**Digital Data Transfer in Road and Bridge Construction Project**

**Meeting Minutes – 08/10/16**

Meeting Purpose: Identify data transfers in guardrail repair done by maintenance shops

Type of Meeting: Face-to-face

Facilitator: Dr David Jeong (ISU), Tuyen Le (ISU)

Note Takers: Alan Hayes, Tuyen, Dr Jeong

Attendees:

ISU: Dr Jeong, Tuyen Le, Alan Hayes

Iowa DOT: Jim Van Sickle, Mike Williams, Scott (I MISSED HIS LAST NAME)

Start of meeting: 10:00 AM

Meeting purpose was for ISU to start to understand the digital information that can be transferred to and from the maintenance shop, and other ways they communicate with outside groups. ISU created a preliminary flowmap that had been formulated from a previous large-group meeting.

1. Discussion of how maintenance is initiated

* Regular inspections
  + Cables are checked once a year
  + Bridge inspectors from IDOT check guardrail every other year along with other inspections
    - Maintenance will be emailed a bridge repair work order (post or guardrail damaged) in PDF form if maintenance is needed. Information received includes bridge number, location, repair description, function, repair code, inspection recommendation, and repair instructions. Some other supporting documents, images may be attached as well. This word orders can be pulled down from ERMS.
    - Maintenance updates bridge file in ERMS when repairs complete (double check needed-may not true)
    - There no as-built (new location, and material) report after repair saved in ERMS. Just open the work order and mark it done. No updating the bridge file.
  + Regular visual inspections when driving by
  + Inspection reports are stored in ERMS.
  + Daily inspection performed by Iowa maintenance crew would include the following information: date, function (e.g., 670), hours, county, route, surface, mile post (start and end), equipment, materials and crew members. This form is filled out in ERMS.
* When guardrail is involved in an accident
  + IDOT call center in Ankeny will email a case number to maintenance for billing purposes
  + If w-beam, general maintenance crew will repair
  + For cable repairs along the interstate, a report will be faxed to a contractor
    - Contractor will return a bill. These contracts not stored in ERMS, just in local driver. Information in the contract form would include location (county), route name, start and end mile post, direction, manufacturer, estimated number of posts to be replaced.
  + Any accidents are billed to the person who caused the damage, if known
* When guardrail is involved in a new project

1. Different technologies and programs used by maintenance shop workers in the transfer of digital information

* E-mail: contact with call center for case numbers of accidents
* ERMS: Scott enters in crew hours under the 670 function, also completes bridge repair work orders. 670 function for guardrail maintenance, and 667 for sign maintenance.
* Google Earth: show crew the location and what they are doing, find distances
* W-drive: Scott uses guardrail damage forms and saves them on their W-drive
* Excel: help track hours
* Iowa one-call: finding utilities
* Collector app: inventory of all guard and cable rail. Some types of data like size, long, type, but no lat/long data.
* No formal historical data of guardrail replacement or repair. Staff can look for information on paper repair report, based on the bridge number to track history of maintenance. But no incident information.

***Action: Crews currently just mark bridge and guardrail repairs by mile markers. This makes potential transfer of data difficult. ISU would like to know about an app that could be used to find lat/long data easily, in order to make information found more usable.***

***Action: Meeting with the IT department of IDOT is necessary to understand some of the different programs they use (ERMS, ect.). Also need a meeting with the IDOT Department of Contracts.***

*End of Meeting: 11:00 AM*