Maryland Department of Transportation
Office of Procurement
CATS+ TORFP J02B4400004
SHA – Virtual Weigh Station (VWS) Project Phase II

Addendum #1

April 24, 2014

This Addendum is being issued to provide additional information under Section 2.5.1.5 "WIM Server PC and WIM Reader Server Software" for the above named TORFP. All information contained herein is binding on all offerors who respond to this TORFP.

1. **Please be aware that there are two (2) Sections 2.5.1.5 the first is titled:**
   Cellular router (for broadband communications to mobile laptops and other PC clients)

   The Second Section 2.5.1.5 is titled:
   WIM Server PC and WIM Reader Server Software

2. **The following pertains to the Second Section 2.5.1.5 titled:** WIM Server PC and WIM Reader Server Software

RITIS Data Format Requirement

Under Section 2.5.1.5, WIM Server PC and WIM Reader Server Software, Item 6, Page 16 of the solicitation, the RITIS requirement states the following:

6. The VWS application shall provide a means to push data, in real-time, to a 3rd-party remote system (University of Maryland's RITIS – Regional Integrated Transportation Information System). RITIS is the consolidated single sign-on image and data repository for all remote VWS sites, and is the central VWS application used by law enforcement. **The required data format shall be available upon request to Offerors.** The push data shall be provided through database replication, web services, or some other data synchronization method deemed acceptable by the University.

THIS IS A MANDATORY REQUIREMENT.

A technical description and schema layouts for this requirement are provided below:

Each field device shall connect to the University of Maryland, CATT Lab via TCP to a standard Java 5 EE JMS 1.1 broker. The hostname or IP address of the broker will be provided by the CATT Lab.

This connection is restricted by username and password. These credentials will be provided by the CATT Lab.

This connection is restricted by IP address per device, so the device must have a public IP address. The IP address for each device must be provided to the CATT Lab.

Addendum #1

April 24, 2014

Each device shall push XML as TextMessage (http://docs.oracle.com/javaee/5/api/javax/jms/TextMessage.html) objects to two different, uniquely named JMS Topics specified by the CATT Lab: one topic for vehicle data and one topic for image data. The data is sent asynchronously whenever a relevant vehicle is detected by the device.

The vehicle data must conform to the veh.xsd schema attached.
The image data must conform to the img.xsd schema attached.

Documentation for Java EE 5, JMS 1.1: http://docs.oracle.com/javaee/5/tutorial/doc/bncdq.html

For any additional information regarding this requirement that the Offeror might need, contact information for personnel at University Of Maryland CATTLab is provided below.

1. Michael Pack, Director, CATT Laboratory, University of Maryland, Center for Advanced Transportation Technology, 3144 J. Kim Engineering Bldg, College Park, MD 20742. Phone: 301.405.0722 (office), 240.676.4060 (cell)
2. Michael VanDaniker, Visualization Programs Manager, CATT Laboratory, University of Maryland, Center for Advanced Transportation Technology, 3144 J. Kim Engineering Bldg, College Park, MD 20742. Phone: 301.405.3166 (office)
3. Ray Douglass, RF Systems Architect/Operations Manager, CATT Laboratory, University of Maryland, Center for Advanced Transportation Technology, 3144 J. Kim Engineering Bldg, College Park, MD 20742. Phone: 301.405.0762 (office)

See next 2 pages for veh.xsd – schema file and img.xsd – schema file

veh.xsd – schema file

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:jaxb="http://java.sun.com/xml/ns/jaxb"
  jaxb:version="2.1" elementFormDefault="qualified">
  <xs:element name="veh">
    <xs:annotation>
      <xs:appinfo><jaxb:class name="Vehicle"/></xs:appinfo>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="datetime" type="xs:string"/>
        <xs:element name="grossWt" type="xs:integer"/>
        <xs:element name="class" type="xs:integer"/>
        <xs:element name="speed" type="xs:decimal"/>
        <xs:element name="violation" type="xs:boolean"/>
        <xs:element name="offScale" type="xs:boolean"/>
        <xs:element name="overHeight" type="xs:boolean"/>
        <xs:element name="wrongDir" type="xs:boolean"/>
        <xs:element name="stopped" type="xs:boolean"/>
        <xs:element name="tooClose" type="xs:boolean"/>
        <xs:element name="overWtGross" type="xs:boolean"/>
        <xs:element name="overWtAxle" type="xs:boolean"/>
        <xs:element name="overWtTandems" type="xs:boolean"/>
        <xs:element name="overWtBridge" type="xs:boolean"/>
        <xs:element name="overSpeed" type="xs:boolean"/>
        <xs:element name="speedChange" type="xs:boolean"/>
        <xs:element name="unbalanced" type="xs:boolean"/>
        <xs:element name="random" type="xs:boolean"/>
        <xs:element name="overLength" type="xs:boolean"/>
        <xs:element name="vehFlags" type="xs:integer"/>
        <xs:element name="numAxles" type="xs:integer"/>
        <xs:element name="axle" maxOccurs="unbounded">
          <xs:complexType>
            <xs:sequence>
              <xs:element name="wt" type="xs:integer"/>
              <xs:element name="overWtAxle" type="xs:boolean"/>
              <xs:element name="overWtTandems" type="xs:boolean"/>
              <xs:element name="overWtBridge" type="xs:boolean"/>
              <xs:element name="unbalanced" type="xs:boolean"/>
              <xs:element name="axleFlags" type="xs:integer"/>
              <xs:element name="spacing" type="xs:decimal"/>
            </xs:sequence>
            <xs:attribute name="item" use="required" type="xs:integer"/>
          </xs:complexType>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="distanceUnits" use="required" type="xs:NCName"/>
      <xs:attribute name="id" use="required" type="xs:integer"/>
```

```
      <xs:attribute name="lane" use="required" type="xs:integer"/>
      <xs:attribute name="speedUnits" use="required" type="xs:NCName"/>
      <xs:attribute name="station" use="required"/>
      <xs:attribute name="wtUnits" use="required" type="xs:NCName"/>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

img.xsd – schema file

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:jaxb="http://java.sun.com/xml/ns/jaxb"
  jaxb:version="2.1" elementFormDefault="qualified">
  <xs:element name="veh">
    <xs:annotation>
      <xs:appinfo><jaxb:class name="Image"/></xs:appinfo>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="datetime" type="xs:string"/>
        <xs:element name="image" type="xs:base64Binary"/>
      </xs:sequence>
      <xs:attribute name="id" use="required" type="xs:integer"/>
      <xs:attribute name="lane" use="required" type="xs:integer"/>
      <xs:attribute name="station" use="required"/>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

End of Addendum #1