## ITEM 632 SIGNALIZATION, MISC.: TRAFFIC FLOW MONITOR

UNDER THIS ITEM OF WORK, THE CONTRACTOR SHALL FURNISH AND INSTALL A TRAFFIC FLOW MONITOR CONSISTING OF A Closed Circuit Television (CCTV) Pole Camera Assembly AT THE LOCATIONS INDICATED IN THE PLANS. The Assembly shall include the camera, unpressurized dome/housing, PTZ unit, camera controller, local camera control unit (rack mounted in CCTV cabinets and shelf mounted in signal cabinets), power over ethernet (poe) injector, and all materials, labor, workmanship, equipment, testing, documentation, cables, connectors, and incidental items required to deliver a fully operational TRAFFIC FLOW MONITOR in accordance with these Provisions and the Plans.

This item shall be furnished per *ODOT Supplemental Specification Section 809.05.* The poe injector shall be AMG155-1GBT-P90 with LINECORD-IEC-LOCK-US and PoE Surge Protector AMG110M-1X-SP.

Furnish all tools, equipment, materials, supplies, and manufactured articles, and perform all operations and equipment integration necessary to provide a complete, fully operational IP-camera site as depicted herein, within the plan set, and/or in the Contract.

Provide the City with a written inventory by location including serial numbers of items received and the condition in which they were received. Once received, the equipment becomes the Contractor’s responsibility. Provide all labor and equipment necessary to move inventory out of the designated storage facility and to transport it to the installation location. All items will be installed in accordance with the manufacturer’s instructions or as directed by the Department.

Messenger wire (if required) will be used for all overhead wiring of IP-camera cable. Cables will be attached to messenger wire as per *SCD 4331* and as depicted in the Plans.

If it is determined that radio frequency interference (RFI) is inducing noise and degrading the quality of the video images being transmitted by the IP-camera assembly or its components, if required by the City, furnish and install ferrite coils or other radio frequency (RF) suppression devices for RFI dampening. This installation and the placement of these RF suppression devices will be as recommended by the manufacturer. The furnishing and installation of these devices will be an ancillary cost to the IP-camera assembly pay item.

The Contractor shall ensure that all functions of the newly installed CCTV site are fully compatible with the head end Milestone system at the TMC. Configuration and integration labor costs for the proposed CCTV site are considered incidental to this pay item.

Additionally, the Contractor shall purchase the following licenses in order to fully integrate CCTV functionality into the head end Milestone system, and by completion of the project transfer ownership of all licenses to the City.

1. One (1) – CCTV site license – to incorporate into head end Milestone system. This is to include the five year software/firmware upgrade support.
2. One (1) – Interconnect license to enable ODOT – City of Columbus TMC shared use of video from CCTV site.

Configuration and integration labor costs for the proposed CCTV site, including the cost of software licenses specified above, are considered incidental to this pay item.

The vendor shall supply to the City copies of the computer software for setup, testing, and control of the CCTV locally and integrate into the head end Milestone system when necessary.

Equipment furnished under this Specification will be guaranteed to perform according to these specifications and to the manufacturer's published specifications. Equipment will be warranted for five (5) years effective on the date of Final Acceptance of the Project by the City. The CCTV IP-camera system manufacturer(s) will assign to the City all manufacturer's normal warranties or guarantees, on all such electronic, electrical and mechanical equipment, materials, technical data, and products furnished for and installed on the Project. Defective equipment will be repaired or replaced, at the manufacturer's option, during the warranty period at no cost to the City. The manufacturer will provide replacement parts and/or complete unit(s) within ten (10) business days after notification by the City.



CONSTRUCTION

1. Install CCTV IP-Camera assembly and equipment on the mount/pole, existing and new bracket arms, and in the cabinet. This work includes any upgrades to the connections to mounts/poles or bracket arms that may be required to make the CCTV IP-Camera System functional locally and to the existing central camera control software.
2. Make power and communication connections.

The work as described will be measured as one unit for each of the installations specified, and shall include all materials, equipment and incidentals, complete in place. Terminations, connections, and other miscellaneous items and materials shall be incidental to this work and no separate payment will be made.

Payment shall be for complete camera operational assembly with connection to the traffic management center. software licenses for each camera shall be considered INCIDENTAL to this item.

The Engineer shall provide final acceptance of this item before payment to Contractor is processed. 4/2/25