COLORADO
Department of Transportation
Region 1

EJMT DPHT Proposer RFI Log

Updated	**5/23/2022**
CDOT Project Number	**C 0703-482**
Subaccount Number	**24210**

RFI Number	Inquiry Received Date	Response Date	RFI Description	CDOT Response	Reference	Changes to RFP	Modification to RFP
BAFO RFI-01	5/12/2022	5/20/2022	The "current FFSS zoning convention" has the deluge zone naming convention as NT-01 thru NT-90 for the North Tunnel running West to East, and ST-01 thru ST-93 in the South Tunnel running West to East. The FFSS System has roughly 7,500 existing points (or zones). CDOT sees many of these points, but not all the internal "pseudo" points that are not necessary for them to operate the FFSS System. The points that CDOT sees on the Fireworks are all referenced to the "NT-01" designation for the 1st deluge zone at the North Tunnel West end. The FFSS System also has 10's of thousands of lines of internal programming code associated to the current FFSS designations (ie, NT-01) that makes the FFSS System operate. CDOT does not see any of this internal programming on the Fireworks. In an effort to better estimate the actual expected work scope for this ARE #3, could CDOT provide an example of the "current tunnel zone naming convention" or a what changes would be expected for a typical zone(s) in each Tunnel? Ie, Current Westbound "NT-10" FFSS System designation would be "xx-xx" in the new requested naming convention? Ie, Current Eastbound "ST-10" FFSS System designation would be "xx-xx" in the new naming convention?	The fixed fire deluge zones are to be renamed to indicate location within their respective camera zone in the tunnels. The NT and ST designations will remain but the deluge zone names must correspond to their camera zones. For example the very first camera zone is 1 so that first deluge zone will be 1.0 (preceded by NT or ST, so NT-1.0 or ST-1.0), the next deluge zone will be 1.1 etc. until you get to the next camera zone and then it starts over with 2.0. (We have 12 camera zones) The reasoning for this is that say for example an operator needs to take extra time to figure out which subset of fire zones is in the camera they are looking at. There is no rhyme or reason they should know fire zone 72 is in the middle of zone 9. The 2 have no correlation and therefore a couple minutes is wasted trying to match them up. The point is that if you see a car fire in camera zone 7, you immediately have it narrowed down to zones 7.0 to 7.9 (I think it is 9ish fire zones per camera zone?). If it is in the middle then you have it narrowed down to even fewer just by seeing that on the monitor. Before an operator even goes over to the Fireworks Workstation, they know they are going to be firing up 7.4,7.5 or 7.6. The descriptions for alarm points associated with the deluge zones and linear heat trace zones are to be modified and the graphic maps in the Fireworks Workstations are to be accordingly updated. Non-alarm points and points that are not visible to the operator during an alarm event are not required to be renamed. This would include any pseudo points for programming or equipment within the plenum that only sends trouble or supervisory signals. The markings on the insulated valve enclosures will remain the same. The contractor is to develop a cross reference document that shows the "new" name and the associated "original" name as part of the operations manual and documentation to assist in maintenance, testing, programming, etc.	Book 2 Exhibit 1.B.3	None	N/A
BAFO RFI-02	5/12/2022	5/20/2022	Reference: Book 2, Section 19.7.5. The existing FFSS System has approximately 7,500 points (or zones). The new DPHT RFP Scope will add another 2,000 to 2,500 additional points. Each alarm type point (waterflow, Lios Alarm, etc) provides 2 unique events to the FFSS System. One for the actual alarm state of the device and one for the trouble state (ie, broken wire to the device being monitored), so these devices provide 2 unique points to the FFSS System. Each supervisory type point (tamper, Deluge control ckt, etc) provides 2 unique events to the FFSS System. One for the actual supervisory (or active) state of the device and one for the trouble state (ie, broken wire to the device being monitored), so these devices provide 2 unique points to the FFSS System Each trouble point provides typically one unique event to the FFSS System. These events are typically a "SLC loop fault", "power supply fault", etc. Each of the monitor and status points (typically CDOT does not see these on the Fireworks can provide a single event or two unique events depending on what the status monitor point is. Adding this up, we could potentially send 10's of thousands of events (or points) to the SCADA System. This affects the number of SCADA Gateways that the FA Contractor has to provide and program for this SCADA interface. The SCADA side has a similar equipment and programming effort to receive the FA data thru the Gateways and process it. This FA System data is already provided to CDOT at each of the 3 FACP Panels and each of the 3 Fireworks display units in the existing FFSS System. I can certainly see where the SCADA System could use the location of the event (ie, tunnel zone designation) to activate tunnel fans, activate message boards and such, to better operate all systems at the Tunnel. The FA System can "funnel down" these events before sending them to the SCADA System versus flooding the SCADA with thousands of events that SCADA would then need to whittle down to what FA information CDOT actually wants to see on the SCADA. This would help limit the equipment and required programming on both sides of the equation. In an effort to better estimate the amount of work scope associated with FA-SCADA interface, could CDOT clarify what the "intent" of what CDOT is expecting to see/display or what they are expecting to do with the FA data coming to the SCADA System.	The points transmitted to the SCADA system, from the FFSS fire alarm system are as follows: General Alarm General Trouble General Supervisory Water Tank Level 60 mins remain Water Tank Level 30 mins remain Containment Tank Full Boiler Fault Fire Pump Run Generator Run The operators will utilize the Fireworks Workstation or the Control Panels to obtain detailed system information related to any of the general points. The interface is to be capable of future expansion to allow the transmission of one point for each alarm zone.	Book 2 Section 19.7.5	None	N/A