

**Delaware Department of Transportation**  
**QUESTIONS AND ANSWERS**  
**Portable Camera Systems**  
**Agreement DOT191919-PORT\_CAM**  
**Friday, June 14, 2019**

***Answer to Question 4 has been amended to reflect the correct information***		
Q #	Question	Answer
45	(Reference RFP Section 9.4) As with the other trailer types, does the 6 hour recharge requirement mean that the system should recharge for 6 hours and operate for 3 days or should it recharge for 6 hours and operate for the next 24 hours?	Requirement relates to the rate of charging required as 24 hours of life in a 6 hour charge. The 3 days of operations relates to the capacity of the battery array.
44	(Reference RFP Section 9) How do you envision attaching the camera assembly of the Type IV trailer to your structure?	Type IV cameras are not trailer mounted, see RFP for description.
43	(Reference RFP Section 9) Would you describe your concept of operations for using Type IV trailers?	Please see RFP for description.
42	(Reference RFP Section 7.6) Would you confirm that the answers related to trailer requirements for Type I trailers also applies to the Type II trailer?	Answers provided are only for the questions proposed. It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
41	(Reference RFP Section 7.5 E 5) Would you change the requirement to a 15 gallon on-board fuel storage capacity because we believe that the 20 gallon requirement violates federal law for	It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and
40	(Reference RFP Section 7.5 E ) Can you identify a commercial off the shelf generator that meets the requirements identified in section 7.5 e?	It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and
39	(Reference RFP Section 7.5 E ) Do you want the capability to turn the flood lights on and off or do you envision the flood lights always being on?	The Department would like the ability to operate the CCTV Portable System with the lights on or off at its discretion.
38	(Reference RFP Section 7.5 E 1) Does the generator need to run the flood lights in addition to the cameras?	Yes
37	(Reference RFP Section 7.5 E 1) Why do you specify a 4kw generator when the trailer design may only require a smaller, less expensive 2800 watt generator?	The Department would like the ability to run additional equipment off the generator in addition to the CCTV Portable System equipment.

Q #	Question	Answer
36	(Reference RFP Section 7.5 d 1) For recharging, does the 6 hour requirement of Trailer I also apply here and does that requirement require the trailer to be able to operate for 24 hours after 6 hours of charging or do you want to operate for 3 days after 6 hours of charging? Please note that the generator on this trailer charges the batteries for 3 hours and then the generator stops for a half hour in order to cool off and then charge the batteries again. How does this operational feature fit into your concept of operations?	Recharging requirement is for solar only.
35	(Reference RFP Section 7.5 c 4) What software will you use in your TMC to collect data from the charge controller? Please describe that software.	To date the Department utilizes a web browser application provided by the previous vendor. The Department is open to vendor provided solutions in any format.
34	(Reference RFP Section 7.4) Why do you have different enclosure requirements for the Type II trailer versus the Type I trailer i.e. why do you not use the same enclosure requirements for both trailers?	Size will likely be different, but environmental requirements are common and standard for ITS equipment. It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
33	(Reference RFP Section 7.3) Is there a lumens requirement or candle power requirement or a visibility requirement for the flood lights, and how high up the mast arm may we locate the lights?	Requirement is as indicated.
32	(Reference RFP Section 7.3) When we provide flood lighting, do we provide light for a 200 foot radius or provide directional lighting out to 200 feet?	Can be achieved by directional lighting or 360 degree lighting.
31	(Reference RFP Section 6.5 k) What type trailer plug connector do you want when connecting the trailer to a truck for transport – 4 pin, 6 pin, 7 pin, or something else?	The Department would prefer a 7-pin trailer plug connection, but it is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
30	(Reference RFP Section 6.5 f 6) Given the requirement to deliver within 90 days of receiving a Purchase Order, when and how will the antenna be delivered to the contractor for each unit ordered?	The Department intended to install the equipment, if the awarded vendor would like to incorporate the install the Department will coordinate shipping and adjust delivery expectations as needed.
29	(Reference RFP Section 6.5 f 6) Will the antenna require a modem or connectivity to any other component in the control cabinet in order to operate as the Department envisions?	The antenna does not require a modem but is connected to a cellular modem, power converter (for solar) and power injector. This won't be subject to charging budgets as noted in other responses.
28	(Reference RFP Section 6.5 f 6) Will the contractor be held to warranty requirements for the 4.9 GHz Dual Polarization Omnidirectional Antenna or the components attached to the	No, this will be Department supplied equipment.

Q #	Question	Answer
27	(Reference RFP Section 6.5 f 6) Would you describe your concept of operations for use of the 4.9 GHz Dual Polarization Omnidirectional Antenna; why do you want to add this antenna to the system?	Suggested example use case would be when the camera is positioned near a location which has the 4.9GHz availability, the 4.9 would be used to provide better communications reliability. This would allow for better control capabilities and higher quality video during times of major events when the cellular network is saturated or where commercial services are not available due to various reasons.
26	(Reference RFP Section 6.5 f 6) Would you provide technical schematics and cut sheets for the 4.9 GHz Dual Polarization Omnidirectional Antenna that will be provided and installed by the Department, specifically how much power the antenna requires and what voltage range the antenna supports? In addition, do we need to support a radio in the control cabinet?	MARS 4.9-5.9 GHz Dual Polarization Direction Antenna model number MA-WO56-DP10; Input Power, max 11 Watt; Input Impedance 50 Ohm. No additional cabinets will need to be provided for this antenna.

**Monday, June 10, 2019**

25	Is 30 feet acceptable?	The Department would prefer what it written in the RFP though it is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
24	Does this include the light and 4.9Ghz radio and antennas?	No, it is intended that lighting would be powered via the onboard generator. (Jeff, please confirm you are cool with this. I don't want the solar array to be too large). Note that this response relates to Section 7.5 (B).
23	What type of outlet do you require and what is maximum number of amps you would like? Do you want any protection?	The Department would prefer what a provided 120V AC, GFCI receptacles.
22	What is the light output (Lumens) and illumination pattern expected. A flood light is not able to lit a 360° area, such lights are	Provide lighting as you feel acceptable to meet the requirement for 200 foot radius from the mast.
21	Zinc chains with grade 70 is it acceptable?	The Department would prefer what it written in the RFP though it is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
20	If 2000 lbs is sufficient for our trailer is it acceptable?	The Department would prefer what it written in the RFP though it is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
19	What is the voltage and power requirement of the antenna?	Input voltage is 48-59 V DC, 802.3at compatible. Power consumption is 15W typical, 18W max.

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18	Are plastic boxes with anti-theft mechanism or steel boxes acceptable?	The Department would prefer a non-plastic material to increase security and prevent loss. It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
17	Is a solar array with a 30 to 90° tilt acceptable?	It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and
16	Does that include the 4.9Ghz radio and antennas?	It was not intended to as 4.9GHz antennas may not be installed in all cases.
15	Due to the temperature requirement above ,we can't power the camera with any of those. Is High POE Accepted?	It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and
14	Would you accept a camera that is specified from -22F to 131F. Such camera would provide better autonomy on the same platform?	It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and
13	Please confirm that this is the PMP 450i Subscriber module C050045C001B or C050045C002C. or provide the power draw requirements and operational voltage?	Input voltage is 48-59 V DC, 802.3at compatible. Power consumption is 15W typical, 18W max.
12	Can we assume that these will be installed behind barriers as stated for Category 4 devices?	Not in all cases based on roadway classification and clear zone requirements.
<b>Wednesday, June 5, 2019</b>		
11	(Reference RFP Section 6.5 f 5) Would you allow the antenna to be located at the control cabinet rather than on the mast arm?	No, the intention of this antenna was to be used for a line of sight application not for wireless modems.
10	(Reference RFP Section 6.5 f 2) The camera arm is raised from a horizontal position to a vertical position and then elevated to increase the height of the camera. Is your requirement for a safety bolt intended to prevent the mast arm from changing from a vertical position to a horizontal position or is the safety bolt intended to prevent the mast arm from lowering the camera height while in a vertical position?	Intent of the safety bolt is to keep the mast arm from rotating from vertical to horizontal to prevent it from striking a person or vehicle.
9	(Reference RFP Section 6.5 a) Does the NEMA TS4 requirement apply to the battery box in addition to the control cabinet or just the control cabinet?	Includes all enclosures on the trailer.

Q #	Question	Answer
8	(Reference RFP Section 6.4 e) Does lightning protection need to be applied to individual components on the load side or can we protect the sum of the components on the load side i.e. do you differentiate the components in the cabinet from the entire cabinet when addressing lightning protection requirements?	Intent was to protect the individual components.
7	(Reference RFP Section 6.4 d 2) Will you allow a plastic or injected molding battery cabinet in order to save costs and reduce weight?	The Department would prefer a non-plastic material to increase security and prevent loss of the batteries. It is acceptable to submit a portable CCTV system only partially meeting any of the requirements, so long as it is indicated within the proposal. Deviations from requirements will be part of the proposal evaluation and consideration.
6	(Reference RFP Section 6.4 b 1) Does the requirement that the solar array “provide a 12 volt photovoltaic solar array of a size sufficient to recharge the portable camera unit in full sunlight at a rate of six hours of recharging per 24 hours of operation” mean that you want the solar array to recharge to a full capacity in order to provide 3 days of operations (as required later in the RFP) or merely recharge to a state sufficient to operate for the next 24 hours?	Requirement relates to the rate of charging required as 24 hours of life in a 6 hour charge. The 3 days of operations relates to the capacity of the battery array.
5	(Reference RFP section 6.2 k) Does the camera power requirement saying “Power input: 22-28 VAC, PoE, and PoE+ allowable” mean that the camera must support VAC, PoE, and PoE+ or does the requirement mean that the vendor may select which of the power inputs shall be used by the camera?	Any of the power input options are allowable. One or all are acceptable.
4	(Reference RFP Section 6.2 j 4) Does the requirement to withstand sustained 90 mph winds apply only to the camera assembly or does it also apply to the trailer itself i.e. do you intend for a trailer in a deployed condition to be able to operate in 90 mph wind conditions?	The intent of Section 6.2, j4 is to include both the trailer and camera. <del>Requirement relates to the rate of charging required as 24 hours of life in a 6 hour charge. The 3 days of operations relates to the capacity of the battery array.</del>

Q #	Question	Answer
3	<p>Would you consider changing the contract term to one (1) year with four (4) one year options? Pricing for steel and electronic components is increasing significantly due to the current economic and political climate. Tariffs on Chinese goods and the potential tariffs on Mexican goods are leading to significant annual increases in material costs for the Portable Camera Systems. To commit to a firm fixed price for a three year period poses significant business risk to the contractor and significant price risk for the State of Delaware. By changing the period of performance to one year with four one-year options, the State reduces its price risk and could receive more competitive proposals.</p>	<p>No, the contract is being advertised as it is written.</p>
<p><b>Tuesday, May 28, 2019</b></p>		
2	<p>Is there a standard use case that is needed to performed with this technology?</p>	<p>The selected vendor(s) will be required to show a performance of a standard use case with the portable cctv camera application after the selection process is complete.</p>
1	<p>Regarding the specifications of this Proposal. Are you willing to accept proposals for this project that is a significant alternative technology to what is spelled out in the specifications?</p>	<p>If you feel you can provide a technology that may meet a portion of the advertisement, it's recommended that you submit for consideration.</p>