

Report TR-TAPS-51-15

To: Chair Barfoot and Members of the Transportation and Public Safety Committee
From: M.J. Kelly, Director of Transportation Services
Meeting Date: June 4, 2015
Subject: Transportation Services 2016-2020 Draft Five Year Capital Forecast
Status: Recommendation adopted by Committee as presented per Resolution TAPS91-15; Endorsed by County Council July 7, 2015 per Resolution CC96-15;

Recommendation(s)

THAT Report TR-TAPS-51-15 regarding the Transportation Services 2016-2020 draft Five Year Capital Forecast be received as presented and forwarded for inclusion in the corporate Five Year Capital Forecast for consideration by County Council.

Background

The Asset Management Plan for the County of Grey completed in 2013 by Public Sector Digest concluded that there are pent up investment demands of approximately \$60,000,000 and \$9,000,000 for roads and structures respectively. It concludes that the levy for roads should be increased \$11,354,500 from \$7,855,500 to \$19,210,000 and the levy for structures should be increased \$2,451,000 from \$546,000 to \$2,997,000. It was suggested that the Grey County levy be increased 5.5%, 2.7%, 1.8% or 1.4% over the next 5, 10, 15 or 20 years respectively to fund the short fall required for roads and bridges.

If additional funding is not allocated to the roads and bridges, the overall condition adequacy will continue to decrease.

The following summary outlines the 2015 capital budget as well as the five year forecast with an increase in 2016. It should be noted that the department could significantly increase the spending on its roads if funds were allocated.

COMMITTEE/FUNCTION	2015 Approved Budget	2016-2020 Five Year Capital & Extra-Ordinary Expenditures					
		2016	2017	2018	2019	2020	TOTAL
Construction, Resurfacing and Minor Capital	6,100,791	6,722,771	7,363,482	8,062,907	8,829,024	9,668,016	40,646,200
Machinery	675,000	675,000	675,000	675,000	675,000	675,000	3,375,000
Housing	300,000	300,000	300,000	300,000	300,000	300,000	1,500,000
NET LEVY REQUIREMENTS	7,075,791	7,697,771	8,338,482	9,037,907	9,804,024	10,643,016	45,521,200
Levy Increase		621,980	640,711	699,425	766,117	838,992	

It is recognized that the levy for 2016 is increased by \$621,980 from last year, which is a 1.2 percent County levy increase.

Construction, Resurfacing and Minor Capital

Roads

Over the last three years, Transportation Services staff has technically assessed all the Grey County Roads. The road assessment consists of inspecting the road, and identifying and rating the structural and smoothness condition of the road. With this information, a pavement condition rating is established that assists in determining the most economical treatment (construction and timing). This is the basis of a five year capital plan identified in this report. There is minimal information regarding the road structures for the majority of Grey County Roads. As a result, assumptions must be made regarding the best treatment and cost. Once the actual design is initiated, geotechnical information is obtained which may result in adjusting the scope and/or the cost of the work.

It is recognized that the deterioration of a road is related to environmental conditions and usage. As a result, the forecasted year for a project is subject to fluctuate depending on the annual assessments. The attached list of projects (Attachment to TR-TAPS-51-15 Construction, Resurfacing and Minor Capital 2016-2020 Five Year Capital) includes a column that indicates the year the work was forecasted to be completed in the 2015-2020 five year forecast. The changes to the program were based on the condition of the roads, as well as the coordination of similar projects to take advantage of economic opportunities.

In 2016 the following three projects have been advanced:

- 1) Grey Road 119 from Grey Road 2 to 4th Line. This project was advanced from 2019 as the condition of the surface treatment significantly deteriorated during the 2014/2015 winter season.

- 2) Grey Road 40 from Grey Road 10 to Grey Road 3. This project was not on the five year plan; however, the surface treatment significantly deteriorated during the 2014/2015 winter season.
- 3) Grey Road 17 from Grey Road 17B to Girl Guide Road. This road was reconstructed in 2013; however, with the anticipated haulage as a result of the expansion of the Keppel Quarry expansion, additional structural strength is required.

Transportation Services contacted the local municipalities to inquire regarding their plans for local municipal work on County Roads to enhance the coordination of work.

It is anticipated that a reconstructed road should last on average of 16 to 18 years provided the appropriate preventative maintenance work is completed. With 877 kilometres of road, the County should be rehabilitating approximately 52 kilometres of road annually. However, in the past many of the Grey Roads were not constructed to a sufficient standard to last for 17 years and, as a result, more than 52 kilometres of roads should be rehabilitated annually.

The five year plan includes transferring funding to a reserve for future Infrastructure needs. In the future years this funding will be allocated to specific road and bridge projects.

Structures

In 2013 Transportation Services initiated the work of reviewing and prioritizing structure replacement. As a result, the 2015-2020 five year forecast includes the replacement of seven structures. The structures were selected based on condition and the coordination of adjacent road work.

Considering the age of the county structure and the replacements that have occurred over the last ten years (see attached chart), it is expected that additional funding will be required for structures in the near future.

Housing and Depots

The Housing and Depot Five Year Capital Budget includes projects identified in the Building Condition Assessment Report, the Sand Dome Report and information provided by the Area Foremen.

The Dundalk patrol yard includes a patrol building, sand dome and a storage shed. The patrol building consists of an original structure constructed in the 1950's and two additions built in the 1970's and 1990's. The portions of the building constructed in the 1950's and 1970's will require a significant amount of work over the next several years. In addition, the sand dome will need to be re-shingled and structural repairs are required in 2016 at a cost of approximately \$60,000. This dome was built in 1982 and should be replaced in ten years, once it requires to be shingled the next time. A new

sand storage building would cost approximately \$250,000. There is not a salt shed at the yard and it was the department's intent to construct a salt structure in 2015 for \$30,000.

The Transportation Services Department recommends constructing a combined sand and salt storage building in 2016 that would also provide unheated storage for enough equipment so that the 1950 and 1970 portions of the patrol building could be redundant. This would eliminate the need to spend a significant amount of money on upgrades to the patrol building. In addition, the annual cost for the facility for items such as heating and cleaning would be reduced by at least \$5,000 for the facility.

The cost for this building would be approximately \$300,000. The proposed building would have a life of at least 50 years and be almost maintenance free. The construction of the facility would eliminate the need to construct a salt shed (\$30,000), re-shingle and complete structural repairs to the sand dome (\$60,000), replace the sand facility in about ten years (\$250,000), repair the 1950 and 1970 portions of the building (\$100,000 over the next ten years), and reduce annual operational costs by at least \$5,000.

It is recommended to utilize reserves that have been set aside for the construction of a new Flesherton Patrol yard in 2016 and then repay this reserve over the next several years.

The County has and will be completing a variety of projects on the existing sand domes; however, these structures are aging and are expected to require replacement in several years. Therefore, a large portion of the forecast expenditure for 2017 to 2020 has been allocated to the sand dome replacement reserves.

Machinery

With the elimination of the construction crew, the reduction of plow/spreader trucks and the possibility of outsourcing some plow/spreader trucks (if feasible), Transportation Services will reduce its equipment complement. As a result, there will be less equipment to replace.

The five year equipment replacement will remain consistent with the 2015 forecast with the following exception. In 2016 it was planned to replace a loader backhoe for approximately \$135,000. After reviewing the operations of a loader backhoe and a pay loader, it was determined that the pay loader was more efficient, could be used for additional work, was cheaper to operate and had a greater resale value. As a result, it is more economic for the County to purchase a pay loader for \$225,000 than a backhoe. Therefore, it is recommended to purchase a pay loader instead of a loader backhoe in 2016.

Each year the complement of equipment will be assessed.

The equipment reserve as of December 31, 2014 was \$4,006,159.24. The Finance Department completed a twenty year equipment replacement assessment. As a result, it was determined that commencing in 2015, the County could reduce its annual contribution to the equipment reserve to \$675,000, maintaining adequate funding for future equipment replacement while maintaining a healthy reserve.

Financial / Staffing / Legal / Information Technology Considerations

The proposed five year forecast levy includes an almost \$621,980 increase in 2016, which is an increase to the Grey County levy of 1.2 percent.

In accordance with the Asset Management Plan for the County of Grey completed in 2013 by Public Sector Digest there are pent up investment demands of approximately \$60,000,000 and \$9,000,000 for roads and structures respectively. It concludes that the levy for roads should be increased \$11,354,500 from \$7,855,500 to \$19,210,000 and the levy for structures should be increased \$2,451,000 from \$546,000 to \$2,997,000. It was suggested that the Grey County levy be increased 5.5%, 2.7%, 1.8% or 1.4% over the next 5, 10, 15 or 20 years respectively to fund the short fall required for roads and bridges.

Link to Strategic Goals / Priorities

The Capital Forecast includes ongoing capital funding to preserve the portfolio of capital assets under the care and control of the Transportation and Public Safety Committee, which supports Goal 1.6 of the Corporate Strategic Plan. The goal identifies the importance of accelerating Council's commitment to lifecycle planning for the long term investment of county owned capital assets.

Communication is a key value to the County's Strategic Plan. The report provides information to Council in regards to the estimated future capital funding requirements and needs.

Attachments

[Attachment to TR-TAPS-51-15 Machinery Capital 2016-2020 Five Year Capital](#)

[Attachment to TR-TAPS-51-15 Housing Capital 2016-2020 Five Year Capital](#)

[Attachment to TR-TAPS-51-15 Construction, Resurfacing and Minor Capital 2016-2020 Five Year Capital](#)

[Attachment to TR-TAPS-51-15 2016-2020 Five Year Capital Construction and Resurfacing Map](#)

[Attachment to Report TR-TAPS-51-15 County of Grey Structure Chart](#)

Respectfully submitted by,

M.J. Kelly
Director of Transportation Services