

Report TR-TAPS-78-14

To: Chair Barfoot and Members of the Transportation and Public Safety Committee
From: M.J. Kelly, Director of Transportation Services
Meeting Date: October 23, 2014
Subject: Transportation Services Engineering Section
Status: Recommendation adopted by Committee as presented per Resolution TAPS126-14; Endorsed by County Council November 4, 2014 per Resolution CC151-14;

Recommendation(s)

THAT Report TR-TAPS-78-14 regarding the Transportation Services Engineering Section be received for information purposes.

Background

At the October 14, 2014 Corporate Services Committee meeting there was discussion regarding staffing and the role of the Transportation Services Engineering Section, in particular why a Structural Engineer had been retained to complete the design for the structure replacement on Grey Road 3, just north of Keady.

In January 2011, the Transportation Service Engineering Section included five staff members; an Engineering Manager and four Technicians. As of October 23, 2014, the Engineering Section includes four staff members; an Engineering Manager and three Technologists. There is a current competition for an additional Contract Technologist as per Report TR-TAPS-55-14.

The Transportation Services Review recommended hiring a Structural Engineer. The duties of the Structural Engineer was to assume the role of the Bridge Foreman, plan and organize structural work, and complete County and local municipalities' bi-annual structural inspections. Several of the local municipalities did not wish to participate with the concept of a Structural Engineer. As a result, the Structural Engineer concept was placed on hold.

The Transportation Services Review indicated that the Structural Engineer would report to the Director; however, without the Structural Engineer, the structure responsibilities have been allocated to the Engineering Manager.

The following are activities that the Engineering Section is conducting now, and that were not part of the Engineering Section activities prior to 2011:

- Complete Road Assessments “in house”
- Complete five year capital construction plans based on technical assessments.
- Administrate capital construction projects with inspectors
- Coordinate work with Maintenance
- Provide technical assistance to Maintenance and the Planning Department regarding trails and culverts
- Complete accurate and up to date tender packages
- Maintain accurate records regarding all projects
- Establish and monitor all projects
- Manage/oversee the Bridge Crew
- Develop a program for structures and traffic control signals
- Maintain and develop a program for traffic control signals

Consultant Assignments

Although the Engineering Section completes the majority of the contract designs, there are times when consultants are retained to complete some work due to the lack of available resources, or the need for specialized expertise.

Structural work is very specialized engineering work. There are two Engineers employed by the Transportation Services Department. Both of these Engineers have a general working knowledge of structures; however, neither one is specialized in structural design. As a result, engineer consultants are retained when structural services are required.

The Transportation Services Department wishes to complete all routine contracts in house and typically will only use consultants for specialized work.

Grey Road 3 Structure – 150 metres north of Grey Road 16

Grey County recently submitted a funding request to the Ontario Community Infrastructure Fund to reconstruct a bridge located on Grey Road 3, 150 metres north of Grey Road 16.

In accordance with Ontario Legislation, municipalities are required to inspect all culverts and bridges with a span of three meters or greater, every two years. The structure on Grey Road 3 was inspected in 2011 by AECOM Consultants and again in 2013 by S.

Burnet Consultants. Based on their inspections, both consultants recommended the replacement of this structure, and both cost estimates were approximately \$1,400,000.

As a result of the consultant's recommendations, this structure is on the Grey County five year program with a target reconstruction date of 2015. To ensure the target date could be achieved the Transportation Services Department awarded a consultant assignment to GM Blue Plan to inspect the bridge, identify and analyze options, complete the environmental requirements, and prepare a tender package including drawings and applicable documentation.

A consultant was hired as the Transportation Services Department does not have the necessary structural expertise to complete this project.

Financial / Staffing / Legal / Information Technology

Considerations

The Transportation Services Department Engineering Section is planning and completing more work with fewer staff now than prior to 2011. The caliber of the tender projects completed by the Engineering Section has resulted in lower costs.

Consultant assignments are awarded when the work to be completed is either too large for the Engineering Section or requires specialized knowledge, such as structural work. The completion of specialized assignments such as structural projects by unqualified staff could result in legal liability.

Link to Strategic Goals / Priorities

Strategic Goal 6: Achieving Excellence in Governance and Service

Respectfully submitted by,

M.J. Kelly
Director of Transportation Services