

# Attachment A

## Technical Requirements Matrix (TRM)

### Request for Proposal Number R404-24

**Vendor Name:** \_\_\_\_\_

Bidders are instructed to complete Attachment A Technical Requirements Matrix for the Video Traffic Data Equipment and Data Processing Services RFP. ***Bidder must respond to each of the following statements.*** Requirements listed are minimum conditions that must be met in order for a Bidder's RFP to be considered. Bidders are required to describe in detail how their proposed solution meets the conformance specification outlined within each requirement.

How to complete the TRM:

<b>TRM Column Description</b>	<b>Bidder Responsibility</b>
Requirement Description	The statement of the requirement to which the bidder must respond. This column is dictated by the RFP and must not be modified by the bidder.
Response Code	<p>Each of the items from the Technical Requirements Matrix of this RFP require a response of Yes, Custom or No. Below is a brief explanation of each.</p> <p><b>Yes</b>            Yes, Bidder guarantees they can meet the requirement as listed.</p> <p><b>Custom</b>        Yes, Bidder can meet the requirement, but with some exceptions. Explanation is required; explain in detail any deviation, including ability to meet the requirement and an explanation how this would be determined to be an acceptable alternative to meet the requirement. Alternatives must be detailed sufficiently in order to be fully evaluated.</p> <p><b>No</b>                No, cannot meet the requirement.</p> <p>The "Technical Requirements Matrix" for each section below must be completed, using the format provided and returned with the Request for Proposal response. For each section, bidders must provide a response directly in the matrix, using as much space as needed. Responses do not need to be limited to one line. Bidders must not change the order of the project requirements.</p> <p>Please provide any appropriate explanations and comments in the "Comments by Vendor" section of the matrix. Explanations and comments will be considered during the RFP scoring process. The Department of Transportation shall determine at its sole discretion whether or not a bidder's alternative is an acceptable alternative.</p>

Please specify make and model of video camera unit bid in this Request for Proposal.

Make: \_\_\_\_\_ Model: \_\_\_\_\_

Technical Requirements Matrix			
Item #	Requirement or Question	Response Code (Yes / Custom / No)	Comments by Vendor
<b>A. Technical Requirements</b> Video Camera Unit Features and Functionality			
A.1	Video Traffic Data Camera Unit – includes wide-angle lens camera and all necessary software, cables, adapters, straps, battery pack, battery charger, memory card(s), carrying case, & extendable camera pole mount. <i>*Extendable camera pole mount must be able to extend to a minimum height of 20' to minimize occlusion and gain a bird's-eye-view of the intersection for maximum visibility of vehicle movements.</i> The software included as part of the unit shall properly operate the equipment and transfer the video from the device to a secure web location using an internet connected computer. All necessary materials for satisfactory performance of the video traffic data equipment shall be incorporated, including regularly advertised equipment/accessories as part of the equipment bid, whether or not they may be specifically mentioned. All equipment and accessories purchased will become property of the NDOT.		
A.2	Video camera units shall be equipped to accurately monitor traffic movement and collect video for traffic count of pedestrians, bikes, and all standard classifications as identified in Federal Highway Administration classes. <a href="http://www.fhwa.dot.gov/policy/ohpi/vehclass.htm">http://www.fhwa.dot.gov/policy/ohpi/vehclass.htm</a>		

**Technical Requirements Matrix**

Item #	Requirement or Question	Response Code (Yes / Custom / No)	Comments by Vendor
A.3	Video camera unit must be able to capture video of turning movements at large urban intersections (20,000 Annual Average Daily Traffic (AADT) on each approach) at 95% or greater accuracy levels.		
A.4	Video camera unit must be able to capture video of traffic on consistently high volume roadways (at least 50,000 AADT), determining volume and classifications of vehicles in each direction.		
A.5	Video camera unit must be able to be installed and aligned reasonably by one (1) person in a minimal amount of time (less than 15 minutes) without any specialized heavy equipment or ladders.		
A.6	In addition to pole installation, the video camera unit must be able to be installed using existing objects at intersections such as poles, signs, or other objects at an intersection. Video camera unit must have the capacity to be installed off the roadway surface, so as to not create interference with the motoring public.		
A.7	Video camera unit must be capable of operation in all weather conditions (rain, snow, heat, humidity wind, etc).		
A.8	Video camera unit must be able to be installed securely, minimizing the potential of theft.		
A.9	Camera must have a wide-angle lens to observe all movements. Camera must have a field of view up to 175 feet.		
A.10	Video camera unit must provide a recording scheduling option in order to record only the required hours of video and left to sleep, preserving the battery and memory, when not recording.		

<b>Technical Requirements Matrix</b>			
<b>Item #</b>	<b>Requirement or Question</b>	<b>Response Code</b> (Yes / Custom / No)	<b>Comments by Vendor</b>
<b>A.11</b>	Video camera unit must have a sufficient power source and memory capacity to operate continuously for a minimum of 24 hours and up to at least seven (7) days, with additional storage and battery.		
<b>A.12</b>	Video camera unit must be portable in size to be transported in a small van or car trunk.		