

June 4, 2015

SUBJECT: Various Routes Section FY2015 ITS-2 McLean County Contract No. 70A68 Item No. 90, June 12, 2015 Letting Addendum A

# NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

- 1. Replaced the Schedule of Prices
- 2. Revised the Table of Contents to the Special Provisions
- 3. Added pages 44-48 to the Special Provisions
- 4. Revised sheets 1-4, 7-18 and 36 of the Plans
- 5. Added sheets 36A and 36B to the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P.E. Acting Engineer of Design and Environment

Verte abechlyon P.E.

By: Ted B. Walschleger, P. E. Engineer of Project Management

cc: Kensil Garnett, Region 3, District 5; Tim Kell; D. Carl Puzey; Estimates

JW/kf

#### ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 70A68

State Job # - C-95-023-14

Project Number	
*REVISED: JUNE 1, 2015	

Route

VARIOUS

County Name -MCLEAN- -Code -113 - -District -5 - -Section Number -FY2015 ITS-2

-	em mber	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
*ADD	XX007787	CLASS SI CONC	CU YD	1.800				
	X0323906	CAMERA POLE 45 FT	EACH	4.000				
*ADD	X0323917	CABINET MODEL 334	EACH	1.000				
	X0324597		EACH	4.000				
	X0325077	FIB OPT UTILIT MARKER	EACH	50.000				
	X0326266	ETHERNET SWITCH	EACH	25.000				
	X0326905	CCTV DOME CAM IP BASE	EACH	7.000				
	X7010410	SPEED DISPLAY TRAILER	CAL MO	0.500				
	X8570215	FAC IN EXIST CAB	EACH	9.000				
*DEL	<del>X8710031</del>	FIB OPT CBL 36F SM	FOOT	<del>19,182.000</del>				
*ADD	X8710035	FIB OPT CBL 96F SM	FOOT	20,362.000				
	X8710054	FO TERM PANEL 12F 24F	EACH	3.000				
*ADD	X8780105	CONC FDN SPL	EACH	1.000				
	Z0010688	CAMERA MOUNT ASSEMBLY	EACH	2.000				
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				

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County Name -MCLEAN- -Code -113 - -District -5 - -Section Number -FY2015 ITS-2

	em mber	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
*REV	Z0033052	COMMUNICATIONS VAULT	EACH	3.000				
*ADD	44200608	CL A PATCH T1 13	SQ YD	2.200				
*ADD	50102400	CONC REM	CU YD	1.800				
	67100100	MOBILIZATION	L SUM	1.000				
	70100700	TRAF CONT-PROT 701406	L SUM	1.000				
	70100800	TRAF CONT-PROT 701401	L SUM	1.000				
	70100825	TRAF CONT-PROT 701456	L SUM	1.000				
*REV	81028350	UNDRGRD C PVC 2	FOOT	30,667.000				
	81028360	UNDRGRD C PVC 2 1/2	FOOT	798.000				
	81300830	JUN BX SS AS 18X18X8	EACH	7.000				
*REV	81400100	HANDHOLE	EACH	38.000				
	82700100	TRANSFORMER (GP)	EACH	1.000				
	87100140	FO CAB C 62.5/125 12F	FOOT	22,029.000				
	87300901	ELCBL C TRACER 12 1C	FOOT	27,587.000				
	87301125	ELCBL C SIGNAL 12 3C	FOOT	2,534.000				

Page 2 6/5/2015

#### ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT 70A68 NUMBER -

C-95-023-14 State Job # -

Project Number

Route

County Name -MCLEAN- -Code -113 - -District -5 - -Section Number - FY2015 ITS-2 \*REVISED: JUNE 1, 2015

VARIOUS

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
87800415	CONC FDN TY E 36D	FOOT	32.000				
87900200	DRILL EX HANDHOLE	EACH	18.000				
89502210	MOD EX CONTR CAB	EACH	15.000				

CONTRACT NUMBER

70A68

THIS IS THE TOTAL BID \$

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.

# TABLE OF CONTENTS

INTENT OF PROJECT	1
DESCRIPTION OF WORK	1
TRAFFIC CONTROL AND PROTECTION	2
TEMPORARY TRAFFIC CONTROL DEVICE DEPLOYMENT AND REMOVAL	2
MODIFY EXISTING CONTROLLER CABINET	3
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	3
SALVAGE EXISTING TRAFFIC SIGNAL CONTROLLERS	3
CCTV CAMERA	4
ETHERNET SWITCH	4
DRILL EXISTING HANDHOLE	5
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, SINGLE-MODE 12 & 36 FIBERS	5
TERMINATION OF FIBER OPTIC CABLES WITH FUSION SPLICED ST CONNECTO	RS9
CCTV CABINET	10
TRANSFORMER, GENERAL PURPOSE	11
CAMERA POLE, 45' FT	11
COMMUNICATIONS VAULT	11
LOCATION OF UNDERGROUND STATE MAINTAINED FACILITIES	
STATUS OF UTILITIES TO BE ADJUSTED	
COILABLE NONMETALLIC CONDUIT (BDE)	15
CONCRETE MIX DESIGN – DEPARTMENT PROVIDED (BDE)	
CONTRACT CLAIMS (BDE)	16
DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)	
EQUAL EMPLOYMENT OPPORTUNITY (BDE)	26
PRECAST CONCRETE HANDHOLE (BDE)	29
PROGRESS PAYMENTS (BDE)	30
REINFORCEMENT BARS (BDE)	30
SPEED DISPLAY TRAILER (BDE)	32
TRACKING THE USE OF PESTICIDES (BDE)	32
WEEKLY DBE TRUCKING REPORTS (BDE)	33
WORKING DAYS (BDE)	33
VETERAN BUSINESS PROGRAM	33
CABINET, MODEL 334	44
CONCRETE FOUNDATION (SPECIAL)	47

### CABINET, MODEL 334

#### Description

Work under this item shall consist of furnishing and installing a Model 334 cabinet for field equipment including fiber optic communications, inductive loop detector stations, changeable message signs, and CCTV dome camera, as shown on the Plans and as hereinafter provided.

#### Materials

#### <u>General</u>

Cabinet, Model 334 shall be an aluminum durable, weatherproof enclosure, with nominal outside dimensions of 66 in (1.7 m) high X 24 in (600 mm) wide X 30 in (762 mm) deep. Cabinet, Model 334 shall consist of the following components: double door each equipped with a lock for front and rear cabinet entry, housing, mounting cage, service panel, thermostatically controlled fan, and all necessary mounting hardware and wiring, and other equipment, as shown on the Plans and specified in these special provisions.

All bolts, nuts, washers, screws, hinges, and hinge pins that are subject to corrosion shall be stainless steel unless otherwise specified. All equipment under this item shall be in accordance with Section 1074.03 of the Standard Specifications except as modified herein.

#### Cabinet Components.

The housing and the mounting cage assembly shall conform to those of the Model 334 cabinet provisions of the "Traffic Signal Control Equipment Specifications" (TSCES) issued by the State of California, Department of Transportation, and to all addenda thereto current at the time of project advertising. The housing shall be rainproof with the top of the enclosure crowned to prevent standing water. All exterior seems for the enclosure and doors shall be continuously welded and shall be smooth. The housing shall have no provisions for a police panel or door.

The cabinet shall have single front and rear doors, each equipped with a lock. The enclosure door frames shall be double flanged out on all 4 sides and shall have strikers to hold tension on and form a firm seal between the door gasketing and the frame. The front and rear doors shall be provided with catches to hold the door open at both 90 and 180 +/- 10°. Gasketing shall be provided on all door openings and shall be dust-tight. For horizontal support and bolt attachment, cage bottom support mounting angles shall be provided on either side, level with the bottom edge of the door.

The latching handles on the doors shall have provisions for padlocking in the closed position. When the door is closed and latched, the door shall be locked. The locks and handles shall be on the right side of the front door and the left side of the rear door. The lock and lock support shall be rigidly mounted to the door. The locks shall be Corbin #2 and two keys shall be supplied to the Department with each lock. The keys shall be removable in the locked position only.

Added 6/4/15

The front and rear doors shall be provided with louvered vents. A removable and reusable air filter shall be housed behind the door vents. The filter filtration area shall cover the vent opening area, and the filter shell shall be provided that fits over the filter providing mechanical support for the filter. The shell shall be louvered to direct the incoming air downward.

The intake (including filter with shell) and exhaust areas shall pass a minimum of 60 cubic feet of air per minute for housing #1 and 26 cubic feet of air per minute for housing #2. The thermostatically controlled fan with ball or roller bearings shall be mounted within the housing and vented. The fan shall provide a capacity of at least 150 cubic feet of free air delivery per minute of ventilation. The fan shall be thermostatically controlled and activated when the temperature inside the cabinet exceeds 75°F (24°C) and shut off when the temperature is less than 64°F (18°C). In addition, the fan shall be manually adjustable for automatic turn on and off. The fan circuit shall be protected at 125% of the fan motor ampacity.

The housing shall also be equipped with a heating element installed in the bottom front of the cabinet and mounted along the side of the rack. The heating element shall draw 500 watts and have an output of at least 1700 BTU/hr. The heater shall have a built-in quick response thermostat with sealed contacts that has a temperature control range of 40°F to 100°F, and have a built-in thermal cut-off to automatically shut-off the heater in the event of overheating.

All subassemblies shall be mounted in removable 19 in (482 mm) EIA self-standing rack assemblies. The EIA rack portion of the cage shall consist of 2 pairs of continuous, adjustable equipment mounting angles that comply with Standard EIA RS-310-B. The cage shall be centered within the cabinet and bolted to the cabinet at 4 points.

Each cabinet shall be equipped with 2 shelves and one slide out keyboard tray. Shelves shall be the full width of the rack and 12 in (300 mm) deep. The shelves shall be designed to support a minimum of 50 pounds.

Each cabinet shall be equipped with one fluorescent lighting fixture mounted to the inside top front portion of the cabinet. The fixture shall have an F-15-T-8 cool white lamp; operated from a normal power factor, UL listed cold weather ballast. A door-activated switch shall be installed to turn the cabinet light on when the front door is opened. The door switch shall be on a separate circuit by itself and used only to turn on the cabinet light.

Each cabinet shall be supplied with a heavy-duty plastic envelope to store plans, wiring diagrams, schematics, etc. This envelope shall have metal grommets so that it hangs from the door hooks. The envelope shall have minimum dimensions of 10 in (250 mm) x 15 in (381 mm).

Foundations shall conform to those shown on the plan sheets. The foundation is paid for separately.

#### Construction Requirements

The Contractor shall deliver the Cabinet Model 334 mounted on a plyboard-shipping pallet that is bolted to the cabinet base. The cabinet shall be enclosed in a slipcover cardboard packaging shell. The housing doors shall be blocked to prevent movement during transportation to the site.

The Contractor shall securely fasten the Cabinet Model 334 on the new concrete foundation at the locations shown on the Plans. The Contractor shall confirm the orientation of the Cabinet Model 334 installation and its front door side with the Engineer prior to installation. Stainless steel bolted connections shall be provided with lock-washers, locking nuts, or other approved means to prevent the connection nuts from backing off. Dissimilar materials shall be isolated from one another by stainless steel fittings.

The Contractor shall make all power connections to the cabinet in accordance with the Plans and as required. The neutral bus shall be isolated from the cabinet and equipment ground. It shall terminate at the neutral lug ultimately attached to the meter pedestal. All conductors used in cabinet wiring shall terminate with properly sized non-insulated (if used, for DC logic only) or clear insulated spring-spade type terminals except when soldered to a through-panel solder lug on the rear side of the terminal block or as specified otherwise. All conductors, except those, which can be readily traced, shall be labeled. Labels attached to each end of the conductor shall identify the destination of the other end of the conductor. Cabling shall be routed to prevent conductors from being in contact with metal edges. Cabling shall be arranged so that any removable assembly may be removed without disturbing conductors not associated with that assembly.

#### <u>Tests.</u>

Cabinet Acceptance Test - In addition to the environmental and design approval tests specified in the FHWA Type 170 Traffic Signal Control System Hardware Specification, the following water spray test shall be performed for each type of cabinet:

Spray water from a point directly overhead at an angle of 60° from the vertical axis of the cabinet. Repeat for each of eight equally spaced positions around the cabinet for a period of five minutes in each position. The water shall be sprayed using a domestic type-sprinkling nozzle at a rate of not less than 10 gal/min minute per square foot of surface area. The cabinet shall then be inspected for leakage. Evidence of water leakage shall be cause for rejection.

#### Documentation

Shop drawings and wiring showing the proposed layout of each type of cabinet shall be submitted to the Engineer for approval prior to the start of fabrication. Wiring lists for the internal manufacturer cut sheets for all electrical equipment included in each type of cabinet shall be included in the submission.

Four copies of drawings showing the wiring for each cabinet shall be provided. One copy shall be placed in the clear plastic envelope furnished as part of the cabinet. The other three copies shall be delivered to the Engineer.

#### Method of Measurement

Cabinet, model 334 will be measured as a unit, completely installed and operational.

<u>Basis of Payment:</u> CABINET, MODEL 334, measured as provided above, will be paid for at the contract unit price each, which price shall be payment in full for furnishing and installing the cabinet and all connections; testing, and for all labor, tools, equipment, transportation, and incidentals necessary to complete this item of work.

## CONCRETE FOUNDATION (SPECIAL)

#### **Description**

The concrete foundation shall be constructed to support the ITS equipment cabinet at the location as indicated on the Plans. This work shall include installing any necessary hardware (entering conduits, bolts, anchor rods, grounding, etc.) as shown on the Plans. This work shall also include any topsoil, fertilizing, seeding, and mulching of the distributed areas in accordance with Sections 211, 250, and 251 of the Standard Specifications.

#### **Materials**

The concrete foundation shall be according to materials defined in Article 836.02 of Section 836 of the Standard Specifications. All anchor bolts shall be in accordance with Section 1006.09 of the Standard Specifications except that all anchor bolts shall be hot dipped galvanized the full length of the anchor bolt including the hooks. Anchor bolts shall provide bolt spacing as shown in the Plans and as required by the cabinet manufacturer.

The concrete foundation shall also be fabricated in accordance with Section 1070 of the Standard Specifications. The concrete foundation shall be fabricated from material new and unused in any previous application. The manufacturer shall provide a Certificate of Compliance that the materials are new and meet the specified requirements in accordance with the Standard Specifications and as shown on the Plans.

#### Construction Requirements

The Engineer will determine the final placement of the concrete foundation. Concrete Foundation, (Special) dimensions shall be in accordance with those dimensions shown in the Plans on the detail sheet. The foundation shall be located as required in order to avoid existing and relocated utilities. The top of the foundation shall be finished level. Shimming of the appurtenance to be attached will not be permitted,

Prior to pouring the foundation, the Contractor shall check the Plans for the specific number, size, and direction of conduit entrances required at the given location. All conduit in the foundation shall be installed rigidly in place before concrete is deposited in the form. Bushings shall be provided at the ends of the conduit. Anchor rods and ground rod shall be set in place before the concrete is deposited by means of a template constructed to space the anchor rods according to the pattern of the bolt holes in the base of the appurtenance to be attached. The appurtenance shall not be erected on the foundation until the bases have cured for at least (7) days. The Concrete shall cure according to Article 1020.13 of the Standard Specifications.

#### Method of Measurement

The Concrete Foundation (Special) shall be measured for payment per the unit cost EACH and shall be installed in accordance with the total length of concrete foundation required per the detail in the plans for Concrete Foundation (Special) and as directed by the Engineer. Extra foundation depth, beyond the directive of the Engineer, will not be measured for payment.

<u>Basis of Payment:</u> Payment will be paid for at the contract unit price EACH of CONCRETE FOUNDATION (SPECIAL). The price shall include payment in full for furnishing, installing, and testing all materials (entering conduits, bolts, anchor rods, grounding, etc.) within the limits of the foundation and any topsoil, fertilizing, seeding, and mulching of the distributed areas as well as all associated labor is to be included in this price.

Added 6/4/15