

SECTION 01 32 34.01 – OXBLUE CONSTRUCTION CAMERA SYSTEM

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes a professional-grade high resolution digital webcam system designed specifically for the construction industry as a turnkey package including camera(s), related hardware, mounting equipment, software, wireless cellular data transmission service, website hosting, image hosting and storage, online interface for the system, time-lapse video creation and technical support.
- B. Related Sections:
 - 1. Division 1 Section "Photographic Documentation" for periodic construction photographs.
 - 2. Division 1 Section "Closeout Procedures" for submitting digital photographs as Project Record Documents at Project closeout.
 - 3. Division 16 Sections for electrical service and connections, as needed.

1.02 DEFINITIONS

- A. System Vendor (OxBlue): Provider of megapixel (4, 6, 8 or 12mp) camera system hardware, cellular connections, software and hosting who is also responsible for off-site servers, data storage and remote troubleshooting. Contractor shall maintain an active contract for System Service for duration of Contract Time unless other term is agreed upon in writing by the Owner. Cost for System Service shall be included in the Contract Sum.
- B. System Service: Host services provided by System Vendor (OxBlue) including image acquisition, transfer, backup, periodic upgrades to the system, viewing access via a maintained interface on the Internet, on-line storage of images for duration of the Service Contract and creation of time-lapse video at completion of project.

1.03 SUBMITTALS

- A. Closeout Submittals:
 - 1. Digital Images: Submit digital still images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - a. Date and Time: Include original image file date and time with each image.
 - b. Format: Submit a sortable/identifiable archive of all digital still images on an external hard drive or DVD format.
 - 2. Time-Lapse "Movie": Compile select digital still images into a time-lapse movie of the construction period. Optimize images included and run-time length of movie to suit Owner's requirements.

1.04 COORDINATION

- A. Coordinate layout and installation of cameras to avoid interference from trees and to prevent sunlight and light from fixtures entering directly into the camera lens.

1.05 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of cameras and equipment related to camera operation that fail in materials or workmanship within specified warranty period.

- B. Warranty Period: Lifetime product warranty required

1.06 USAGE RIGHTS

- A. Contractor shall understand that photographs and archives generated by the camera system become the mutual property of the Owner and System Vendor and cannot be used for advertisement or publicity reasons without the expressed written consent of the Owner and System Vendor.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Manufacturers: Preferred Vendor for this product is OxBlue Corporation, 814 Bellemeade Ave NW, Atlanta, GA 30318. www.OxBlue.com Contact: 888-849-2583

2.02 SYSTEM REQUIREMENTS

- A. The indoor/outdoor camera system shall consist of a tamper and impact resistant, discreet, fixed pole or wall-mount enclosure with integrated fixed camera, lens and controller.
- B. The cameras shall have the ability to take a high-resolution **8.0 megapixel** digital still images of the construction site approximately every 15 minutes, and upload the still images over a wireless cellular modem to the System Vendors servers.

2.03 EQUIPMENT

- A. Camera: Integrated high definition camera and lens assembly consisting of a charge coupled device (CCD) camera with a remotely controlled focal length lens mounted as a permanent module with the following features:
 1. Digital Still Image Resolution: Minimum sensor size of **8.0 megapixels**, and at an image resolution of not less than 3264 x 2448 pixels.
 2. Lens: 78 degree wide field of view.
 3. Settings: Auto-focus, auto-white balance, auto-contrast.
 4. Data Connection: Provide one of the following:
 - a. In areas with cellular coverage, operate cameras via built-in cellular data connection provided and maintained by the system vendor.
 - b. In areas without cellular coverage, operate cameras via an RJ-45 Ethernet data connection over broadband internet access provided and maintained by the Contractor.
 5. Electrical Operation: 120 VAC at maximum 83 Watts.
- B. Quantity of Cameras: As required by Owner.

2.04 INTERFACE AND ONLINE ACCESS

- A. Remote Access: Contractor's System Vendor shall provide an online interface system to allow viewing of all high-definition digital still images captured and stored during construction, from any location with internet access and with password protection.
 1. Maintain images on the System Vendor's website for reference available at all times during construction and for not less than 90 days after Final Completion.
- B. Online Interface:
 1. The online interface system shall be accessible by an unlimited number of human users.
 2. System shall display Project name and Owner Logo.

3. The system shall display online time-lapse videos and allow for videos to be downloaded by users.
4. Navigation: Provide calendar based navigation system for selecting specific images.
5. Zoom: Provide pan and zoom capability for zooming into high definition images.
6. User Screen Viewing Options:
 - a. Dynamic Calendar: Provide screen showing calendar in which each day displays an image for that day.
 - b. Project Dashboard: Provide screen allowing user to view multiple sites at one time.
 - c. Quad View: Provide screen showing four windows, allowing user to view last four days, weeks, or months on one screen.
 - d. Split Screen: Provide screen showing two discrete images side by side, from same camera or from two different cameras.
 - e. Overlay Mode: Provide screen showing two discrete images overlaid, allowing user to determine differences between the two.
 - f. Full-Screen: Provide screen maximizing view of images on users monitor.
7. Email: Provide capability to email photos with comments from within the system.
8. Slideshow: Provide capability to browse through images, moving forward and backward in time by individual image and by day.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Install camera system in accordance with manufacturer's printed instructions, State and Municipality codes and requirements and approved submittals.
- B. Position camera so that field of view of approximately 77 degrees covers intended area of site.
 1. Install camera at elevation that will provide uncompromised visual coverage.
 2. Install camera so that position of sun or man made light sources will not come into direct contact with field of view of camera at any time during construction.

3.02 FIELD QUALITY CONTROL

- A. Preinstallation Testing: Test camera on site at ground level prior to mounting unit in its intended elevated position.
 1. Contact System Vendor not less than 24 hours in advance of installation for testing.
 2. Connect unit.
 3. After 30 minutes contact System Vendor and require System Vendor to remotely confirm camera is operating properly.
 4. Install cameras in approved locations.

3.03 OPERATION, TERMINATION, AND REMOVAL

- A. Maintenance: Maintain camera equipment in good operating condition on a 24-hour basis until removal.
- B. Termination and Removal: Remove camera system prior to Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with camera system. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 1. Camera system including associated appurtenances and mounting equipment are property of Owner.

END OF SECTION