No. 2 to Work Authorization No. 13 in an amount not to exceed \$355,398.00 and in the form or substantially the same form as attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 6th day of September 2017.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Ray A. Wilkerson
Chairman, Board of Directors

Exhibit A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

**SUPPLEMENTAL WORK AUTHORIZATION NO. 2
TO WORK AUTHORIZATION NO. 13**

**TOLL COLLECTION AND INTELLIGENT TRANSPORTATION
SYSTEMS IMPLEMENTATION
US 183 South Project**

THIS SUPPLEMENTAL WORK AUTHORIZATION is made pursuant to the terms and conditions of Article 1 of the **GENERAL PROVISIONS**, Attachment A to the original Contract for Toll System Implementation, dated April 27, 2005 (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the "Mobility Authority"), and Kapsch TrafficCom Transportation NA, Inc. (the Contractor).

The following terms and conditions of Work Authorization No. 13 are hereby amended as follows:

Supplemental Work Authorization No. 2 is not to exceed \$355,398.00.

To support the CTRMA request for fiber connectivity between 183S and the existing Manor Expressway projects, Kapsch proposes changes to the existing fiber network to include installation, terminating, and testing 144 single-mode fiber trunk (and trace wire) at the request of CTRMA. The installation will be from 183/290E HUB to SH 71/Riverside HUB. There are no splices or mid-span connections to TxDOT equipment.

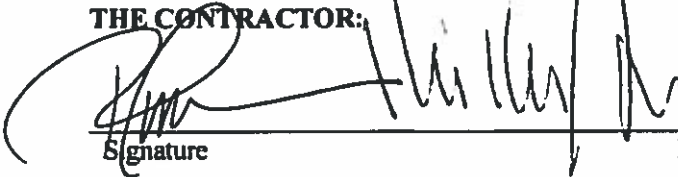
Additionally, proposed to the CTRMA under this supplemental is the delivery of services and equipment necessary to replace the existing Violation Enforcement System (VES) Server.

Additional scope and fees for the added services are shown in attachment A.

This Supplemental Work Authorization shall become effective on the date of final execution of the parties hereto. All other terms and conditions of Work Authorization No. 13 no hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this Work Authorization No. 13 is executed in duplicate counterparts and hereby accepted and acknowledged below.

THE CONTRACTOR:

 _____
Signature Date

September 18, 2017

Robert Corion, Senior Vice President Michael Hofer, CFO
Typed/Printed Name and Title

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

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

 _____
Signature Date

10-5-17

Mike Herligenstein, Executive Director
Typed/Printed Name and Title

ATTACHMENT A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY **TOLL COLLECTION AND INTELLIGENT TRANSPORTATION SYSTEMS** **IMPLEMENTATION** **US 183 South Project**

SCOPE OF WORK AND FEE for SYSTEMS INTEGRATOR

A1.0 General

A1.01. Background

To support the CTRMA request for fiber connectivity between 183S and the existing Manor Expressway projects, Kapsch proposes the following Change Order to Work Authorization No. 13 of the Agreement. This proposed Change Order includes installation, terminating, and testing 144 single-mode fiber trunk (and trace wire) at the request of CTRMA. The installation will be from 183/290E HUB to SH 71/Riverside HUB. There are no splices or mid-span connections to TxDOT equipment.

Additionally, proposed to the CTRMA under Work Authorization No. 13 of the Agreement is the delivery of services and equipment necessary to replace the existing Violation Enforcement System (VES) Server. The existing VES, installed more than ten (10) years ago, is no longer covered by warranty services, and is reaching the end of usable service. The XIO SAN currently utilized for storage is also past its usable life.

Cost Exhibit

**Central Texas Regional Mobility Authority -
Task Request**

Item	Material's / Equipment	Units	Qty	UNIT PRICE	TOTAL
A-1	4U-60 BAY JBOD, 6TB 512E	1	1	\$18,593.0	\$18,593.0
A-2	External Mini-SAS HD to Mini-SAS	1	2	\$49.0	\$98.00
A-3	LSI Megaraid SAS 9280-24ME 24INT 4PT Ext-LSI00211	1	1	\$1,312.0	\$1,312.00
A-4	PowerEdge R730xd Server - Intel Xeon E5-2640 10C - 256 GB RAM - 1.8TB x 24 - 2	1	1	\$32,193.0	\$32,193.0
A-5	Dell Networking N4032, 24x 10GBASE-T Ports, 1x Modular Bay, 2x AC PSU, IO	1	1	\$0.0	\$0.00
A-6	Dell Networking N4032, 24x 10GBASE-T Ports, 1x Modular Bay, 2x AC PSU, IO	1	1	\$9,005.0	\$9,005.00
A-7	EMC - Part#: PS-BAS-UXIMBP	1	1	\$2,985.0	\$2,985.00
A-8	UNITY SYSPACK 6X1.8TB 10K SAS 25X2.5	1	1	\$6,005.0	\$6,005.00
A-9	UNITY 300 2U DPE 25X2.5 DRIVE FLD RCK	1	1	\$7,103.0	\$7,103.00
A-10	UNITY 1.8TB 10K SAS 25X2.5 DRIVE	1	1	\$19,019.0	\$19,019.0
A-11	HARDWARE INSTALLATION	1	1	\$1,554.0	\$1,554.00
A-12	PREMIUM HARDWARE SUPPORT	1	1	\$11,565.0	\$11,565.0
Total Equipment					\$109,432.00

Item	LABOR	No. Of Hours	Hourly Rate	Total
B-1	Software Engineer		\$154.80	\$0.00
B-2	System Engineer	100.00	\$169.48	\$16,947.51
B-3	Technician		\$118.77	\$0.00
B-4	Database Administrator		\$220.18	\$0.00
B-5	Documentation Clerk	20.00	\$158.80	\$3,175.99
B-6	Testing Engineer	40.00	\$168.14	\$6,725.63
B-7	Network Engineer	96.00	\$153.46	\$14,732.33
B-8	Project Manager & Technical Delivery Manager	80.00	\$220.18	\$17,614.74
Total Labor				\$59,196.20

Item	Subcontractor	Units	Qty	UNIT PRICE	Total
C-1					\$0.00
C-2					\$0.00
C-3					\$0.00
C-4					\$0.00
C-5					\$0.00
Subcontractor					\$0.00

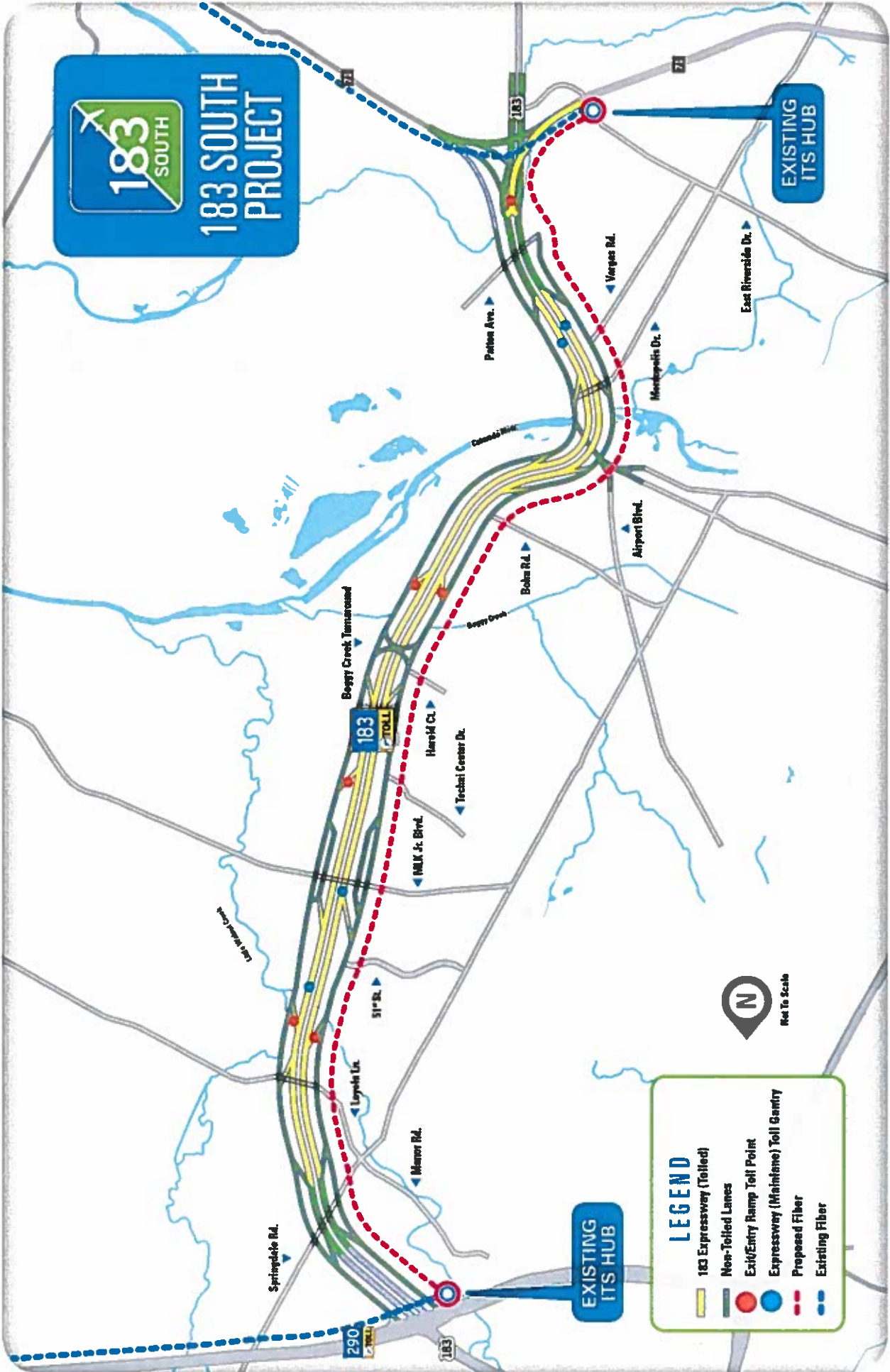
Item	ODC's / Travel	Units	Qty	UNIT PRICE	Total
D-1	Shipping	\$1.00	1	\$300.0	\$300.00
D-2					\$0.00

trunk (and trace wire) at the request of CTRMA. The installation will be from 183/290E HUB to SH 71/Riverside HUB. There are no splices or mid-span connections to TxDOT equipment.

Cost Exhibit

Item	Material / Equipment	Units	Qty	UNIT PRICE	TOTAL	
A-1	Add 164 BM Fiber Trunk	1	1	\$274,283.5	\$274,283.50	
Total Equipment					\$274,283.50	
Item	LABOR		No. Of Hours	Hourly Rate	Total	
B-1	Software Engineer			\$154.00	\$0.00	
B-2	System Engineer		36.00	\$168.45	\$5,064.25	
B-3	Technician			\$118.77	\$0.00	
B-4	Database Administrator			\$220.18	\$0.00	
B-5	Documentation Clerk		28.00	\$190.00	\$5,315.99	
B-6	Testing Engineer			\$188.94	\$0.00	
B-7	Network Engineer		16.00	\$153.46	\$2,455.36	
B-8	Project Manager		28.00	\$220.18	\$6,165.04	
Total Labor					\$15,119.32	
Item	Subcontractor	Units	Qty	UNIT PRICE	Total	
C-1					\$0.00	
Subcontractor					\$0.00	
Item	ODC's / Travel	Units	Qty	UNIT PRICE	Total	
D-1	Mileage	Mile	544	\$0.6	\$326.40	
D-2	Travel	Day	10	\$144.0	\$1,440.00	
ODC's / Travel					\$1,766.40	
Item	Item	Item Total	Equipment / Materials Fee (20%)	Subcontractor Fee (20%)	ODC's / Travel Fee (15%)	Total
A	Equipment	\$274,283.50	\$54,856.70			\$329,140.20
B	Labor	\$15,119.32				\$15,119.32
C	Subcontractor	\$0.00		\$0.00		\$0.00
D	ODC's / Travel	\$1,766.40			264.96	\$2,031.36
TOTAL						\$346,322.85

183 SOUTH PROJECT



LEGEND

- 183 Expressway (Tolled)
- Non-Tolled Lanes
- Exit/Entry Ramp Toll Point
- Expressway (Minimalist) Toll Gantry
- Proposed Fiber
- Existing Fiber



Not To Scale

EXISTING ITS HUB

EXISTING ITS HUB



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

Please remit payment to:
 SHI International Corp
 P.O. Box 952121
 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07280004

Invoice date 10/26/2017
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
 All returns require an RMA# supplied by your SHI Sales team.

Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch TrafficCom Transportation NA, Inc
 211 East 7th Street
 Suite 800
 Austin, TX 78701
 USA
 486018PO10037/Hemanth Bhagawat

Ship Date	Salesperson	Purchase Order	Ship Via	FOB	Terms
10/26/2017	Natalie Stomel/Perez1	486018PO10037	UPS GROUND	FOB ORIGIN	NET 30

Item No. Mfg Part No.	Description	Qty Ordered	Qty Shipped	Unit Price	Extended Price
34453591 NPN-JBOD-ASA Hardware ASA Computers, Inc.	4U-60 BAY JBOD, 6TB 512E Hardware Hardware	2	2	17,795.00	35,590.00
32124900 L5-25198-00 Hardware Avago	LSI00339 MINI SAS HD TO MINI SAS HD 1M Hardware Hardware	4	4	116.00	464.00
25047038 X540T2 Hardware Intel	Intel Ethernet Converged Network Adapter - PCI Express 2.0 Hardware Hardware	2	2	485.00	970.00
30830522 LSI00438 Hardware Super Micro Computer	MegaRAID SAS 9380-8e - Storage controller (RAID) - 8 Channel Hardware Hardware	2	2	855.00	1,710.00

Quote: 14283803

Sales Balance	38,734.00
Freight	450.00
Recycling Fee	0.00
Sales Tax	██████████
Total	██████████
Currency	USD



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

Please remit payment to:
 SHI International Corp
 P.O. Box 952121
 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07297128

Invoice date 10/30/2017
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
 All returns require an RMA# supplied by your SHI Sales team.

Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch - Lift Gate Required!
 211 East 7th Steet
 Suite 800
 Austin, TX 78701
 USA
 486018PO10032/Rodney Morse

Ship Date	Salesperson	Purchase Order	Ship Via	FOB	Terms
10/30/2017	Natalie Stomel/Perez1	486018PO10032	FEDEX GROUND	FOB ORIGIN	NET 30

Item No. Mfg Part No.	Description	Qty Ordered	Qty Shipped	Unit Price	Extended Price
34442017 3000018146362.1 Hardware Dell Serial #: 5V970M2	PowerEdge R730xd Server Hardware Hardware	2	1	32,193.00	32,193.00
34442016 3000018146334.1 Hardware Dell Serial #: 21G9XC2	Dell Networking N4000 Series Switches Hardware Hardware	1	1	1.00	1.00
34442016 3000018146334.1 Hardware Dell Serial #: 1MX8XC2	Dell Networking N4000 Series Switches Hardware Hardware	1	1	9,005.00	9,005.00

Quote: 14229782

Sales Balance	41,199.00
Freight	300.00
Recycling Fee	0.00
Sales Tax	██████████
Total	██████████
Currency	USD



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

Please remit payment to:
 SHI International Corp
 P.O. Box 952121
 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07314659

Invoice date 11/2/2017
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
 All returns require an RMA# supplied by your SHI Sales team.

Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch - Lift Gate Required!
 211 East 7th Steet
 Suite 800
 Austin, TX 78701
 USA
 486018PO10032/Rodney Morse

Ship Date	Salesperson	Purchase Order	Ship Via	FOB	Terms
11/2/2017	Natalie Stomel/Perez1	486018PO10032	FEDEX GROUND	FOB ORIGIN	NET 30

Item No. Mfg Part No.	Description	Qty Ordered	Qty Shipped	Unit Price	Extended Price
34442017 3000018146362.1 Hardware Dell	PowerEdge R730xd Server Hardware Hardware	2	1	██████████	██████████

Quote: 14229782

Sales Balance	██████████
Freight	0.00
Recycling Fee	0.00
Sales Tax	██████████
Total	██████████
Currency	USD



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

Please remit payment to:
 SHI International Corp
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 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07690896

Invoice date 1/26/2018
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
 All returns require an RMA# supplied by your SHI Sales team.

Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch TrafficCom Transportation NA, Inc
 211 East 7th ST
 Suite 800
 Austin, TX 78701
 USA
 486018PO10823/Hemanth Bhagawat

Ship Date	Salesperson	Purchase Order	Ship Via	FOB	Terms
1/26/2018	Natalie Stomel/Perez1	486018PO10823	FEDEX GROUND	FOB ORIGIN	NET 30

Item No. Mfg Part No.	Description	Qty Ordered	Qty Shipped	Unit Price	Extended Price
32293849 D32D32AF25 Hardware Dell	EMC Disk Processor Enclosure - Storage enclosure - 25 bays Hardware Hardware	1	1	11,467.00	11,467.00
32320032 D3SP-S6X1800-10K Hardware Dell	EMC Unity System Pack for 25x2.5in enclosure Hard drive Hardware Hardware	1	1	5,019.00	5,019.00
32294801 D3-2S10-1800 Hardware EMC	EMC for 25x2.5in enclosure Hard drive - 1.8 TB - SAS 12Gb s Hardware Hardware	15	15	837.00	12,555.00
32281659 D31DEMCK25KIT Hardware EMC	UNITY 25 DRIVE DPE FLD INSTALL KIT Hardware Hardware	1	1	0.00	0.00
32294166 D3FC-2S12FX-400 Hardware EMC	EMC 25x2.5in enclosure - Solid state drive - 400 GB - SAS Hardware Hardware	3	3	1,116.00	3,348.00
32282028 D3SFP10I Hardware EMC	UNITY 4X10GB SFP ISCSI ETH CONNECTION Hardware Hardware	1	1	0.00	0.00
32466163 D3SL10IO4PT Hardware EMC	UNITY 2X4 PORT 10GB ISCSI-ETH OPT IO D3SL10IO4P Hardware Hardware	1	1	1,275.00	1,275.00
34380237 M-PS-HWE-004 Hardware Wrnty/Srvce EMC	PROSUPPORT W/NBD-HARDWARE SUPPORT Hardware Wrnty/Srvce Service Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	3,118.00	3,118.00



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

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 SHI International Corp
 P.O. Box 952121
 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07690896

Invoice date 1/26/2018
 Customer number 1080250

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Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch TrafficCom Transportation NA, Inc
 211 East 7th ST
 Suite 800
 Austin, TX 78701
 USA
 486018PO10823/Hemanth Bhagawat

33127150 458-001-849 ESD EMC	EMC Unity Base Software - License - 1 storage device Multiple platforms English ESD Software	1	1	0.00	0.00
34391499 M-PS-SWE-004 Optl upd via downld EMC	PROSUPPORT W NBD - SOFTWARE SUPPORT Multiple platforms English Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
32281676 458-000-066 ESD EMC	VPLEX MIGRATION PRODUCT Multiple platforms English ESD Software	1	1	0.00	0.00
32110942 456-107-848 ESD EMC	EMC VPLEX Multiple platforms English ESD Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2019	1	1	0.00	0.00
34391504 M-PSM-SW-VP-015 Optl upd via downld EMC	PROSUPPORT W/MISSION CRITICAL-SOFTWARE Multiple platforms English Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
32446960 458-001-375 Hardware Wrnty/Srvce EMC	RP BASIC FOR UNITY 400/400F =IC Multiple platforms English Hardware Wrnty/Srvce Service Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
34270946 M-PSM-SWE-004 Optl upd via downld EMC	PROSUPPORT W MISSION CRITICAL - SOFTWARE Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
32281678 458-001-440 ESD EMC	RECOVERPOINT FOR VM STARTER PACKS Multiple platforms English ESD Software	1	1	0.00	0.00
32281680 456-107-803 ESD EMC	RP4VM ESSENTIAL SW FOR UNITY IB Multiple platforms English ESD Software	1	1	0.00	0.00



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
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 Dallas, TX 75395-2121
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 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07690896

Invoice date 1/26/2018
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
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Bill To

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 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch TrafficCom Transportation NA, Inc
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 Suite 800
 Austin, TX 78701
 USA
 486018PO10823/Hemanth Bhagawat

34270943 M-PSM-SW-D3-001 Optl upd via downld EMC	PROSUPPORT W MISSION CRITICAL - SOFTWARE Multiple platforms English Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
32563085 458-001-426 ESD EMC	EMC AppSync - Basic Lic - 1 storage dev - for EMC Unity 400 Multiple platforms English ESD Software	1	1	0.00	0.00
32841232 456-109-803 Optl upd via downld EMC	APPSYNC BASIC FOR UNITY 400 IC Multiple platforms English Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
34391499 M-PS-SWE-004 Optl upd via downld EMC	PROSUPPORT W NBD - SOFTWARE SUPPORT Multiple platforms English Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
34687582 458-002-287 Hardware EMC	STORAGE M R FOR UNITY IC Multiple platforms English Hardware Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
34687584 456-113-338 Hardware EMC	STORAGE M R FOR UNITY LIC IC Multiple platforms English Hardware Hardware Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00
34270941 M-PSM-SWE-005 Optl upd via downld EMC	PROSUPPORT W MISSION CRITICAL-SOFTWARE Optl upd via downld Software Maintenance From date: 1/25/2018 Maintenance To date: 1/24/2021	1	1	0.00	0.00

Quote: 14699910



Federal tax ID: 22-3009648
 290 Davidson Ave.
 Somerset, NJ 08873
 Phone: 888-235-3871
 Fax: 732-805-9669

Please remit payment to:
 SHI International Corp
 P.O. Box 952121
 Dallas, TX 75395-2121
 Wire information: Wells Fargo Bank
 Wire Rt# 121000248
 ACH Rt# 021200025
 Account#2000037641964
 SWIFT Code: WFBIUS6S
 For W-9 Form, www.shi.com/W9

Invoice No. B07690896

Invoice date 1/26/2018
 Customer number 1080250

Finance charge of 1.5% per month will be charged on past due accounts - 18%/yr.
 All returns require an RMA# supplied by your SHI Sales team.

Bill To

Kapsch TrafficCom USA, Inc.
 2855 Premiere Parkway
 Suite F, Attention: Accts Payable
 Duluth, GA 30097
 USA

Ship To

Kapsch TrafficCom Transportation NA, Inc
 211 East 7th ST
 Suite 800
 Austin, TX 78701
 USA
 486018PO10823/Hemanth Bhagawat

Sales Balance	36,782.00
Freight	500.00
Recycling Fee	0.00
Sales Tax	██████████
Total	██████████
Currency	USD



S&S Cable Communications, Inc.
1900 E. Howard Lane
Ste. B3
Pflugerville, Texas 78660

Office: 512-272-5033
Fax: 512-272-5133

183 South Toll Phase 1 Bid

✓ Fiber Optic Cable (SM) 48 fiber	20,000
✓ Lateral Fiber (SM) 12 fiber	7,000
✓ Fiber Optic Cable (SM) 144 fiber	20,000
✓ Mule-Tape	40,000
✓ Fiber Optic Coyote Pups	9
✓ Fiber Optic Coyote Tray	10
✓ Frame-4	2
✓ Frame-2	8
✓ Panduit Trays	15
✓ Pig Tails ST	15
✓ Bulkheads ST	30
✓ Corning WM Panel (12 Pos)	2
✓ Corning MM Bulkheads	24

Placing, Pulling, Splicing, and all Testing are included into Bid Cost

Material Total: \$74,119.18

Labor Total: \$135,359.50

Grand Total: \$209,478.68

Thanks,

Troy Sylvester

General Manager

**S&S Cable Communications,
Inc.**

PO Box 1303
ELGIN, TX 78621 US
512-272-5033
p.schneider@sscabletx.com

BILL TO

KAPSCH TRAFFICOM
211 east 7th Street
Suite 800
Texas
Austin, TX 78701

INVOICE KAP-0111

DATE 09/03/2019 TERMS Net 45

DUE DATE 10/18/2019

PROJECT NAME

183 SOUTH TOLL PH 1

ACTIVITY	QTY	RATE	AMOUNT
5.1.8 PLACING, PULLING, SPLICING, ALL TESTING (LABOR)	1	135,359.50	135,359.50

TOTAL DUE

\$135,359.50



S&S Cable Communications, Inc.
13350 Old Kimbro Rd
Bldg. B
Manor Tx 78653

Office: 512-272-5033
Fax: 512-272-5133

183 South Toll Phase II A&B Bid 144ct

✓ Fiber Optic Cable (SM) 144 fiber	24,608
✓ Fiber Optic Coyote Enclosure	2
✓ Fiber Optic Coyote Tray	24

Placing, Pulling, Splicing, and all Testing are included into Bid Cost

Material Total: \$48,458.26

Labor Total: \$54,764.63

Grand Total: \$103,222.89

Thanks,

S&S Cable Communications

General Manager

Troy Sylvester



S&S Cable Communications, Inc.
13350 Old Kimbro Rd
Bldg. B
Manor Tx 78653

Office: 512-272-5033
Fax: 512-272-5133

183 South Toll Phase II-B Final Bid 144ct

✓ Fiber Optic Cable (SM) 144 fiber	5,454
✓ Fiber Optic Coyote Enclosure	1
✓ Fiber Optic Coyote Tray	12

Placing, Pulling, Splicing, and all Testing are included into Bid Cost

Material Total: \$11,184.39

Labor Total: \$22,126.50

Grand Total: \$33,310.89

Thanks,

S&S Cable Communications

General Manager

Troy Sylvester

