CO-OPERATIVE PURCHASE AGREEMENT NO. 5690

Traffic Signal Cabinets for Public Works

THIS **Traffic Signal Cabinets for Public Works Co-operative Purchase Agreement** ("Agreement") is entered into by and between the City of Corpus Christi, a Texas home-rule municipal corporation ("City") and Mobo Trex, Inc ("Contractor"), effective upon execution by the City Manager or the City Manager's designee ("City Manager").

1. **Co-operative Agreement.** Contractor has agreed to provide Traffic Signal Cabinets for Public Works in accordance with its agreement with Buyboard Cooperative #703-23 (the "Co-operative Agreement"), which is incorporated by reference herein as if set out here in its entirety. In the event of a conflict between this Agreement and the Co-operative Agreement, this Agreement shall govern to the extent allowed by the Co-operative Agreement.

2. **Scope.** Contractor will provide Traffic Signal Cabinets for Public Works in accordance with the attached Statement of Work, as shown in Attachment A, the content of which is incorporated by reference into this Agreement as if fully set out here in its entirety.

3. **Term.** The Term of this Agreement is three years beginning on the date provided in the Notice to Proceed from the City's Procurement Division. The parties may mutually extend the term of this Agreement for up to zero additional zero-year periods ("Option Period(s)"), provided, the parties do so in writing prior to the expiration of the original term or the then-current Option Period. The continuation of this Agreement after the close of any fiscal year of the City, which fiscal year ends on September 30th annually, is subject to appropriations and budget approval specifically covering this Agreement as an expenditure in said budget, and it is within the sole discretion of the City's City Council to determine whether or not to fund this Agreement. The City does not represent that this budget item will be adopted, as said determination is within the City Council's sole discretion when adopting each budget.

4. **Compensation and Payment.** This Agreement is for an amount not to exceed $506,250.00, subject to approved amendments and changes. All pricing must be in accordance with the attached Quote, as shown in Attachment B, the content of which is incorporated by reference into this Agreement as if fully set out here in its entirety.

   Invoices must be mailed to the following address:

City of Corpus Christi
Attn: Accounts Payable
P.O. Box 9277
Corpus Christi, Texas 78469-9277

5. Notice. Any notice required under this Agreement must be given by fax, hand delivery, or certified mail, postage prepaid, and is deemed received on the day faxed or hand-delivered or on the third day after postmark if sent by certified mail. Notice must be sent as follows:

IF TO CITY:
City of Corpus Christi
Attn: Velma Peña
Title: Contracts/Funds Administrator
Address: 2525 Hygeia Street, Corpus Christi, Texas 78415
Phone: 361-826-1933
Fax: N/A

IF TO CONTRACTOR:
Mobo Trex, Inc
Attn: Vincent Holdridge
Title: Inside Sales
Address: 301 W Howard Lane, Austin, Texas 78753
Phone: 512-521-3337
Fax: 563-323-8256

6. Entire Agreement. This Agreement, along with the Co-operative Agreement, constitutes the entire agreement between the parties concerning the subject matter of this Agreement and supersedes all prior negotiations, arrangements, agreements and understandings, either oral or written, between the parties.

[Signature Page Follows]

CONTRACTOR

Signature: DocuSigned by: Vincent Holdridge
32C2431411C4409...

Printed Name: Vincent Holdridge

Title: Inside Sales Rep

Date: 3/22/2024

CITY OF CORPUS CHRISTI

_____

Josh Chronley
Assistant Director of Finance – Procurement

Date: _____

APPROVED AS TO LEGAL FORM:

_____

Assistant City Attorney Date

Attached and Incorporated by Reference:
Attachment A: Scope of Work
Attachment B: Bid/Pricing Schedule

Incorporated by Reference Only:
Co-operative Agreement: Buyboard Cooperative #703-23

Attachment A - Scope of Work

1.1 General Requirements

A. The Contractor shall provide traffic signal cabinets as per specification outlined in this Scope of work.

B. The intent of this specification is to describe the minimum acceptable design and operational requirements for a TS-2 Type 1 Cabinet assembly and shall conform to NEMA Traffic Controller Assemblies Standards Publication TS-2-2003v 02.06 or latest edition. A copy of sample drawing is attached in this Scope of work (Exhibits 1-A).

C. The Cabinet shall include the components listed below to form a completely functional 8 phase traffic control cabinet (see specifications for individual components requirements

1. One Type16LEip Smart- Monitor Malfunction Management Unit (MMU-2) with Ethernet port, Make: EDI or equivalent
2. One Power supply, Make: EDI or equivalent
3. Four Bus Interface Units (BIUs), Make: EDI or equivalent
4. Sixteen Load Switches, Make: EDI or equivalent
5. Eight Flash Transfer Relays, Make: EDI or equivalent
6. One Solid State Flasher, Make: EDI or equivalent

D. There shall be no changes accepted in the materials/parts after the contract is awarded.

E. The Contractor shall follow the latest editions of National Electrical Manufacturers Association (NEMA) Traffic Control Systems Standards Publications, Texas Manual on Uniform Traffic Control Devices (TMUTCD, Manual on Uniform Traffic Control Devices (TMUTCD), American Association of State and Highway Transportation Officials (AASHTO} Standard specifications for Structural Support for Highway Signs, Luminaries and Traffic Signals.

1.2 Cabinet Standards

A. Exterior

16 load bay cabinets NEMA Size 6 shall be supplied, and cabinets shall meet the following criteria:

1. Materials shall be 5052-H32 0.125-inch thick aluminum.
2. The aluminum shall have mill finish per NEMA TS-2-2003v02.06 7.7.3 or latest edition.
3. Door hinge shall be of the continuous type with a stainless-steel hinge pin. Rivets shall not be used to attach the hinge.

4. All external fasteners shall be stainless steel.
5. The door handle shall be stainless steel.
6. Seams around fan or fan mounting plate shall be sealed with clear RTV silicone.
7. There shall be no holes in the top of cabinet.
8. The doorstop rod shall be steel rod. The brackets attaching the stop rod to the door and cabinet shall be aluminum and welded in place.
9. This door switch shall be wired to place an input to Alarm 1(BIU # 2 Pin 23b) when the cabinet door is opened.

B. Shelf Height

1. The cabinet shall have two shelves installed.
2. The backboard shall be mounted under the bottom shelf, NOT BEHIND IT.

C. Ventilating Fan Assembly

1. Two ventilating fans shall be provided and controlled by one thermostat.
2. Each fan motor shall be equipped with sealed ball bearings.
3. Fans shall be mounted inside the cabinet on the left and right above the door opening behind the front end of the cabinet.
4. Fan must have fan guard.

D. Air Filter Assembly

1. Air filter shall be one-piece re-useable aluminum filter and shall be held in place by metal thumbscrews at each corner.
2. Air filter shall be 16" x 12" x 1".

E. Cabinet Light Assembly

1. An 18" to 24" cool white LED light strip with protective lens.
2. The fixture shall be factory made and all components shall be housed in a factory-made strip fixture enclosure.
3. An on/off switch that is turned on when the cabinet door is opened and off when it is closed shall activate the cabinet light.

F. Pull out Drawer Assembly

1. A pull-out drawer shall be installed, centered on the bottom shelf.
2. The drawer shall be made of aluminum and come out on full extension drawer slides.
3. There shall be a compartment for documentation storage.
4. The lid shall be hinged at the rear, to gain access to the storage area.

5. The drawer will be used to store documents as well as support a notebook computer.
6. The drawer slides shall be of the ball bearing type.
7. Dimensions of the drawer shall be 24" wide x 13" deep x 2" tall.

G. Power Distribution Panel Design and Construction

1. The power panel shall consist of a separate module, securely fastened to the right-side wall of the cabinet.
2. The power panel shall be wired to provide the necessary filtered power to the load switches, flashers and power bus assembly.
3. It shall be manufactured from 0.090 inch, 5052-H32 aluminum with a removable plastic front cover.
4. The panel shall be of such design to allow a technician to access the main and auxiliary breakers without removing the front cover.
5. The power panel shall house the following components.
   a. A minimum of one 20-amp main breaker
      I. The breaker shall supply power to the controller, MMU, signals, cabinet power supply and auxiliary panels.
      II. Breakers shall be at minimum a thermal magnetic type, U.L listed for HACR service, with a minimum of 10,000 amp interrupting capacity.
   b. Two 15-amp, auxiliary breakers
      1. The first breaker shall supply power to the fan, light, utility receptacle, flash circuit and two auxiliary standard receptacles (one on each side of the cabinet) just above the top shelf.
      2. The second breaker shall be installed as a spare breaker.
      3. Both circuit breakers line side shall have a jumper between each other and will be fed from an external main circuit breaker.
   c. An EDCO SHA-1250 (or exact approved equal) surge suppressor shall be installed on the 120V AC incoming line. The alarm output from the suppressor shall be connected so that it places an input to Alarm 4 (BIU # 2 Pin 20a) when the unit fails.
   d. A normally open seventy-five (75) amp solid state replay.
   e. A minimum of an eight-position neutral bus bar capable of connecting three # 12 AWG wires per position shall be provided.
   f. A minimum of six position ground bus bar capable of connecting three #12 awg wires per position shall be provided.
   g. Outlet

I. One outlet shall be installed in the cabinet for maintenance use to be mounted and easily available.

II. Two convenience outlets shall be installed, one on each side of the cabinet just above the top shelf to be used for communication equipment.

H. Inside Control Panel Switches

1. The inside door panel shall contain three switches.
   a. Auto/Flash
   b. Stop Time On/Off
   c. Test/Normal
2. Door panel switches shall be hard wired.
3. The AUTO/FLASH switch shall have two positions:
   a. AUTO
   b. Flash
   c. This switch shall permit the intersection to flash and allow the CU to cycle.
   d. When in the FLASH position, this switch shall provide an input to Alarm 3(BIU # 2, Pin 19b) and shall not remove power from the CU, MMU, or BIU's
   e. When this switch is placed in the AUTO position, it shall NOT initiate the CU start up sequence.
4. The STOP TIME switch shall have two positions.
   a. ON
   b. OFF
   c. This switch shall stop time the CU when in the "ON" position.
5. The TEST/NORMAL switch shall have two positions – TEST and Normal

I. Police Panel Switches

1. A locking auxiliary Police door shall be provided within the main door that will allow access to a panel of switches for Police manual control.
2. Police panel shall contain two switches.
   a. AUTO/FLASH switch shall have
      i. Two positions – AUTO and FLASH
      ii. The switch shall operate according to (TS-2-2003 v02.06 section 5.5.3.10 or latest edition).
      iii. When in the flash position, this switch shall provide an input to BIU # 2 Pin 22b.

iv. When the switch is placed in the AUTO position the CU shall enter the Start-Up Flash see (TS2-2003 v02.06 3.9.1.1 or latest edition)

b. Manual/Automatic Switch shall have:

i. Two positions – Manual and Automatic

ii. Applies a Manual Control Enable input to the controller and will allow the Manual Advance Push Button to be active.

iii. Switch shall override any external controls in effect.

c. Signal Manual Advance Push Button shall have:

i. Shall be on a six-foot cord.

ii. The switch shall have a Manual Advance push button switch as specified in (TS-2-2003 v02.06 section 3.5.5.5 item 6 & 7 or latest edition).

J. Cables

1. All cables shall be of sufficient length to access any shelf position.
2. All cables shall be encased in a protective sleeve along their entire length.
3. The cabinet shall be equipped with two extra Port 1(SDLC) cables, properly terminated for use.
4. Shall provide power adapters for TS-2 Type 1 and TS-2 Type 2 Controller Unit.

K. Flash Operation

When the cabinet is in MMU Flash, BIU # 2 Pin 23a shall also be asserted.

L. Wire Termination

1. All connector-wiring harnesses shall terminate all wires on the terminal blocks, whether the wires are utilized or not.
2. This shall pertain to all devices being installed at the factory or in the field.

M. Backboards

1. The terminal and facilities (TF) shall be a sixteen position, NEMA Type 1 configuration four as shown in TS-2-2003v02.06 5.3.1.1 Table 5.2 or latest edition.
2. Load switches shall be arranged as follows:
   a. LS1-LS8 shall be wired and labeled as Vehicle Channels.
   b. LS9-LS12 shall be wired and labeled as Pedestrian Channels.
   c. LS13-LS16 shall be wired and labeled as Overlap Channels.
3. All wires terminated behind the backboards as well as any additional panels shall be soldered. No pressure or solderless connectors shall be used.

4. The backboard shall be hinged at the bottom and be secured at the top with thumbscrews or wing nuts.
    a. The thumbscrews or wing nut shall be retained such that when loosened to access the background they will not become separated and fall.
    b. The background shall pivot a minimum of 90 degrees from the vertical position to the horizontal position, with no interference, to facilitate access to wiring and components on the back of the panel.
    c. The backboard shall be centered on the back panel of the cabinet.

N. Section 5.3.5 Power Supply: NEMA Traffic Control Systems Standard Publication TS 2- 2003v03.06 shall be amended to provide a power connection adapter for TS2 Type 1 Controller Units.

O. Input/output Terminals

As a minimum the terminal shall be provided for the input/output signals listed in NEMA TS-2-2003 v02.06 5.3.1.2 Table 5-3 or latest edition for configuration 1 and the following:

Function	Purpose
Alarm 1	Cabinet Door Open
Alarm 2	Lightning Suppression Fail
Alarm 3	Technician Flash
Alarm 4	UPS Status

P. Controller Unit Power Up

The CU shall be powered through the "Start- Delay Relay" circuit of the MMU.

Q. Flashing Operation

All cabinets shall be wired to flash RED for all phases.
Flashing display shall alternate between phases 1-4 and phases 5-8.

R. Detector Rack

1. Two detector racks shall be installed in the cabinet.
2. The detector rack shall conform to NEMA configuration 2(NEMA TS-2-2003 v02.06 5.3.4 or latest edition).
3. Each rack shall be addressable for BIU8-BIU11.
4. An address configuration label shall be easily viewable per detector rack.

S. Field Terminal Locations

1. Field terminals shall be located at the bottom of the backboard.

2. Their order shall be left to right beginning with Phase one and following the order of the load switches.
3. Screw type terminal shall be used.

T. Bus Interface Unit

1. Bus interface units (BIUs) shall as a minimum meet all NEMA Traffic Control Systems Standard Publication TS-2-2003 v02.06 Section 8 or latest edition requirements.
2. All BIUs shall provide three separate front panel indicator light emitting diode (LED) for: Power, Transmit, Valid Data.
3. Cabinets shall be provided with four BIUs.
   a. Two for Terminals and Facilities (TF).
   b. Two for detector rack.

U. Cabinet Power Supply

1. The Cabinet power supply shall meet minimum all NEMA Traffic Control Systems Standard Publication TS-2-2003 v02.06 Section 5.3.5 or latest edition requirements.
2. All power supplies shall also provide a separate front panel indicator LED for each of the four outputs.
3. Front panel banana jack test points for 24VDC and logic ground shall be provided.
4. The Cabinet power supply shall be shelf mounted and shall not be attached to the back panel or shelf.

V. Flash Transfer Relays

All eight flash transfer relays shall as a minimum meet NEMA Traffic Controls Systems Standard Publication TS-2-2003v02.06 Section 6 or latest edition requirements

W. Load Switches

All load switches shall as a minimum meet NEMA TS-2-2003 v02.06 Section 6 or latest edition requirements

X. Inductive Loop Detector

Section 6 of NEMA Traffic Control Systems Standard TS-2- 2003 v02-06 shall be amended to delete section 6.5 "Inductive Loop Detectors."

Y. Power Connector Adapter

Section 5.3.5 of NEMA TS-2 2003 v02.06 shall be amended to provide a power connector adapter for TS2 Type 2 as well as a connector for TS2 Type 1 Controller Units.

1.3 Order Placement and Delivery

A. The Contractor shall deliver traffic cabinets as per specification outlined in this Scope of Work.

B. Once order is placed, the acceptable lead time for delivery is within 4 to 6 weeks.

C. During first delivery, the Contractor shall provide 2 copies of the programming and operations manuals and two copies of the repair documentation for the equipment.

D. A permanent label/bar code with the serial number and date of manufacturer shall be attached to Bus Interface Unit and Cabinet Shell (on the inside of cabinet door)

E. A list of serial number and manufacturing dates shall be provided with each equipment.

F. Deliveries will be accepted Monday to Friday (excluding City Holidays) between the hours of 8:00 AM to 4:00 PM, Central Standard Time.

G. Delivery FOB: 2525 Hygeia Street, Corpus Christi, TX 78415

1.4 Contract Pricing

A. The quantity mentioned in the bid/pricing form is an estimated quantity for 3 years. The City will place an order for approximately 15 traffic cabinets every year for 3 years. From current and future requirements, we have estimated that the City will order a minimum of 15 traffic cabinets over three years.

B. The Unit price is inclusive of labor, materials, equipment, transportation and all other expenses which are required to complete the work in accordance with the drawings and specifications.

C. The Unit Price offered for FOB destination; Freight included.

D. The Unit price will remain fixed during the term of the contract.

1.5 Invoicing

The Contractor shall invoice after each delivery. The Contractor's invoice shall contain Supply Agreement No, Delivery Address, Product Type and Quantity.

1.6 Contractor Quality Control and Superintendence

The Contractor shall establish and maintain a complete Quality Control Program that is acceptable to the Contract Administrator to assure that the requirements of the Contract are provided as specified. The Contractor will also provide supervision of the work to insure it complies with the contract requirements.

1.7 Drawings

See approved cabinet schematic diagrams Exhibits 1-A

mobotrex
MOBILITY & TRAFFIC EXPERTS

ATTACHMENT B - PRICING

Quote

Quote Number: **1931044**

109 West 55th Street | Davenport, IA 52806 | (563) 323-0009

Date: 02/16/2024

Expire Date: 2/28/2025

Prepared By: Holdridge, Vincent V.

Customer: Corp001

TONY SALINAS
STREET DEPARTMENT
Needs Liftgate
Tony Salinas (361) 826-1610
2525 Hygeia
Corpus Christi TX 78415-4117
United States

Contact: TONY SALINAS

Description: CITY OF CORPUS CHRISTI

Part #	Description	Quantity	Price	Extended
CAB469-2101-451	CABINET:TS2,5116,CCTX01,712-017,NO PT,PL	45	$11,250.00	$506,250.00

Sale Amount:	**$506,250.00**
Sales Tax:	0.00
Misc Charges:	0.00
Total Amount:	**$506,250.00**

Notes:

SHIPPING INCLUDED

ALL ITEMS LISTED ON OUR BUYBOARD CONTRACT#703-23.

3-YEAR AGREEMENT 15 PER YEAR

Terms:

THIS QUOTE IS BASED ON THE ENTIRE VALUE AND VOLUME OF ALL LINE ITEMS - Prices listed on this quote are valid only in the event of purchase of all line items in the quantities listed, in their entirety. Purchases of individual line items will require a new quote prior to acceptance of any purchase orders.

Shipment of the material will be approximately 90 days after receipt of both an acceptable purchase order and approved submittal data if required. PAYMENT TERMS ARE NET 30 DAYS with prior approved credit. MoboTrex, Inc. retains title to material until paid in full. A service charge of 1.5% per month (18% annual rate) will be assessed against all past due accounts. Prices and delivery quoted are firm for 30 days from the data of bid. The above quote does not include installation of the products quoted. On-Site technical assistance is available and will be quoted upon request.

Quotation does not include sales tax. Sales tax will be added at time of invoice unless a valid Sales Tax Exempt certificate has been provided. Sales tax exempt certificate should accompany customer Purchase Order.

Limited Warranty: MoboTrex, Inc. only obligations shall be to replace such quantity of the product proven to be defective.

Warranty Period: The length of warranty manufacturers have conveyed to the seller and which can be passed on to the buyer.

Thank you for the opportunity to provide this quote.