Bridge Inspection and Maintenance System
Roles and Responsibilities

Background:

As defined in the BIM Manual, the "Bridge Inspection and Maintenance System (BIM) is a comprehensive inventory management system with the ability to process bridge inspection and component information for use in inspection management, maintenance programming, budget development, strategic planning, and life cycle planning so that the safety of the traveling public and the investment in bridge structures is optimized".

The Regional Services Division (RSD) and the Engineering Services Division (ESD) of Alberta Transportation partner in the operation of this important system. The relative roles and responsibilities parallel those of bridge construction projects, as outlined in the "TSB Bridges Role" document. RSD manage delivery of the bridge inspection program, and ESD develop standards and transfer knowledge.

However, tasks that typically involve complex technical assignments and coordination of cross-regional activities are optimally delivered by a central, technical team. For this reason, ESD perform additional tasks including system management functions and manage delivery of programmed level 2 inspections.

RSD Responsibilities:

- Managing delivery of all activities related to BIM Level 1 and non-programmed Level 2 (timber coring, culvert barrel measurements) inspections.
- Hiring inspection consultants, with one main contract per region for provincial highway structures plus additional smaller contracts for local road major bridges (ESD will assist in coordination of the process).
- Assigning inspection lists to consultants, typically in 3 month sets.
- Accepting inspections into the system.
- Tracking adherence to inspection standards (frequency, quality).
- Managing maintenance recommendations, including making decisions on which recommendations to follow and subsequent delivery of maintenance projects through the maintenance contractor.
- Responding to low ratings advisories resulting from bridge inspections, with potential posting, closure, and emergency repairs.
- Undertaking independent quality assurance inspections (with assistance from ESD as necessary due to resource limitations).
- Resolving inspection consultant performance issues.
- Providing consultant performance evaluation data to PSS.
- Undertake field inspections of structures in the Level 2 River Protection Works inspection program when in the area (approximate 5 year cycle).
- Ensuring changes to the bridge inventory are completed in BIS as required.

ESD Responsibilities:

- Preparing documentation for all practices and policies, including updates to the BIM Manual and BIM Reference Manual.
- Managing the inspector training process (courses, field training), with training delivered by consultant.
- Update and delivery of certain course modules requiring expert knowledge (e.g. Hydraulics, Advanced Concrete and Steel Inspection…).
- Managing the inspector certification process (mentoring, exams, test inspections) and re-certification process (check on activity, performance, training).
- Data management - creation of new sites, resolving inventory data issues, data integrity checking.
- System enhancement - business case development and technical support for system enhancements.
- Managing delivery (priority setting, data analysis, and reporting) of programmed BIM Level 2 inspections, with data collection by consultants. These programs, as detailed in the BIM Level 2 Inspection Manual, include:
    - Concrete deck testing (>100 sites per year).
    - Specialized steel inspection (ultrasonic truss, cover plate, fatigue…).
    - Ferry (7 units annually) and ferry cable inspection (5 sites, bi-annual).
    - Pier Scour Survey (~10 sites annually).
    - River Protection Works inspection (geographic airphoto analysis for banktracking, ~20 sites annually).
- Preparing annual reports on BIM activities to Executive Committee.

BIM Committee:

In addition to these specific roles, the BIM Committee is responsible for providing advice and recommendations to the Bridge Process Management Committee on policy, management and standards relating to the BIM system. This committee is comprised of RSD and ESD members. As per the charter, roles for this committee include:

- Provide advice and recommendations on bridge inspection practices, including delivery of the bridge inspection contracts and system requirements to support these activities.
- Promote the consistent application of these practices through process definition, innovation, and information sharing.
- Identify and solve system problems, and identify future requirements and enhancements for the system.
- Guide development and enhancement of system documentation, training materials, and communication releases.
- Review and revise system components such as certification process, quality assurance checks, ratings guide changes, and contract delivery.

- Develop and promote strong communication, relationships, collaboration and teamwork between branches and divisions

This clarification of roles in operation of the BIM system is effective as of **October 2012**.

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