## **Bid Specification** Video Monitoring and Documentation

# Mobile StreamCam 4K



#### Specification includes camera system and managed services



Live Streaming Video



Data Dashboard



Installation and Maintenance



iOS and Android App



Quality Control and Maintenance



AI Media Dashboard



Full Service Support



Continuous Video Recording



Al-Edited Time-Lapse Videos

#### Additional services included







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### 01.32.36 Video Monitoring and Documentation Bid Specification

1. The Contractor shall provide a High Definition Streaming Video Webcam for users to remotely control and view a live feed via a secure connection via a network connection. The camera will provide a full view of the work area on the construction site.

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- 2. The camera shall meet or exceed the following requirements:
  - 2.1 Consist of an IP66 weather resistant camera housing with ultra-high impact copolymer transport case
  - 2.2 Industrial grade solid state embedded Linux System
  - 2.3 Live streaming video preview
  - 2.4 H.264, MPEG-4 Part 10/AVC, Motion JPEG video compression
  - 2.5 Up to 25/30fps in all resolutions
  - 2.6 8.3 Megapixel images (3840x2160 pixels)
  - 2.7 Lens: F1.6, f/ 3.3 9.8, Digital Pan, Tilt and Zoom
  - 2.8 109° wide angle of view
  - 2.9 Auto Features: Focus and Day/Night
  - 2.10 4G cellular modem
  - 2.11 Secure 256 bit AES encrypted onboard storage
  - 2.12 High-Definition continuous video recording with 60 days of retention (up to 1 year available)
  - 2.13 Power over Ethernet IEEE 802.3af/802.3at Type 1 Class 3; max 12.9W
  - 2.14 Designed for EarthCam Control Center
- 3. Internet Based Online Interface: The camera will be accessible via an internet based Software as a Service (SaaS) solution. This online interface will be managed and supported by the System Vendor. The service will be available for the term of the project and allow the viewing of live video and High Definition digital still images captured and stored of the project on both mobile and desktop platforms.

The Internet Based Online Interface shall include the following features:

- 3.1 Responsive HTML5 design for cross-platform access on desktop and mobile devices
- 3.2 Secure HTTPS compliant with live stream secured & encrypted via https transport
- 3.3 Display project name and logo
- 3.4 Project Dashboard allows easy navigation between multiple cameras and projects
- 3.5 Security Interface offers flexible multi-view camera grid selective up to 24 cameras per screen streaming simultaneously
- 3.6 Edge Video Recorder features searchable intuitive visual timeline interface for fast incident footage retrieval and sharing
- 3.7 Real-time live video viewing
- 3.8 Instant live snapshot capability in addition to preset scheduled archives
- 3.9 Visual timeline with guick thumbnail view allows image navigation by year, month, day and hour
- 3.10 Al-edited time-lapse technology removes frames obscured by foreign objects or weather elements, with music and graphics then added for downloadable presentations
- 3.11 Full Screen Mode for displaying video and complete image without any graphical frame
- 3.12 Photo Filters and Graphical Markup Tools for detailing and creating notes with graphical overlays on images, including project title, logo and time date stamp 3.13 Image Comparison Tool for comparing two images taken at different times, overlayed on top of each other
- 3.14 Project Management Software integration (Autodesk Construction Cloud, Autodesk Build, CMiC, Esri, InEight, Infotech, Procore, Projectmates, Raken,
- Salesforce) 3.15 3D/4D Model Integration (Autodesk Navisworks, Autodesk Revit, Bentley Synchro)
- 3.16 Social Media Integration Tools for sharing project images and notes
- 3.17 Automatically generated daily/weekly project progress update email with camera image and weather
- 3.18 Al Media dashboard Interactive charts display Al-detected events and observations
- 3.19 Graphical Weather applet displaying local weather data with satellite and updating radar imaging
- 3.20 Integration of maps, aerial and satellite imagery
- 3.21 Graphical Data Management Tools showing archived and current system status of solar amperage, battery power remaining, wireless radio connectivity, and device location
- Access to account protected by Account Security feature which includes four levels of password protection, IP address block/permission and SSL protection of user login password.
- 5. The system shall capture and upload images every 5 minutes, 24 hours per day.
- 6. The system shall have M2M Machine to Machine 24/7 Support with active self-healing technology and automatic software upgrades to maintain the quality, consistency and reliability of all images.
- 7. Images will be maintained on the System Vendor's servers for reference available at all times during the life of the project and for no less than 60 days after completion. All images will be protected on servers owned and operated by the System Vendor and located in a secure area at the System Vendor's location.
- 8. The Contractor shall provide all service and maintenance, including cleaning of the camera, throughout the life of the project including making appropriate arrangements for the cameras to remain in operation up to and through finalization of all structural, finishing work, furniture placement and "completed state" conditions necessary for documentation. For maximum efficiency of the time-lapse process, cameras may need to be reoriented by the contractor to follow construction phases as they progress.
- The System Vendor shall provide custom public website development. Website shall be separate from the Online Interface, match the look and colors of the project's website, and be delivered as embed code or standalone web page. Additional features include Facebook and Twitter integration, full screen mode, image comparison, weather, multiple logos, graphical background image and project description.
- 10. The System Vendor at the end of the project shall provide a comprehensive archive package that includes all images, historical weather data, computer-generated time-lapse movies and a royalty-free web-based viewer software. The software shall include the same interactive interface as the live camera during the project.
- 11. The System Vendor shall provide time-lapse movie(s) at the end of the project. Time-lapses shall be professionally edited by a video editor using image stabilization software. The movie will start with a graphic, incorporating project title, date and logo. Periods of bad weather or inactivity shall be removed to produce a compelling and consistent movie. A machine edited movie will not be acceptable.
- 12. EarthCam (System Vendor) will consult on and provide recommendations for optimal camera placement. Contractor will mount on tripods in order to provide a full view of the desired work areas.
- 13. The System Vendor may provide professional installation services as an option to the contractor. The Contractor shall supply at the camera locations a dedicated, non-switched, 15Amp 120VAC circuit in the form of an outdoor rated outlet.