KNOXVILLE REGIONAL ITS ARCHITECTURE UPDATE WORKSHOP MINUTES

MEETING DATE: February 7, 2012

MEETING TIME: 1:00 PM – 4:00 PM

MEETING LOCATION: TDOT Region 1 Auditorium

SUBJECT: Knoxville Regional ITS Architecture Update – ITS Deployment Plan Workshop

ATTENDEES:

Kwabena Aboagye, TDOT Multimodal Transportation	Christy Haynes, TDOT Region 1
Nathan Benditz, Knoxville Regional TPO	Pamela Heimsness, FHWA
Mark Best, TDOT Region 1	Chris Jenkins, Town of Farragut
Brian Boone, City of Maryville	Alan Lawson, Knoxville-Knox County
Doug Burton, Knoxville Regional TPO	Richard Margiotta, Cambridge Systematics
Roger Byrd, City of Knoxville FD	Andrew Padgett, TDOT Region 1
Steve Byrd, City of Oak Ridge	Cindy Pionke, Knox County
Arun Chatterjee, Univ. of Tennessee	John Reed, TDOT Multimodal Transportation
Mike Conger, Knoxville Regional TPO	John Sexton, Knox County
Diane Davidson, Oak Ridge Natl. Laboratory	Andrew Sonner, City of Alcoa
Corbin Davis, FHWA	Kevin Stoltenberg, City of Maryville
Karen Estes, Knoxville-Knox County	Jon Van Eek, City of Oak Ridge
David Frazier, City of Knoxville FD	Jeff Welch, Knoxville Regional TPO
Brent Gagley, ETHRA	John Benditz, Kimley-Horn and Associates
Don Gedge, FHWA	Tom Fowler, Kimley-Horn and Associates
Ronald Green, City of Knoxville PD	Becky Bottoms, Cannon and Cannon

Introductions and Project Status Update

Mike Conger from the Knoxville Regional Transportation Planning Organization (TPO) welcomed everyone and thanked the stakeholders for their participation in the update of the Knoxville Regional Intelligent Transportation System (ITS) Architecture. Everyone in attendance introduced themselves and identified the agency or organization they were representing.

Diane Davidson from the Oak Ridge National Laboratory spoke about the upcoming ITS Tennessee Annual Meeting that will be held in Knoxville in the Fall. Diane is chairing the planning committee and encouraged those with an interest in ITS to get involved with the conference planning and also to consider attending.

Rich Margiotta from Cambridge Systematics spoke about the work Cambridge is doing in the Knoxville Region for the Federal Highway Administration. Cambridge will be reviewing some of the recommended ITS projects in the Region and evaluating benefits of ITS.

Tom Fowler from Kimley-Horn provided a brief overview of the Regional ITS Architecture Update project and discussed the project status and work accomplished to date. Tom noted that there will be one more remaining workshop scheduled to complete the Regional ITS Architecture project, most likely in April 2012.

Presentation on Draft Regional ITS Architecture Document

Tom Fowler provided an overview of the Draft Regional ITS Architecture document, which has been posted on the project website at the address below:

http://www.kimley-horn.com/Projects/TennesseeITSArchitecture/knoxville.html

The Draft Regional ITS Architecture will remain in Draft format until the next workshop in April. At that time the document will be updated and a Revised Draft document will be provided. Comments can be provided to Tom Fowler at Kimley-Horn and were requested by April.

The Draft Regional ITS Architecture document that Kimley-Horn developed includes a prioritization of the 41 market packages that were selected by stakeholders at the workshops on November 30, 2011 and December 1, 2011. Market packages represent the services that ITS can provide, such as network surveillance or traveler information dissemination. Market packages were prioritized as high, medium, or low based on the level of activity existing or planned for the market package, and the overall impact that the market package was expected to have on meeting regional needs.

Tom led the stakeholders in a discussion at the workshop on the prioritization of the market packages that were initially suggested by Kimley-Horn in the Draft Regional ITS Architecture. The final prioritization that stakeholders agreed upon has been included at the end of these minutes.

The stakeholders in attendance also discussed a process for updating and maintaining the Regional ITS Architecture. It was decided that the Knoxville Regional TPO would serve as the lead agency for maintaining and updating the Regional ITS Architecture. A form will be developed for use in documenting any changes that are requested to the Regional ITS Architecture for projects to show architecture conformity. The Knoxville Regional TPO will keep those forms for use in the next ITS Architecture update. Conformity is required by the Federal Highway Administration (FHWA) and Federal Transit Agency (FTA) for any ITS projects that use federal funds or any projects that integrate into a project that was implemented using federal funds. For example, if an agency were implementing closed circuit television (CCTV) cameras using local funds but those cameras were going to be controlled by a traffic management center (TMC) that was constructed with federal funds, then the CCTV camera project would need to conform to the Regional ITS Architecture. An example of the ITS Architecture Maintenance Documentation Form is included at the end of these minutes.

The stakeholders set a goal of updating the Regional ITS Architecture every four years in the year prior to the update of the Long Range Transportation Plan.

Draft Project Discussion

John Benditz led the group in a discussion of potential ITS projects to include in the Regional ITS Deployment Plan. The ITS Deployment Plan will identify a set of potential ITS projects related to traffic, transit, public safety, and emergency management needs. Projects were categorized by TDOT, Municipal and County, Transit, and Knoxville TPO projects. Individual cities and counties were identified under the Municipal and County category based on input from stakeholders.

The projects that will be included in the ITS Deployment Plan will include the following information:

- Project name and description;
- Responsible agency;
- Probable cost (detail will vary by project depending on level of planning that has occurred…in some cases only a unit cost will be provided to guide future planning);
- Funding status;
- Deployment timeframe ; and

- Applicable market packages.

In order to show ITS Architecture conformity it is not necessary to include a project in the ITS Deployment Plan. However, by including the project in the ITS Deployment Plan, Kimley-Horn can check for ITS Architecture conformity and identify the applicable market packages. If a project does not conform to the Regional ITS Architecture it is relatively easy for Kimley-Horn to modify the Draft Regional ITS Architecture while it is still in draft format before the end of the project.

Concluding Comments and Next Steps

The following next steps were identified for the project:

- Comments on the Draft Regional ITS Architecture were requested before the next ITS Architecture workshop, which will be scheduled in April
- Conduct the final Regional ITS Architecture workshop in April
- Develop Revised Draft Regional ITS Architecture and Draft ITS Deployment Plan document for stakeholder review in May
- Develop final documents, including a separate Executive Summary, in June

Knoxville Region Market Package Prioritization by Functional Area

High Priority Market Packages	Medium Priority Market Packages	Low Priority Market Packages
Traffic Management		
ATMS01 Network Surveillance ATMS03 Surface Street Control ATMS06 Traffic Information Dissemination ATMS07 Regional Traffic Management ATMS08 Traffic Incident Management System	ATMS04 Freeway Control ATMS13 Standard Railroad Grade Crossing ATMS16 Parking Facility Management ATMS17 Regional Parking Management	ATMS19 Speed Monitoring ATMS21 Roadway Closure Management
Emergency Management		
EM01 Emergency Call-Taking and Dispatch EM02 Emergency Routing EM04 Roadway Service Patrols EM06 Wide-Area Alert	EM08 Disaster Response and Recovery EM09 Evacuation and Reentry Management EM10 Disaster Traveler Information	
Maintenance and Construction Management		
MC03 Road Weather Data Collection MC04 Weather Information Processing and Distribution MC10 Maintenance and Construction Activity Coordination	MC01 Maintenance and Construction Vehicle and Equipment Tracking MC08 Work Zone Management MC09 Work Zone Safety Monitoring	MC12 Infrastructure Monitoring
Public Transportation Management		
APTS01 Transit Vehicle Tracking APTS02 Transit Fixed-Route Operations APTS03 Demand Response Transit Operations APTS07 Multi-Modal Coordination APTS08 Transit Traveler Information APTS10 Transit Passenger Counting	APTS04 Transit Fare Collection Management APTS05 Transit Security APTS06 Transit Fleet Management APTS09 Transit Signal Priority	
Traveler Information		
ATIS01 Broadcast Traveler Information ATIS02 Interactive Traveler Information		
Commercial Vehicle Operations		
	CVO06 Weigh-in-Motion	
Archived Data Management		
AD1 ITS Data Mart	AD2 ITS Data Warehouse AD3 ITS Virtual Data Warehouse	

Knoxville Regional ITS Architecture

ITS Architecture Maintenance Documentation Form

Please complete the following form to document changes to the 2012 Knoxville Regional ITS Architecture. Forms should be submitted to the Knoxville Regional Transportation Planning Organization (TPO) for review and acceptance. All accepted changes will be kept on file by the TPO and will be incorporated into the Knoxville Regional ITS Architecture during the next scheduled update.

Contact Information

Agency	
Agency Contact Person	
Street Address	
City	
State, Zip Code	
Telephone	
Fax	
E-Mail	

Change Information

Please indicate the type of change to the Regional ITS Architecture or Deployment Plan:

☐ Administrative Change: Basic changes that do not affect the structure of the ITS market packages in the Regional ITS Architecture.
Examples include: Changes to stakeholder or element name, element status, or data flow status.

☐ Functional Change – Single Agency: Structural changes to the ITS market packages that impact only one agency in the Regional ITS Architecture.
Examples include: Addition of a new ITS market package or changes to data flow connections of an existing ITS market package. The addition or changes would only impact a single agency.

☐ Functional Change – Multiple Agencies: Structural changes to the ITS market packages that have the potential to impact multiple agencies in the Regional ITS Architecture.
Examples include: Addition of a new ITS market package or changes to data flow connections of an existing ITS market package. The addition or changes would impact multiple agencies and require coordination between the agencies.

☐ Project Change: Addition, modification, or removal of a project in the Regional ITS Deployment Plan.

☐ Other: _____
_____

Submittal

Please submit ITS Architecture Maintenance Documentation form to:

Knoxville Regional Transportation Planning Organization
400 Main Street, Suite 403
Knoxville, TN 37902
Phone: 865-215-2500

Form Submittal Date: _____

Knoxville
Regional ITS Architecture
ITS Architecture Maintenance
Documentation Form

Question 1 Describe the requested change to the Regional ITS Architecture or Deployment Plan.	*Example: City A is planning to deploy CCTV cameras for network surveillance on arterial streets. In the Regional ITS Architecture, the City A Traffic Operations Center (TOC) is shown as the only center controlling the CCTV cameras. The City A TOC is now planning to provide images and control of the CCTV cameras to the City A Police Department for use during incidents.*
Question 2 Are any of the Regional ITS Architecture market packages impacted by the proposed change?	☐ Yes: Please complete Questions 2A and 2B ☐ No: Please proceed to Question 3 ☐ Unknown: Please coordinate with the Knoxville TPO to determine impacts of the change to the Regional ITS Architecture
Question 2A List all of the ITS market packages impacted by the proposed change.	*Example: ATMS08 – Traffic Incident Management System* *ATMS01 – Network Surveillance*
Question 2B Include a copy of the ITS market packages impacted by the proposed change and mark any proposed modifications to the ITS market packages. Add any additional notes on proposed changes in this section.	*Example: A sketch of the ATMS08 – Traffic Incident Management System market package diagram for City A is attached. Changes have been marked by hand to indicate the new data connections that will be established to allow the City A TOC to send traffic images to the City A Police Department and for the City A Police Department to control the CCTV cameras. The deployment of the CCTV cameras will also result in several of the data flows in ATMS01 – Network Surveillance being changed from planned to existing. These have also been marked on the market package diagram. (Note: The ITS market package diagrams can be found in Appendix B of the Regional ITS Architecture.)*
Question 3 Does the proposed change impact any stakeholder agencies other than the agency completing this form?	☐ Yes: Please complete Questions 3A and 3B ☐ No: Form is complete ☐ Unknown: Please coordinate with the Knoxville TPO to determine impacts of change to other agencies in the Regional ITS Architecture
Question 3A Identify the stakeholder agencies impacted by the change and a contact person for each agency.	*Example: The City A TOC and City A Police Department are the two agencies impacted by this change. (Note: Assuming the City A TOC representative is completing this form, the contact person from the City A Police Department working on this project should be listed.)*
Question 3B Describe the coordination that has occurred with the stakeholder agencies and the results of the coordination?	*Example: The City A TOC and City A Police Department have had several meetings in the last year to discuss the operations of the arterial CCTV cameras. An operational agreement for the joint operations of the CCTV cameras is currently being developed.*