

CHANGE IN SCOPE – CLIENT APPROVAL



Client: Town of Kingsville

Project Name: Kingsville Sanitary System Master Plan Proposal

Project Number: 18-8274

Date: May 9, 2019

Dillon Consulting Limited ("Dillon") requests authorization to proceed with the work outlined below (the "Additional Services") for the above-mentioned project. The Additional Services shall be governed by the agreement entered into between Dillon and the Client on August 17, 2018 for the project and any amendments thereto expressly agreed to in writing by Dillon and the Client.

The Additional Services:

This scope change acts as formal agreement to the additional phases as outlined in our original proposal dated July 18, 2018 (*see attached*) as well as the new phase for GIS data as shown below:

New Phase 3000:

Update the GIS data for just the trunk sanitary sewer system which we were planning on modeling (350 mm dia. or larger).

- 1 weeks of a co-op students time (approx.. 38 hrs)
- 1 day of time (S. Praill) for co-ordination and general assistance (approx. 8 hrs)

The compensation for the Additional Services shall be:

Existing phases 1010 to 2000 - \$88,000.00 plus HST

New phase 3000 - \$4,200.00 plus HST

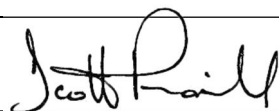
The Client hereby agrees to and authorizes Dillon to proceed with the Additional Services in accordance with the terms of this agreement.

TOWN OF KINGSVILLE

DILLON CONSULTING LIMITED

Signature: _____
I/We have authority to bind the Client.

Name (print):
Title:
Date:

Signature:  _____
I/We have authority to bind Dillon Consulting Limited.

Name (print): Scott Praill, CET., B.Comm.
Title: Partner
Date: May 9, 2019



July 18, 2018

The Corporation of the Town of Kingsville
2021 Division Road North
Kingsville, ON N9Y 2Y9

Attention: Mr. G. Andrew Plancke, Civil Eng. Tech (Env)
Director of Municipal Services

Kingsville Sanitary System Master Plan Proposal

Dear Mr. Plancke:

Dillon Consulting Limited (Dillon) has developed a scope of work and fee proposal related to consulting engineering services for the Kingsville Sanitary System Master Plan project for your consideration.

Background

The sanitary sewer system operated by the Town of Kingsville (Town) is comprised of facilities in Kingsville proper (Kingsville), the Cottam settlement area and the Ruthven settlement area.

The sanitary sewer system in Kingsville includes six lift stations, three pumping stations and a mechanical wastewater treatment plant. The system in Ruthven is connected to a pumping station which transfers the sewage to the Kingsville system by a sanitary forcemain. All sewage in Kingsville and Ruthven ultimately flow to the Kingsville Wastewater Treatment Plant (WWTP).

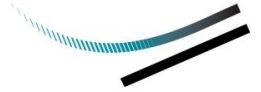
It was identified by the Town that the Kingsville WWTP receives a significant wet weather flow. It is suspected that I&I and cross connections might both be pathways of stormwater entering the sanitary system.

The Town operates a dedicated sewage collection and treatment system in Cottam. The Cottam system collects the sewage to a pumping station which conveys the flow to a lagoon type sewage treatment system. Our understanding is that documents were completed to upgrade the Lagoons. These will be provided to Dillon for review for planning purposes regarding the future lagoon capacity after the completion upgrades.

There are several areas in the Town available for development; however, the capacity of the sanitary sewer infrastructure is unknown which makes short and long term planning difficult.

There is a large area east of Kingsville along County Rd. 20 which has development potential but is lacking sanitary sewers infrastructure.

10 Fifth Street South
Chatham, Ontario
Canada
N7M 4V4
Telephone
519.354.7802
Fax
519.354.2050



Project Objective

The objective of the project is to assess the capacity of the existing sanitary sewer system infrastructure including pumping stations and sewage treatment plants and to develop a long term strategy for sanitary servicing in the Town of Kingsville sanitary service areas.

The capacity assessment shall focus on capacity of the existing infrastructure and identification of bottlenecks and excess capacity focusing on short and long term development planning.

The Master Plan will be completed following Approach #1 for Master Plans, as outlined in the Municipal Class Environmental Assessment (October 2000, as amended). The Master Plan will follow Phases 1 and 2 of the Class EA process.

Work Plan

To achieve the project objective we propose the work plan as outlined below.

Dillon will hold a Project “Start-up Meeting” with representatives of Kingsville to finalize the Work Plan, deliverables and schedule.

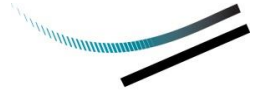
Flow Monitoring

Dillon will assist with the preparation of the Terms of Reference (TOR) for the proposed flow monitoring program. It is assumed that the Town will directly hire a contractor to undertake and complete the supply, installation and maintenance of the flow monitors. The number of flow monitors, type and placement of the monitoring equipment and length of flow monitoring period will be finalized in consultation with the contractor. It is recommended that the monitoring program include the installation of maximum ten (10) flow monitors and one rain gauge in Kingsville for a period of three (3) months. Refer to the attached map for the proposed flow monitoring locations.

System Modeling

Dillon will undertake a review of available and relevant sewer as-built drawings, GIS data, mapping and other available relevant documentation that will enable Dillon to gain a further understanding of the physical configuration of the system and how it is currently functioning.

During the flow monitoring period, an assessment of the existing sanitary sewage collection system will be completed, including delineation of sewersheds and definition of model inputs (land use, population, etc.). Once flow monitoring data is available, it will be reviewed for inconsistencies, gaps and continuity. Rainfall data for the same time monitoring period will also be reviewed for completeness.



The hydraulic model of the sanitary network will be developed using the software, Innovyze InfoWorks Collection System (CS). The configuration of the model will include the trunk sewer systems with parameters representing the characteristics of the sewersheds. Wet weather and dry weather calibrations will be undertaken using the flow monitoring and rainfall data. It is proposed that in this phase of the work a skeletonized model will be developed. The skeleton model will include sewers to the extent which will allow for modeling of present conditions and future development scenarios. Where required, the existing GIS data will be supplemented with additional data from as-built drawing records. The estimated extent of the skeleton model is shown on the attached map, which correlates to all sewers that are 350mm in diameter or larger. Upon a more in-depth review of the existing system, this skeleton may need to be branched out in some areas to encompass some smaller diameter sewers. Recorded rainfall events will be applied to the finalized model to verify system response to wet weather events, I&I characteristics and cross-connections between the storm and sanitary system.

Dillon will prepare a summary report which will include discussion related to the model development, dry and wet weather flow calibrations and will include a discussion on the overall performance of the collection system. Performance analysis will include identification of surcharging sewers, manholes and a graphical indication of hydraulic grade lines along the trunk sewers.

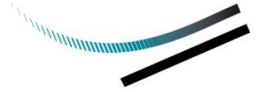
Alternatives to remedy the existing collection system deficiencies and to allow for planned development will be proposed. The alternatives will be evaluated as described in the Study Process as described below.

Study Process

The study will be completed following Phases 1 and 2 of the Class EA process. At the project outset, we will identify and document the Problems and Opportunities (Phase 1). Phase 2 will involve identifying "Alternative Solutions" to the problems/opportunities identified for the system-wide servicing strategy. The alternatives will be evaluated based on a desk top and modeling analysis of existing and projected conditions.

At the end of Phase 2 of the Class EA process, we will confirm the Class EA schedule of any future capital projects. Public and agency consultation will be initiated at the beginning and occur throughout the project. Dillon will prepare a Problem/Opportunity Statement for the project which will be used to justify future servicing improvements. The statement will be presented to the Town for acceptance. We will prepare a Notice of Study Commencement for circulation to the agency contact list. We have assumed the Town will be responsible for publication in the local newspaper (as required) and sending to property owners.

The master plan will include one Public Information Centre (PIC), which will be held toward the end of Phase 2 of the process, once the technically recommended alternative has been confirmed. We will prepare the Notice of PIC for circulation to the agency contact list. We have assumed the Town will be responsible for publication in the local newspaper (as required) and sending to property owners.



The Master Plan document will be prepared to document the study and will be made available to the public and agencies to review through the Notice of Completion.

Our work plan includes time for one stakeholder meeting (potentially with MOECC) as well as responding in writing to comments received. We will prepare letters to local Indigenous communities to introduce the project and meet the required "Duty to Consult" requirements. Our fee does not include time for one-on-one meeting(s). If required, this will be an extra to our scope.

Pumping Stations

Pumping stations will be reviewed for existing capacity. Bottlenecks and excess capacity will be identified. Potential for capacity upgrade will be reviewed to accommodate existing and projected conditions.

Kingsville WWTP

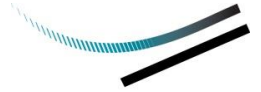
It is noted that the plant receives significant wet weather flow. The plant capacity will be reviewed specifically for handling the wet weather flows. A list of possible plant upgrade options will be provided to handle wet weather flows during existing and projected conditions.

Advantages and disadvantages of options will be listed. No cost estimates will be provided for the options. No recommendation will be made for a preferred option.

Project Team

Scott Prail, C.E.T., B.Comm. – Project Manager. Scott is a Partner with Dillon who will provide the team with asset strategy and project coordination. Scott has in-depth expertise in business transformation, infrastructure operations, and public works maintenance management from the operator's perspective. Scott brings over 20 years of experience from operations and management in the public sector which included managing operations for municipal water and wastewater systems for the last decade. Scott is a Certified Risk Manager from the University of MacMaster, and will use these developed skills to assist in completing this project.

Chris Patten, P.Eng., P.E. – QA/QC. Chris is an Associate with Dillon and has over 20 years of experience with servicing municipal infrastructure, commercial and industrial developments in Canada and the United States. Chris has routinely served as project manager and/or project engineer involving municipal works including roadways, sewer designs, watermains, stormwater management, and utility relocations throughout his career. Chris has also developed project specifications, including forms of tender, and construction cost estimates for many Municipal clients. He has been involved with projects incorporating sewer and watermain installations through trenchless methods. He routinely works with Municipal Clients to develop designs that meet their needs. Chris also completes reviews of development plans for conformance to the Municipality Development Standards.



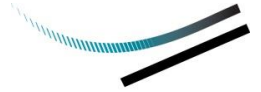
Tihamér Csiba, P.Eng. – Project Coordinator and PS and WWTP Lead. Tihamér is a wastewater and water engineer at Dillon with over 30 years of experience in the field of condition assessment, master planning of water and wastewater systems, Class EAs, wastewater and water treatment plant design, pumping stations, hydraulic evaluations, optimization and commissioning. Tihamér was project manager, project coordinator and lead engineer for several significant pumping station, wastewater and water treatment facilities and infrastructure, including design-build projects.

Nicholas Krygsman, B.A.Sc. – Modeling Lead. Nick's project experience involves extensive planning and design development for linear infrastructure. This work includes functional design in support of the Environmental Assessment process, preliminary design and detailed design, permitting, tendering and construction administration. Nick has been tasked with liaising with regulatory agencies such as the MOECC, DFO, MNRF and Local Conservation Authorities. In addition to infrastructure design, Nick has been extensively involved in the design and implementation of numerous erosion and sediment control plans for linear transportation facilities as well as development sites. Nick's project experience includes hydraulic and hydrologic modelling, stormwater management planning and design, river engineering and floodplain management.

Sabrina Stanlake-Wong, MCIP, RPP, LEED AP – Planning Lead. Sabrina is an Associate with over 10 years' experience in a wide variety of environmental assessment projects, including water, wastewater and transportation projects. As the environmental assessment and consultation lead on these projects, Sabrina is responsible for the approval requirements, land use planning component, population projections, public and agency consultation, co-ordination of input from multi-disciplinary project teams, identification and evaluation of alternatives and documentation of the process. Sabrina has been involved in a number of master plan and water/wastewater environmental assessments including, the Grand Bend and Area Sanitary Sewage Servicing Master Plan, Mount Brydges Long Term Water Supply System Master Plan, Acton Wastewater Treatment Plant Environmental Assessment, Carlisle Communal Well System Class EA, Carlisle Water Supply System Master Plan Addendum, and the Dresden Northwest Quadrant Storm Sewer Improvements in Chatham-Kent. Several of the projects Sabrina has been involved with have also involved public and agency consultation activities, ranging from large-scale open houses and stakeholder workshops to small-scale "table talks" and correspondence with the public and review agencies.

Catherine Liscumb, EIT – Computer Modeling. Catherine is a municipal engineer-in-training with over five years' experience working on a wide variety of municipal engineering and water resources engineering projects, including road reconstruction, sewer and watermain design and modelling, stormwater management design, as well as construction observation.

Other support staff will be assigned as needed.



Schedule

We estimate the duration of project phases as follows.

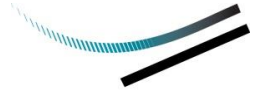
TASK	TIMING
Phase 1 of the Class EA	
Prepare TOR for flow monitoring	1 week
Flow monitoring	3 months
Review flow monitoring data	2 weeks
System modeling	3 months
System modeling Report	3 weeks
PS and WWTP assessment Technical Memo	3 weeks
Problem/Opportunity Statement	1 week
Phase 2 of the Class EA	
Existing Conditions Review	3 weeks
Public Information Centre	3 weeks
Draft Master Plan Document	4 weeks
Final Master Plan Document	2 weeks

Fees

Our understanding is that the Town has a budget limit of approximately \$60,000 for this project in this calendar year. We estimate that the above budget will be sufficient to complete the flow monitoring program as described above in 2018. The proposed sanitary system modeling and other tasks would be completed in 2019.

We propose to review and confirm this work plan, scope and schedule after completion of the review of the collected data (late fall 2018) to ensure the budget and schedule are confirmed for 2019 to complete the remaining tasks.

Compensation for professional services will be on a time basis. The total fee, including expenses and disbursements, is expected to be **\$117,000**, excluding applicable taxes. We will invoice on a monthly basis in keeping with standard terms and conditions (see attached).



Fee breakdown:

TASK	FEE
Phase 1	
Flow Monitoring and Sanitary System Modeling	\$29,000
Phase 1 Class EA Activities	\$6,000
Pumping Stations and WWTP Review	\$7,000
Phase 2	
Phase 2 Class EA Activities	\$51,000
Master Plan Report	\$24,000
Total	\$117,000

Ph 1010

Ph 1020

Ph 2000

Ph 2010

Our work plan includes time for one stakeholder meeting (potentially with MOECC) and one Public Information Centre.

It is assumed that one meeting will be required with the Town to review the findings and recommendations in the draft report.

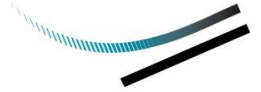
It is assumed that the Town will directly hire a contractor to undertake and complete the supply, installation and maintenance of the flow monitors.

It is understood that the town has a budget of \$60,000 for this project for the calendar year 2018. Our fees do not include the flow monitoring required for this project, as that is to be directly paid by the town, and we will coordinate. We suggest that once a monitoring services firm has been hired we will determine how much budget remains and we will invoice recorded effort to the project, to the upset limit of \$60,000 for both our service and the monitoring. We will hold all additional invoicing (if any) until 2019 when additional budget will be established. This will allow for the monitoring and data to be collected and reviewed and the master plan to be scoped appropriately for the towns next budget cycle.

Exclusions/Limitations

Our understanding is that the Town will provide:

- all available GIS data,
- existing flow meter data,
- as built drawings
- design drawings of planned projects
- available reports on relevant infrastructure
- planning and master planning documents



The following is not included in our scope:

- physical inspection of infrastructure
- condition assessment of infrastructure
- on site data collection and survey
- sewer video inspection
- flow monitoring
- site assistance during flow monitoring by a third party retained by the Town

Invoicing

Our invoices are issued monthly and are due upon receipt and overdue invoices will be subject to monthly interest charges. All applicable taxes are extra.

Authorization

In accordance with our company procedures, we require a written authorization to proceed. If you agree with this offer of services, please sign the attached *Agreement for Professional Services* form and return one copy to us for our files.

We look forward to working with the Town and thank you for the opportunity to be of service. Should you require any clarification, or wish to discuss the proposal further, do not hesitate to contact us.

Sincerely,

DILLON CONSULTING LIMITED

Scott Prail, CET, B.Comm., ENV SP
Project Manager

SJP:sl

Encl.

Our file: Proposal

COMMERCIAL CONFIDENTIAL

This document contains trade secrets or scientific, technical, commercial, financial and labour or employee relations information which is considered to be confidential to Dillon Consulting Limited ("Dillon"). Dillon does not consent to the disclosure of this information to any third party or person not in your employ. Additionally, you should not disclose such confidential information to anyone in your organization except on a "need-to-know" basis and after such individual has agreed to maintain the confidentiality of the information and with the understanding that you remain responsible for the maintenance of such confidentiality by people within your organization. If the head or any other party within any government institution intends to disclose this information, or any part thereof, then Dillon requires that it first be notified of that intention. Such notice should be addressed to Dillon Consulting Limited, 235 Yorkland Boulevard, Suite 800, Toronto, Ontario M2J 4Y8, Attention: President.

DILLON CONSULTING LIMITED - TERMS OF ENGAGEMENT

These terms of engagement govern the services to be provided by Dillon Consulting Limited ("Dillon") to the Client and constitute part of the agreement for services between Dillon and the Client (the "Agreement"). By accepting Dillon's offer of services, the Client agrees to be bound by and comply with these terms of engagement.

1. Warranty

1.1 Dillon warrants that it will perform its services with the standard of due care and diligence usually practised by the consulting profession, at the time that the services are rendered. The Client acknowledges and agrees that all other warranties, representations or remedies, express or implied, except the warranty for loss of the work required under Section 2118 of the Civil Code of Quebec are excluded and the Client agrees to waive any right, remedy or cause of action it may have with respect to such warranties, representations or remedies. In addition, the Client agrees to defend and indemnify Dillon from all other liability, including but not limited to liability for direct, incidental or consequential damages arising in connection with Dillon's actions, whether such liability arises in contract, tort or otherwise.

2. Limitation of Liability

2.1 Dillon's liability to the Client and all claimants not party to this agreement shall be limited to injury or loss caused by negligence of Dillon and/or sub-consultants for which it is responsible. The total amount of Dillon's liability for said negligence shall not exceed the lesser of \$50,000.00 or Dillon's fees for this project in total for all claims, costs and expenses and the Client hereby waives all claims in excess of this amount howsoever arising including any claim for contribution and indemnity which the Client may have against Dillon. The Client irrevocably and unconditionally agrees to defend, indemnify and hold Dillon harmless from all claims and expenses associated therewith resulting from claims brought by other parties in excess of the aforesaid limit.

2.2 Increased liability limits may be negotiated prior to the commencement of services by Dillon upon the prior written request of the Client, the payment of an additional fee as determined by Dillon, and the prior written agreement of Dillon.

3. Confidentiality

3.1 Documents prepared by Dillon and provided to the Client (the "Dillon Documents"), such as proposal documentation, reports and any documentation containing professional advice, are intended exclusively for the purposes, project and site locations outlined in those documents. The information contained in any Dillon Document may not be appropriate for other uses by the Client or for use by third parties and any such use or reuse is at the sole risk of the user.

3.2 Certain Dillon Documents contain confidential information which is the intellectual property of Dillon and which is provided to the Client solely for the purposes outlined in the document. The Client shall not provide any such confidential information to any other person, or use the information in a manner other than prescribed in the Dillon Document or Documents without the prior written consent of Dillon.

4. Provision of Relevant Information

4.1 The Client shall provide Dillon with all relevant information of which the Client is aware and which may be required by Dillon to perform its services for the Client. Without limiting the generality of the foregoing, if the Client has knowledge of or suspects that hazardous materials may exist at any site at which services are to be performed by Dillon, the Client shall provide this information promptly to Dillon in writing.

4.2 Dillon shall not be responsible or liable for any incorrect or inadequate advice, report, recommendation, finding, decision or conduct based either directly or indirectly on inaccurate or inadequate information supplied by the Client.

5. Site Access, Subterranean Structures and Utilities

5.1 The Client shall grant or obtain free and ready access to each project site at which Dillon is to perform services for the Client. The Client shall notify all owners and occupiers of property at the project site that Dillon is to be granted free and ready access to the site.

5.2 Unless otherwise agreed in writing by Dillon and the Client, the Client shall delineate accurately on the Client's property all subterranean structures and utilities. The Client assumes sole and complete responsibility for any damage or injury caused to any person, property, subterranean structures or utilities because of incorrect or inadequate information provided to Dillon and the Client agrees to indemnify, defend and hold Dillon harmless from any claim or liability for injury or loss resulting from such damage or injury.

6. Samples

6.1 Unless otherwise agreed in writing, all samples obtained by Dillon, including soil cores, may be discarded by Dillon within 30 days after submission of Dillon's report to the Client. A mutually agreed storage fee will be charged to the Client for any samples stored longer than this 30 day period.

6.2 If any of the samples contain substances or constituents that Dillon believes may be hazardous or detrimental to the environment or human health and safety, Dillon may, at the Client's expense, return such samples to the Client or dispose of the samples in a manner deemed appropriate by Dillon.

7. Force Majeure

7.1 Notwithstanding any other provision of the Agreement, Dillon shall not be deemed in breach of the Agreement or liable for any failure or delay in performing any of its obligations under the Agreement, if the failure or delay is caused directly or indirectly by any event or circumstance beyond Dillon's control, including, without limiting the generality of the foregoing, acts of God, government or civil or military authority, inclement weather, fire, flood, labour trouble, failure of transportation, accident, act or omission of the Client or anyone employed or engaged directly or indirectly by the Client, or the discovery of hazardous or potentially hazardous materials or situations at or near the project site.

7.2 Where an event or circumstance of the kind referred to in Clause 7.1 arises, Dillon may, at its option, extend the period of time for completion of the Agreement or terminate the Agreement.

8. Payment

8.1 Unless otherwise stipulated in this agreement for services, the Client shall pay Dillon for its services as follows (applicable taxes are extra):

- (a) fees shall be paid on the basis of Dillon's current schedule of standard flat hourly rates;
- (b) routine expenses and disbursements (communications, local travel, project office supplies, production of routine documents/drawings, courier/messenger services, standard software/computer costs, and similar items) shall be paid at a standard rate of 8% of fees;
- (c) other project-related expenses and disbursements (sub-consultant/sub-contractor charges, travel beyond local area, living expenses when away from home office, advertising costs, testing services, use of specialized equipment or software, approval/permit/licence fees, project specific insurance, production of tender or other non-routine documents, and similar items) shall be paid at cost plus a 5% administration fee;
- (d) payment shall be made within thirty days of the date of Dillon's invoice;
- (e) interest shall be paid by the Client at an annual rate equivalent to the average bank prime rate plus 4% on all amounts unpaid within 30 days of the date of Dillon's invoice, with payment to be applied first to accrued interest and then to the unpaid principal amount.

9. Independent Professional Services Consultant

9.1 Unless otherwise agreed in writing by Dillon and the Client, it is acknowledged that Dillon is an independent professional services consultant in performing services under this agreement, and accordingly it is further acknowledged that Dillon is an independent contractor.

10. Defects in Service

10.1 The Client shall promptly report to Dillon any defects or suspected defects in Dillon's work or services of which the Client becomes aware, so that Dillon may take measures to minimize the consequences of such defects. Failure by the Client to notify Dillon in a timely manner shall relieve Dillon of the costs of remedying the defects above the sum such remedy would have cost had prompt notification been given. No unilateral withholdings, deductions or offsets shall be made from Dillon's compensation for any defects or suspected defects unless Dillon has been found legally liable for such amounts.

11. Suspension of Services

11.1 If the Client fails to make payments when due, or otherwise is in breach of the Agreement, Dillon may suspend performance of services upon five (5) calendar days' notice to the Client. Dillon shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension.

12. Agreement

12.1 These terms of engagement govern the services to be provided by Dillon under the Agreement, shall be amended only by the written agreement of Dillon's authorized representative and the Client, and shall not be altered or supplemented by any other understanding or agreement. The Client waives its right to unilateral rescission of contract under the Civil Code of Quebec and undertakes not to seek termination of the Agreement during the term of the Agreement.

12.2 The Agreement, of which these terms of engagement form a part, shall be governed by and interpreted in accordance with the laws of the province or territory of jurisdiction named on the Agreement for Professional Services.

12.3 Titles and section headings are for convenience of reference only and shall not be considered in interpreting the text of the terms of engagement.

12.4 If any clause in these terms of engagement is held illegal, invalid or unenforceable in whole or in part, the remaining clauses shall not be impaired and shall remain in full force and effect. All limitations of liability, releases, indemnities and similar provisions shall survive termination of the Agreement for any cause, and shall apply even in the event of the fault, negligence or other liability of Dillon, and shall extend to the officers, directors, employees and agents of Dillon.