

STAFF REPORT: ENGINEERING & PUBLIC WORKS DEPARTMENT



REPORT TO: Council
MEETING DATE: December 12, 2011
REPORT NO.: EPW.11.101
SUBJECT: Grey Road 21 Trunk Sanitary Sewer –
 Engineering Services
PREPARED BY: Mike Campbell, Construction Coordinator

A. Recommendations

THAT Council received Staff Report EPW.11.101, “Grey Rd 21 Trunk Sanitary Sewer – Engineering Services”; and,

THAT Council approve the Mayor and Clerk executing a Front-Ending Agreement with Georgian Gate Ltd. for the construction of the Grey Road 21 Trunk Sanitary Sewer upon the recommendation of the Director of Engineering and Public Works, the Director of Finance and IT Services and the Town’s Solicitor; and,

THAT Council approve the creation of a capital budget for the construction of the Grey Road 21 Trunk Sanitary Sewer in the amount of \$2,411,000 subject to the execution of a Front-Ending Agreement; and,

THAT Council approve retaining C.C. Tatham & Associates Ltd to provide engineering services to undertake the design, tendering and contract administration for the Grey Road 21 Trunk Sanitary Sewer by negotiated agreement as permitted under the Purchasing of Goods and Supplies Corporate Policy, POL.COR.07.05 and the Purchasing of Goods and Supplies Procedures Policy, FS.08.08,. Schedule F, subsection 1(b) and (j) for an upset fee of \$131,028 plus a \$15,000 fee contingency for a total of \$146,028, and,

THAT Council approve the Mayor and Clerk executing an Engineering Agreement with C.C. Tatham & Associates Ltd upon the recommendation of the Director of Engineering and Public Works and the Town’s Solicitor.

B. Background

As part of the Combined Environment Study Report completed in June, 2006, regarding sanitary servicing in the Craigleith area, it was identified that a trunk sanitary sewer would be required along Osler Bluff Road (Grey Grey Road 21) to service new development west of GR 21, portions of the Town of Collingwood fronting GR 21, Osler area in the Town and the Township of Clearview, and the Castle Glen Service Area.

This sewer project is referred to as the Osler Bluff Road Trunk Sewer – Phase 1 in the current Town budget document for 2015 construction. Attachment 1 provides the location of the sewer. The description of the work from the budget is: “A trunk sanitary sewer is required along Osler Bluff Road to support development. The first phase of the project is from GR 19 to the existing sanitary sewer on Hwy 26. The construction is development dependant, and must be front ended by Developer.” As this section of Osler Bluff Road was renamed a number of years ago to Grey Road 21 by the County, the project will be referred to as the Grey Road 21 Trunk Sanitary Sewer.

Twice before this sewer, or a portion thereof, has been anticipated for construction.

In 2007 site servicing for Castle Glen was contemplated consisting of the extension of the trunk water and sanitary systems. The sanitary sewer along Grey Road 21 from Highway 26 to Grey Road 19 (subject of this Report) was part of the servicing solution for Castle Glen. At that time C.C. Tatham and Associates (Tatham) was selected through a formal Request for Proposal process for an upset fee limit of \$281,000. The Castle Glen Developer however did not move the process forward and the project died.

In 2009 Grey County moved forward with rebuilding a portion of Grey Road 21. The initial plans were to rebuild the worst section of the road from Grey Road 19 to approximately 700m northward. This work had been planned for as early as 2005 however, due to requests by various developers; the road work was deferred several times to facilitate the installation of the trunk sanitary sewer. By 2009 the deterioration of the road and the uncertain time frame of development resulted in Grey County announcing the reconstruction would proceed. Neither the Town nor the Georgian Gate Developer wished to install a portion of the sewer that would be under the road works. In the end, the County re-surfaced the road instead of reconstruction as originally contemplated for budgetary reasons. Of note is that the extent of the road re-surfacing completed by Grey County was 1.1km further north (to Monterra Road) than originally planned.

In early 2011, the Town was approached by Georgian Gate Ltd with plans to re-start the Georgian Gate Development, now renamed Windfall. The Developer wants to service the lands in 2012 and therefore requires the Grey Road 21 Trunk Sanitary Sewer in early 2012.

Front-Ending Agreement

Although this sewer is listed within the Development Charges By-Law, it has been considered for some time that the Town would not proceed with the sewer unless there was a developer willing to front-end fund the works. Therefore, prior to any work being done or Staff incurring time to progress the project, save and expect this report, a Front-Ending Agreement must be executed and an appropriate deposit or Letter of Credit put in place by the Developer to pay for all the works.

Given the financial complexity of this project, a Schedule of Project Steps has been prepared for the Developer and Staff to assist those involved in the project to understand the various steps necessary to complete the project.

For the purposes of this Report, an abridged and updated version is provided for information as Attachment 2. Some of these steps are expanded upon below in this Report.

The Front Ending Agreement will provide, among other things, that Georgian Gate Ltd provide financing to the Town for 100% of the capital costs of the Grey Road 21 Trunk Sanitary Sewer and that Georgian Gate Ltd will be able to recover a portion of these costs by means of development charges credits for the sewage collection service category of the development charges imposed on the units on their lands, the transfer of development charges received for the category from third parties for the creation of new lots benefitting from the trunk sewer and cost recovery from existing properties benefitting now or in the future from the trunk sewer.

In addition, clauses will be included in the Agreement that:

- the Developer shall be required to increase the value of the security to the Engineer's construction estimate prior to issuing the Tender;
- any top-up will be provided before the construction contracts are executed; and
- Direct incurred Staff costs will be reimbursed if the project does not move forward by the end of 2013 for reasons within the control of the Developer.

It should be noted that the Developer will not be able to recover all of the costs because the Development Charges Background Study did not consider the re-instatement of the roadway as part of the Wastewater Development Charges. Unless the County will contribute to the road works or alternate arrangements are made, it is anticipated that the Developer will be solely responsible for road re-instatement.

Georgian Gate Ltd in anticipation of servicing the Windfall Development, has retained Tatham to complete design work at a value of \$32,824.72 consist of \$25,424.72 in engineering services and \$7,400.00 for the Geotechnical Report. The invoice backup for the engineering to date completed between November 2010 and October 2011 includes field survey, site inspections and advancing the final design is consistent with the scope of work that would have had to been completed if the project had been initiated by the Town at its inception. The Geotechnical Report is also a fundamental report which would be required to undertake this work. Therefore, subject to Tatham undertaking the remainder of the project and confirmation this action is permissible under Development Charges legislation; these costs will be included in the Front-Ending Agreement for cost recovery.

Once Georgian Gate Ltd has provided funding equivalent to the estimated cost of the remaining engineering fees and miscellaneous cost as outlined under the Financial Impact section below, the Town's Solicitor will prepare the Front-Ending Agreement. Georgian Gate Ltd will also be required to pay a non-refundable agreement preparation fee.

Once the Agreement is executed, correspondence will be sent to direct and in-direct benefitting property owners to inform them of forthcoming or future cost obligations. The Town of Collingwood is considering whether to make provision for servicing properties on the east side of Grey Road 21.

An agreement with the Town of Collingwood will be needed to service properties in Collingwood. Of special note, the properties in Price's Subdivision (future benefitting owners) consisting of Martin Grove, Patricia Drive and Claire Glen will be serviced via sewers internal to the Windfall Development. At some point in the future, a sewer extension project will be undertaken by the Town to services these streets.

Given the aggressive frame on this project, Staff recommend that the Mayor and Clerk execute the Front-Ending Agreement with Georgian Gate Ltd. for the construction of the Grey Road 21 Trunk Sanitary Sewer upon the recommendation of the Director of Engineering and Public Works, the Director of Finance and IT Services and the Town's Solicitor.

Capital Budget

Upon the execution of the Front-Ending Agreement, it is appropriate that a capital budget be created to enable the completion of the trunk sanitary sewer on GR21 from Hwy 26 to GR 19. Staff recommend that when the Front Ending Agreement is executed Council remove the capital project planned for 2014 / 2015 and create a 2012 capital budget at a value of \$2,411,000 including engineering services, construction, contingency and related miscellaneous costs. Attachments 3 and 4 respectfully provide the draft Capital Budget sheets that would be utilised for the waste water and roads components of the overall project.

For clarification, the work proposed to service the Windfall Development will terminate 300m north of the intersection with Grey Road 19 because the servicing of the development can be accomplished at this point, and moreover, the design of the reconstruction of the GR 19 / GR 21 intersection is unknown. When the intersection works proceed, the Town will need to consider the extension of the trunk sewer through the intersection.

To enable this significant project to precede, other capital projects in the draft 2012 Capital Budget will need to be deferred and other initiatives may be delayed. The projects in particular that will be affected will be the Mountain (Gord Canning) Drive Streetlights and likely the preparation of the Elma Street Reconstruction Preliminary Design Report. Other initiatives that will be delayed or deferred as priorities within the Engineering Division are re-configured will include the correction of deficiencies within defaulted developments, drawing management and engineering standards review.

Engineering Services

Since the trunk sanitary sewer is funded by Development Charges, the consultant engineer should be retained by the Town for transparency and reporting reasons. It is appropriate to consider retaining Tatham directly because it is clear that this firm has a significant understanding of the technical aspects of this project gained over several years. On behalf of the Developer, Tatham has advanced the design of the sewer to approximately the 90% stage in order to understand the servicing rationale and to produce detailed cost estimates. Along with their work in support of the Windfall Development, this firm was selected in 2007 by an open Request for Proposal process for the provision of the trunk sanitary sewer along Grey 21 and GR19 to the Castle Glen Development. Furthermore, the Developer’s aggressive goal of having housing construction started in the summer of 2012 requires direct selection. If the Town were to undertake a traditional Consultant Selection Process, the construction of the sewer would be delayed until at least the fall of 2012, or more likely, to spring 2013. Given’s Tatham’s knowledge advantages, they would very likely be retained regardless.

As a result of the above reasoning, Staff negotiated with Tatham to provide a work plan to satisfy a Terms of Reference (TOR) provided by the Town. The TOR required that Tatham include the provision of geotechnical services. A summary of Tatham’s fees is provided in the table below.

TASK	FEE ESTIMATE
Completion of Final Design	\$23,000
Tender Administration	\$5,000
Contract Administration	\$60,600
Disbursements	\$1,400
	<hr/>
Subtotal Engineering	\$89,600
Geotechnical	\$41,428
	<hr/>
Subtotal Tatham Upset Limit	\$131,028
	<hr/>
Fee Contingency	\$15,000
	<hr/>
TOTAL PROPOSED FEE	\$146,028

To determine the appropriateness of retaining Tatham directly, Staff compared these fees to the quoted fees in 2007 and the current budgeted amount.

The 2007 proposal was for water and sewer servicing extension to Castle Glen. The total fee was \$281,000. Considering the removal of the fee allowance of \$91,000 for the water main, the sewer extension fees were \$190,000.

It is important to note that the 2011 fee estimate includes the geotechnical component of the work required for this project. Therefore comparisons to the 2007 engineering fee must be done by adding the subtotal of engineering and engineering work done to date (\$25,424) together. The cost of engineering now becomes \$115,024 as outlined in the table below. This figure is compared to the \$190,000 fee proposal in 2007. Although there is a difference in the length of the projects, the 2011 fees appear in line with what would be expected because engineering fees are not fully scalable by the length of the project.

The Town's current budgeted amount in 2015 for engineering and related work is \$210,000 which amounts to roughly 10% of the estimated construction cost. Since the expected cost of \$115,024 is well below 10% of the expected construction cost, the quoted fee schedule is reasonable from this view point.

TASK	FEE ESTIMATE
Pre-Agreement Work	\$25,424
Subtotal Engineering from above	\$89,600
GRAND TOTAL ENGINEERING	\$115,024

An option available to the Town instead of retaining Tatham directly is to undertake a traditional Consultant Selection Process. As stated earlier, this would not enable the work to start until late 2012 or early 2013 which is not compatible with the timeline for the Windfall Development.

All things being considered, Staff recommend that Council approve retaining C.C. Tatham & Associates Ltd to provide engineering services to undertake the design and contract administration for the Grey Road 21 Trunk Sanitary Sewer by negotiated agreement as permitted under the Purchasing of Goods and Supplies Corporate Policy, POL.COR.07.05 and the Purchasing of Goods and Supplies Procedures Policy, FS.08.08,. Schedule F, subsection 1(b) when urgent acquisition of services are needed and subsection 1(j) when significant previous knowledge and experience about a particular project or assignment exists, for an upset fee of \$131,028 plus a \$15,000 fee contingency for a total of \$146,028, and that Council approve the Mayor and Clerk executing an Engineering Agreement with C.C. Tatham & Associates Ltd upon the recommendation of the Director of Engineering and Public Works and the Town's Solicitor.

C. The Blue Mountains' Strategic Plan

The recommended action in this report furthers the Town Strategic Plan Goal #2, "Addressing the Town Municipal Infrastructure Needs".

D. Environmental Impacts

During the construction of the works, green house gases will be produced. Environmental protection measures will be taken as typical for construction activities.

E. Financial Impact

By utilizing the Front-Ending model, the direct impact on Town resources will be minimized. Georgian Gate Ltd. will assume the financial burden for the work and recover their investments as enabled through Development Charges Credits.

It is Staff's recommendation that the Developer provide a deposit or Line of Credit for \$161,000 as outlined in the table below as a condition of drafting the Front-Ending Agreement.

Component	Cost
CC Tatham Fee Estimate (upset limit)	\$131,028
Fee Contingency	\$15,000
Miscellaneous & Advertising	\$5,000
Agency Approvals	\$10,000
Total (rounded off)	\$161,000

F. In Consultation With

This report has been reviewed with the Town's Solicitor, Director of Finance and IT Services and the Manager of Purchasing.

G. Attached

1. GR21 Trunk Sanitary Sewer Location Map.
2. Schedule of Project Steps
3. Grey Rd 21 Trunk Sewer-Phase 1 Draft 2012 Waste Water Budget
4. Grey Rd 21 Trunk Sewer-Road Rehabilitation Draft 2012 Road Budget

Respectfully submitted,

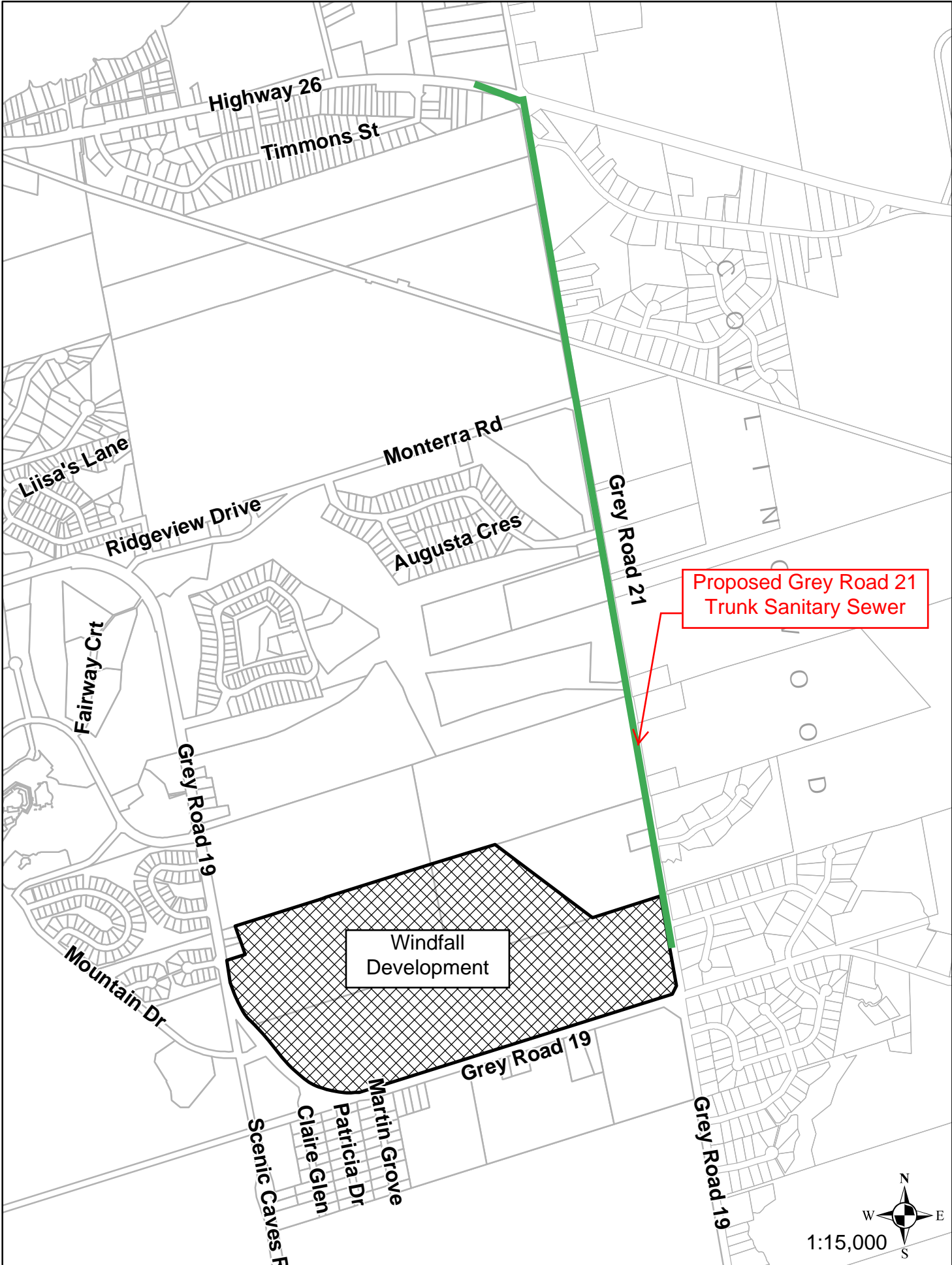
Mike Campbell

Mike Campbell
Construction Coordinator

Reg Russwurm

Reg Russwurm
Director of Engineering and Public Works

For more information, please contact:
Mike Campbell
mcampbell@thebluemountains.ca
(519) 599-3131 x275



Schedule of Project Steps

The following list of project steps and tasks relates to the design and construction of the proposed sanitary trunk sewer on County Road 21 to service the proposed Windfall Development.

1. C.C. Tatham (CCTA) to provide a work plan and an upset fee limit for engineering services for the Town's consideration. (*completed*)
2. Provided the work plan and fees are consistent with what Tatham presented to the Town a few years ago related to similar work on behalf of another Developer, Town Staff will recommend to Council that Council authorize that we proceed with "Negotiations and Single Source" per our Purchasing Policy. Failing consistency, Town staff will recommend that our formal RFP process be utilized which will delay the project. (*recommendation to retain Tatham in Report EPW.11.101*)
3. Georgian Gate Ltd. (GG) will be required to provide a Letter of Credit (LC), or cash, for the estimate of outstanding engineering fees proposed by the Engineers including the Permit to Take Water, plus an allowance for advertising, agency application and other miscellaneous costs, as a condition of the Town engaging CCTA and Terraprobe for engineering services or proceeding with a engineering services call. It is noted that no interest will be paid by the Town on the cash provided.
4. Town staff will prepare a Front Ending Agreement for execution by the parties that outlines the obligations of GG to provide funding for the work, what costs are eligible Development Charges Credits, how funding will be returned for existing directly benefiting and deferred benefiting properties, and how funding will be returned from future development projects.
5. The Engineers will be engaged by the Town as this is a Town Capital project.
6. The Town will either invoice GG to pay the Engineers, draw down on an LC or, utilize the cash provided as agreed to in the Front Ending Agreement.
7. The design and tender package will be prepared. The Town will review this package and approve same prior to tendering.
8. At the appropriate time, application will be made for the C of A, Permit to Take Water and other agency approvals (Grey, Simcoe, NVCA, etc).
9. Prior to issuing the Tender, GG must provide an appropriate security, based on the engineer's estimate of construction costs for the Works including an appropriate contingency.
10. Tender close and review of Tender by Town staff.
11. Prior to recommendation to Council to award construction contract, any top-up funding will be required based on actual Tender results. A return or replacement of security will also be available to GG if the tender results are lower than the engineer's estimate.
12. If necessary, and prior to project completion, the Developer may have to provide top-up funding to complete the works. Regardless, the front-ending agreement will include wording that the sewer cannot be used until sufficient funding is in place.
13. Town will administer the engineering services agreements and construction contracts as per the Front Ending Agreement.
14. At project completion, costs will be tallied and LC retired/returned as necessary.

Grey Road 21 Trunk Sewer-Phase 1

Project #	6-422-4321
Department	EPW-Water & Wastewater Services
Year of Initiation	2012
Year of Completion	2012
Submitted by	Reg Russwurm
Flexible	No
Capital	Yes

Description
A trunk sanitary sewer is required along Grey Road 21 to support development. The first phase of the project is from GR 19 to the existing sanitary system on HWY 26. The construction timing is being driven through the Georgian Gate (Windfall) development and will be front ended by the developer. Total works include 2.6km of sanitary gravity pipe. 525mm pipe from Hwy 26 to Monterra Road and 450mm pipe from Monterra to 300m south of CR 19. <i>The current budget does not include costs for additional servicing laterals to existing TBM or Collingwood residents.</i>

Category	Details
Purpose	The design and construction of Phase I on GR21 from the existing sanitary sewer system on Hwy 26 to GR 19. Services Development lands adjacent to GR 21, Osler Bluff and Castle Glen. Also allows for future servicing of Prices Subdivision.
Strategic Plan	Goal #2 "Addressing the Town's municipal infrastructure needs".
Environmental Impact	Construction practices will be done to minimize environmental impact (noise, dust, natural environment). However, greenhouse gases will be produced as part of construction activities.

		Budget							
Expenditures	Total	2012	2013	2014	2015	2016	2017	Account	
Materials	\$ -							62000	
Advertisements	\$ -							62125	
Courier	\$ -							63010	
Professional Fees	\$ -							63100	
Legal	\$ -							63105	
Engineering	\$ 110,000	\$ 110,000						63115	
Consulting	\$ -							63120	
Contract Services	\$ 1,550,000	\$ 1,550,000						63125	
Contingencies	\$ -							63126	
Additional Equipment	\$ -							64010	
Replacement Equipment	\$ -							64011	
Additional Vehicles	\$ -							64020	
Replacement Vehicles	\$ -							64021	
Interim Financing	\$ -							63210	
Expenditures Total:	\$ 1,660,000	\$ 1,660,000	\$ -	\$ -	\$ -	\$ -	\$ -		



		Budget							
Funding	Total	2012	2013	2014	2015	2016	2017	Account	
Federal Grants	\$ -							53005	
Provincial Grants	\$ -							53010	
Municipal Act 326 / 391	\$ -							54012	
Developer Contributions	\$ 1,660,000	\$ 1,660,000						57013	
Revenue Fund - Taxes	\$ -							54011	
Revenue Fund - User Fees	\$ -							54011	
Reserves	\$ -							54032	
Reserve Funds	\$ -							54046	
Debt	\$ -							58100	
Funding Total:	\$ 1,660,000	\$ 1,660,000	\$ -	\$ -	\$ -	\$ -	\$ -		

<u>Timeline - Current Projects</u>	Staff Resources Required							

Notes to Expenditure & Funding Tables

Project Costing Driver

Costing from 2011 CC Tatham Preliminary engineering assessment. \$500/m for 2600m of pipe plus \$250k for additional rock excavation and/or dewatering

Operational Expenditure Impact

Project management, project team participation, report review, attend construction meetings, review and approve payment of engineering fees and construction payment certificates.

Potential Cost Savings

Funding Sources - Grants / Reserves / etc.

Funded by Georgian Gate Development through front-ending agreement.

Map or Picture of Project



Grey Road 21 Trunk Sewer - Road Rehabilitation

Project #	6-308-4321
Department	EPW
Year of Initiation	2012
Year of Completion	2012
Submitted by	Reg Russwurm
Flexible	No
Capital	Yes

Description
A trunk sanitary sewer is required along Grey Road 21 to support development. The first phase of the project is from GR 19 to the existing sanitary system on HWY 26. The construction timing is being driven through the Georgian Gate (Windfall) development and will be front ended by the developer. Total works include 2.6km of sanitary gravity pipe. Road rehabilitation will include reconstruction of existing 2 lane paved roadway. <i>The current budget does not include costs associated with potential upgrades of CR21 such as a double lift of asphalt, widening, re-alignment, hill smoothing, etc.</i>

Category	Details
Purpose	The road rehabilitation relating to the construction of Phase I sanitary trunks on GR21 from the existing sanitary sewer system on Hwy 26 to GR 19.
Strategic Plan	Goal #2 "Addressing the Town's municipal infrastructure needs".
Environmental Impact	Construction practices will be done to minimize environmental impact (noise, dust, natural environment). However, greenhouse gases will be produced as part of construction activities.

		Budget							
Expenditures	Total	2012	2013	2014	2015	2016	2017	Account	
Materials	\$ -							62000	
Advertisements	\$ -							62125	
Courier	\$ -							63010	
Professional Fees	\$ -							63100	
Legal	\$ -							63105	
Engineering	\$ 51,000	\$ 51,000						63115	
Consulting	\$ -							63120	
Contract Services	\$ 700,000	\$ 700,000						63125	
Contingencies	\$ -							63126	
Additional Equipment	\$ -							64010	
Replacement Equipment	\$ -							64011	
Additional Vehicles	\$ -							64020	
Replacement Vehicles	\$ -							64021	
Interim Financing	\$ -							63210	
Expenditures Total:	\$ 751,000	\$ 751,000	\$ -	\$ -	\$ -	\$ -	\$ -		



		Budget							
<i>Funding</i>	Total	2012	2013	2014	2015	2016	2017	Account	
Federal Grants	\$ -							53005	
Provincial Grants	\$ -							53010	
Municipal Act 326 / 391	\$ -							54012	
Developer Contributions	\$ 751,000	\$ 751,000						57013	
Revenue Fund - Taxes	\$ -							54011	
Revenue Fund - User Fees	\$ -							54011	
Reserves	\$ -							54032	
Reserve Funds	\$ -							54046	
Debt	\$ -							58100	
Funding Total:	\$ 751,000	\$ 751,000	\$ -	\$ -	\$ -	\$ -	\$ -		

<u>Timeline - Current Projects</u>	Staff Resources Required							

Notes to Expenditure & Funding Tables

Project Costing Driver

Costing from 2011 CC Tatham Preliminary engineering assessment.

Operational Expenditure Impact

Project management, project team participation, report review, attend construction meetings, review and approve payment of engineering fees and construction payment certificates.

Potential Cost Savings

Funding Sources - Grants / Reserves / etc.

Funded by Georgian Gate Development through front-ending agreement.

Map or Picture of Project

