

Charlie A. Dooley
County Executive

Saint Louis
COUNTY
HIGHWAYS & TRAFFIC
PUBLIC WORKS

Sheryl L. Hodges, D.E., P.E., L.P.G.
Director

July 16, 2014

ADDENDUM NO. 1

Notice to All Persons and Firms Proposing
to Submit a Bid or Furnish Materials for
2014 ITS Program – North Area
St. Louis County Project No. AR-1453
Federal Project No. CMAQ-5401(685)

We are making the following revisions to the construction contract for this project:

No. 1

Delete Plan Sheet No. 2A of 21 signed on May 15, 2014.

No. 2

Insert New Plan Sheet 2A of 21 signed on July 14, 2014

No. 3

Add the following to Special Provision No. 100.10.2 Completion of Project

- B. The contractor shall not be allowed to begin work along Charbonier Road / Washington Street until the contractor for St. Louis County project AR-1321 has installed the new controller cabinet and the conduit and pull box for the westbound advance detection at Charbonier Road and Lawson Elementary School Entrance / St. Ferdinand School Entrance.

No. 4

Replace all Itemized Bid Sheets with attached revised Itemized Bid Sheets. Item No. 906-85.82 has been removed and the quantity for Item No. 906-85.81 has been revised. Failure to substitute the Itemized Bid Sheets may result in rejection of the bid.

No. 5

- Standard Specification **904.4.10 Pan Tilt Zoom (PTZ) Internet Protocol Video Surveillance Camera System** (including all subsections 904.4.10.1 – 904.4.10.5 inclusive) is being deleted and replaced with the following:

904.4.10 Pan Tilt Zoom (PTZ) Internet Protocol Video Surveillance Camera.

904.4.10.1 PTZ Surveillance Camera. A PTZ camera shall be provided and installed on all intersection traffic signal installations and reconstruction projects, unless specified otherwise on plans. The PTZ camera shall meet the following minimum specifications:

Imager	¼ inch ExView HAD progressive scan CCD
Shutter	1/300000s to 0.5s at 60HZ
Exposure	Auto
Min. Illumination	0.5 Lux (Color) 0.008 Lux (B/W)
White Balance	Auto
Iris	Auto
Gain	Auto and Manual
Focus	Auto
Zoom Ratio	36x Optical; 12x Multiplier
View Angle	57.2° - 1.7°
Focal Length	3.3 - 119mm
F-Number	1.4-4.2
Pan Angle	360°
Tilt Angle	220°

Memory	512mb ram, 128mb flash and up to 64GB SD/SDHC/SDXC
Ethernet	100Base-TX/10BaseT (RJ-45)
I/O Terminals	4 configurable inputs and outputs
Resolution	Extended D1 = 752 x 480 to 176 x 120 (60 HZ)
Compression	MJPEG, H.264
Frame Rate	Up to 25/30fps in all resolutions
Protocols	TCP/IP, HTTP, FTP, SMTP, Bonjour, IPV4/IPV6
Power Req.	AC, POE+ IEEE 802.3at (supplied with camera)
Operating Temp.	-58° to +122° Fahrenheit

- 1) The PTZ Camera must be compatible with the current software utilized by St. Louis County at the time of installation. The contractor shall be responsible for contacting the St. Louis County Signal Shop at 314-615-0213 to inquire as to what software is currently utilized by St. Louis County. The PTZ camera shall be accessed and controlled by a Web Browser. Confirmation of Compliance with software shall be provided before construction begins.

904.4.10.2 PTZ Camera Mount on Post Extension. Each post extension assembly for mounting a camera higher than a mast arm pole shall consist of a 14-foot straight continuous Schedule 80 extruded aluminum pipe, with a 4-1/2 inch nominal outside diameter. The post shall be equal to aluminum alloy 6061-T6 and have a spun finish. This assembly shall include a removable aluminum post cap, with stainless steel set screws and mounting brackets for attachment to a mast arm pole. A mounting bracket, for mounting a PTZ IP camera to the post extension, shall be furnished with each camera.

904.4.10.3 Special Cables and Connections Needed For PTZ Camera

- 1) Twisted Pair Video Communication Cable. Cameras shall be provided with a Video Communication Cable. The Cable shall meet the following specifications:

Number of pairs	4
Total Number of Conductors	8
AWG	24
Stranding	Solid
Insulation Material	PO – Polyolefin
Insulation Wall Thickness	≥ .010 in.
Outer Shield Material	Aluminum Foil-Polyester Tape
Outer Shield % Coverage	100%
Outer Shield Drain Wire AWG	24
Outer Shield Drain Wire Stranding	7x32
Outer Jacket Material	PVC – Polyvinyl Chloride
Outer Jacket Ripcord	Yes
Overall Diameter	≥ .265 in.
Operating Temperature Range	- 40°C To +75°C
Suitability – Outdoor	Yes
Sunlight Resistance	Yes
Oil Resistance	Yes
Other Specification	NEMA WC-63.1 Category 5e, UL verified to Category 5e

- 2) **RJ45 Connectors.** The Video Communication Cable shall have a RJ45 connector attached to each end. The RJ45 connector shall then be connected to the Camera and Lightning Surge Protector. The RJ45 connector shall be installed according to the following wiring configuration:

Wire 1	W/O
Wire 2	O
Wire 3	W/G
Wire 4	BL
Wire 5	W/BL
Wire 6	G
Wire 7	W/BR
Wire 8	BR

904.4.10.4 Managed Ethernet Switch. When a PTZ camera is installed at a traffic signal the cabinet shall be supplied with a Managed Ethernet switch, in lieu of unmanaged switch, as described in Section 904.4.6.10 and shall meet the following specifications.

- 1) Powered by an external 24 VDC supply.
- 2) Environmentally hardened for harsh conditions per IEC 61850 and IEEE1613 standards.
- 3) Manages redundant rings with the Spanning Tree protocol.
- 4) The circuit board shall be coated for high humidity, coating shall be of 5 mil thickness.
- 5) There shall be 4 - 10/100 RJ45 electrical ports.
- 6) There shall be 4 - 100mb 15km singlemode LC fiber ports.
- 7) There shall be 4 - 100mb 2km multimode LC fiber ports.
- 8) There shall be 2- 1000mb LX ports capable of accepting standard 1310nm wavelength, 25km SFP transceivers.
- 9) There shall be 2 - 1000mb SFP modules of 1310nm wavelength capable of transmitting 25km included.
- 10) The switch shall be mounted adjacent to the controller power strip.

No. 5

We are making the following clarifications to the construction contract for this project:

- Single Mode Fiber Optic Patch Cord (Fiber Optic Jumper):

Fiber optic patch cords (jumpers) shall be single mode complying with 904.4.6.11 and shall be provided by the contractor. No direct payment will be made. All costs shall be considered incidental to bid item number 904-43.48 and/or 904-43.88.

- Fiber Optic Pigtail:

Fiber optic pigtails for terminating fiber optic cable shall be provided by the contractor with no direct payment being made. All costs shall be considered incidental to bid item No. 904-85.36

- Existing Traffic Signal Controller Cabinets:

All existing traffic signal controller cabinets noted on the plans as U.I.P., and into which new fiber optic cable is noted to be installed, are equipped with existing fiber optic termination housings.

- All PTZ camera systems, including all camera cables, will be installed by St. Louis County personnel.

ATTENTION BIDDERS: CHECK THE SECOND STATEMENT ON THE ADDENDUM ACKNOWLEDGEMENT OF THE BID DOCUMENTS AND COMPLETE APPROPRIATELY.



Daniel R. Naunheim, P.E.
Division Manager, Design

DRN/CD/jlh

Attachments: Plan Sheet, Itemized Bid Sheets, and Addendum Acknowledgement (Please sign and return.)

July 16, 2014

ADDENDUM ACKNOWLEDGEMENT

ADDENDUM NO. 1

FROM: St. Louis County Department of Highways and Traffic

RE: 2014 ITS Program – North Area
St. Louis County Project No. AR-1453
Federal Project No. CMAQ-5401(685)

**PACKAGE INCLUDES THIS ACKNOWLEDGEMENT AND
ADDENDUM NOTICE AND PLAN SHEET 2A AND THREE (3)
REVISED BID SHEETS.**

(6 pages total)

IF YOU DID NOT RECEIVE ALL PAGES, CALL (314) 615-8171.

UPON RECEIPT OF THIS PACKAGE, **PLEASE SIGN AND
DATE** (IN THE INDICATED LOCATIONS BELOW), AND **FAX
THIS ACKNOWLEDGEMENT TO THE DEPARTMENT OF
HIGHWAYS & TRAFFIC AT (314) 615-7648** (Attn: Chris Denbow
DESIGN DIVISION) TO VERIFY RECEIPT

COMPANY _____

RECEIVED BY _____

DATE _____

ITEMIZED BID

FEDERAL PROJECT NO. CMAQ-5401(685)

COUNTY PROJECT NO. AR-1453

PAGE 1 OF 3

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
ROADWAY ITEMS					
612-30.10	Standard Traffic Control Devices	L.S.	1		
619-00.00	Mobilization	L.S.	1		
806-00.00	Erosion Control Measures (Sites less than 1 acre)	L.S.	1		
806-45.00	Inlet Protection	L.S.	1		
	SUBTOTAL Roadway Items				
COUNTY TRAFFIC SIGNAL ITEMS					
904-29.14	Post, Extension, 4-1/2" O.D. x 14', Aluminum, w/Mounting Hardware and Post Cap	EACH	3		
904-43.48	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 58"H x 30"W x 17"D, Wired for 4 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing, TS2, Type 2	EACH	2		
904-43.88	Controller, Fully Actuated, (8 Phase Timer, in Aluminum Cabinet Approx. 55"H x 44"W x 26"D, Wired for 8 Phase Operation) w/Internal Fiber Optic Modem and Termination Housing, TS2, Type 2, w/Battery Backup	EACH	1		
904-49.35	Detector, Vehicle Induction Loop, Card Rack Mtg., 2 Channel, w/Delay and Extension Timing and Relay Outputs	EACH	8		
904-49.52	Software License, PTZ Camera	EACH	4		
904-52.00	Conduit, 2"	L.F.	14849		

ITEMIZED BID

FEDERAL PROJECT NO. CMAQ-5401(685)

COUNTY PROJECT NO. AR-1453

PAGE 2 OF 3

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
904-54.00	Conduit, 4"	L.F.	309		
904-74.99	Conduit Repair (locate broken conduit, excavate, remove existing cable, repair/replace conduit, reinstall cable, backfill and restore) (Does not include sidewalk or pavement removal and replacement)	EACH	1		
904-85.36	Cable, Communication, Fiber Optic, 36 Fibers (30 Single-Mode and 6 Multi-Mode)	L.F.	18280		
904-88.01	Pull Box, Single, Concrete	EACH	3		
904-89.17	Preformed Pull Box (17"W x 30"L x 26"min.H), Reinforced Polymer Concrete	EACH	45		
904-95.10	Opening Drilled in Existing Concrete Pull Box	EACH	9		
904-95.30	Removal of Preformed Pull Box	EACH	5		
904-97.33	Removal of Existing Controller Cabinet	EACH	3		
906-49.51	Pan Tilt Zoom (PTZ) Internet Protocol Video Surveillance Camera System (Camera w/Bracket, Lightning Surge Protector, Managed Ethernet Switch, and Misc. Cables) (Installed by Others)	EACH	4		
906-85.81	Cable, Communication, PTZ Camera, #24 Gauge, 4 Pair (Shielded) (Installed by Others)	L.F.	810*		
906-92.00	School Zone Beacon Wireless Communication Equipment (Installed by Others)	EACH	3		
	SUBTOTAL County Traffic Signal Items				
PEDESTRIAN AND BICYCLE ITEMS					

*REVISED PER ADDENDUM NO. 1

ITEMIZED BID

FEDERAL PROJECT NO. CMAQ-5401(685)

COUNTY PROJECT NO. AR-1453

PAGE 3 OF 3

ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
608-60.94	Remove and Replace Concrete Sidewalk (4" Thick)	S.Y.	255.9		
	SUBTOTAL Pedestrian and Bicycle Items				
	PROJECT TOTAL				

[illegible]