

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

Page 1 of 68

A. EXISTING AND PROPOSED AGREEMENT OVERALL

**1.0 Reference: INTRODUCTION
Exhibit B2-1, Section 1, p. 1
Enforceability of 1957 Agreement**

On page 1 of the City of Surrey's application for approval of terms for an operating agreement with FortisBC Energy Inc. (FEI) (Application) filed with the British Columbia Utilities Commission (Commission), it states that "...FEI and its predecessors have occupied and used public places in Surrey for the purposes of natural gas distribution pursuant to a Natural Gas Distribution Agreement (the "1957 Agreement") between the British Columbia Electric Company Limited and the Corporation of the District of Surrey."

Further, in regards to City of Surrey and FEI's position on the 1957 Agreement, the Application states that "for some time, the parties have not agreed on the scope, validity and enforceability of the 1957 Agreement..." Consequently, City of Surrey states that "for the last two years the parties have been attempting to reach agreement on new terms (an "Operating Agreement") to replace the 1957 Agreement and provide certainty going forward."

City of Surrey attached as Appendix B to the Application, a proposed Operating Agreement.

1.1 Please discuss whether City of Surrey views the 1957 Agreement as unenforceable and why. Please provide evidence to support your position.

RESPONSE:

The validity, enforceability and scope of the 1957 Agreement are all moot points.

To the extent the 1957 Agreement was, prior to the Interim Agreement dated November 8, 2016, binding and enforceable, the parties have in the Interim Agreement agreed to its termination. A copy of the Interim Agreement has been provided as Appendix A to Surrey's application.

By entering into the Interim Agreement, Surrey and FEI have acted responsibly and in a manner contemplated by the legislative scheme and have avoided unnecessary litigation that would not be in the public interest.

In any event, Surrey's view is that there is no merit to the notion that the 1957 Agreement is binding and enforceable with respect to all past, present and future natural gas infrastructure FEI might install and operate in the city.

The following is a summary of some of the key arguments Surrey would make in support of a finding that the 1957 Agreement has been terminated and is not enforceable. The following is not an exhaustive list of all arguments, nor does it identify all the evidence that Surrey would rely upon in support of its position that the 1957 Agreement is not enforceable. As in any litigation process, Surrey would, among other things, rely on extensive document discovery and examinations for discovery in the same way Surrey did in the litigation between the parties that

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

2 of 68

resulted in the Court confirming the 1956 Agreement has been terminated.

Surrey's position is that the 1957 Agreement has been terminated by fundamental breach, repudiation, breach of condition(s) and/or notice.

Justice Pearlman held that the 1956 Agreement had been terminated by fundamental breach and repudiation. In coming to this decision Justice Pearlman found, among other things, that FEI's refusal to perform the upgrade work until Surrey accepted FEI's terms (which were inconsistent with the terms of the 1956 Agreement) deprived Surrey of substantially the whole of the commercial benefit of the 1956 Agreement and committed a breach that went to the root of the contract. Justice Pearlman held that FEI's delay in performing the pipeline upgrade was a fundamental breach of FEI's obligation to carry out work with "reasonable speed" when requested to do so by Surrey. Justice Pearlman further found that Surrey had accepted the repudiation when it delivered its application to the Oil and Gas Commission (OGC).

In asserting its view that the 1957 Agreement has also been terminated by fundamental breach and repudiation, Surrey would rely on some of the same evidence that was before Justice Pearlman as well as project specific evidence and evidence related to other projects.

The conduct examined in the Fraser Highway dispute, which led to the findings of fundamental breach and repudiation of the 1956 Agreement, mirrors FEI's conduct over the years in many other projects in Surrey. The common theme being, Surrey has incurred delays, additional costs and third party claims because of FEI's conduct. Unless Surrey agreed to the terms demanded by FEI, notwithstanding that the terms are inconsistent with the terms of the 1957 Agreement, necessary alterations and relocations of FEI pipelines to accommodate Surrey highway and infrastructure projects was not or would not be performed by FEI. Among other things, before beginning to review Surrey designs, FEI required, in advance, essentially a blank cheque in the form of a purchase order and agreement to cover any and all costs FEI incurred regardless of any estimate that it may have provided. FEI also required Surrey's agreement to other terms and conditions unfavourable to Surrey and inconsistent with the terms of the 1957 Agreement.

Faced with the risk of additional costs and liability associated with project delays, including claims by third party contractors who have been awarded the construction project and the risk of losing federal or provincial project funding tied to deadlines, Surrey has had no option but to accede to FEI's demands over the years and to, among other things, make applications to the OGC seeking orders that FEI perform the necessary pipeline work in an effort to mitigate delay.

Like the 1956 Agreement, the 1957 Agreement similarly contained an obligation to carry out work with reasonable speed:

*4. Upon the written request of the Corporation or the Municipal Engineer on its behalf, the Company shall change the location (which in the case of pipe means any change of either or both of line and elevation) of any part of the said works on public property to some other reasonable location on public property, and shall carry out each such change **with reasonable speed**.*

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

3 of 68

Recent projects where Surrey's work was delayed by FEI and as a result Surrey incurred additional costs and/or claims include, but are not limited to, the following:

- a) Surrey works associated with Robert's Bank Railway Corridor Combo Project (192nd Street Overpass) were significantly delayed as a result of FEI's conduct and resulted in a delay claim in excess of \$1.7 million dollars which FEI has refused to pay. The nature of FEI's conduct is summarized in Surrey's demand letter to FEI which is the nature of evidence Surrey would advance. A copy of the letter is provided as Attachment 1.
- b) Surrey highway and intersection improvements in and around the most northerly intersection of 168th Street and 48th Avenue for which design drawings were submitted to FEI in April 2010 and because of FEI refusing to perform necessary work to accommodate the project, Surrey had no option but to make an application to the OGC in November 2010 ultimately obtaining an Order in February 2011 from the OGC requiring FEI to perform the necessary pipeline work. FEI did not complete the pipeline work until June 2011. Samples of evidence Surrey would rely on are provided as Attachment 2.

The project impacted a high pressure pipeline owned and operated by FEI located within 168 Street that extended along 168th Street approximately between the intersection of 32nd Avenue and 168th Street and the intersection of 80th Avenue and 168th Street in Surrey, British Columbia.

In addition to failing to comply with the obligation to carry out work with "reasonable speed", in Surrey's view FEI has also breached the provisions related to indemnification and obtaining Municipal Engineer approval, and the provisions related to not damaging municipal infrastructure demonstrating further repudiation of the 1957 Agreement. On the later point of damage to municipal infrastructure, see Attachment 3.

Moreover, FEI created and issued permits to Surrey incorporating terms that, in Surrey's view, effectively rewrote the indemnity obligations and imposed additional liabilities and obligations on Surrey that amounted to a breach of the 1957 Agreement and that also demonstrate repudiation of the 1957 Agreement.

As a result of fundamental breach, repudiation (which has been accepted by Surrey) and by breach of condition(s), Surrey believes that it has been discharged from any further performance of the 1957 Agreement.

The conduct of the parties and the absence of evidence that the 1957 Agreement has been relied on or applied by the parties also supports a finding that the agreement has been repudiated.

In addition, as the 1957 Agreement has no termination clause, it is terminable upon reasonable notice which Surrey has effectively given on numerous occasions.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

4 of 68

1.2 If the Commission does not approve the proposed Operating Agreement, please discuss what City of Surrey's next steps would be.

RESPONSE:

If the Commission does not approve an operating agreement for Surrey and FEI, Surrey would consider applying for leave to appeal the Commission's decision and consider seeking a declaration that the 1957 Agreement has been terminated. Surrey would also consider other options available to it including, but not be limited to, enforcing FEI compliance with Surrey by-laws and property rights. On this latter point, pursuant to s. 35 of the *Community Charter*, the soil and freehold of highways is vested in Surrey as is the power to regulate what takes place on or within highways. Surrey's control over highways is also highlighted by s. 34 the *Oil and Gas Activities Act* which mandates that FEI must not begin or carry out an oil and gas activity in a highway without first having obtained authorization from the City of Surrey.

In the absence of a robust operating agreement setting out the terms for FEI's use of public places in the city for its gas distribution business generally, there would likely be further disputes between the parties about the placing and relocating of FEI facilities, and project-specific applications for an order from the Utilities Commission (e.g., under sections 33 or 36 of the *UCA*) and from the Oil and Gas Commission, as applicable.

2.0 **Reference: OPERATING FEE**
Exhibit B2-1, Section 4(i), p. 8; Exhibit B1-1, Section 2.2, pp. 5-6
Additional Fees

On page 8 of the Application, City of Surrey states that it “agrees to waive any approval, license, inspection or permit fees, charges and security deposit requirements in respect of FEI’s work and occupancy of public places in Surrey [Additional Fees], which is on condition of receiving the Operating Fee at 3% of FEI’s gross revenues.”

2.1 **Is City of Surrey currently collecting Additional Fees from FEI?**

RESPONSE:

Yes.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

6 of 68

2.1.1 If yes: Does the City of Surrey consider collection of Additional Fees to be outside of the 1957 Agreement? Please discuss why or why not.

RESPONSE:

To the extent the 1957 Agreement was, prior to the Interim Agreement dated November 8, 2016, binding and enforceable, it is the City of Surrey's view that the 1957 Agreement does not preclude Surrey from collecting fees from FEI in accordance with City by-laws. The 1957 Agreement does not exempt FEI from these fees.

Also, since 1957 applicable laws in British Columbia have changed significantly. More and more powers and responsibilities in relation to the regulation of highways and public places, including the imperative to pass by-laws for public safety and protection of the environment, have been delegated to municipalities. Moreover, in 2003 with the enactment of the *Community Charter* the soil and freehold of highways is now vested in municipalities.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

7 of 68

2.1.2 Does any formal agreement exist with FEI related to the collection of these fees, or is simply amounts set through by-laws

RESPONSE:

There is no formal agreement between the City of Surrey and FEI related to the collection of Additional Fees as defined in the question. The amounts are set through City by-laws.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

8 of 68

2.1.3 Since the signing of the 1957 Agreement, please indicate how many years the City of Surrey has collected Additional Fees.

RESPONSE:

Prior to 1988, the natural gas system was owned and operated by BC Hydro, a Crown Corporation, which enjoyed certain statutory immunities pursuant to the predecessor to section 32 of the *Hydro and Power Authority Act*. In 1988 FEI became the owner of the natural gas system, as it was then, by operation of the *Hydro and Power Authority Privatization Act*.

Since 1988 FEI has been required to pay applicable Additional Fees from the time of enactment of the applicable by-law; however, the City of Surrey's records are not readily accessible to confirm whether Additional Fees, as defined, have been charged to and paid by FEI each year back to 1988. Based on a review of readily available historical information, we can confirm that over the last 5 years, Additional Fees have been collected from FEI and its contractors when they applied for applicable permits.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

9 of 68

- 2.2 **Would the City of Surrey also see a reduction in its own administration and operating costs if it no longer needed to permit, enforce and process fee collections? Please provide a quantitative analysis to support your response.**

RESPONSE:

Yes, the City of Surrey would see a reduction in our own administration and operating costs if Surrey does not collect and process individual permit fees from FEI. To quantify the administrative and operational cost savings, our analysis is based on the information provided on page 15 of FEI's application, wherein FEI estimates on an annual basis the following number of permits would be required: (i) 1,703 Road Right-of-Way Use (ii) 305 Traffic Obstruction Permits, and (iii) 305 Pavement Cut Fee instances for an estimated total of 2,313 financial transactions with Surrey.

In the event the permit/pavement cut fees were waived in lieu of an annual operating fee, the City anticipates it would realize a savings of \$50,000 in staff time / costs, which is in addition to the savings FEI would realize as a result of reduced staff time and courier charges.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

10 of 68

2.3 Please describe the benefits and risks of utilizing gross revenue versus delivery margin in the calculation.

RESPONSE:

From the City of Surrey's perspective, the benefits and risks of utilizing gross revenue versus delivery margin as the basis for calculating the operating fee FEI remits to Surrey are as follows.

Benefits

- If gross revenue is used, Surrey's operating fee will be calculated on the same basis as the operating fees FEI remits to 70 other municipalities in the province with Commission approval.
- FEI has existing systems and procedures for calculating and remitting an operating fee calculated on the basis of gross revenue.
- To our knowledge, FEI has never utilized delivery margin as the basis for calculating an operating fee. Continuing to utilize the existing gross revenue approach avoids the added costs and complexity (for example, for changes to financial systems and business processes) associated with FEI using a new approach.
- Avoids other municipalities potentially requesting FEI to change the basis for their operating fee from gross revenue to delivery margin if they perceive a benefit from such a change.

Risks

- None.

Surrey is aware that in 2003, in the context of exceptionally volatile natural gas prices, the Commission identified a concern that FEI (then Terasen Gas) applying a 3% charge to gross customer bills including gas commodity charges had led to volatility for natural gas customers in recent years. Pursuant to Order No. C-7-03 the Commission directed FEI to seek a method to convert the charge FEI was applying on customer bills to one based on utility margin "so as to stabilize the costs to utility customers". Surrey understands that FEI did not change its method, and the exceptionally volatility in natural gas prices experienced around 2000 was an anomaly and is not expected to recur.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

11 of 68

- 2.4 **Under the proposed Operating Agreement, what would be the foregone collections of any Additional Fees? Please provide annual collections amounts, by category, from the last 10 years to support City of Surrey's claims.**

RESPONSE:

As outlined on page 15 of FEI's application, FEI anticipates that in a typical year it would require 1,703 Road Right-of-way Use Permits, 305 Traffic Obstruction Permits and trigger a significant amount of pavement cut fees in Surrey. The costs for these permits and pavement cut charges, which under the proposed operating agreement the City would be foregoing in lieu of receiving the 3.0% operating fee on gross revenue, would be:

Permit Fees = \$154,030

Pavement Cut Fees = \$204,700

Total Fees (owed to Surrey)= \$358,730

Due to changes in the City of Surrey's financial system in and around 2012, we can only provide annual permit collection amounts for 2012 and onwards. It is important to note that FEI, and/or its contractors, have been inconsistent in adhering to Surrey's by-laws and securing the necessary permits. The City's records for permit collections, in comparison to the permit numbers identified in FEI's application, indicated that FEI and/or its contractors only secure 10 - 15% of the permits they ought to in a typical year. Thus, the annual collections by the City, as shown below, are drastically understated for what the permit fees ought to be and the historical collection numbers are not representative of the permit fees FEI owes the City for FEI's activities in public places.

2012 - \$14,700

2013 - \$17,880

2014 - \$21,060

2015 - \$19,936

2016 - \$28,356

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

12 of 68

On pages 5 and 6 of the FEI application for approval of terms for an operating agreement with City of Surrey (FEI Application), it states:

Changes to City [City of Surrey] bylaws in 2016 have increased the frequency of instances where Surrey is requesting FEI to apply for permits and pay fees. In circumstances where FEI crews are deployed to install gas services (as opposed to FEI's contractors), the City is requiring FEI to pay traffic obstruction fees. In circumstances where FEI has retained contractors to perform work, the City is requiring FEI's contractors to pay permit fees for FEI's gas installation activities. FEI is of the view that it is not required to pay fees or obtain permits under the 1957 Agreement.

- 2.5 **Provide copies of the 2016 City of Surrey bylaws that have increased the frequency of instances where City of Surrey is requesting FEI to apply for permits and pay fees.**

RESPONSE:

FEI's statement that applicable City of Surrey by-laws were changed in 2016 is not correct. Furthermore, there is no difference with respect to the applicability of these by-laws to FEI versus FEI's contractors.

If FEI or its contractor intends to undertake work in Surrey that requires a permit under Surrey by-laws, they are supposed to obtain the permit and pay the applicable fee and/or security deposit prior to commencing the work. The person intending to conduct work has the obligation to apply for the applicable permits, and if they do not do so they would be conducting work in contravention of the City's by-laws.

To the extent that FEI's contractors are obtaining permits and paying permit fees disproportionately to FEI's employees, this would be because FEI's contractors may have been more diligent in securing permits as compared to FEI's employees.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

13 of 68

- 2.6 **Please discuss why the City of Surrey is requiring FEI's contractors to pay permit fees for FEI's gas installation activities, but not for work performed by FEI employees?**

RESPONSE:

Please refer to Surrey's response to BCUC IR 1.2.5.

**3.0 Reference: OPERATING AGREEMENT
Exhibit B2-1, Appendix B, pp. 1-30
Standard Operating Agreement Template**

Appendix B of the Application is City of Surrey's proposed Operating Agreement.

In Order G-113-12 and accompanying Reasons for Decision, the Commission ordered that amendments in the operating agreement between FEI and the District of Coldstream be incorporated into future operating agreements between FEI and municipalities.¹

In Order C-7-14, the Commission approved a further amended version of the operating agreement (Standard Operating Agreement) between FEI and the Village of Keremeos.²

3.1 Please provide a blacklined version of the proposed Operating Agreement compared to the Standard Operating Agreement. Please discuss the variances.

RESPONSE:

The City of Surrey understands that the Commission reviews and evaluates operating agreements on an individual case-by-case basis, and that FEI's most recent form of operating agreement accepted by the Commission can serve as a basis for comparison for future operating agreement applications but it is not intended to be a standard form agreement.

Pursuant to Letter No. L-4-02 dated February 4, 2002 the Commission rejected a request by FEI (then BC Gas) for the Commission to establish a standard form operating agreement between FEI and municipalities because the Commission viewed the concept of a standard form agreement as inconsistent with the Commission's authority under section 32 of the *UCA*. In its 2002 letter, the Commission confirmed that it would review the circumstances in each municipality and determine the appropriate terms and conditions on an individual basis. The Commission affirmed its position in its Order No. C-7-03 Decision (at page 3).

In its Order No. G-113-12 Decision (in section 9.0), the Commission made the following comments that appear to confirm the position in Letter No. L-4-02:

“The Commission notes the Municipality's concerns over the emphasis placed on the Pro-forma Agreement by FEI and is in agreement with the Municipality that, with regard to applications made pursuant to section 32 of the Act, the circumstances in each municipality should be considered to determine the appropriate terms and conditions on

¹ FortisBC Energy Inc. Application for Operating Terms Between the District of Coldstream and FortisBC Energy Inc., Final Order with Reasons, G-113-12. <http://www.ordersdecisions.bcuc.com/bcuc/orders/en/item/118398/index.do?r=AAAAQAJRy0xMTMtMTIlgAQ>

² FortisBC Energy Inc. Application for an Operating Agreement with the Village of Keremeos, Final Order, C-7-14. <http://www.ordersdecisions.bcuc.com/bcuc/orders/en/item/119116/index.do?r=AAAAQAGQy03LTE0AQ>

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

15 of 68

an individual basis.”

In Order No. C-8-14 the Commission ordered that the approved operating agreement between FEI and the Village of Keremeos becomes the “basis for comparison” for future operating agreement applications.

Surrey does not have a soft copy of the operating agreement between FEI and the Village of Keremeos that it could use to generate a blacklined document showing the differences in Surrey’s requested operating agreement. We have a copy of the recent operating agreement between FEI and the City of Courtney which we understand is substantially the same as the operating agreement between FEI and the Village of Keremeos.

As compared to FEI’s recent operating agreement with Courtney, most of the differences in the operating agreement terms FEI and Surrey have agreed to benefit both parties:

- agreement provisions have been reorganised into a more logical structure and terminology has been clarified to better align to the business processes of the parties
- procedures and criteria have been improved relating to scoping, cost estimating and coordination of relocation work, and approval of FEI work
- wording has been revised to better align to the statutory and regulatory basis of the agreement

These changes make the agreement more user-friendly and will improve predictability of outcomes, which should reduce disputes going forward.

With the exception of the four areas of disagreement outlined in each party's application to the Commission, both parties agree that the operating agreement terms they have negotiated have many significant improvements (benefiting both parties) as compared to other recent FEI operating agreements. The clear and robust contract language in the requested operating agreement should enable both parties to improve the efficiency of their business processes and reduce the number of disputes going forward.

As compared to FEI’s recent operating agreement with Courtney, the differences in the operating agreement terms FEI and Surrey have agreed to can be summarised as follows.

Surrey Operating Agreement Section Number	Comments on differences as compared to FEI’s recent operating agreements
1.2	<ul style="list-style-type: none">• No substantive changes.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

16 of 68

2	<ul style="list-style-type: none"> No substantive changes.
3	<ul style="list-style-type: none"> Reorganises agreement provisions into a more logical structure. Adds section 3.1(b) to make clear the scope of the agreement does not extend to private lands, Unopened Road Allowances, or to FEI's use of public places for purposes not related to its traditional natural gas distribution business (such as LNG and CNG vehicle fuel businesses). Wording changes in section 3.1(c) align the language of the agreement to the statutory and regulatory foundation of the agreement, and in particular the <i>Gas Utility Act</i> and <i>Utilities Commission Act</i> No changes to insurance requirements.
4	<ul style="list-style-type: none"> Reorganises agreement provisions into a more logical structure. Fixes ambiguities. No substantive changes.
5	<ul style="list-style-type: none"> Reorganises agreement provisions into a more logical structure. Fixes ambiguities. Clarifies the types of work FEI does in public places, and the processes and criteria for approval and/or permitting in respect of each type of FEI work. Makes clear the circumstances in which FEI must apply for Surrey permits. Makes clear the types of work that do not require approval and/or a permit. Reduces the burden on FEI by relaxing certain criteria (e.g., pipe diameter in s. 5.2(b)(i)(3) and tree diameter in s. 5.2(b)(i)(4)) for applications for approval of work. Adds different requirements for FEI maintenance and service line work on local roads versus high-traffic arterial roads and collector roads where impacts to the public are greatest.
6	<ul style="list-style-type: none"> Reorganises agreement provisions into a more logical structure. Reduces the burden on FEI by relaxing FEI's obligation to repair and maintain its pavement restorations. Clarifies prime contractor responsibility for multi-party worksites, enabling FEI to proceed with its work when others are working at the same location.
7	<ul style="list-style-type: none"> No substantive changes.
8	<ul style="list-style-type: none"> Reorganises agreement provisions into a more logical structure. Adds more detailed procedures for a party to obtain an estimate of the other party's Relocation Costs, obtain approvals/permits for Relocation work in appropriate sequence, confirm Relocation work will proceed, report on anticipated cost overruns, and the opportunity for the party to change its plans or accept the reported cost overrun. Adds required detail for Relocation Costs invoices. Adds definition of Relocation Costs. Specifies allocation of Relocation Costs.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

17 of 68

9	<ul style="list-style-type: none"> • New section. Refer to section 4(iii) of Surrey's application for explanation.
10	<ul style="list-style-type: none"> • Reorganises agreement provisions into a more logical structure. • No substantive changes.
11	<ul style="list-style-type: none"> • No substantive changes.
12	<ul style="list-style-type: none"> • Reorganises agreement provisions into a more logical structure. • No substantive changes.
13	<ul style="list-style-type: none"> • No substantive changes. Some reduced burden on Surrey.
14	<ul style="list-style-type: none"> • New section. Codifies FEI's rights and responsibilities respecting removal or abandonment of unused Company Facilities.
15	<ul style="list-style-type: none"> • Adds wording specific to 1957 Agreement. • Wording made specific to this situation where the Commission will be specifying terms pursuant to section 32 of the <i>UCA</i>. • No substantive changes.
16	<ul style="list-style-type: none"> • Reorganises agreement provisions into a more logical structure. • Wording changes to align to the statutory and regulatory foundation of the agreement, and in particular the <i>Gas Utility Act</i> and <i>Utilities Commission Act</i> • No substantive changes.
17	<ul style="list-style-type: none"> • Reorganises agreement provisions into a more logical structure. • No substantive changes.
18	<ul style="list-style-type: none"> • Reorganises agreement provisions into a more logical structure. • No substantive changes.
Sch A	<ul style="list-style-type: none"> • New schedule specifying the portions of non-Highway properties owned and controlled by Surrey that are currently occupied by FEI facilities.

In addition, the following table presents our understanding of the major financial terms of FEI's recent operating agreement with Courtney (referred to in the table as the "Standard Operating Agreement") and the equivalent terms as requested by each of Surrey and FEI in their respective applications to the Commission.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

18 of 68

Financial term	Standard Operating Agreement	City of Surrey Application	FEI Application
Cost recovery when FEI relocates a distribution gas main at the municipality's request	Municipality reimburses FEI for "all of the costs for changes to the affected Company Facilities" ¹	Surrey reimburses FEI for FEI's Relocation Costs in accordance with the formulae set out in the Pipeline Crossing Regulation ⁴	Surrey reimburses FEI for 100% of FEI's Relocation Costs ⁷
Cost recovery when FEI relocates a high pressure transmission pipeline at the municipality's request	Municipality reimburses FEI in accordance with the formulae set out in the Pipeline Crossing Regulation ²	Surrey reimburses FEI for FEI's Relocation Costs in accordance with the formulae set out in the Pipeline Crossing Regulation ⁵	Surrey reimburses FEI for 50% of FEI's Relocation Costs ⁸
Cost recovery when municipality relocates its municipal facilities at FEI's request ¹⁰	FEI reimburses municipality for "all of the costs for changes to the affected Municipal Facilities" ³	FEI reimburses Surrey for its Relocation Costs ⁶	FEI reimburses Surrey for its Relocation Costs ⁹
Definition of Relocation Costs	Not specifically defined for distribution gas mains and municipal facilities, only refers to "changes to the affected" Company or Municipal Facilities. For high pressure transmission pipelines, relocation costs will be determined in accordance with the Pipeline Crossing Regulation.	Defined to provide greater certainty. Definition is consistent with Pipeline Crossing Regulation. For certainty, excludes the value or incremental costs of any upgrading and/or betterment.	Defined to provide greater certainty. Excludes the value or incremental costs of any upgrading and/or betterment beyond that which is required to comply with applicable laws or sound engineering practices.
Operating fee	3% of gross revenue (excluding taxes)	3% of gross revenue (excluding taxes)	0.7% of Delivery Margin

Notes: ¹ Per section 8.2 of the Standard Operating Agreement.

² Per section 5.1 of the Standard Operating Agreement. In its Order No. G-113-12 Decision (at pages 8 to 9) the Commission directed that the municipality does not abandon its rights under the *Oil and Gas Activities Act* regulations respecting cost allocation for pipeline

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

19 of 68

relocation work (these provisions are now in the Pipeline Crossing Regulation) given that section 5.1 of the operating agreement requires FEI to comply with all Federal and Provincial laws, regulations and codes. The Standard Operating Agreement has the same term.

3. Per section 8.1 of the Standard Operating Agreement.
4. Per section 8.2(c) of Surrey's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of Surrey's requested operating agreement.
5. Per section 8.2(c) of Surrey's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of Surrey's requested operating agreement.
6. Per section 8.1(e) of Surrey's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of Surrey's requested operating agreement.
7. Per section 8.2(c) of FEI's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of FEI's requested operating agreement.
8. Per section 8.2(c) of FEI's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of FEI's requested operating agreement.
9. Per section 8.1(e) of FEI's requested operating agreement. "Relocation Costs" are as defined in section 1.1(s) of FEI's requested operating agreement.
10. Note that Surrey has no record of FEI ever requesting Surrey to relocate its municipal facilities. Refer to Surrey's response to BCUC IR 1.7.2.

B. UNRESOLVED OPERATING TERMS

**4.0 Reference: OPERATING FEE
Exhibit B2-1, Section 4(i), p. 8
Operating Fee Impact**

On page 8 of the Application, City of Surrey states:

Surrey requests that the terms for FEI's use of public places within Surrey's boundary limits include an operating fee ("Operating Fee") of 3 percent of the gross revenues (excluding taxes) received by FEI for provision and distribution of all gas consumed within the boundaries of Surrey, other than gas consumed by customers from whom the Commission has not allowed FEI to collect the Operating Fee.

- 4.1 Please provide a detailed calculation of the forecast for the proposed 3 percent Operating Fee that the City of Surrey anticipates it would collect in each of the next five years. Please provide supporting information to show how City of Surrey arrived at these amounts.**

RESPONSE:

The City of Surrey does not have a forecast of FEI's gross revenues for provision and distribution of gas consumed within Surrey's boundaries from which Surrey could calculate an estimate of the requested 3% operating fee.

FEI states in its application (at page 19, lines 39-40) that "calculating the Operating Fee based on 3.09% of total revenues for 2016 results in a fee of \$3.8 million paid to the City". Surrey does not understand why FEI used 3.09% in its calculation (instead of 3%), and cannot verify the accuracy of FEI's calculation.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

21 of 68

- 4.2 **Please provide an analysis and describe, in detail, how the proposed 3 percent Operating Fee amounts calculated for each of the next five years compares to the anticipated costs related to FEI's activities within the City of Surrey. This should include a description of key cost drivers, key assumptions, key risks and a sensitivity analysis of items that are subject to material volatility. How does the calculation differ if FEI's proposed Operating Fee is applied? Please explain the differences.**

RESPONSE:

The City of Surrey does not have a forecast of FEI's gross revenues for provision and distribution of gas consumed within Surrey's boundaries from which Surrey could calculate an estimate of the requested 3% operating fee. FEI states in its application (at page 19, lines 39-40) that "calculating the Operating Fee based on 3.09% of total revenues for 2016 results in a fee of \$3.8 million paid to the City". Surrey does not understand why FEI used 3.09% in its calculation (instead of 3%), and cannot verify the accuracy of FEI's calculation.

Attachment 1 is a report titled "Analysis of Costs Incurred by the City of Surrey due to FEI's Presence and Activities within Highways", prepared by Aplin Martin Consultants, dated September 27, 2017, which the City provides as evidence of some of the quantified anticipated costs to the City as a direct result of FEI's gas infrastructure occupying highways and FEI conducting its gas utility business in Surrey. This report provides a detailed analysis, complete with description of costs, key cost drivers/factors, and assumptions.

As part of their analysis and as documented in their report, Aplin Martin, the City's municipal engineering consultant, quantified some of the anticipated costs over the next 10 years. Given the limited time constraints, Aplin Martin's assessment did not include a cost quantification of the City's operating costs. Summarizing the report, Aplin Martin advises that the City's costs as a direct result of FEI are in excess of \$3.3 million per year.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

22 of 68

4.3 Please provide a summary of operational and administrative differences resulting from moving to the proposed Operating Agreement as compared to 1957 Agreement and quantify how these differences impact the City of Surrey.

RESPONSE:

As the community continues to grow, infrastructure renewals and upgrades are going to become more challenging as the limited space within highway corridors is becoming more congested with utilities; traffic and pedestrian management and safety around construction activity is becoming more paramount; and infrastructure assets are aging/deteriorating and reaching the end of their service life.

Establishing a comprehensive and modern operating agreement, which addresses the laws, infrastructure and business operation of the present and future, is vital to both the City of Surrey and FEI. A summary of the key operational and administrative differences between status quo and the proposed operating agreement is provided below. Note that only the key differences, in the City's opinion, have been summarized.

1. Permit Requirements and FEI's Use of Public Places

Under the proposed operating agreement, the City and FEI have agreed to which permits are required in respect of the various types of FEI activity (e.g., new installation vs maintenance). The nature of applicable permits relates primarily to traffic management, road safety, Work Safe BC compliance and environmental protection. A critical aspect of the necessity for the permits is because the City, as custodians of the highways, coordinates the activities of the multiple parties (City, developers, Metro Vancouver, Kinder Morgan, BC Hydro, FortisBC, Telus, etc.) who do work on, along, across and under the same highways to avoid conflicting construction sites and conflicting traffic management.

2. Operating Efficiencies

Under the proposed operating agreement, FEI's annual Operating Fee to Surrey would negate the need for FEI to pay individual permit and pavement cut fees, which would result in operating efficiencies and reduce staff time and resources to process and enforce payments. Terms of the proposed operating agreement would allow for expedited service connections to FEI customers. For a quantification of these savings, please refer to Surrey's response to BCUC IR 1.2.2.

Additional operating efficiencies include the avoidance of disputes and litigation, which both parties have agreed is a significant savings on an annual basis. Consistent with FEI, the City estimates this savings equates to \$100,000 per year.

3. Clear definition of Relocation Costs

Currently the parties do not agree on a definition for Relocation Costs under the proposed operating agreement. The fundamental disagreement on this definition is that the City feels

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

23 of 68

neither party should leverage, nor benefit at the expense of, the other party when altering or relocating their facilities. Surrey's experience is that there has been an unfair and unjust application of relocation scope of work, betterment and upgrading by FEI at the expense of the City's capital projects and taxpayers. The City has requested and paid FEI for an estimated 100 FEI facility relocations in the past 10 years; whereas, FEI has requested and paid the City for zero municipal facility relocations.

Surrey understands that FEI's proposed definition of Relocation Costs puts essentially the entire costs of betterment and upgrading on the City of Surrey, even if the historical pipeline was not built to required codes/standards, its pipe material is no longer preferred by FEI, or the main is old and requires upgrading or looping to service growth. FEI's proposed definition, particularly in combination with FEI's proposal that the City pay 100% of all distribution gas main relocation costs, will put significant and unfair burden upon the City and would allow FEI to upgrade and better their infrastructure network for free with the City's taxpayers bearing the cost.

Surrey's proposed definition of Relocation Costs keeps the costs of any and all betterments or upgrading undertaken by a party with the benefitting party. Further, Surrey's proposed definition will add clarity on the scope of the relocation works and it will reduce the number of disputes between the parties, as the status-quo is open to interpretation that the City pay "any and all costs", whether required to by law or simply because FEI is of the opinion the works/betterment are required to address "sound engineering practice". The City's proposed definition would increase synergies between the two parties and improve collaboration of coordinating infrastructure projects such that FEI is able to build their ultimate pipe size (or looping) while the City's construction is underway and, simply put, these long-term FEI system improvements would be at FEI's cost and not the City's.

Clarity on the definition of Relocation Costs will add significant operational and administrative benefits, and reduce disputes. In addition, this ought to reduce FEI's budget overruns, scope changes and construction delays, the costs of which have been historically burdened on the City.

4. Clarity of High Pressure Pipeline Relocations

The status quo on alterations and relocations of high pressure transmission pipelines has been that the City pays 100% of any and all FEI costs as specified by FEI, even though the Pipeline Crossing Regulation prescribes that FEI should have incurred 100% of the costs in most of the four (4) instances in the past 10 years where the City has requested such relocation. Further, in addition to incorrectly being burdened by 100% of the costs, the City was also burdened with costs that were to address existing deficiencies with FEI's pipelines in relation to codes/standards (depth of cover) or operational requirements (condition assessments, utility locations, etc.). The status quo of the City paying 100% of FEI's costs as specified by FEI in its absolute discretion without the City having any ability to plan for, competitively tender the work to contractors, or control the work or costs, is unreasonable and not in the public's interest as the historical examples have clearly shown.

Cost allocation for relocation of high pressure transmission pipelines in accordance with the

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

24 of 68

Pipeline Crossing Regulation is a critical and paramount term for the City within the operating agreement.

5. Clarity on Cost Allocation for Gas Mains (Low Pressure)

The current status quo is that the City pays 100% of “any and all costs” to alter or relocate FEI distribution gas mains, and the “any and all costs” are not based on an upfront agreed upon scope of work or cost estimate but based on the “actual costs incurred” as determined by FEI in its absolute discretion after construction, during which the design, procurement and construction management is entirely within the control of FEI and the City has no ability to mitigate any costs, changes or delays. The status quo poses a significant matter to the City as the City, as a government and public entity, has accounting, purchasing and procurement standards and policies that must be adhered to. Placing 100% of relocations costs onto the City and its tax payers without the City having any ability to manage, control or mitigate costs is not in the best interest of the public.

In addition to the cost allocation and inability of Surrey to control FEI’s scope of work or assess the reasonableness of FEI’s costs, FEI has benefited from free renewal of gas pipeline assets, which have reached the end of their service life and should be replaced at FEI’s expense. Moreover, there are multiple instances where, in addition to getting a renewed asset for free, FEI has been bettering or upgrading its infrastructure with the City’s capital program and taxpayers bearing the cost.

It is unreasonable for Surrey to have to pay 100% of any and all costs as determined by FEI in its discretion, especially when the costs are entirely beyond Surrey’s control and purchasing requirements for public accountability.

4.4 Does the City of Surrey have an operating agreement with British Columbia Hydro and Power Authority or any telecom service providers?

RESPONSE:

The City of Surrey's priority has been to focus on negotiating an operating agreement with FEI given the extraordinary costs of litigation and the prospect of ongoing disputes and legal proceedings.

The City of Surrey currently does not have an operating agreement with British Columbia Hydro and Power Authority (BC Hydro) although it has approached BC Hydro to discuss entering into one. At this point in time, Surrey has put discussions with BC Hydro on hold pending resolution of this current Commission proceedings regarding an operating agreement with FEI. Without agreeing that it is bound by Surrey by-laws, BC Hydro has over the past few years, in a spirit of cooperation and in the interests of public safety, generally been complying with Surrey by-laws.

Surrey has multiple 10 year term site specific operating agreements with certain telecom service providers.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

26 of 68

- 4.4.1 **If so, please describe the nature of these agreements and compare the terms of such agreements to the proposed Operating Agreement. This should include a comparison and discussion of fees (percentage and annual aggregate dollar amounts collected before tax).**

RESPONSE:

The City of Surrey's recent 10 year term site specific agreements have been modelled after the CRTC model municipal access agreement (see Attachment 1). Since the case of *Bell v. the City of Hamilton*, CRTC Decision 2016-5 (see Attachment 2) the template agreement has been revised to reflect the 16 year sliding scale directed by the CRTC in that decision. The template agreement also provides that where relocations would be required to accommodate future planned work by Surrey, the telecom company would be responsible for 100% of the relocation costs.

The CRTC model municipal access agreement is premised on the guiding principles established in CRTC Decision 2001-23 in which the CRTC addressed a Municipal Access Agreement dispute involving Leduc Industries and the City of Vancouver. This includes the principle of cost neutrality, i.e. that costs directly related to a carrier's infrastructure should be paid by the carrier, not municipal taxpayers.

In cases where telecom infrastructure is placed on municipal poles, Surrey's area specific agreement requires that any relocation costs to accommodate Surrey projects are borne 100% by the telecom company. Being site specific/area specific agreements related to very limited infrastructure builds, any fees collected are not comparable to the requested operating agreement for FEI's use of municipal highways and other public places throughout Surrey.

Surrey currently does not have a city-wide municipal access agreement with Telus, and will likely have to make an application to the CRTC in order to establish operating terms.

4.4.2 If not, please explain why similar agreements are not in place.

RESPONSE:

In the case of Telus, where no municipal access agreement is in place, the City of Surrey will likely have to make an application to the CRTC in order to establish operating terms.

Surrey staff anticipate seeking instructions to make a formal application to the CRTC pursuant to s. 43 of the *Telecommunications Act*. Staff have deferred seeking such instructions pending the decision of *Bell v. City of Hamilton* and because limited resources have been focussed on the current Commission proceedings regarding an operating agreement with FEI and on other major projects currently underway.

**5.0 Reference: OPERATING FEE
Exhibit B2-1, Section 4(i), p. 8
Operating Fee Rationale for 3 percent Rate**

On page 8 of the Application, City of Surrey states that it “agrees to waive any approval, license, inspection or permit fees, charges and security deposit requirements [Additional Fees] in respect of FEI’s work and occupancy of public places in Surrey, which is on condition of receiving the Operating Fee at 3% of FEI’s gross revenues.”

Further on page 8, City of Surrey states it “understand[s] that this 3% of gross revenues Operating Fee is precisely the same operating fee as FEI collects and remits to 70 other municipalities in the province...”

5.1 Please describe how the City of Surrey compares, in terms of its population and territory size, to the 70 other municipalities in the province.

RESPONSE:

The City of Surrey understands that the 3% of gross revenue operating fee it requests is precisely the same basis for an operating fee as the operating fees FEI remits to 70 other municipalities in the province. Surrey has submitted information requests to FEI to verify that understanding. Surrey does not have a complete list of the municipalities included in the 70; however, Surrey believes the following to be true:

- Surrey is the second largest city in British Columbia by population. The City of Vancouver is largest by population. We understand that the City of Vancouver does not have a modern operating agreement with FEI that provides for an operating fee, so City of Vancouver is not included in the 70. Therefore, Surrey has a larger population than any of the municipalities included in the 70.
- Surrey is the second largest urban municipality in the province by land area (slightly smaller than the City of Abbotsford). There may be some rural municipalities included in the 70 that have larger land areas than Surrey.
- FEI has 2,571 kilometers of distribution gas mains in Surrey, which is more than in any other municipality in the province including any of the 70.
- FEI has 114 kilometers of high pressure transmission pipelines in Surrey. Many of the 70 have limited or no high pressure transmission pipelines.
- Largely due to the extent of FEI facilities in Surrey and the extent of economic development in Surrey associated with economic and population growth:

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

29 of 68

-
- Surrey has more capital projects requiring FEI to relocate their facilities to accommodate the project than the rest of the municipalities in the province combined, and
 - Surrey has incurred more than half of the total costs incurred by all municipalities in the province in relation to relocating FEI pipes to accommodate municipal works.

In summary, compared to the 70 municipalities in the province that Surrey understands are receiving the 3% of gross revenue operating fee from FEI, Surrey has the largest population, the most FEI pipelines within its boundaries, the most interactions with FEI, and by far the highest costs resulting from FEI's use and occupation of public places in the municipality.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

30 of 68

5.2 Are there any differences between large, dense cities as compared to a largely dispersed small municipality or towns that could impact the terms of an operating agreement? Please explain.

RESPONSE:

The essential purpose of the operating agreement is to set out the terms and conditions under which FEI shall exercise its rights under the *Gas Utility Act* to use municipal highways and other public places in the municipality for conducting its business of distributing natural gas as a public utility.

The land area of the municipality and its population density are not by themselves considerations for developing terms for such operating agreements because land area and population density are not directly or necessarily related to FEI's use of public places in the municipality.

Overarching considerations for developing operating agreement terms include the frequency, complexity and impact of interactions between FEI and the municipality, and between FEI and other users of public places in the municipality (e.g., residents and businesses). These interactions will be more frequent, more complex and have greater impacts for municipalities like the City of Surrey that host extensive FEI infrastructure (and particularly extensive high pressure transmission pipelines), are urban and have high rates of population growth and economic development as compared to municipalities that are rural, have limited FEI infrastructure and/or limited development.

As discussed in section 3 of Surrey's application, the following factors together result in Surrey having more capital projects (primarily highway widenings, water and sewer works expansions and upgrades) requiring FEI to relocate its facilities to accommodate the municipal project than the rest of the municipalities in the province combined:

- FEI has 2,685 kms of pipes within Surrey's boundaries, including 114 kms of high pressure transmission pipes, which is more than in any other municipality in the province. Most of FEI's pipes in Surrey are under paved roads or the shoulders of paved roads.
- Surrey has a large population and high rate of population growth.
- Surrey has a high rate of economic development including housing construction, increasing density as housing stock shifts to more multi-family units, and major projects like a new Light Rail Transit system.

For all of these reasons both the City of Surrey and FEI undertake many projects in the city each year. It is critical that the parties efficiently coordinate their work with each other. Each party needs to know when the other party is working near the party's facilities and/or requires the other party to relocate their facilities. Both parties need to review each other's work plans on predictable timelines and provide timely clear communication to efficiently complete their work. Surrey needs reasonable oversight of FEI's work in the city to ensure FEI does not unreasonably interfere with the public's use of municipal highways and public places, including by obstructing traffic on major roads during peak periods, and to identify potential conflicts with multiple parties (e.g., FEI, developers and BC

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

31 of 68

Hydro) working in the same area at the same time. Surrey needs robust estimates of FEI's reimbursable relocation costs to make prudent project planning decisions. The requested operating agreement sets out these rights and obligations in clear, robust contract language which should minimise disputes going forward.

A municipality that has limited FEI infrastructure (particularly high pressure transmission pipelines), is rural and/or has limited development projects in highways and other public places might not be as concerned about these issues in negotiating an operating agreement.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

32 of 68

5.3 Given that there are material differences between the proposed Operating Agreement and other municipal agreements in areas other than the fee, please provide a rationale for why the operating fee amount for the City Surrey should follow the agreements FEI has with the 70 other municipalities.

RESPONSE:

The City of Surrey does not agree that the operating agreement it requests has terms that are materially favourable to Surrey relative to the operating agreements between FEI and other municipalities. Most of the differences in the operating agreement terms FEI and Surrey have agreed to improve procedures which should benefit both parties, and clarify the reciprocal rights and obligations of the parties, which should minimise disputes going forward also benefitting both parties. Please refer to Surrey's response to BCUC IR 1.3.1 for a summary of the differences between the operating agreement Surrey requests and FEI's recent operating agreements.

Surrey understands that all of FEI's modern operating agreements with municipalities provide for an operating fee of 3% of gross revenue, notwithstanding differences in the circumstances of each specific municipality and differences in the terms of specific operating agreements. In other words, FEI and the Commission have not previously viewed the circumstances of the municipality or the specific terms of the operating agreement as relevant to the operating fee amount.

We are aware of only two previous cases since 2000 where the Commission commented on operating fees in operating agreements between FEI and municipalities:

- In 2003, the District of Salmon Arm and FEI successfully entered into an operating agreement and FEI filed it with the Commission. Although the parties had agreed to the operating agreement, the Commission decided to hold a public hearing and allow interested parties to submit comments. Some interested parties objected to the 3% of gross revenue operating fee, including arguments that the fee should be reasonably and necessarily incurred in order to provide service, and that such fees undermine customer competitiveness. FEI (then Terasen Gas) argued that operating agreements provide value to FEI, and that it is appropriate that fees relating to the use of streets and other public properties be paid. In its Order No. C-7-03 Decision (at page 5) the Commission determined that **“the 3% fee is not unreasonable for the concessions provided by the municipality.”**
- In 2006, the District of Chetwynd and FEI were not able to reach agreement on an operating agreement and the Commission was asked to specify the terms pursuant to section 32 of the *UCA*. Among other items in disagreement, Chetwynd proposed an operating agreement with fees estimated to total approximately 11 percent. In its Order No. G-17-06 Decision the Commission said only the following respecting the operating fee: “The Commission has not previously approved operating agreements that contain operating fees greater than 3 percent and is not persuaded to do so in this

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

33 of 68

instance. **Accordingly, the Commission approves an operating fee of 3 percent in the new Operating Agreement.**"

The Commission previously approved 3% of gross revenue operating fees as not unreasonable largely without regarding to the specific circumstances of the municipality.

We also note that FEI's General Terms and Conditions for its services, as approved by Commission Order No. G-113-16, provides the following definition for Municipal Operating Fees, which is meant to explain the nature of these fees to FEI customers:

"Means the aggregate of all monies payable by FortisBC Energy to municipalities or First Nations

- (a) for the use of the streets and other property to construct and operate the utility business of FortisBC Energy within municipalities or First Nations lands (formerly, reserves within the *Indian Act*),
- (b) relating to the revenues received by FortisBC Energy for Gas consumed within the municipalities or First Nations lands (formerly, reserves within the *Indian Act*), or
- (c) relating, if applicable, to the value of Gas transported by FortisBC through municipalities or First Nations lands (formerly, reserves within the *Indian Act*)."

A copy of page D-4 of FEI's General Terms and Conditions is provided as Attachment 1.

Nowhere in the above definition from FEI's General Terms and Conditions is there any suggestion that the operating fee relates to the municipalities costs or the terms of an operating agreement. The definition provides that the operating fee is for FEI's use of public places within municipalities, or relates to the revenues FEI receives for gas consumed or the value of gas FEI transports through municipalities (or First Nations lands).

To the extent that the Commission will now consider the specific circumstances of the municipality as relevant to the operating fee amount, Surrey relies on the facts that (i) Surrey hosts more FEI pipes within its boundaries than any other municipality in the province, including 114 kms of high pressure transmission pipes, and (ii) Surrey incurs more costs as a result of FEI's use of public places within the city's boundaries than all other municipalities in the province combined. Given that Surrey is the outlier in the province with respect to the extremely high costs and burden it bears as a result of FEI's use of public places in the city, in Surrey's view it is reasonable for Surrey to receive a 3% of gross revenue operating fee, the same as 70 other municipalities do even though they have much less FEI infrastructure within their boundaries and much lower related costs and burden.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

34 of 68

- 5.4 **In City of Surrey's view, given other significant modifications to the Standard Operating Agreement, does its proposed Operating Agreement have more favorable terms and conditions for City of Surrey than the Standard Operating Agreement? If yes would an Operating Fee of less than 3 percent be appropriate?**

RESPONSE:

The City of Surrey does not agree that the operating agreement it requests has terms that are materially favourable to Surrey relative to the operating agreements between FEI and other municipalities, and in Surrey's view it is reasonable for Surrey to receive a 3% of gross revenue operating fee, the same as 70 other municipalities do even though they have much less FEI infrastructure within their boundaries and much lower costs and burden related to FEI's use of public places in the municipality. Please refer to Surrey's responses to BCUC IRs 1.3.1 and 1.5.3.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

35 of 68

**6.0 Reference: DEFINITION OF “RELOCATION COSTS”
Exhibit B2-1, Section 4(ii)(a), p. 9, Appendix B, Section 4, p. 7
Relocation Costs Upgrades/Betterment Definition**

On page 9 of the Application it states:

Surrey requests that the terms for FEI's use of public places within Surrey's boundary limits define such Relocation Costs as specifically excluding the value or incremental costs of any upgrading and/or betterment of facilities a Relocating Party might undertake while relocating their facilities to accommodate the Initiating Party's work. Surrey further requests that such value or incremental costs of upgrading and/or betterment of facilities be excluded whether or not they are required by applicable codes and standards.

In the proposed Operating Agreement, attached as Appendix B to the Application, on page 7 it states “In its occupancy and use of Public Places, including conduct of Work, FortisBC shall conform to sound engineering practices...”

- 6.1 Please discuss if City of Surrey's request to exclude incremental costs of upgrading and/or betterment of facilities is consistent with the BC Oil and Gas Commission regulations. Please discuss how City of Surrey can support its claim and provide relevant evidence.**

RESPONSE:

The City of Surrey believes that its requested definition of Relocation Costs is consistent with the Pipeline Crossing Regulation.

The Pipeline Crossing Regulation provides as follows in subsection 3(2):

“...costs incurred by a pipeline permit holder as a result of the enabled person's carrying out of an enabled action, including, without limitation, costs

- (a) to realign, raise or lower the pipeline,
- (b) to excavate material from around the pipeline, and
- (c) to add casing or other appurtenances that an official considers necessary for the protection of the pipeline.

Nowhere in the Pipeline Crossing Regulation is there any suggestion that the costs to be allocated are to include the costs of a new larger capacity pipeline that the pipeline permit holder might install (an upgrade) or the costs of facility improvements not needed to accommodate the enabled action (a betterment). The Regulation is clearly focused on the costs to move and/or protect the existing pipeline and the costs to excavate material in connection to such change.

Surrey's requested definition for Relocation Costs is designed to align closely to the Pipeline

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

36 of 68

Crossing Regulation and provide greater certainty to the parties to avoid future disputes. Given the history of disputes, it is critical for the operating agreement to have clear wording. In addition, Surrey's requested definition of Relocation Costs is drafted to be reciprocal, applying to relocations of FEI facilities (natural gas pipelines) and municipal facilities (water mains and sanitary sewers):

"Relocation Costs" means the costs of a party to:

- (i) realign, raise, lower, by-pass, relocate or protect the party's facilities to accommodate the work of the other party;
- (ii) excavate material from around the facilities as needed to complete the work in (i);
- (iii) backfill the material referred to in (ii) and restore the surface; and
- (iv) flush water mains, shut down customer gas supply and customer relights as needed,

and includes administration and overhead charges at rates consistent with the party's policy, or standard rates, for such charges, which rates must be reasonable, on the costs of labour, equipment and materials in items (i), (ii), (iii) and (iv), above, and applicable taxes, but excludes the value or incremental costs of any upgrading and/or betterment of the party's facilities or the facilities of third parties whether or not such upgrading and/or betterment is required to comply with applicable Laws;

To Surrey's knowledge there are no Court decisions interpreting the cost allocation provisions of the Pipeline Crossing Regulation.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

37 of 68

6.2 Please describe how incremental costs of upgrading and/or betterment of facilities costs have been treated historically.

RESPONSE:

When the City of Surrey has requested the relocation of FEI facilities, historically the City has paid for any and all costs specified by FEI, even betterment and/or upgrading that is of no benefit to the City and sole benefit to FEI. This is partially because FEI's definition of scope of work in quotations provided to the City and level of details on their invoices are insufficient for the City to assess whether betterment and/or upgrading is included in the quote/invoice, and in situations where the City has been able to assess that betterment and/or upgrading has occurred the City has unfortunately had to bear the costs because FEI has refused to complete any alteration / relocation works unless Surrey provides a Purchase Order (PO) for the entirety of the scope of work as determined by FEI.

In recent history, the City has through persistence been able to obtain a clearer scope of work from FEI, with a more detailed breakdown of costs and design drawing illustrating the extent of works. Through these recent projects, the City provides the following examples of betterment and/or upgrading. The City is able to provide more examples, however, those identified below should provide sufficient information to illustrate the status-quo and why it is unreasonable and cannot continue to occur.

Eldorbud Sanitary Sewer

One of the City's capital projects was to install a new sanitary sewer and water main in Eldorbud Place, south of 60 Avenue, and as part of the utility works the City requested FEI relocate 210m of their existing 88mm steel distribution pressure (DP) Gas Main. On January 11, 2017, FEI provided a design drawing for the relocation, with the drawing (refer to Attachment 1) showing the replacement of the existing 88mm steel gas main with an 114mm plastic pipe, which is an upsize and betterment as the inside diameter of the plastic pipe is larger than the steel pipe. The drawing also included fine print notes, specifically:

Note 3: Install tracer wire and bonding cable.

Note 4: Test and Transfer six (6) existing plastic services to new gas main

Note 5: Renew five (5) steel services to plastic pipe

Note 6: The standard depth of cover for gas mains in road allowances is 0.6m minimum.

On January 17, 2017, FEI submitted a quotation for the works in the amount of \$90,238.68 (refer to Attachment 2) and as noted on the quotation, the scope of work was very limited and vague in its definition "Install new gas main 1.0m off east p/l of Eldorbud Place and abandon existing main on west side to facilitate new sanitary sewer connections". The scope of work and quotation did not mention: (i) the justification or cost allocation for bettering their gas main from 88mm to 114mm nor did it mention (2) the justification or cost allocation for renewal of five (5) service connections beyond the City's work limits.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

38 of 68

The City's engineering consultant provided a probable opinion of construction cost for the FEI works in an amount of \$45,000, which then triggered the City to ask FEI for clarification and a breakdown of the cost estimate so the City can assess the reasonableness of the costs. On February 14, 2017 FEI provided a breakdown of the costs (refer to Attachment 3), which illustrated the \$90,238.68 included \$22,200.00 for 12 Service Alterations, even though Surrey's relocation did not trigger service relocations/renewals and even though FEI's drawing indicated there are 11 services and not 12 as included in the quotation. This break down of costs did not further include, nor provide any reference to, the incremental costs to upgrade FEI's Gas Main from 88mm to 114mm as it was assumed to be embedded within the total costs consistent with the approach taken on the services. Thus, deducting the cost of the service work, the quotation from FEI to Surrey should have been for \$68,038.68 (\$90,238.68 less \$22,200).

On March 07, 2017, FEI resent their design drawing (refer to attachment 4) to the City's engineering consultant for coordination.

The week of March 20, 2017, months after FEI completed their design and provided a quotation for the works, FEI visited the site / Eldorbud Place to review the site conditions and proposed FEI alignment. Following which, FEI elected to revise their design to have the Gas Main located 1.5m off property line (PL) instead of the previous 1.0m offset, due to proximity to power poles (refer to Attachment 5).

On April 6, 2017, FEI then revised their design drawings to reflect their decision to adjust the alignment to 1.5m off PL, at the same time FEI further decided, at their own discretion, to increase the pipe diameter to 168mm, thus making a further upgrade from the original 88mm, to a pipe nearly double the capacity (please refer to Attachment 6). FEI also resubmitted their quotation (refer to Attachment 7), with the description of the scope of work being unchanged and still not including any references to the betterment (service connection renewals) or upgrades (now 168mm instead of existing 88mm) nor was the offset from property line reflected. The quotation amount changed to \$87,356.12, with no detailed explanation or breakdown as to why, nor was the City able to ascertain if the costs for the increased betterment to a 168mm are included or excluded.

On April 7, 2017, Surrey informed FEI that the City should not be paying for betterment or upgrading and requested further discussions on cost allocations for these items, which discussions were then initiated.

On June 05, 2017, FEI provided a revised quotation (refer to Attachment 8), with a much more clarified scope of work, in the amount of \$73,621 which is a significant reduction from original \$90,238.68 once FEI removed the betterment costs for the service renewals, and yet the original upgrade from 88mm to 114mm was still not clarified. Moreover, the City notes that the 3rd quotation received (\$73,621) is still higher than what the quotation should have been (\$68,038.68 as noted above) based on FEI's original quotation and further breakdown of costs. This leads the City to formulate the opinion that the costs for the second upgrade to a 168mm diameter were actually passed onto the City in the quotation even though FEI indicates otherwise, and without

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

39 of 68

the breakdown of costs the City cannot be certain as to how the costs were quantified.

On June 12, 2017 the City issued a PO in the amount of \$73,621, even though we were not confident in the cost allocation, because FEI would not commence work until a PO was received (refer to Attachment 9) and the City could not afford any further delays since the original FEI design and cost estimate 6 months previous.

One month later, FEI's contractors commenced work and very shortly thereafter FEI's contractor ran into a conflict with utilities along the design alignment FEI had selected. FEI's contractors demobilized from the site, thus delaying the project and the City's contractor, and FEI then instructed the City to relocate the City utilities in conflict. On July 25, 2017, FEI informed the City that the City is responsible for all costs for FEI's contractor to date and all move-on costs and that all of these costs are over and above the original quotation (refer to Attachment 10). In addition to FEI's claim, the City's contractor was making a claim against the City that FEI has delayed the project and the contractor was seeking costs from the city. In essence, the City was facing delay claims from both FEI's contractor and the City's contractor over the same issue which was conflicts in FEI's design and the alignment they chose, and verified in the field on two occasions.

Barnston Drive Road Widening

At the intersection of 168 Street and Barnston Drive, Kinder Morgan's oil pipeline transverses west-east through the intersection, while FEI has an abandoned steel gas main that transverses north-south and is directly above Kinder Morgan's oil pipeline. Rather than remove their Gas Main from the Highway at the time of abandonment, FEI decided to leave the pipeline buried in the ground.

In Spring 2015 during construction of the road widening and storm sewer works at this intersection, the City discovered a conflict between FEI's existing 60mm Gas Main and the City's proposed storm sewer. The location of the conflict was 10m away from Kinder Morgan's pipeline and not directly impacting FEI's abandoned Gas Main (refer to Attachment 11).

While completing relocation of the 60mm Gas Main across the storm sewer, FEI secured a Proximity Permit from Kinder Morgan as FEI was working within 30m of their pipeline. Even though the FEI works were 10m away from the Kinder Morgan pipeline, as a requirement of doing gas works in the area Kinder Morgan required FEI to remove their abandoned Gas Main that was crossing the Kinder Morgan oil pipeline. This request was simply a requirement of one pipeline company to another so there is no interference of metallic pipelines in close proximity, and this requirement was not at the request of the City nor was it a requirement in order to complete the necessary relocation – it was simply a coordinated work because FEI happen to be working in the area. Rather than incurring the cost of this system improvement as FEI's own business operating expense, FEI put the cost of removal onto the City of Surrey (refer to Attachment 12) and unfortunately the City had to pay as we were already under duress with a contractor on-site and the City could not risk delay claims.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

40 of 68

Hyland Creek Culvert at 148 Street

In 2013 the City was replacing the Hyland Creek culvert across 148 Street and raising the elevation of the road such that a new bridge could be installed. FEI's had an existing 60mm Gas Main along 148 Street that provided service from the north (65A Avenue), went across the creek and stopped north of the railway crossing and did not extend / loop to 64 Avenue.

During construction, a 50m long segment of FEI's existing 60mm Gas Main (directly at the creek crossing) had to be temporarily abandoned at the location of the creek to facilitate the bridge construction, however, abandonment would result in the property at 6455 148 Street not having gas service because FEI's system was not looped from 64 Avenue due to the existing railway. Rather than install a temporary 50m segment of gas main alongside the bridge construction, FEI required the City to pay for installation of 70m of 60mm Gas Main from 64 Avenue, below the Southern Railway (in a casing pipe), and connection on 64 Avenue, all at a very high cost of \$114,000 (refer to Attachment 13). As part of this work, which was designed by FEI's engineers, FEI required the City to secure crossing permits and authorizations from BC Hydro and Southern Railway, and endure all the special terms and conditions of said permits.

FEI had an option to simply provide a temporary 50m service to the customer at 6455 148 Street and reinstate the existing Gas Main after the bridge was constructed, however, FEI elected to proceed with a longer, more expensive, relocation that provides long-term betterment to FEI's system as now they have a looped gas system and a permanent crossing beneath a railway. FEI required the City to pay the costs of the betterment that was not needed to accommodate the City's work.

72 Ave Road Widening

In 2015 the City widened 72 Avenue between 192 Street and 196 Street and initially during design the City did not anticipate any relocations of FEI's Gas Mains as the proposed road grades were very similar to existing ground conditions. Once construction commenced, the City's contractor discovered there were significant locations where the existing FEI Gas Main only had 0.2 to 0.5m cover (refer to Attachment 14), which in the City's opinion is not in compliance with the minimum depth requirements per CSA Z662.

Initially FEI requested the City provide a PO for the costs to relocate the entire 220m length of Gas Main that was at insufficient depth of cover. Upon receipt of the PO request, the City and FEI had further discussions and agreed to cost share the Gas Main relocation, with FEI paying to relocate those specific lengths of Gas Main which at the present time did not have the adequate 0.6m cover and the City agreeing to pay the apportionment of costs for the lengths of gas main which did, at that time, have the minimum 0.60m cover but were going to have less than 0.60m cover with the proposed road grade. Based on actual depths surveyed and length of Gas Mains relocated, the final costs were shared FEI 39 : Surrey 61) due to the fact that 39% of the alignment had insufficient depth of cover under the then present conditions.

These examples demonstrate that FEI always seeks to recover "any and all costs" from the City,

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

41 of 68

even if it is to better their infrastructure to meet codes/standards or other reason. Eventual acceptance by FEI to not burden the City with the portion of costs attributable to FEI system betterment indicates that FEI ultimately agrees the City's proposed definition of Relocation Costs is fair and reasonable.

148 Street Widening

In 2016 the City completed road widening of 148 Street, between 66 and 72 Avenue. During construction, the City encountered 3 gas services that did not have sufficient depth of cover and requested FEI to relocate the services such that the City could proceed with the road works. In one of the locations, the existing gas service was buried directly below a wood landscaping wall, which was replaced to Allan block wall at same grades. FEI required the City pay for these costs (refer to Attachment 15) to better their infrastructure to meet code/standard requirement for depth of cover.

192 Street Widening

In 2013 the City completed road widening of 192 Street, between 72 and 73 Avenue.

As part of the road widening project, the City's contractor encountered 4 gas services along 192 Street (addresses 7329, 7331, 7337, 7339) that were installed at insufficient depth of cover. As shown on the City's design drawings and cross-sections for Sta. 3+880 and 3+900 (refer to Attachment 16) the proposed road grades at the location of these services is slightly higher than the original ground condition and not triggering a reduction in depth of cover nor the requirement for relocation in gas services. However, due to their shallow depth and non-conformance with depth of cover standards, FEI requested these services be relocated to a lower grade and that the City pay all the costs (refer to Attachment 17).

Once again, this betterment to meet depth of cover standards, whether it be FEI's own discretionary standard or CSA Z662, are costs that should not be borne by the City.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

42 of 68

- 6.3 **Please quantify the annual incremental costs of upgrading and/or betterment of facilities, broken down in detail, for events that have occurred in the last 10 years within the City of Surrey, as well as any material plans or events that could result in such costs in the future. Please describe the risks and factors driving such plans or events and include an estimated range of costs for each item.**

RESPONSE:

The City cannot quantify the incremental costs of the betterment and upgrades FEI has installed and charged to the City over the years because FEI has not provided sufficiently detailed information on either its cost estimates or invoices to enable Surrey to identify the incremental costs either by individual project or annually.

Please refer to Surrey's responses to BCUC IRs 6.2 and 6.4 for some specific examples of FEI system betterments and upgrades. Also refer to Surrey's response to CECBC IR 1.2.2 which provides a detailed explanation of the upgrading and betterment issue.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

43 of 68

6.4 Please provide details on what codes and standards and applicable laws are being referred to.

RESPONSE:

The City of Surrey and FEI did not reach agreement on the definition of Relocation Costs for the operating agreement as the parties do not agree on the caveat at the end of the definition regarding the costs of upgrading and/or betterment of the party's facilities or the facilities of third parties.

FEI is of the opinion that Relocation Costs should exclude the costs of any upgrading and/or betterment "*beyond that which is required to comply with applicable Laws or sound engineering practices*", which we understand means that essentially all costs of upgrading and/or betterment are burdened on the party requesting a change to the other party's facilities. Only if the upgrading and/or betterment is not required by the very broad and discretionary term "sound engineering practices" would they be excluded. Surrey has submitted information requests to FEI seeking clarification of what if any costs would be excluded by FEI's preferred caveat.

The City is of the opinion that any and all costs of betterment and/or upgrading the facilities of a party or of a third party shall not be included in Relocation Costs such that these costs shall be borne by the party that undertakes and benefits from the betterment/upgrading rather than burdening these costs on the party that simply requested relocation of facilities to accommodate work.

The City's requested wording for the caveat in the definition of Relocation Costs does not include the term "codes and standards". This term was used on page 9 of the City's application to help explain our view that costs of betterment and/or upgrading should not be included in Relocation Costs whether or not (even if) there is a code or standard that the party might believe justifies it doing the betterment or upgrade. A scope of work can expand to include just about anything and everything on the basis of "standards" or "sound engineering practice" when only a minor deflection is actually required.

In general terms, Surrey's requested wording for Relocation Costs is intended to address larger cost drivers/factors that broaden the scope of work in response to a request for relocation well beyond the specific limits being requested. The codes/standards that have frequent impact on the scope of work in response to requests for relocation are: (i) depth of cover requirements under CSA Z662, which covers design, construction, operation and maintenance of oil and gas industry pipeline systems, (ii) FEI's internal practices, procedures and engineering judgement, which are not publically available and are solely at the discretion of FEI, and (iii) City of Surrey's Engineering Design Criteria and MMCD Supplementary Specifications.

The City and FEI agree that FEI must adhere to the CSA Z662 code/standard for FEI's pipelines in the city. However, the City is of the opinion that if FEI has infrastructure that is not in compliance with CSA Z662 and the City requests that FEI alter a portion of said infrastructure to accommodate municipal work, the City should not be burdened with FEI's incremental cost to

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

44 of 68

bring its facilities into compliance with CSA Z662. FEI's costs to alter its facilities, as requested, should be Relocation Costs, and its incremental costs above and beyond that to comply with the applicable standard should not be. Likewise, CSA Z662 has frequently changed in the past 10 years and as this standard continues to change it is not Surrey's responsibility to reimburse FEI for its costs to keep its infrastructure up to the standard.

If the City is completing a capital project and there are changes to the depth of cover or surface restoration above a pipeline, FEI cannot mandate the City pay for relocation of FEI's infrastructure simply to be in accordance with FEI's opinion of "sound engineering" or simply because in FEI's opinion it would be easier for FEI to operate and maintain.

We provide the following historical examples to further articulate these issues and support the need for the caveat included in the City's preferred definition of Relocation Costs.

173A Street Ditch Infill Project

The City has plans to infill an existing ditch along the east side of 173A Street, south of 96 Avenue. At this specific location, FEI has existing 762mm and 1,066mm High Pressure Pipelines that run perpendicular across (below) the ditch and below 173A Street. The City's current design is to install a culvert and infill the ditch. The culvert will cross above FEI's High Pressure Pipelines. In April 2016 FEI issued an initial Pipeline Crossing Permit (see Attachment 1) and as a special condition of FEI's permit, FEI required:

The designed depth of cover over FortisBC gas pipeline must satisfy the following standard unless written consent has been provided by FortisBC:

- i. Minimum Depth of Cover: 1.2 meters (4')*
- ii. Maximum Depth of Cover: 1.8 meters (6')*

On September 19, 2017, the City, under the observation of FEI staff, located the existing FEI High Pressure Pipelines and surveyed their location. Currently, the existing 762mm pipeline has 0.57m depth of cover in the ditch and 2.4m below the road, while the 1,066mm pipeline has a depth of cover of 1.19m in the ditch and 3.5m below the roadway. Neither of the pipelines currently meets the standards stated in the Pipeline Crossing Permit FEI issued to the City and in fact the 762mm pipeline appears to be in non-conformance with CSA Z662.

Following the work to locate the FEI pipelines, the City raised the discrepancy between existing pipeline depths and FEI's permit crossing requirements and specifically sought clarity from FEI staff on "cover specifications within creeks and ditches". FEI staff replied that "each situation is to be approved by engineering and can vary so there is no general rule except a minimum of 12" separation which will be required in this case." Refer to Attachment 2.

This example illustrates that FEI's opinion is that there are no objective rules, codes, standards, and that is up to their engineering group to decide what is required apparently on a case-by-case

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

45 of 68

basis. In this case, it would likely cost in excess of \$1 million to do the work necessary to comply with the requirements stated in FEI's Pipeline Crossing Permit.

The City also notes that the pipelines in this example are high pressure and under the cost allocation provisions of the Pipeline Crossing Regulation; however, FEI demands that the City pay all of FEI's costs to bring its pipelines up to code/standard simply because the City happens to have a project in and around FEI's deficient infrastructure. The City should not be burdened with FEI's costs.

105 Ave Connector Project

The City of Surrey is considering constructing a new road across FEI's High Pressure Pipelines at 105 Avenue, east of 140 Street. As part of the design process the City has approached FEI to secure a Pipeline Crossing Permit. FEI's response (refer to Attachment 3) is as follows:

Here are the requirements and recommendation prior to any road construction:

- 1. Prior to any road construction, the existing 610mm transmission pressure gas pipeline shall be exposed for the length of the road boundaries with 1.5m buffer on each side of the travelled surface of the road. Ones exposed, the pipeline shall be thoroughly inspected for defects including coating damage, corrosion, dents, etc with repair if necessary; and all existing pipeline welds exposed shall be non-destructively tested or repairs conducted as approved by FortisBC Engineering.*
- 2. The vehicle crossing shall be constructed so that the angle between the centerline of the road and the centerline of the pipeline as close to 90 degrees as possible and in no case less than 45 degrees.*
- 3. Final depth of cover above the gas lines within the road allowance shall be a minimum of the following: 1200mm under all traveled road services*
- 4. Selection, placement and compaction of the soil used for embedment and backfill shall meet the requirement outlined in FortisBC standard.*

Our Engineering is currently performing the cost estimate for this project. As soon as I hear back from them I will let you know. Are we going to address the quotation to the City of Surrey?

Firstly, FEI wants the City to locate and excavate their existing infrastructure and do condition assessment testing for defects, damages, dents, etc. While this might be "sound engineering practice" to complete, the City is of the opinion these types of activities are the responsibility of FEI as part of their operation and maintenance and all related costs should be borne by FEI. It is not known at this time of the design stage if FEI will need to alter/relocate its pipeline, yet as we understand it, these costs would be included in FEI's proposed definition for Relocation Costs.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

46 of 68

Secondly, FEI states the minimum depth of cover within “the road allowance”, not just the travelled road, “shall be 1200mm” which is in direct contradiction to the example above on 173A Street, even though both project correspondence occurred within one week of each other and from the same FEI Right-of-Way Department. FEI staff do not appear to be aware of what codes/standards apply to their own pipelines, and if they are aware then they are not consistent as to what the applicable depth of cover requirements are nor are they aware as to what should be done with existing pipelines that are non-conforming. This inconsistency is not acceptable, particularly when the potential High Pressure Pipeline alteration/relocations cost in excess of \$1 million for each pipeline and have the ability to induce significant delay costs on the City's projects.

Thirdly, the City assumes that FEI is not suggesting that the City dig up FEI's entire High Pressure Pipeline and re-bed the pipeline with a different type of soil around the pipe as that activity would pose an unnecessary safety risk to the pipeline. Another matter raised is that all “backfill”, presumably above the pipeline and below the travelled road, shall meet “FortisBC standard”. The City is unaware as to what “FortisBC standard” means, and if one exists, the soil backfill may be in contradiction to the Master Municipal Construction Documents (MMCD) and City of Surrey Supplementary Standards. This further illustrates that the City's proposed definition for Relocation Costs is prudent as neither the City nor FEI staff themselves are clear on the “standards” FEI may have and/or develop over the term of the Operating Agreement.

Eldorbud Sanitary Sewer

On this particular project, the City requested the relocation of an existing steel FEI distribution gas main. FEI's position is that it no longer uses steel for distribution mains, even though FEI still uses steel for High Pressure Pipelines in the same streets and soil conditions. In addition to deciding to install plastic/polyethylene gas main, FEI also elected as part of the project to install a secondary conduit (non gas) with a bonding wire such that the bonding wire can be welded to the existing steel gas pipelines that remain in services on the adjoining streets.

The City is of the opinion that FEI replacing its steel pipe with a new polyethylene pipe is not a betterment as it is immaterial in nature and costs; however FEI's decision to install a secondary conduit (with bonding wire) plus replace metallic gas services from the main to the meter/ house with plastic/polyethylene pipes are both considered betterment that should not be included in Relocation Costs.

If FEI simply replaced the existing metallic gas pipe with a new metallic pipe then the “scope creep” of the secondary conduit and replacement of gas services would not be needed. Moreover, the City is of the opinion that gas service renewals and work on third party facilities on private property beyond the work limits of the City's capital project should not be included in Relocation Costs. The City's work is being completed entirely within the road allowance and does not require any change to off site third party facilities. The only basis for including the cost of betterment and/or upgrading of third party facilities well outside the work limits is a

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

47 of 68

continuation of FEI's historical practice of using its position to demand that Surrey pay whatever FEI specifies in its discretion.

While the City understands that it might be cost-effective for FEI to take the opportunity presented by a relocation project to replace metallic mains and gas services with polyethylene services (e.g., to reduce FEI's future costs), the City should not be burdened with the costs of such upgrading/betterment which is to the benefit of FEI and its customers in the form of lower future costs. FEI's preferred definition of Relocation Costs should not be approved because the additional costs resulting from FEI's decision to undertake work well beyond a "like for like" relocation may be argued to be "sound engineering" and/or aligned with internal FEI practices and procedures.

Under the City's requested definition of Relocation Costs, the change in pipe material from steel to polyethylene is immaterial in costs and would form part of the Relocation Costs. However, the "scope creep" to include a secondary conduit and bonding wire, and replace all existing metallic gas services is considered betterment and these costs are not included in the Relocation Costs.

South of Fraser Rapid Transit

As part of the initial design stages of the South of the Fraser Rapid Transit project in Surrey, a consulting team of Hatch Mott MacDonald, Steer Davies Gleave and Stantec has been retained to provide reference design consulting services including initial developing scope of work for third party relocations. As part of their effort, the consulting team met with FEI staff on March 23, 2016 and June 2, 2016. Meeting minutes provided to the City as follow-up to these meetings (refer to Attachment 4), clearly indicate that FEI staff:

1. Cannot confirm the depth of FEI's High Pressure Pipelines that cross the municipal Highways of 104 Avenue, King George Boulevard and Fraser Highway.
2. Gas Mains (low pressure pipelines) are to have a minimum of 0.60m depth.
3. If replacing an existing steel distribution system with polyethylene pipe, which is FEI's preference and not a code/standard requirement, the entire system including services requires upgrades to avoid corrosion issues and this would require upgrades of the service on private property from the property line to the gas meter / house.

Firstly, FEI staff were unaware of the existing depth of cover over their infrastructure and yet they seek to impose minimum depth requiring the proponent to correct existing deficiencies with FEI's infrastructure.

Secondly, in this case FEI staff were of the opinion that there is a minimum depth of cover, which contradicts FEI's position in the 173A Street example above, and that the minimum standard is 0.60m for low pressure pipelines. The City cannot confirm whether this matches the requirements of CSA Z662 and only raises this as another example showing that FEI staff are not certain as to whether there is a minimum depth of cover "code or standard".

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

48 of 68

Thirdly, FEI staff are of the opinion that if a gas main is relocated and replaced with a polyethylene main then “their entire system including services requires upgrades to avoid corrosion and this would include upgrades of the service on private property” and that the proponent should bear all of the costs. Once again, this illustrates that replacing steels mains with polyethylene is a betterment and/or upgrade because it reduces corrosion issues and future maintenance costs for FEI. FEI further expects the proponent to pay for upgrades of services owned by third parties on private property even though the project limits do not extend beyond road allowance in all locations.

Lastly, this supports our contention that FEI intends to charge Surrey the costs of upgrading FEI's entire system and third party services in the city by exercising broad discretion to scope work and discretionary standards. FEI should not have such discretion to include potentially unlimited upgrading and/or betterment costs in Relocation Costs.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

49 of 68

6.5 What is the City of Surrey's cost allocation policies regarding upgrades and betterment due to the relocation of its own facilities?

RESPONSE:

As part of the land development process, the City of Surrey requires the developer to construct and pay for infrastructure (road works, sidewalks, street lighting, storm sewers, water mains, sanitary sewers, etc.) to service the development. Surrey has existing policies, practices and procedures related to cost allocation for upgrading and betterment of municipal facilities in connection to such land development projects.

Pursuant to the *Local Government Act*, a developer may be able to recover a portion of the infrastructure costs they incurred to service their development. This can be achieved through developers recovering a portion of their servicing costs from future developments that benefit along the fronting area. Surrey's policies on this matter are City Policy H-25 and H-43, attached as Attachment 1.

Surrey also has cost allocation practices/procedures for upsizing / betterment as it relates to Development Coordinated Works (DCW) and Upsizing. In instances where a proposed development requires the extension of Surrey's infrastructure, or perhaps the development triggers the need for upgrading/upsizing of existing infrastructure (i.e., water main or sanitary sewer) the developer is responsible for the base work/costs to service their development. However, if Surrey's long-range engineering plans require an upsize (i.e. pipe diameter, road widening, etc.) to service anticipated growth, beyond what is required for the immediate development application, then Surrey has a practice/procedure for paying the developer the incremental difference between the base width/diameter required for the development and the ultimate width/diameter. The developer is further entitled to apply a latecomer charge on the developer's portion of the costs incurred, as explained above. The City's Engineering Practice/Procedures (LD6) associated with DCW are attached as Attachment 2.

The City of Surrey does not have any such arrangements noted above with FEI or similar third party utility providers.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

50 of 68

6.6 What is City of Surrey's definition of sound engineering practices? If referring to specific engineering codes or standards please list and discuss the applicability.

RESPONSE:

Section 4.1 of the requested operating agreement is a general provision requiring FEI in its occupation and use of Public Places, including conduct of Work, to conform to sound engineering practices and comply with applicable Laws. The reference to sound engineering practices in this section essentially requires FEI to perform work taking into account factors influencing safety that are typically considered including under the *Workers Compensation Act* and other applicable laws which, when applicable, include the obligations of prime contractor.

6.7 Please discuss any existing process or policies documents in relation to Relocation Costs for upgrades/betterment.

RESPONSE:

Please refer to Surrey's responses to BCUC IRs 1.6.2, 1.6.4 and 1.6.5.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

52 of 68

- 6.8 **Please discuss if there will be a dispute resolution process under the proposed Operating Agreement in case FEI and City of Surrey do not agree on the Relocation Costs for upgrades/betterment.**

RESPONSE:

Yes. Surrey and FEI have reached agreement on many terms for an operating agreement including the terms for resolving disputes, which are set out in section 17 of the operating agreement provided as Appendix B of Surrey's application (Exhibit B2-1). The agreed-to dispute resolution process will apply to any dispute arising out of or in connection with the operating agreement including a dispute related to a party's calculation of its Relocation Costs.

**7.0 Reference: ALLOCATION OF RELOCATION COSTS
Exhibit B2-1, Section 4(ii)(b), p. 11, Appendix B, Section 8.2(c), p. 16
Relocation Costs Allocation**

On page 16 of the Operating Agreement, attached as Appendix B to the Application, it states that “The Municipality agrees to pay a contribution to the Relocation Costs incurred by FortisBC to accommodate a Municipal Project and such contribution shall be calculated in accordance with subsection 3(3) or 3(4) of the Pipeline Crossings Regulation (B.C. Reg. 147/2012), as applicable, whether the affected Company Facilities are High Pressure Pipelines or Gas Mains.”

On page 11 of City of Surrey’s Application, it states that City of Surrey “understand[s] that FEI prefers that Surrey reimburse FortisBC for 100% of its Relocation Costs when the affected facilities are gas mains, and 50% when the affected facilities are high pressure transmission pipelines, which in [City of Surrey’s] view is inconsistent with subsections 3(3) and 3(4) of the Pipeline Crossing Regulation.”

7.1 How many times in the last 10 years has City of Surrey moved High Pressure Pipelines, and how many times has it moved Gas Mains?

RESPONSE:

Based on the City’s readily accessible records and staff recollection, in the last 10 years the City of Surrey has requested FEI to alter or relocate its High Pressure Pipelines four times. Due to changes to the City's financial system in and around 2012, we cannot quantify the precise number of times the City has requested FEI to relocate its Gas Mains (low pressure), however, we estimate it is on the order of 100 times over the past 10 years.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

54 of 68

7.2 How many times in the last 10 years has FEI requested the relocation of City of Surrey facilities and what were the costs to the City of Surrey and FEI?

RESPONSE:

To the knowledge of both the current and retired Engineering Design and Construction Managers (who combined held the position for the past 18 years), as well as our current Water and Sewer Engineering Operations Managers, over the past 10 years FEI has made zero requests to the City of Surrey for relocation of municipal facilities.

Unlike the City's drainage and sanitary sewers, which are slope/gradient dependent, FEI's gas infrastructure is pressurized such that it is more amenable and easier to deflect gas pipelines over or under municipal utilities to avoid alteration / relocation requests to the City of Surrey. In addition, the minimum depth of cover for gas pipelines is generally shallower than City water mains, drainage and sanitary sewers therefore FEI's infrastructure tends to cross above the City's utilities.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

55 of 68

7.3 Does City of Surrey have any large planned moves in either the Gas Mains or High Pressure Pipelines during the term of the proposed Operating Agreement?

RESPONSE:

The City has a 10-Year Servicing Plan, as discussed within Aplin Martin's Analysis of Costs Incurred by the City of Surrey due to FEI's Presence and Activities within Highways" report dated September 27, 2017 which is attached to Surrey's response to BCUC IR 1.4.2.

The City's Capital Program over the next ten years is projected to be about 19% higher per year on average as compared to the previous five years.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

56 of 68

- 7.4 **Please compare the Gas Main and High Pressure Pipeline cost allocation terms under the Standard Operating Agreement and the proposed City of Surrey Operating Agreement.**

RESPONSE:

Please refer to Surrey's response to BCUC IR 1.3.1.

C. JURISDICTION

**8.0 Reference: INTRODUCTION
Exhibit B2-1, Section 1, p. 1
Full Agreement Approval**

On page 1 of the Application, it states that it “is an application requesting that the British Columbia Utilities Commission (“Commission”) issue an order pursuant to subsection 32(2) of the *Utilities Commission Act* (“UCA”) specifying the manner and terms under which [FEI] may install, operate and maintain its distribution equipment in public places within the boundary limits of the City of Surrey...”

Section 45(8) of the UCA states “the commission must not give its approval unless it determines that the privilege, concession or franchise proposed is necessary for the public convenience and properly conserves the public interest.”

8.1 Please confirm that City of Surrey is requesting approval from the Commission for the entire proposed Operating Agreement. If not confirmed, please explain.

RESPONSE:

The City of Surrey’s requested form of Commission Order is provided as Appendix C to Surrey’s application (Exhibit B2-1).

Given that FEI and the City of Surrey have agreed to most terms for FEI’s use of public places in Surrey and that the agreed-to terms are generally consistent with the terms the Commission has seen before in other FEI operating agreements (refer to Surrey’s response to BCUC IR 1.3.1), in Surrey’s view the Commission can resolve the applications by focusing on making determinations with respect to the four areas of disagreement. Surrey and FEI have both structured their applications to the Commission on that basis.

We also note that the Commission resolved disputed terms for operating agreements between FEI and the District of Chetwynd pursuant to Order No. G-17-06, and between FEI and the District of Coldstream pursuant to Order No. G-113-12, by focusing its efforts on making determinations respecting the areas of disagreement between the parties.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

58 of 68

8.2 Is the City of Surrey requesting for approval under section 45 of the UCA? Please discuss.

RESPONSE:

Neither the City of Surrey nor FEI has requested Commission approval under section 45 of the *Utilities Commission Act (UCA)*. We understand that section 45 of the *UCA* does not apply in the present circumstances for the following reasons.

FEI has CPCNs for the construction and operation of its equipment and facilities to for the supply of natural gas to the public in Surrey. As discussed in section 2 of Surrey's application, pursuant to section 2(3)(c) of the *Gas Utility Act*, FEI is authorized and empowered, subject to the *UCA*, to enter Surrey to place, construct, renew, alter, repair, maintain operate and use its distribution equipment on, along, across, over or under a public street, lane, square, park, public place, bridge, viaduct, subway or watercourse on the conditions that FEI and Surrey agree to.

In the present applications, Surrey is not granting FEI a franchise or concession within the meaning of section 45 of the *UCA*. FEI already has CPCNs and pursuant to the *Gas Utility Act* has rights to operate and expand its gas distribution system in Surrey, subject to the *UCA* and on the conditions that FEI and Surrey agree to. Surrey and FEI have agreed on many terms for FEI's use of such places in Surrey for such purposes; however, the parties have not agreed on all terms as set out in the respective applications. Therefore, the conditions set out in section 32(1) of the *UCA* are met, and the Commission's powers under section 32(2) are engaged enabling the Commission, by order, to specify the manner and terms of FEI's use of such places in Surrey.

On at least three occasions since 2000 the Commission has specifically considered and determined that in these circumstances section 32 of the *UCA* is applicable to the Commission's review of such applications:

- In 2001 FEI (then BC Gas Utility Ltd) was facing the expiring of numerous franchises in the Inland and Columbia service territories of Inland Natural Gas Co. Ltd. FEI submitted an application to the Commission requesting that the Commission establish a standard form agreement between itself and municipalities in those service territories. By Letter No. L-4-02 dated February 4, 2002 the Commission rejected FEI's request because it would be inconsistent with the Commission's authority under section 32 of the *UCA*. The Commission also noted that where an individual agreement has expired, the Commission expects that FEI and the municipality would make every effort to negotiate an operating agreement, and only if the two parties are not able to agree to a new agreement would the Commission anticipate an application pursuant to section 32 of the *UCA* to have the Commission determine the terms of such an agreement. The Commission noted that it would review the circumstances in each municipality and determine the appropriate terms and conditions on an individual basis.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

59 of 68

- In its Order No. G-17-06 Decision regarding the terms of FEI's use of public places in the District of Chetwynd, the Commission reviewed the legislation and determined that section 32 of the *UCA* is applicable (and made no reference to section 45(8)).
- In its Order No. G-112-13 Decision regarding the terms of FEI's use of public places in the District of Coldstream, the Commission again reviewed the legislation and determined that section 32 of the *UCA* is applicable (and made no reference to section 45(8)).

9.0 **Reference: ALLOCATION OF RELOCATION COSTS**
Exhibit B2-1, Section 4(ii)(b), p. 11
Oil and Gas Activities Act

The definition of pipeline under the *Oil and Gas Activities Act* “does not include (f) piping used to transmit natural gas at less than 700 kPa to consumers by a gas utility as defined in the *Gas Utility Act*...”

Page 124 of the FortisBC Energy Inc. v. Surrey Decision states:

[497] I have found that the TLA [Trunk Line Agreement] was terminated by the plaintiff's repudiation and fundamental breach, and the defendant's acceptance of Terasen Gas' repudiation of that agreement. I have also found that s. 9(c) of the former Pipeline Regulation was *intra vires*, and applied to allocate the Pipeline costs and Pipeline upgrade costs on and through the City land and the Angus Land equally between the plaintiff and Surrey.³

On page 11 of City of Surrey's Application, it states that City of Surrey “understand[s] that FEI prefers that Surrey reimburse FortisBC for 100% of its Relocation Costs when the affected facilities are gas mains, and 50% when the affected facilities are high pressure transmission pipelines, which in [City of Surrey's] view is inconsistent with subsections 3(3) and 3(4) of the Pipeline Crossing Regulation”

9.1 **Please discuss why City of Surrey believes the Pipeline Crossing Regulation, which is only applicable to High Pressure lines, can be used as a guide for Gas Mains.**

RESPONSE:

The Pipeline Crossing Regulation prescribes the allocation of costs incurred by a pipeline permit holder (e.g., the pipeline owner such as FEI) as a result of construction or activity carried out by an “enabled person” or a “specified enabled person” including to realign, raise or lower a pipeline. The government and a municipality are “specified enabled persons” under the Regulation.

The City of Surrey agrees that the Pipeline Crossing Regulation is not legally binding with respect to piping used to transmit gas at less than 700 kPa to consumers by a gas utility as defined in the *Gas Utility Act* because, pursuant to section 13 of the *Interpretation Act*, the term “pipeline” in the Regulation has the same meaning as in the *Oil and Gas Activities Act*. Therefore, the Pipeline Crossing Regulation is not legally binding for FEI distribution gas main relocation projects within the boundaries of Surrey.

³ *FortisBC Energy Inc. v. Surrey (City)*, [2013] BCSC 2382 (<http://canlii.ca/t/g2gq0>).

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

61 of 68

Surrey believes that gas utility piping under 700 kPa was excluded from the *Oil and Gas Activities Act* and therefore excluded from Oil and Gas Commission regulation and from the Pipeline Crossing Regulation because the Utilities Commission has regulatory jurisdiction over such gas utilities, their low pressure distribution gas mains and the terms of their use and occupancy of public places in municipalities. In our view, if a gas utility and a municipality cannot agree on allocation of the gas utility's costs to realign, raise or lower a distribution gas main in the municipality, the Utilities Commission has the power to determine the cost allocation pursuant to section 32, 33 or 36 of the *UCA* as applicable. There is no other regulatory body in B.C. with jurisdiction over the issue.

Surrey further believes that in exercising its power to determine such cost allocation, the Utilities Commission should have due regard to the public policy reflected in the Pipeline Crossing Regulation. Although the government has split regulatory jurisdiction over pipelines: Oil and Gas Commission has jurisdiction over high-pressure pipelines, and BC Utilities Commission has jurisdiction over gas utility piping under 700 kPa, presumably due to the different safety risks, there is no apparent reason why different principles should apply to the allocation of costs to realign, raise or lower low-pressure pipelines versus high-pressure pipelines as a result of construction or activity carried out by a municipality, simply because the operating pressure of the pipeline is more or less than 700 kPa.

In Surrey's view the public policy underlying the different treatments for activity of government and municipalities ("specified enabled persons") versus others ("enabled persons") and for different types of activities (e.g., new highway) in the Pipeline Crossing Regulation apply equally to distribution gas mains in municipalities. Again, there is no apparent reason why different policy considerations ought to apply simply because the operating pressure of the pipelines is less than 700 kPa.

The Commission has discretion when it comes to specifying terms for the allocation as between FEI and the municipality of costs to relocate distribution gas mains to accommodate municipal projects, and it would be reasonable for the Commission to employ the formulae in the Pipeline Crossing Regulation, and the public policies they reflect, in specifying terms for the allocation of costs to relocate distribution gas mains. This would provide for consistent treatment.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

62 of 68

9.2 In City of Surrey's view, does the Commission have jurisdiction to determine Relocation Costs related to High Pressure Pipelines? Please explain.

RESPONSE:

No. In Surrey's view, the Commission does not have jurisdiction to order cost allocation terms in respect of high pressure pipelines because these are specified in the Pipeline Crossing Regulation. The Commission does not have jurisdiction to, in effect, rewrite the Regulation.

10.0 **Reference: HIGHWAY DEDICATION
Exhibit B2-1, Section 4(iii), p. 11, Appendix B, Section 9, pp. 17-18
Statutory Rights of Ways**

On page 11 of the Application, City of Surrey states that “The parties have agreed that the operating terms should specify a process for the situation where Surrey intends to create or widen a highway on or through lands over which FEI holds a statutory right of way interest ("SROW") and the proposed highway will overlap with the SROW area.”

On pages 17 and 18 of the Operating Agreement, attached as Appendix B to the Application, it states that “...at the request of the Municipality and provided the Highway project is proceeding, FortisBC agrees to release its statutory right of way interest in the portion of the statutory right of way area required for the Highway without requiring the Municipality to exercise its rights of expropriation.”

10.1 **In City of Surrey’s view, does the Commission have jurisdiction to determine if FEI should release its statutory rights of way? Please discuss how City of Surrey can support its claim and provide evidence to support.**

RESPONSE:

In negotiating the operating agreement with FEI, highway dedication was an important issue for the City of Surrey because the City regularly has projects to create or widen highways or that require developers to create or widen highways, and it is much more efficient (in terms of both time and cost) if persons having an interest in the land to be dedicated as highway consent to the dedication instead of the cumbersome and potentially costly expropriation alternative. This is particularly true when it is FEI’s interest in land relating to a buried pipeline because highway dedication will not result in any deprivation of FEI’s right to keep its pipeline there and will in most cases result in enhanced rights (as rights under a SROW are extinguished and replaced by rights under the operating agreement). That said, Surrey appreciates the comments and commitments FEI made in section 3.5 of their application to the Commission.

Surrey accepts that the Commission does not have jurisdiction to, by order, require FEI to extinguish its private interests in land in all cases whenever requested by the City of Surrey and without regard to the circumstances of each case.

D. CUSTOMER CONSULTATION AND COMPLAINTS

**11.0 Reference: OPERATING AGREEMENT
Exhibit B2-1, Appendix B, Section 8.2(c), p. 16, Section 12, p. 20; Exhibit B1-1, Section 1,
p. 3
Customer Consultation and Complaints**

In the FEI Application on page 3, it states that “the Proposed Operating Terms... address costs and fees in a manner that is fair to both the City and the FEI customers from whom the fees and costs are ultimately recovered.” [emphasis added]

In terms of Relocation Costs, on page 16 of the Operating Agreement, attached as Appendix B to the Application, it states that “The Municipality agrees to pay a contribution to the Relocation Costs incurred by FortisBC to accommodate a Municipal Project and such contribution shall be calculated in accordance with subsection 3(3) or 3(4) of the Pipeline Crossings Regulation (B.C. Reg. 147/2012), as applicable, whether the affected Company Facilities are High Pressure Pipelines or Gas Mains.”

In terms of Operating Fee, on page 20 of the Operating Agreement, it states that “provided that FortisBC is permitted to collect the Operating Fee from customers within the Boundary Limits and effective commencing from the date established by the BCUC, FortisBC agrees to pay to the Municipality on an annual basis, a fee (the “Operating Fee”) of three percent (3%) of the gross revenues (excluding taxes) received by FortisBC for provision and distribution of all gas consumed within the Boundary Limits, other than gas consumed by customers from whom the BCUC has not allowed FortisBC to collect the Operating Fee.”

11.1 Has City of Surrey done any consultation with the customers to be affected whether they agree with the following? If not, why not?

- **The proposed Relocation Costs allocation methodology, and**
- **The proposed Operating Fee**

RESPONSE:

The City of Surrey has not undertaken any direct consultation with FEI’s customers on whether they agree with the requested relocation costs allocation methodology or the requested operating fee.

As a general practice, in the absence of a legislated process, Surrey does not seek agreement from affected customers when seeking to regulate the third party utility service provider’s use of public places in the city or when seeking to deliver services in a manner that recognizes that Surrey tax payers should not be unfairly burdened with costs that are presently inequitably allocated.

11.1.1 If yes, please discuss the type of consultation conducted. If public workshop or similar, please provide:

- **Number of consultation events**
- **The agenda(s)**
- **Public notification made for the event (describe how distributed)**
- **The number of attendees in each event**
- **The outcome of the consultation in each event**

RESPONSE:

Not applicable.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

66 of 68

11.2 Has the City of Surrey taken into consideration public interest as part of its Application? Please discuss.

RESPONSE:

Yes.

The history between FEI and the City of Surrey has involved numerous disputes and litigation. The past nature of the relationship was intolerable and costly to both parties. The public interest demanded new operating terms for FEI's use of public places in Surrey for the parties to move forward with a clear understanding of their respective rights and responsibilities. The parties have acted responsibly in undertaking to negotiate a modern operating agreement and, failing agreement on all terms, submitting the subject applications requesting that the Commission resolve the impasse.

During the negotiations with FEI and in proposing its requesting operating agreement to the Commission, Surrey had regard to the public interest as follows:

- the requested operating agreement is based on the terms of FEI's recent operating agreements as accepted or approved by the Commission
- we carefully considered the Commission's past orders and reasons for decisions regarding FEI operating agreements with municipalities, operating fees and relocation costs, and in particular Orders C-7-03, G-17-06, G-112-13 and C-8-14 and the reasons for decision, and Letter L-4-02
- we considered the causes of past disputes between Surrey and FEI, and focused on developing robust agreement terms in these areas
- we also considered how these issues are dealt with in other jurisdictions and by the CRTC

Surrey is of the view that its requested operating agreement reflects principles and policies that have been determined in British Columbia and other jurisdictions to be reasonable and balanced as between the municipality (and its residents) and the utility (and its customers), and therefore Surrey believes that its requested operating agreement supports the public interest.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

67 of 68

11.3 Since the filing of the Application, has City of Surrey received any complaints related to the Application? If yes, please describe and provide:

- **Comparison of the total number of complaints for the months of June, July and August (to date) from last year to the total number received this year. Please discuss.**
- **Number of complaints received related to this application**
- **Nature of the complaints**

RESPONSE:

From the time notice of the application was posted on the City of Surrey's website, City staff and Mayor and Council were asked to forward any questions about the application, including by emails and telephone calls (communications), to Anthony Capuccinello, Assistant City Solicitor in Legal Services for reply or follow up.

The following is a summary of the communications brought to the Assistant City Solicitor's attention:

- No communications were received prior to FEI providing notice to its customers pursuant to the Commission's Order of June 21, 2017
- In June, 2017, zero communications were received
- In July, 2017, approximately 32 communications were received
- In August, 2017, approximately 22 communications were received
- In September, 2017, zero communications were received

Based on the above, the total number of communications received related to this application was approximately 54. There may have been a few more communications that were not forwarded to the Assistant City Solicitor.

The communications involved inquiries for more information, expressions of opposition to an operating fee, and an inquiry as to why the operating fee will be passed on to customers and why some of the costs are not being borne by FEI's business operations. A few also could not understand why the parties do not agree on cost allocation when it is set out in legislation.

CITY OF SURREY'S RESPONSE TO BCUC INFORMATION REQUEST NO. 1

FILED: September 29, 2017

68 of 68

11.4 Did the City of Surrey conduct a study to understand the impact implementing its proposed Operating Agreement would have on the impacted customers, including but not limited to rate impacts. Please discuss and provide evidence to support.

RESPONSE:

The City of Surrey did not conduct a study to understand the impact of implementing its requested operating agreement on FEI's customers. Surrey does not have access to FEI's customer data or cost of service models to conduct such a study.

Much consideration and effort was given to seeking to address the problems that have arisen in the past and to create terms that are reasonable and balanced. City Council was fully apprised and supportive of the approach taken and even wanted to know how the 3% operating fee would appear on FEI customer bills.

In addition, given that FEI is expected to collect the revenues needed to pay the operating fee from FEI customers in the municipality, the principal beneficiaries of FEI's natural gas distribution system in Surrey (being FEI's customers) will contribute to the operating fee and reduce the burden of FEI on Surrey tax payers.

May 21, 2014

File: 1711-007/H

REPLY TO: Design & Construction Section
ATTENTION: K.D. Zondervan, M. Eng., P.Eng.

Fortis BC
16705 Fraser Highway
Surrey, B.C.
V4N 0E8

Attention: Mr. Rory Guicheteau, Planning & Design

Dear Sir:

**Re: Roberts Bank Rail Corridor Program - Combo Project
192 Street Grade Separation**

At our meeting on Wednesday March 5, 2014, we discussed the matter of a delay claim submitted by BA Blacktop Ltd., the Contractor for the referenced project (see attached) in respect of project critical path delay costs and acceleration strategy costs to mitigate the delay. The delay claim was attributed to alleged delays in the relocation of a gas main by FortisBC, as well as delays in the relocation of BC Hydro facilities and delays incurred due to the discovery of contaminated soil. This claim was reviewed by the City's Consulting Engineer, R.F. Binnie & Associates, with the determination that the claimed duration of project critical path delay was accurate and that the costs associated with the acceleration strategy works, including the overhead costs incurred during the delay period were realistic.

Nineteen weeks of critical path delay are associated with the gas main relocation on 192 Street. It became apparent on October 17, 2012, at the time of attempting to tie-in the relocated gas main to the existing gas main immediately north of the Nicomekl River Bridge, that due to the depth of the existing gas main the tie-in was not feasible as designed. This error required re-design, an additional construction cost of \$297,083.53, and the City to allow the undesirable installation of a gas main on the bridge structure. This work was not completed until February 26, 2013. The resultant claim, prorated to these nineteen weeks of delay, is \$1,728,423.77.

The City of Surrey takes the position that FortisBC has wrongfully delayed the project, and through its acts or omissions related to the relocation of its gas main in the 192 Street area of the project (including, but not limited to, FortisBC's acts or omissions related to the preparation of the initial design for the gas main relocation), FortisBC has caused the stated monetary damage to the City. Consequently, this letter serves as a demand to FortisBC that FortisBC immediately pay the City the full amount of the monetary damage totaling \$1,728,423.77.

Yours truly,



K.D. Zondervan, M. Eng., P.Eng.
Design & Construction Manager

KDZ:clr
Enclosure

c.c. - Assistant City Solicitor

ROBERTS BANK RAIL CORRIDOR PROGRAM COMBO PROJECT

FortisBC Gas Main Relocation – Summary of Costs

FortisBC Invoices for work performed:

192 Street Railway Overpass

Invoice # 61874 – Relocate gas main between CPR and Nicomekl Bridge -	\$187,135.85
Invoice # 61983 – Relocate gas main onto Nicomekl Bridge -	\$297,083.53
Invoice # 62266 – Relocate gas main between 52 Ave. and 54 Ave. -	<u>\$361,461.03</u>
SubTotal:	\$845,680.41

Invoice #62268 – Relocate gas main on 196 Street at 60 Ave -	\$32,323.14
Invoice # 62265 – Relocate gas main on 54 Avenue at 192 Street -	\$23,046.19
Invoice # 62270 – Relocate gas main on 196 Street at 54 Avenue -	<u>\$10,249.40</u>
SubTotal:	\$65,618.73
TOTAL:	\$911,299.14

Invoice #40519 – Modify gas service on Langley Bypass – (paid)	\$33,373.04
--	-------------

192 Street Overpass Project Critical Path Delay (CPD) Costs

Acceleration Strategy to mitigate 50% of delay -	\$719,011.23
Delay cost resulting from 39 weeks CPD	<u>\$2,828,805.99</u>
Total cost of delay:	\$3,547,817.22
Fortis Delay 1 – July 31/12 to Oct.17/12: 11 Calendar weeks =5 weeks CPD	\$454,848.36
Fortis Delay 2 – Oct 17/12 to Feb 26/13: 19 Calendar weeks=19 weeks CPD	\$1,728,423.77
BC Hydro Delay – Feb 26/13 to May1/13: 9 Calendar weeks =9 weeks CPD	\$818,727.05
Contaminated soil delay – May 1/13 to June 15/13: 6 calendar weeks=6 weeks CPD	\$545,818.04

Change Order #58A

SURREY

Project / Package #	R07/11	Date:	31-Dec-13
Contract # M.S.	1711-007-11	File #	1711-007/11

To: B.A. Backtop Ltd.

Dear Sir,

Under the above mentioned Contract, you are directed to add/delete the following described works:

Description (or attach details)	Quantity		Unit Price	Unit	Amount	
	Estimate	Actual			Estimate	Actual
Description:						
192 St Acceleration Cost						
1.0 Engineering & Survey Cost						
1.1 Design and Engineering	1	1	\$69,751.82	LS	\$69,751.82	\$ 69,751.82
1.2 Survey and Layout	1	1	\$11,171.97	LS	\$11,171.97	\$ 11,171.97
2.0 Detour Construction						
2.1 TD1 - Traffic Detour/Total Closure						
2.1.1 TD1 - Traffic Detour/Total Closure (10 wks)	1	1	\$96,772.82	LS	\$96,772.82	\$ 96,772.82
2.1.2 Additional Signal per COL & COS	1	1	\$2,537.16	LS	\$2,537.16	\$ 2,537.16
2.1.3 Additional Flagging at Colemand & 192 St	1	1	\$17,424.00	LS	\$17,424.00	\$ 17,424.00
2.1.4 Extension of Closure of Aug 30 (7 wks)	1	1	\$27,207.32	LS	\$27,207.32	\$ 27,207.32
2.2 TD2 - Detour/Pads to allow pier and BCH Construction						
2.2.1 Type D Excavation and Removals	1	1	\$9,104.16	LS	\$9,104.16	\$ 9,104.16
2.2.2 Temporary Ditch and Storm Works	1	1	\$16,144.06	LS	\$16,144.06	\$ 16,144.06
2.2.3 Pad Construction & Removal	1	1	\$19,939.72	LS	\$19,939.72	\$ 19,939.72
2.2.4 Traffic Control during Detour Construction & Removal	1	1	\$12,134.40	LS	\$12,134.40	\$ 12,134.40
2.2.5 Asphalt Patching No-Post Around Piers	1	1	\$3,655.24	LS	\$3,655.24	\$ 3,655.24
2.3 TD3 - Detour and Lock Block Wall						
2.3.1 Survey & Layout	1	1	\$1,876.89	LS	\$1,876.89	\$ 1,876.89
2.3.2 Traffic Control, Signage & Paving Markings	1	1	\$16,607.92	LS	\$16,607.92	\$ 16,607.92
2.3.3 Excavation for Lock Block Wall	1	1	\$17,395.53	LS	\$17,395.53	\$ 17,395.53
2.3.4 Prep Base, Install Wall and Backfill	1	1	\$25,424.59	LS	\$25,424.59	\$ 25,424.59
2.3.5 Lock-Block Wall Removal and Backfill	1	1	\$26,277.25	LS	\$26,277.25	\$ 26,277.25
2.3.6 Grade and Restore and Backfill	1	1	\$8,008.52	LS	\$8,008.52	\$ 8,008.52
2.4 Grade and Restore Base Lift	1	1	\$32,231.73	LS	\$32,231.73	\$ 32,231.73
3.0 Coquitlam Ridge						
3.1 Girder Erection Sequencing Modifications	1	1	\$96,905.00	each	\$96,905.00	\$ 96,905.00
4.0 Vancouver Pile						
4.1 Additional Remobilization	1	1	\$20,000.00	each	\$20,000.00	\$ 20,000.00
4.2 Overtime for Vancouver Pile	1	1	\$21,000.00	each	\$21,000.00	\$ 21,000.00
4.3 Additional Pile Length Pier 1, Driving through Preload	1	1	\$29,427.06	LS	\$29,427.06	\$ 29,427.06
4.4 Additional Pile Length Clean Out Pier 1	1	1	\$12,400.00	LS	\$12,400.00	\$ 12,400.00
4.5 Additional Pile Length Pier 1 Cages	1	1	\$18,000.00	LS	\$18,000.00	\$ 18,000.00
4.6 Additional Excavation through Pre-Load	1	1	\$13,830.00	LS	\$13,830.00	\$ 13,830.00
5.0 QC/QA Testing						
5.1 Watermain Conflict Provisional Sum (Transferred to)	1	1	\$0.00	LS	\$0.00	\$ -
			Markup (15%):		\$ 93,784.07	\$ 93,784.07
			Sub-Total		\$719,011.23	\$719,011.23
			5% GST		\$35,950.56	\$35,950.56
			Total for this Change Order		\$754,961.80	\$754,961.80

Agreed to and Accepted by:		Agreed and Approved by:	
Contractor:	Date:	Consultant:	Date:
<i>Sir D...</i>	11/30/2014	<i>[Signature]</i>	Jan 31/14
An extension of <u>N/A</u> Working Days is agreed to and granted in account with this Change Order.		City Authorization:	Date:
Revised Completion Date = <u>no change</u>		<i>[Signature]</i>	

No claim for changes to the Contract will be recognized unless accompanied by this form duly signed by the Contractor and Owner.

\\bsvrs011\Projects\2009 Projects\09-326 - Surrey Rail Grd Sep OE\08 - Contract Documents\Change Orders\CCO58 - 192 St Acceleration\CO#58A - 192 St Acceleration Cost



BA BLACKTOP

BA Job Number:		6914.203040			Date:		Sept 27, 2013		
Project Name		RBRC Combo Project			Ref. Number		001945		
Description of CCO:		CCO# 45: Delay Costs							
Item No.	Description	Qty	Unit	Unit Cost	Total Cost				
1.0	Project Management					\$ 850,618.80			
1.1	Pickup and Tools (1,200 Hrs x 6 Qty)	8640	HR	\$ 21.42	\$ 185,068.80				
1.2	Project Manager	180	DY	\$ 1,020.00	\$ 183,600.00				
1.3	Superintendent (150 Days x 2 Ppl)	360	DY	\$ 765.00	\$ 275,400.00				
1.4	Site Assistant (150 Days x 3 Ppl)	540	DY	\$ 382.50	\$ 206,550.00				
2.0	Site Office					\$ 156,665.61			
2.1	Site Containers	9	MO	\$ 125.00	\$ 1,125.00				
2.2	Office Supplies and Equipment	9	MO	\$ 500.00	\$ 4,500.00				
2.3	Telephones	9	MO	\$ 500.00	\$ 4,500.00				
2.4	Office Cleaning	9	MO	\$ 1,000.00	\$ 9,000.00				
2.5	Sanitation	9	MO	\$ 500.00	\$ 4,500.00				
2.6	Hydro	9	MO	\$ 500.00	\$ 4,500.00				
2.7	Site Maintenance	9	MO	\$ 12,220.00	\$ 109,980.00				
2.8	Office Space Lease	9	MO	\$ 2,062.29	\$ 18,560.61				
3.0	Environmental Delay					\$ 36,000.00			
3.1	Environmental Delay (EXP)	9	MO	\$ 4,000.00	\$ 36,000.00				
4.0	Quality Management Delay					\$ 113,184.00			
4.1	Quality Management Delay	9	MO	\$ 12,576.00	\$ 113,184.00				
5.0	Geotechnical Delay					\$ 30,600.00			
5.1	Geotechnical Delay	9	MO	\$ 3,400.00	\$ 30,600.00				
6.0	MESL Engineering Delay Cost					\$ 343,968.03			
6.1	MESL Engineering Delay Cost (McElhanney Engineering Services)	9	MO	\$ 38,218.67	\$ 343,968.03				
7.0	Buckland and Taylor					\$ 14,750.00			
7.1	Buckland and Taylor Delay Costs (Provisional Allowance)	1	Each	\$ 14,750.00	\$ 14,750.00				
8.0	Insurance					\$ 72,900.00			
8.1	Insurance	9	MO	\$ 8,100.00	\$ 72,900.00				
9.0	Coquitlam Ridge					\$ 766,755.00			
9.1	Coquitlam Ridge	9	MO	\$ 85,195.00	\$ 766,755.00				
10.0	Provisional Sum					\$ 236,641.00			
10.1	192nd Delay Cost Escalation for remaining works (2% of the value of the work to be completed)	1	LS	\$ 236,641.00	\$ 236,641.00				
					Sub-Total				\$ 2,622,082.44
					Mark-up (External Subs ONLY)				\$ 206,723.55
					Total				\$ 2,828,805.99



the future lives here.

Legal Services

CRAIG MACFARLANE, City Solicitor
 MAUREEN ST. CYR, Assistant City Solicitor
 KELLY RAYTER, Assistant City Solicitor
 ANTHONY CAPUCCINELLO, Assistant City Solicitor
 PHILIP C.M. HUYNH, Assistant City Solicitor
 BENJIE LEE, Assistant City Solicitor

Direct Line: (604) 591-4188

October 21, 2010

VIA FAX: [REDACTED] & MAIL

Terasen Gas Inc.
 1000 - 1111 W. Georgia Street
 Vancouver, B.C. V6E 4M3

ATTENTION: [REDACTED]
 Barrister & Solicitor

Dear Madam:

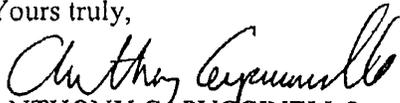
Re: Terasen Gas ("Terasen") Pipeline Crossing

As you are aware, the City intends to perform intersection improvements at the most northerly intersection of 168th Street and 48th Avenue, with construction extending approximately 350 metres westward along 48th Avenue from the intersection, and 250 metres southward along 168th Street from the intersection and 200 metres northward along 168th Street from the intersection (the "Project"). Terasen has been aware of the Project since as early as 2005 and has advised the City that the Project impacts an existing pipeline located within 168th Street. After first being advised that no pipeline upgrades were required, the City was advised in early 2010 that certain upgrades to the pipeline must occur (the "Pipeline Work") prior to any construction taking place. Terasen has refused to undertake the Pipeline Work unless the City agrees to the pay substantially all of the costs of the Pipeline Work. This cost allocation is, of course, contrary to the cost allocation provisions under both the current Oil and Gas Activities Act General Regulation, B.C. Reg. 270/2010 and the previous Pipeline Act Regulation, B.C. Reg. 360/98, as amended.

Given Terasen's ongoing delay in undertaking the Pipeline Work, the City is left with no option but to seek relief from the Oil and Gas Commission. As you can appreciate, the Project is necessary to improve public safety and the ongoing delay not only compromises public safety but also exposes the City to potential liability and increasing construction costs.

Please advise whether Terasen is prepared to reconsider its position on this matter in light of the applicable legislation. I ask that you contact me immediately to avoid the unnecessary time and expense of involving the Oil and Gas Commission.

Yours truly,


ANTHONY CAPUCCINELLO
Assistant City Solicitor

AC:ld

u:\legal\sv\legal\misc\October\10201615 - ld.docx
LJD 10/21/16 1:39 PM

c.c. Ken Zondervan, Manager, Design & Construction

Capuccinello, Anthony

From: Capuccinello, Anthony
Sent: November-04-10 9:28 AM
To: [REDACTED]
Subject: RE: Terasen Gas Pipeline Crossing - Nicomekl Bridge 48th Avenue./168th Street.

Dear [REDACTED]

Kindly advise who will accept service on behalf of Terasen Gas Inc. Should I be sending the application to you or would you prefer that I send it to Rod Urquart?

Regards,

Tony

-----Original Message-----

From: Capuccinello, Anthony
Sent: November-03-10 3:29 PM
To: [REDACTED]
Subject: RE: Terasen Gas Pipeline Crossing - Nicomekl Bridge 48th Avenue./168th Street.
Importance: High

Dear [REDACTED]

Unfortunately, given the cost implications to the City of a further delay, the City cannot hold off on its application to the Oil and Gas Commission beyond the November 4th, 2010 extension already agreed upon. That said, I would like us to continue a dialogue in parallel with a view to settling this matter and other matters currently in dispute.

Do not hesitate to contact me at 604-591-4188. I should add that I am awaiting confirmation from Rod Urquart that I have his consent to speak to you regarding the Fraser Highway dispute.

Regards,

Tony

-----Original Message-----

From: [REDACTED] [mailto:[REDACTED]@terasen.com]
Sent: November-03-10 12:22 PM
To: Capuccinello, Anthony
Cc: [REDACTED]
Subject: RE: Terasen Gas Pipeline Crossing - Nicomekl Bridge 48th Avenue./168th Street.

Dear Tony

I am working diligently in considering the cost sharing issues. However, I have not yet been able to get instructions with respect to this matter and I do not anticipate being able to respond with Terasen Gas Inc.'s position on this matter for another week or two.

In the meantime, our planning department is working diligently as well in reviewing the City's plans sent on October 31, 2010. I understand that the planning department has asked for more information relating to the proposed bridge construction and more detailed construction schedules.

Regards

[REDACTED]

[REDACTED] Terasen Gas Inc.

-----Original Message-----

From: Capuccinello, Anthony [mailto:ACapuccinello@surrey.ca]

Sent: Wednesday, October 27, 2010 10:30 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Terasen Gas Pipeline Crossing

Hello [REDACTED]

From your email it is apparent that you have not been fully apprised of the facts and history of this file. While it is true that the latest submission of drawings was made on October 21, 2010, it was merely an update of a previous submission. In 2005 the "issued for tender" drawings were approved by Terasen for the 168th Street approach work. In June 2009, approval was requested from Terasen for works based on the inclusion of 48th Avenue works (the June revision balanced the impact to the Terasen pipeline with Surrey's need to improve sightlines). In January 2010, prior approval for the 168th Street works was revoked by Terasen. As a result, Surrey then began to design revisions to further improve sightlines as the existing pipeline was no longer a geotechnical constraint based on the Terasen's decision to upgrade the impacted portion of the pipeline instead of monitoring it. In April 2010, updated design drawings were submitted to Terasen. From April 2010, Terasen communicated that it would not undertake necessary works to its pipeline unless Surrey agreed to its cost-sharing terms. In September 2010, Surrey began the permitting process with the Department of Fisheries ("DFO"). On October 21, 2010, the updated design drawings based on DFO approval were submitted to Terasen.

Regarding your comments pertaining to the construction schedule, you have again been misinformed. Construction is not scheduled for August 2011 as you state. DFO construction was "approved subject to construction of the works in the fisheries ditches being completed between August 1 and September 15, 2011" (the "Fisheries Window"). However, there are many construction activities that can take place in advance of the Fisheries Window that will be determined by the contractor. Surrey is eager to tender the works for the entire project in the winter of 2010/11. This will facilitate prompt resolution of issues in advance of the Fisheries Window such as the removal of existing preload on 48th Avenue that is causing sightline reduction.

Despite the above, the Surrey is prepared to delay its application for two weeks in accordance with your request, that is, until November 4th, 2010. Naturally, we would prefer to resolve all issues amicably.

Please do not hesitate to contact me if you wish to discuss this matter.
I can be reached at 604-591-4188.

Regards,

Tony

-----Original Message-----

From: [REDACTED] [mailto:[REDACTED]@terasen.com]

Sent: October-26-10 7:06 AM

To: Capuccinello, Anthony

Cc: [REDACTED]

Subject: Terasen Gas Pipeline Crossing

Dear Tony

I did receive your letter dated October 21st, 2010 last week. As I have not yet had an opportunity to review my voice mail messages left yesterday, I did not hear your voice mail message. I had a busy day.

We are reviewing your letter and we will reply to you once we have had a chance to consider the matter carefully. It is unlikely that we will be able to do so before Wednesday. I am surprised that you intend to file with the Oil and Gas Commission this week as we only received the preliminary drawings from your Engineering Department on the 21st.

We understand your project is scheduled for August 2011. Terasen Gas needs a few weeks to carefully consider the new regulations in relation to your project (now that we have some details) and our existing agreements. In the meantime, our planning department is reviewing the preliminary drawings your Engineering Department has provided.

Sincerely,

[REDACTED]

[REDACTED]

[REDACTED]

Acting for the Fortis Group of Companies in British Columbia

10th floor, 1111 West Georgia Street, Vancouver, B.C.

V6E 4M3

Tel: 604-[REDACTED]

This email is confidential and may be legally privileged.

From: Capuccinello, Anthony [mailto:ACapuccinello@surrey.ca]

Sent: Monday, October 25, 2010 5:03 PM

To: Capuccinello, Anthony; [REDACTED]

Subject: RE: Terasen Gas Pipeline Crossing

Importance: High

* [REDACTED]. Despite my letter and voice-mail message of today requesting that you contact me, I have not heard from you. I expect to be in a position to file with the Oil and Gas Commission this Wednesday. I trust you will reply before then.

Regards,

Tony

From: Capuccinello, Anthony
Sent: October-21-10 1:52 PM
To: [REDACTED]@terasen.com
Subject: Terasen Gas Pipeline Crossing
Importance: High

[REDACTED] Please see attached.

Regards,

Tony

ANTHONY CAPUCCINELLO | ASSISTANT CITY SOLICITOR
CITY OF SURREY
Legal Services Division
14245 - 56 Ave, Surrey, BC, Canada V3X 3A2
T 604.591.4188 | F 604.599.1613 www.surrey.ca

Please consider the environment before printing this email

IMPORTANT NOTICE:

This email and any attachments are confidential, may be legally privileged, and/or subject to the Freedom of Information and Protection of Privacy Act, and are for the use of the intended recipient only. Access, disclosure, copying, distribution, or reliance on any of it by anyone else is prohibited and may be a criminal offence. Please delete if received or obtained in error and email confirmation to the sender.

This e-mail is the property of Terasen Inc. and/or its affiliates and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. Terasen Inc. and its affiliates do not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This e-mail is the property of Terasen Inc. and/or its affiliates and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. Terasen Inc. and its affiliates do not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



the future lives here.

Legal Services

CRAIG MacFARLANE, City Solicitor
MAUREEN ST CYR, Assistant City Solicitor
KELLY RAYTER, Assistant City Solicitor
ANTHONY CAPUCCINELLO, Assistant City Solicitor
PHILIP C.M. HUYNH, Assistant City Solicitor
BENJIE LEE, Assistant City Solicitor

Our File: 2430-20-380
Direct Line: (604) 591-4188

November 5, 2010

VIA COURIER and VIA FAX 250-261-5744

Oil and Gas Commission
Suite 100, 10003-110th Avenue
Fort St. John, BC
V1J 6M7
ATTENTION: Alex Ferguson, Commissioner

Dear Sirs:

Re: Pipeline Crossing
(Pipeline located within 168th Street extending approximately between the intersection of 168th Street & 80th Avenue and the intersection of 168th Street and 32nd Avenue in Surrey)

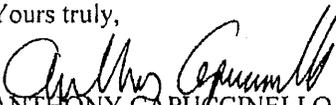
Please find enclosed the City's Application Pursuant to the Oil and Gas Activities Act which we herein formally file with the Oil and Gas Commission. A duplicate copy has been enclosed so that it may be appropriately stamped by the Commission and returned to us for service on the Respondent. An unstamped copy has been served on Terasen's counsel today.

As there is no prescribed form of application, we have prepared the enclosed application in form similar to that filed with the Commission in the past.

As time is of the essence, we respectfully request that the Commission deal with this matter as soon as possible.

Please do not hesitate to contact me at 604-591-4188 if you have any questions or if you require further materials or particulars.

Yours truly,


ANTHONY CAPUCCINELLO
Assistant City Solicitor

AC:eo

Enc.

cc: City Solicitor
General Manager, Engineering
Ken Zondervan

u:\legalsrv\legal\misc\october\102210 1058 - eo3.docx
E 10/27/10 11 14 AM

BRITISH COLUMBIA OIL AND GAS COMMISSION

In the Matter of s.76 of the Oil & Gas Activities Act, SBC 2008, c. 36, as amended

Between

City of Surrey,

Applicant,

and

Terasen Gas Inc.,

Respondent.

APPLICATION PURSUANT TO THE OIL & GAS ACTIVITIES ACT

1. The Applicant, the City of Surrey ("Surrey"), a local government, is a body corporate under the laws of the Province of British Columbia.
2. The Respondent, Terasen Gas Inc., Incorporation No. BC 0778288, ("Terasen"), is a body corporate amalgamated under the laws of British Columbia with a registered office at the 10th Floor-1111 West Georgia Street, Vancouver, BC, V6E 4M3.
3. All right, title and interest in and to 168th Street and 48th Avenue in the City of Surrey, British Columbia, is vested in Surrey.
4. A pipeline (the "Pipeline") owned and operated by Terasen is located within 168 Street and extends along 168th Street approximately between the intersection of 32nd Avenue and 168th Street and the intersection of 80th Avenue and 168th Street in Surrey, British Columbia.
5. The Pipeline pressure exceeds 700 kPa.
6. Surrey intends to construct and carry out highway and intersection improvements in and around the most northerly intersection of 168th Street and 48th Avenue in Surrey, with construction, works, operations and activities extending approximately 350 meters westward along 48 Avenue from the intersection, and 250 meters southward along 168th Street from the intersection, and 200 meters northward along 168th Street from the intersection ("the Project").

7. As part of the Project, Surrey must carry out and perform construction, works, operations and activities along, over or under the Pipeline all within the boundaries of 168th Street and 48th Avenue (the "Pipeline Crossing Location"); said construction, works, operations and activities includes, but is not limited to, disturbing earth, clearing and mass excavation, utility adjustment, grading, compaction, dewatering, soil reinforcement, road base preparation, lane marking, landscaping, milling asphalt, importing fill, paving, bridge realignment and reconstruction, excavation of ditches and swales, and the construction of retaining walls and flood control works (the "Highway Construction and Activity").

APPROVAL OF OIL AND GAS COMMISSION SOUGHT

8. Surrey pleads and relies on section 76 of the *Oil & Gas Activities Act*, SBC 2008, c.36, as amended (the "*Oil & Gas Activities Act*"), which states (emphasis added):

Pipeline crossings

76 (1) Subject to subsection (3), a person must not

(a) construct

(i) a highway, road or railway,

(ii) an underground communication or power line, or

(iii) any other prescribed work, or

(b) carry out a prescribed activity

along, over or under a pipeline or within a prescribed distance of a pipeline unless

(c) the pipeline permit holder agrees in writing to the construction or the carrying out of an activity prescribed for the purposes of paragraph (b), or

(d) the commission, by order, approves the construction or the carrying out of the prescribed activity.

(2) The commission, in an order issued under subsection (1) (d), may impose any conditions on the approval that the commission considers necessary to protect the pipeline.

(3) The commission must approve

(a) the construction referred to in subsection (1), and

(b) the carrying out of a prescribed activity

by the government, but may impose conditions referred to in subsection (2) in the approval issued under subsection (1).

(4) The commission, for the purposes of deciding whether to issue an order under subsection (1) or impose conditions under subsection (2), may require a pipeline permit holder to submit information regarding the pipeline permit holder's pipeline.

(5) The commission may order a pipeline permit holder whose pipeline is the subject of an order issued under subsection (1)

(a) with the approval of the Lieutenant Governor in Council, to relocate the pipeline to facilitate the construction or prescribed activity approved by the order issued under subsection (1), and

(b) to take the actions specified in the order that the commission considers necessary to protect the pipeline.

(6) In relation to an order of the commission referred to in subsection (5), the Lieutenant Governor in Council

(a) may order that a person other than the pipeline permit holder must pay the costs, or a portion of the costs, incurred in carrying out the commission's order, or

(b) may approve the payment of any of those costs from the consolidated revenue fund.

(7) If there is an inconsistency between an order or an approval made under subsection (6) and a regulation made under section 99 (m), the order or approval prevails to the extent of the inconsistency.

9. Surrey pleads and relies upon s. 11 of the Oil & Gas Activities Act General Regulation, B.C. Reg. 274/2010:

Pipeline crossing distances

11 (1) In this section, "**ground activity**" means any work, operation or activity that results in a disturbance of the earth, including a mining activity as defined in section 1 of the *Mines Act*, but not including

(a) cultivation to a depth of less than 45 cm below the surface of the ground, and

(b) a disturbance, other than cultivation referred to in paragraph (a), of the earth to a depth of less than 30 cm.

(2) A ground activity is a prescribed activity for the purposes of section 76 (1) (b) of the Act.

(3) The following distances are prescribed for the purposes of section 76 (1) of the Act:

(a) 40 m, for any activity other than the prescribed activity referred to in subsection (2);

(b) 40 m, for the prescribed activity referred to in subsection (2).

10. Surrey seeks approval of the Oil and Gas Commission (the "Commission") to construct and carry out the Highway Construction and Activity along, over or under the Pipeline at, on or through the Pipeline Crossing Location, or at, on or through such other location that Surrey may determine and the Commission shall approve.
11. In order to maintain the integrity and safety of the Pipeline, it will or may be necessary to realign, raise or lower the Pipeline, to excavate material from around the Pipeline and to add casing or other appurtenances that are considered necessary for the protection of the Pipeline.

TERASEN TO PERFORM WORK

12. Surrey pleads and relies on the Oil & Gas Activities Act and the Regulations made thereunder including, but not limited to, sections 76, 82 and 35 (2) of the Oil & Gas Activities Act and s. 11 of the Oil & Gas Activities Act General Regulation B.C. Reg. 274/2010.
13. The Highway Construction and Activity along, over or under the Pipeline at, on or through the Pipeline Crossing Location might disturb the Pipeline and necessitate realigning, raising or lowering the Pipeline or excavating material from over or around it, or adding casings or other appurtenances to it, as deemed necessary by Terasen or the owner of the Pipeline, for the protection of the Pipeline. (the "Pipeline Work")
14. In accordance with *Oil & Gas Activities Act* and the Regulations made thereunder, the Pipeline Work to be carried out and performed at on and through the Pipeline Crossing Location must be carried out and performed by Terasen or the owner of the Pipeline.

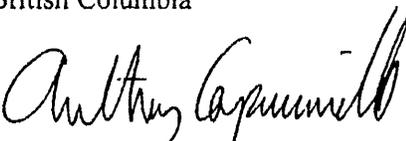
WHEREFORE, the City of Surrey applies for, claims and seeks the following:

- (a) approval of the Commission, pursuant to section 76 of the *Oil & Gas Activities Act*, to construct and carry out the Highway Construction and Activity at, on or through the Pipeline Crossing Location, or at, on or through such other location as Surrey may determine and the Commission shall approve;

- (b) an order, that Terasen or the owner of the Pipeline, shall carry out and perform on or before February 1, 2011, all Pipeline Work required as a result of the Highway Construction and Activity along, over or under the Pipeline at, on and through the Pipeline Crossing Location which might disturb the Pipeline or which necessitates realigning, raising or lowering the Pipeline or excavating material from over or around it, or adding casings or other appurtenances to it, as deemed necessary by Terasen or the owner of the Pipeline, for the protection of the Pipeline;
- (c) costs of this proceeding; and,
- (d) for such further and other Orders, declarations or directions as the Commission deems just.

Place of hearing: _____, British Columbia

DATED: November 5th, 2010


ANTHONY CAPUCCINELLO
Solicitor for the Applicant,
City of Surrey

British Columbia Oil and Gas Commission

In the Matter of s. 76 of the Oil & Gas Activities Act, SBC 2008, c.36, as amended

Between

City of Surrey,

Applicant

and

Terasen Gas Inc.,

Respondent

APPLICATION

CITY OF SURREY
Legal Services Division
14245 - 56 Avenue
Surrey, BC V3X 3A2
Telephone: (604) 591-4188
Attn: Anthony Capuccinello



February 4, 2011

Anthony Capuccinello,
Assistant City Solicitor. The City of Surrey
14245-56 Avenue
Surrey, B.C. V3X 3A2

Dear Mr. Capuccinello and Ms. Leroi

Re: Reasons for Decision and General Order 2011-02

Enclosed please find a copy of the subject order related to highway and bridge construction work at and near the intersection of 48th Avenue and 168th Street in the City of Surrey, British Columbia. The Reasons for Decision are also attached.

Should you have any questions on this matter, please contact Mr. Ken Paulson, Chief Engineer and Deputy Commissioner (250)-419-4404.

A handwritten signature in black ink, appearing to be 'Ken Paulson', written in a cursive style.

Ken Paulson P. Eng.
Chief Engineer/ Deputy Commissioner
BC Oil and Gas Commission

Cc: Alex Ferguson, Commissioner, CEO
Paul Jeakins, Deputy Commissioner

IN THE MATTER of an application for issuance of an Order to the City of Surrey pursuant to section 76(1)(d) of the *Oil and Gas Activities Act* for highway and bridge construction work at and near the intersection of 48th Avenue and 168th Street in the City of Surrey, British Columbia

GENERAL ORDER 2011-02

- 1 Under Section 76(1)(d) of the *Oil and Gas Activities Act*, I hereby order that:
 - a) The highway and bridge construction work as applied for by the City of Surrey in its application dated November 05, 2010 is approved;
 - b) The City of Surrey may proceed with the work or any portion of the work approved under paragraph 1(a) subject to confirmation from Terasen Gas that the pipeline has been appropriately modified or altered to accommodate the work or any portion of the work; and
 - c) The City of Surrey shall develop plans and schedules for the work, in consultation with Terasen Gas, which provide reasonable and mutually agreed upon time frames for all work to be performed by Terasen Gas.
- 2 This order takes effect at the time and date of issuance.



Ken Paulson, P.Eng.
Chief Engineer and Deputy Commissioner
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 4th day of February 2011.



Reasons for Decision

February 4, 2011

Re: City of Surrey Application for Orders under Section 76(1)(d) and 76(5) of the *Oil and Gas Activities Act* Respecting Bridge and Highway Construction and Maintenance Work At and Near 168th Street and 48th Avenue in the City of Surrey, British Columbia

Application

The City of Surrey (Surrey) applied to the Oil and Gas Commission (Commission) on November 05, 2010 seeking

- (a) Approval of the Commission, pursuant to section 76(1)(d) of the *Oil and Gas Activities Act*, to construct and carry out the Highway Construction and Activity at, on or through the Pipeline Crossing Location, or at, on or through such other location that Surrey may determine and the Commission shall approve;
- (b) An order, that Terasen or the owner of the Pipeline, shall carry out and perform on or before February 01, 2011, or, in the alternative, on or before a date set by the Commission, all Pipeline Work required as a result of the Highway Construction and Activity along, over or under the Pipeline at, on and through the Pipeline Crossing Location which might disturb the Pipeline or which necessitates realigning, raising or lowering the Pipeline or excavating material from over or around it, or adding casings or other appurtenances to it, as deemed necessary by Terasen or the owner of the Pipeline, for the protection of the Pipeline;
- (c) Costs of this proceeding; and
- (d) For such further and other Orders, declaration or directions as the Commission seems just.

Relevant Legislation

Oil and Gas Activities Act Section 76

Oil and Gas Activities Act General Regulation Sections 11 and 12

Pipeline and Liquefied Natural Gas Regulation Sections 3 and 6

Details of these sections appear in the attachment.

Section 76(1) of *Oil and Gas Activities Act*

In order for Surrey to be able to carry out the planned bridge and road work (the work) at or near 168th Street and 48th Avenue in the City of Surrey, Terasen must agree in writing to the work or they must receive an order providing approval for the work from the Commission.



Section 76(1) of the *Oil and Gas Activities Act* (OGAA) establishes that a person must not construct a highway, road or railway or carry out a prescribed activity along, over or under a pipeline or within a prescribed distance of a pipeline unless

- the pipeline permit holder agrees in writing to the construction or the carrying out of a prescribed activity, or
- the Commission, by order, approves the construction or the carrying out of the prescribed activity.

Is the planned work caught by section 76(1)(a)?

Section 76(1)(a) of the OGAA applies to the construction of a highway or road along, over or under a pipeline. In addition, the section applies to prescribed activities.

Section 11 of the *Oil and Gas Activities Act General Regulation* (OGAAGR) defines a ground activity as a disturbance of the earth and further states that a ground activity is a “prescribed activity” for the purposes of section 76(1)(b).

The work proposed by Surrey involves both the construction of highway and ground activities and as such is subject to the requirements set out under section 76 of the OGAA.

Is there agreement under 76(1)(c)?

In a letter from Terasen dated 15 December 2010, Terasen argues that Terasen has agreed in writing that work may proceed subject to an agreement dated June 15, 1957 (the Operating Agreement). Terasen further argues that since an agreement does exist, there is no authority for the Commission to issue an Order to Surrey approving the work. The Commission notes that the Operating Agreement, a copy of which was provided by Terasen, is dated 26 March 1956 and not 15 June, 1957.

In letters dated 17 December 2010 and 20 December 2010, Surrey argues that the Operating Agreement should not be considered by the Commission as its validity, legality, scope, assignability, interpretation, etc. is currently before the Courts.

In a letter from Terasen dated 04 January 2011, Terasen argues that the Commission should consider the Operating Agreement in making a decision on Surrey’s application. Terasen further notes in that letter that “Terasen Gas remains committed to carrying out any relocations of the IP line with reasonable speed. To date we have received only preliminary plans from the City. We require, and have requested, more engineering details and finalized plans in order to carry out further design work.”

The Commission notes that the Operating Agreement provided by Terasen pertains to facilities under the *Gas Utilities Act* and that as such it may not apply to pipelines subject to the OGAA. The Commission further notes that the work proposed by Surrey was not planned or envisioned in 1956 and as such the Operating Agreement is not an agreement for this specific work.

As such, the Commission finds that no written agreement has been provided by Terasen for the planned work. In making this determination, the Commission is not ruling on the validity of the Operating Agreement. Rather, the Commission simply finds that the Operating Agreement is not a written agreement for the work in this instance as required under section 76(1)(c).



Information requested by the Commission

On 07 January 2011, the Commission requested additional information from both Terasen and Surrey. The requested information was received from Surrey on 12 January and Terasen on 18 January. The information sought was to understand the nature of the planned work by both Surrey and Terasen, to determine if engineering work was proceeding by both Surrey and Terasen and to determine whether or not there was still the possibility of Terasen agreeing to the work to be undertaken by Surrey.

The information provided and further correspondence from Surrey dated 20 January and 25 January 2011 demonstrates that discussions and planning are ongoing with regard to the planned replacement of the Terasen pipeline crossing the Nicomekl River. The Commission understands from the correspondence that Terasen is actively planning to replace the existing river crossing with a new directionally drilled crossing for the 219.1 mm intermediate pressure pipeline and that Surrey is providing Terasen with the necessary information for the design of that pipeline.

The Commission notes that Surrey and Terasen have been cooperating in the development of reasonable design options which will allow Surrey to undertake their planned work. As such, it appears that the lack of a written agreement and the application for an order under section 76(1)(d) by Surrey are not related to the technical feasibility of the work by either party. Instead, the correspondence points to the inability of the parties to agree on cost allocations as being the primary reason as to why Terasen has not provided an agreement for this work.

The Commission is mandated under OGAA to ensure the continued safe operation of the pipeline. The allocation of costs for relocations or similar work governed by section 76 of OGAA is determined by the Act and regulations and is not a decision of the Commission.

In determining whether or not to issue an Order under section 76(1)(d) the Commission has considered the following:

1. Terasen has not provided a written agreement between the two parties that would cover Surrey's proposed work as set out under 76(1)(c).
2. Engineering work respecting the planned work by Surrey and the necessary relocation work to be undertaken by Terasen has been proceeding and continues to proceed.
3. The pipeline relocation work is required for the continued safe operation of the pipeline as the planned work by Surrey takes place.

Decision under OGAA 76(1)(d)

In consideration of the aforementioned, the Commission has determined that an Order approving Surrey's proposed work should be issued pursuant to section 76(1)(d) of the OGAA. A copy of the Order is attached to these Reasons for Decision.



Ancillary Decisions

Section 76(5) of OGAA

Section 76(5) of the OGAA provides the Commission with the ability to issue an Order to Terasen requiring them to relocate the pipeline and take other necessary actions to facilitate the work planned by Surrey. Such an Order requires the approval of the Lieutenant Governor in Council (LGIC).

As previously noted, the Commission's concerns in this matter pertain to safety. It is evident from correspondence that the primary barrier to an agreement between Surrey and Terasen is not the physical work required for safety of the pipeline, but the allocation of costs. In a letter from Terasen dated 18 January 2011, Terasen notes that "as is our usual practice when dealing with the City of Surrey under the Operating Agreement, we will require the City of Surrey to accept (in writing) their portion of the actual costs, based on the approved design and the final pipeline cost estimate before the IP line construction proceeds." A letter from Surrey dated 20 January 2011 notes that "the determination of what measures must be taken to protect its pipeline and the implementation of those measures are matters for Terasen alone to undertake" and that "it is not open to Terasen to refuse to undertake the necessary pipeline works unless the City agrees to its terms."

The Commission notes that Terasen is obligated through regulation to ensure that their pipeline is designed, constructed, operated and maintained in a manner which assures its continued safe and environmentally responsible operation. Such requirements are found within sections 3 and 6 of the *Pipeline and Liquefied Natural Gas Facility Regulations* (PLNGFR). Section 3 of the PLNGFR requires Terasen to adhere to *CSA Z662 Oil and Gas Pipeline Systems* (CSA Z662) in the design, construction, operation and maintenance of their pipeline. Clause 10.7.2 of CSA Z662 requires that Terasen undertake necessary upgrades to accommodate the work proposed by Surrey or to perform a detailed engineering assessment to determine what (if any) upgrades are required for the protection of the pipeline in light of the work proposed by Surrey.

The Commission further notes that section 6 of the PLNGFR requires Terasen to take all reasonable steps so as not to endanger public safety or the environment when a pipeline is being constructed across, along, over or under a highway or public place.

Finally, the Commission notes that engineering work pertaining to the planned work by Surrey is proceeding by both Surrey and Terasen in the absence of a written agreement.

Given that engineering work is proceeding and that existing regulatory requirements establish the duty and obligation of Terasen to undertake any and all work necessary for the protection of their pipeline in light of any approval issued under 76(1)(d), the Commission finds that an Order under section 76(5) of the OGAA is not required.

As such, the Commission has decided not to issue an Order to Terasen under section 76(5) at this time. In making this decision, the Commission notes that Terasen is required to take the necessary steps for the protection of their pipeline to accommodate the approved work.

Costs of This Proceeding



The Commission has no authority to apportion the costs incurred by either Surrey or Terasen in making the decisions set out herein.

Further and Other Orders

The Commission does not contemplate any further or other orders at this time.

Summary

The Commission has issued General Order 2011-02 to Surrey approving the construction and other prescribed activities necessary for the reconstruction and maintenance of Surrey's highways and roadways in the vicinity of 168th street and 48th avenue in Surrey.

Surrey may proceed with the approved work and Terasen must take the actions necessary for the protection of their pipeline to accommodate the work as set out within the Pipeline and Natural Gas Facilities Regulation. Such work by Terasen and Surrey must be coordinated by both parties to ensure that the integrity of the pipeline is not jeopardized by the actions of either party.



Attachment
Relevant Legislation

Oil and Gas Activities Act [SBC 2008] CHAPTER 36

- 76 (1) *Subject to subsection (3), a person must not*
- (a) *construct*
 - (i) *a highway, road or railway,*
 - (ii) *an underground communication or power line, or*
 - (iii) *any other prescribed work, or*
 - (b) *carry out a prescribed activity*
along, over or under a pipeline or within a prescribed distance of a pipeline unless
 - (c) *the pipeline permit holder agrees in writing to the construction or the carrying out of an activity prescribed for the purposes of paragraph (b), or*
 - (d) *the commission, by order, approves the construction or the carrying out of the prescribed activity.*
- (2) *The commission, in an order issued under subsection (1) (d), may impose any conditions on the approval that the commission considers necessary to protect the pipeline.*
- (3) *The commission must approve*
 - (a) *the construction referred to in subsection (1), and*
 - (b) *the carrying out of a prescribed activity**by the government, but may impose conditions referred to in subsection (2) in the approval issued under subsection (1).*
- (4) *The commission, for the purposes of deciding whether to issue an order under subsection (1) or impose conditions under subsection (2), may require a pipeline permit holder to submit information regarding the pipeline permit holder's pipeline.*
- (5) *The commission may order a pipeline permit holder whose pipeline is the subject of an order issued under subsection (1)*
 - (a) *with the approval of the Lieutenant Governor in Council, to relocate the pipeline to facilitate the construction or prescribed activity approved by the order issued under subsection (1), and*
 - (b) *to take the actions specified in the order that the commission considers necessary to protect the pipeline.*
- (6) *In relation to an order of the commission referred to in subsection (5), the Lieutenant Governor in Council*
 - (a) *may order that a person other than the pipeline permit holder must pay the costs, or a portion of the costs, incurred in carrying out the commission's order, or*
 - (b) *may approve the payment of any of those costs from the consolidated revenue fund.*
- (7) *If there is an inconsistency between an order or an approval made under subsection (6) and a regulation made under section 99 (m), the order or approval prevails to the extent of the inconsistency.*



Oil and Gas Activities Act General Regulation (274/2010)

- 11 (1) *In this section, "ground activity" means any work, operation or activity that results in a disturbance of the earth, including a mining activity as defined in section 1 of the Mines Act, but not including*
- (a) cultivation to a depth of less than 45 cm below the surface of the ground, and*
 - (b) a disturbance, other than cultivation referred to in paragraph (a), of the earth to a depth of less than 30 cm.*
- (2) *A ground activity is a prescribed activity for the purposes of section 76 (1) (b) of the Act.*
- (3) *The following distances are prescribed for the purposes of section 76 (1) of the Act:*
- (a) 40 m, for any activity other than the prescribed activity referred to in subsection (2);*
 - (b) 40 m, for the prescribed activity referred to in subsection (2).*
- 12 (1) *In this section:*
- "approval holder" means a person to whom an approval under section 76 (1) (d) of the Act has been given;*
 - "approved action" means the construction or activity approved by an order issued under section 76 (1) (d) of the Act;*
 - "specified approval holder" means an approval holder that is the government, a municipality, or the British Columbia Railway Company.*
- (2) *Subject to subsections (4) to (6), an approval holder is responsible for all costs incurred by the approval holder in carrying out an approved action.*
- (3) *Subject to subsections (4) to (6), an approval holder is responsible for any costs incurred by a pipeline permit holder as a result of the approval holder's carrying out of an approved action, including, without limitation, costs*
- (a) to realign, raise or lower the pipeline;*
 - (b) to excavate material from around the pipeline, and*
 - (c) to add casing or other appurtenances that an official considers necessary for the protection of the pipeline.*
- (4) *Subject to an order issued under section 76 (6) of the Act and to subsection (5) of this section, a specified approval holder is not responsible for any costs incurred by a pipeline permit holder as a result of the carrying out of an approved action.*
- (5) *The costs referred to in subsection (4) must be shared equally between the specified approval holder and the pipeline permit holder if*
- (a) the specified approval holder is a municipality, and*
 - (b) the approved action is the construction of a new highway within the boundaries of that municipality on either an existing right of way or on a newly dedicated right of way.*
- (6) *The costs incurred by a pipeline permit holder as the result of the carrying out of an approved action must be shared equally between the approval holder and the pipeline permit holder if the approved action is the construction of a new road for a subdivision within a municipality.*



Pipeline and Liquefied Natural Gas Facility Regulation (281/2010)

- 3 (1) *Subject to subsection (2), a pipeline permit holder must not design, construct, operate or maintain any of the following except in accordance with CSA Z662:*
- (a) the pipeline that is the subject of the permit;*
 - (b) a pumping station or compressor station associated with the pipeline;*
 - (c) an oil storage tank associated with the pipeline.*
- (2) *A pipeline permit holder who constructs a pipeline under agricultural land must ensure the pipeline has a minimum cover of 0.8 metres.*
- (3) *A LNG facility permit holder must not design, construct, operate or maintain a liquefied natural gas facility except in accordance with CSA Z276, unless otherwise specified in this regulation.*
- 6 (1) *If a pipeline is being or has been constructed across, along, over or under a public place or the right of way of a highway, road, railway, underground communication or power line or other pipeline, the pipeline permit holder must*
- (a) take all reasonable steps so as not to endanger public safety or the environment, and*
 - (b) restore, to the extent reasonable in the circumstances, any infrastructure damaged or removed during the construction of the pipeline.*
- (2) *A pipeline permit holder must give notice in accordance with subsection (3) before beginning any work of construction, maintenance or repair of a pipeline along, over or under a public place or the right of way of a highway, road, railway, underground communication or power line or other pipeline.*
- (3) *A notice under subsection (2) must*
- (a) be given to the owner of or authority responsible for the public place, highway, road, railway, underground communication line, power line or pipeline, and*
 - (b) subject to subsection (4), be given at least 5 days before beginning the work, unless the pipeline permit holder and the owner or authority have agreed that the notice is to be provided by another time, in which case the notice must be provided by that other time.*
- (4) *In the case of emergency, work referred to in subsection (1) may be begun immediately after giving notice under subsection (2).*



the future lives here.

Legal Services

CRAIG Mac FARLANE, City Solicitor
MAUREEN ST CYR, Assistant City Solicitor
KELLY RAYTER, Assistant City Solicitor
ANTHONY CAPUCCINELLO, Assistant City Solicitor
PHILIP C M HUYNH, Assistant City Solicitor
BENJIE LEE, Assistant City Solicitor
HUGH CAMPBELL, Assistant City Solicitor

Our File: 2430-20-380
Direct Line: (604) 591-4188

June 14, 2011

BY FAX to 1-250-419-4403

BC Oil & Gas Commission
300-398 Harbour Road
Victoria, BC V9A 0B7

ATTENTION: Alex Ferguson, Commissioner
Ken Paulson P. Eng., Chief Engineer/Deputy Commissioner

Dear Sirs:

**Re: Oil and Gas Commission General Order 2011—02
Terasen Gas Pipeline Crossing - Nicomekl Bridge 48th Avenue/168th Street
Highway and Bridge Construction Project**

In accordance with the Oil and Gas Commission's General Order 2011-02, this serves to notify the Oil and Gas Commission that the City of Surrey has received confirmation from Terasen Gas Inc. (now FortisBC Energy Inc.) that the pipeline has been appropriately modified or altered to accommodate the approved highway and bridge construction project.

Please see the attached email from [REDACTED], Project Manager for FortisBC, dated June 13, 2011 to [REDACTED] Project Engineer, for the City of Surrey which provides this confirmation.

Thank you for your assistance in resolving this matter.

Yours truly,

ANTHONY CAPUCCINELLO
Assistant City Solicitor

Encl.

AC:eo

cc: Paul Jeakins, Deputy Commissioner, via fax to 1-250-419-4403
Rodney W. Sieg, via fax to 604-683-2798

u:\legal\litigation\supreme\terasen gas no 3 (380)\correspondence\061411 0920 - eo3.docx

Capuccinello, Anthony

From: [REDACTED]@fortisbc.com]
Sent: June-13-11 9:06 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Work at Nicomekl and 168th

Hi [REDACTED]. Yes the tie in, while challenging, went very well and the pipeline has been altered to accommodate the approved highway and bridge construction work as submitted to FortisBC. The contractor will be wrapping the fittings, backfilling the bell holes and remediating the private property used for material storage June 13 & 14 but this will not affect the highway and bridge work as it is outside the construction zone. Let me know if there are any changes to the design that may affect the new gas lines and FortisBC will accommodate these as quickly as possible.

Terasen Gas is known as FortisBC effective March 1, 2011. My email address has changed to [REDACTED]@fortisbc.com. Please update your records accordingly.

[REDACTED], P. Eng.
Project Manager, Project Management Office
FORTIS BC
ph: [REDACTED]
cell: [REDACTED]
fax: [REDACTED]
mailto:[REDACTED]@fortisbc.com

-----Original Message-----
From: [REDACTED] [mailto:[REDACTED]@surrey.ca]
Sent: June 13, 2011 8:36 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Work at Nicomekl and 168th

Hi [REDACTED]

Thanks for the schedule update, I trust that the tie in over the weekend went smoothly. Before I authorize B&B to proceed, please confirm that the pipeline has been appropriately modified or altered to accommodate the approved highway and bridge construction work pursuant to General Order 2011-02 of the OGC.

Thanks,

[REDACTED] P. Eng. | Project Engineer
CITY OF SURREY
Engineering Department, Utilities Division
14245 - 56 Ave, Surrey, BC, Canada V3X 3A2
T [REDACTED] | F [REDACTED] www.surrey.ca
Please consider the environment before printing this email

-----Original Message-----
From: [REDACTED] [mailto:[REDACTED]@fortisbc.com]
Sent: June-07-11 2:36 PM
To: [REDACTED]

Cc: [REDACTED]
Subject: Work at Nicomekl and 168th

Hi [REDACTED]. Just updating you on the progress at 168th & the Nicomekl River. All the service work going on to the street will be complete by the end of Wednesday June 8, 2011. There will be a little more meter work required to complete the service at 4843 - 168th but it will be completely on the customer's property. The tie in of the 219mm HDD will be completed Saturday June 11, 2011 due to the long workday required. Any work on the north side of the Nicomekl can commence Thursday, June 9, 2011 and work on the south side of the Nicomekl can continue Monday, June 13, 2011. The only restriction on the south side of the Nicomekl is next to 4843 - 168th because we will not abandon that existing service until the end of day Friday, June 10, 2011.

Terasen Gas is known as FortisBC effective March 1, 2011. My email address has changed to [REDACTED]@fortisbc.com. Please update your records accordingly.

[REDACTED] P. Eng.
Project Manager, Project Management Office
FORTIS BC
ph: [REDACTED]
cell: [REDACTED]
fax: [REDACTED]
[mailto:\[REDACTED\]@fortisbc.com](mailto:[REDACTED]@fortisbc.com)<[mailto:\[REDACTED\]@terasengas.com](mailto:[REDACTED]@terasengas.com)>

This e-mail is the property of FortisBC Holdings Inc. and/or its affiliates in British Columbia and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC Holdings Inc. and its affiliates do not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



the future lives here.

April 1, 2014

File: 5500-02; 5225-90; 5340-40

FortisBC Energy, Inc.
16705 Fraser Highway
Surrey, B.C. V4N 0E5

Attention: Ian Turnbull, Damage Prevention Manager; and
Amy Hennessey, Public Relations Manager

Dear Mr. Turnbull and Ms. Hennessey:

Re: Information - Clearing Blocked Sewer Main Lines

We are in receipt of your attached letter dated August 29, 2012, with respect to calling FortisBC before clearing blockages in City sewer main lines. We trust that this same information has been sent to the various sanitary and storm sewer maintenance contractors within B.C. as over 50% of the City's current sewer maintenance work is contracted to local companies.

While we appreciate the suggested approach by FortisBC, it does not deal with the core issue. In this case, cross boring of natural gas lines through existing City infrastructure is absolutely not permitted. Doing so damages or weakens the integrity of the sewer walls causing premature failure. More seriously, any inadvertent damage to a natural gas line that has been installed by FortisBC through City infrastructure can be catastrophic and hazardous to the public and City employees. We therefore demand that FortisBC immediately eliminate this unsafe condition, remove all instances of cross boring and repair any damage to the City's infrastructure caused by this cross boring practice.

In order to remedy this serious matter we would, amongst other things, expect that FortisBC's efforts would include the following:

1. Any instance of a cross bore natural gas line must be rectified. To this end, we assume that FortisBC maintains an inventory of locations throughout the City where gas lines have been installed using a boring / trenchless technique. We will require that FortisBC video inspect City storm and sanitary sewer main lines and service connections adjacent to gas line locations that have been installed using the cross bore method to verify whether or not City infrastructure has sustained damage due a cross bore natural gas line.
2. FortisBC must reposition its cross bore natural gas lines that have impacted City sewer infrastructure and repair the City's infrastructure.
3. Moving forward, FortisBC must locate all utilities, including sewer infrastructure, prior to engaging a boring / trenchless technique for natural gas installation and video inspect City sewer main lines following installation of its gas lines to ensure no impact to City infrastructure.

Attached for your reference is our current list of sanitary and storm sewer main lines and service connections on Grease Cutting, Root Cutting and Flushing programs including addresses. If required, we could provide you with a GIS layer of this sanitary sewer schedule maintenance information that you could overlay with your gas infrastructure information.

We would request that representatives of FortisBC meet with City staff to further discuss this situation. In the interim, the City will make efforts to follow the procedures described in your attached correspondence, provided that FortisBC modifies the response times it has proposed.

To clarify, the City has various procedures which we follow to maintain City sanitary and storm sewer main lines. Annual maintenance programs include condition rating, flushing and video inspection for approximately 60 kilometers of our sanitary sewer main lines per year. Our goal for flushing all of our sanitary sewer main lines throughout the City is once every 4-5 years. We also carry out demand / emergency services on both sanitary and storm main lines based on request for services from the public during regular and after-hour callouts.

It is the City's typical practice to flush and video blockages for sewer main lines prior to utilizing more mechanical cleaning methods such as grease cutting and root cutting. However, there may be situations where we are unable to achieve a visual and identify the cause of the blockage. Based on the information provided, the City will make efforts to contact FortisBC prior to engaging mechanical cleaning should we encounter a cross bore natural gas line or when we cannot identify the blockage.

However, in the event of an emergency situation involving a sewer main line, i.e. sewerage or storm back up, where a video has not or cannot be obtained, FortisBC's response time of "up to 2 hours" is far too long. A delay of up to 2 hours can adversely impact the surrounding City infrastructure and adjacent properties causing significant damage and loss. This being the case, we will require FortisBC to respond to an emergency sewerage back up situation within 60 minutes.

We look forward in hearing from you to resolve the above matters. Please contact me at 604-590-7287 to schedule a meeting accordingly.

Sincerely,



Rob Costanzo
Acting Manager, Operations

Attachments

1. FortisBC letter dated August 29, 2012 from Ian Turnbull, Damage Prevention Manager
 2. City of Surrey current list of sanitary and storm sewer main lines and service connections on Grease Cutting, Root Cutting and Flushing programs
- c.c.
- Acting General Manager, Engineering
 - All Operations Managers
 - Flush Truck Operators
 - Standby Staff
 - Radio Room



LETTER G STR' OP
5500-07-0
SEP 03 2012

August 29, 2012

Jane Sullivan
Surrey Clerk's Office
14245 56 Ave
Surrey BC V3X 3A2

DATE
9/12
0,12

THE REGISTRY COP
ENGINEERING DEPT
OPERATIONS DIV.
5500-07
12 09 11
TO BY DATE

Dear Jane Sullivan:

CLERKS DEPT

RE: Important safety information about clearing blocked sewer lines

We are contacting you about an important safety issue that can occur when clearing sewer lines.

In the past, some natural gas lines were installed in a way that may have caused the gas line to cross through a sewer service line. Also known as a cross bore, a natural gas line crossing through a sewer service line can go undetected until the process of clearing a blocked sewer damages the natural gas line, creating the risk of a gas leak.

FortisBC is deeply committed to your safety, and that of everyone in the communities we serve. With your safety, and that of your employees, and the public in mind, we urge you to "Call Before You Clear."

Before clearing a blocked sewer outside, call BC One Call at 1-800-474-6886 to arrange for FortisBC to locate the gas lines. It's a free service available 24 hours a day. Tell the agent that you are calling about a "sewer service line blockage."

For blocked sewer service line calls, BC One Call will notify FortisBC immediately and we will make every effort to respond in two hours or less.

Enclosed with this letter are *Call Before You Clear* removable decals and brochures, to help share this important safety information with your employees or colleagues who may be clearing sewer lines.

If you have questions, call FortisBC at 1-888-224-2710.

Thank you for taking the time to protect yourself, your employees, and your neighbours in the communities in which you work.

Sincerely,

Ian Turnbull
Damage Prevention Manager
FortisBC

TO: Ian Turnbull
For your information
K

cc: GM Engineering

CLERKS DEPT
0400-01
SEP 04 2012

City of Surrey

List of Sanitary and Storm Sewer
Main lines and Service Connections
on Grease Cutting, Root Cutting
and Flushing Programs

April 1st, 2014

ID	Description	Map Page	Address	CycleIntervalNum
2086319	SAN Grease Cut - Mainline	23	10194 152 ST	6
2060493	SAN Grease Cut - Mainline	30	12109 94A AVE	24
2060507	SAN Grease Cut - Mainline	30	127 ST & 93 AVE	24
2060549	SAN Grease Cut - Mainline	33	15185 92 AVE	24
2060585	SAN Grease Cut - Mainline	42	14307 86A AVE	24
2060594	SAN Grease Cut - Mainline	43	8605 147A ST	24
2064840	SAN Grease Cut - Mainline	14	10505 153 ST	24
2064845	SAN Grease Cut - Mainline	124	15947 ALDER PL	24
2056734	SAN Grease Cut - Mainline	20	HELEN DR. & 100 AVE	24
2056737	SAN Grease Cut - Mainline	21	13102 103 AVE	24
2066798	SAN Grease Cut - Mainline	12	10585 KING GEORGE HWY	12
2066802	SAN Grease Cut - Mainline	30	9278 120 ST	12
2066806	SAN Grease Cut - Mainline	12	10567 KING GEORGE HWY	12
2066819	SAN Grease Cut - Mainline	62	6446 138 ST	24
2066821	SAN Grease Cut - Mainline	23	10376 152 ST	24
2066824	SAN Grease Cut - Mainline	5	162 5T & 112 AVE	24
2066743	SAN Grease Cut - Mainline	5	163 5T & 112 AVE	24
2066844	SAN Grease Cut - Mainline	124	KING GEORGE BLVD & 24 AVE	24
2066709	SAN Grease Cut - Mainline	5	11229 163 ST	24
2066363	SAN Grease Cut - Mainline	61	130 ST & 68 AVE	24
2066854	SAN Grease Cut - Mainline	43	8605 147A ST	24
2066857	SAN Grease Cut - Mainline	40	8164 120A ST	24
2066766	SAN Grease Cut - Mainline	11	10492 WEST WHALLEY RING RD	12
2066769	SAN Grease Cut - Mainline	110	12327 24 AVE	24
2066770	SAN Grease Cut - Mainline	123	15168 19 AVE	12
2066776	SAN Grease Cut - Mainline	110	BEECHER ST & MCKENZIE AVE	24
2066779	SAN Grease Cut - Mainline	30	9277 121 ST	24
2066901	SAN Grease Cut - Mainline	24	156 5T & 98 AVE	24
2066902	SAN Grease Cut - Mainline	24	15734 100 AVE	24
2066905	SAN Grease Cut - Mainline	52	72A AVE & 138 ST	12
2066911	SAN Grease Cut - Mainline	24	154 ST & 103A AVE	24
2066890	SAN Grease Cut - Mainline	52	138 ST & 72 AVE	24
2072062	SAN Grease Cut - Mainline	114	2536 154 ST	24
2078632	SAN Grease Cut - Mainline	2	GROSVENOR RD & CURRIE DR	6
2074024	SAN Grease Cut - Mainline	20	12623 93A AVE	24
2074026	SAN Grease Cut - Mainline	21	12896 96 AVE	24
2074037	SAN Grease Cut - Mainline	21	13507 96 AVE	12
2074039	SAN Grease Cut - Mainline	21	13100 SEMIAHMOO RD	12
2074045	SAN Grease Cut - Mainline	22	13977 FRASER HWY	12
2074047	SAN Grease Cut - Mainline	22	144 ST & 101 AVE	12
2074050	SAN Grease Cut - Mainline	23	152 ST & 104 AVE	24
2074053	SAN Grease Cut - Mainline	23	152 ST & 98 AVE	12
2074057	SAN Grease Cut - Mainline	23	15198 98 AVE	12
2076779	SAN Grease Cut - Mainline	31	9585 127 ST	24
2076798	SAN Grease Cut - Mainline	40	8532 121A ST	24
2076800	SAN Grease Cut - Mainline	40	8029 120A ST	24
2076802	SAN Grease Cut - Mainline	40	12036 82 AVE	24
2076809	SAN Grease Cut - Mainline	40	8177 122A ST	12
2076810	SAN Grease Cut - Mainline	40	8114 123 ST	12
2076822	SAN Grease Cut - Mainline	43	82A AVE & 149 ST	12
2076828	SAN Grease Cut - Mainline	50	7253 122A ST	24
2076830	SAN Grease Cut - Mainline	50	76 AVE & 122 ST	24
2077112	SAN Grease Cut - Mainline	51	13339 79 AVE	24
2077130	SAN Grease Cut - Mainline	52	13727 74 AVE	24
2077135	SAN Grease Cut - Mainline	61	6515 134 ST	12
2086338	SAN Grease Cut - Mainline	11	13508 105 AVE	6
2096197	SAN Grease Cut - Mainline	76	6160 175A ST	12
2096208	SAN Grease Cut - Mainline	61	13449 71A AVE	12

2096209	SAN Grease Cut - Mainline	61	KING GEORGE HWY & HALL RD	12
2096216	SAN Grease Cut - Mainline	61	6571 128A ST	24
2096223	SAN Grease Cut - Mainline	61	65 AVE & 130 ST	24
2096226	SAN Grease Cut - Mainline	61	13431 70B AVE	12
2096247	SAN Grease Cut - Mainline	110	2882 MCKENZIE AVE	12
2096255	SAN Grease Cut - Mainline	68	18789 FRASER HWY	3
2086318	SAN Grease Cut - Mainline	14	105 AVE & 153 ST	24
2060497	SAN Grease Cut - Mainline	30	122 ST & 95 AVE	24
2060500	SAN Grease Cut - Mainline	30	9577 127 ST	24
2060509	SAN Grease Cut - Mainline	30	90 AVE & 128 ST	24
2060517	SAN Grease Cut - Mainline	31	9402 PRINCE CHARLES BLVD	24
2060521	SAN Grease Cut - Mainline	31	133 ST & 94 AVE	24
2060560	SAN Grease Cut - Mainline	40	121A ST & 84A AVE	24
2060562	SAN Grease Cut - Mainline	40	84A AVE & 121A ST	24
2060576	SAN Grease Cut - Mainline	42	8571 142A ST	24
2060558	SAN Grease Cut - Mainline	40	12101 84 AVE	12
2060578	SAN Grease Cut - Mainline	42	8580 142A ST	24
2060583	SAN Grease Cut - Mainline	42	8607 143 ST	24
2060711	SAN Grease Cut - Mainline	52	7794 141B ST	24
2064842	SAN Grease Cut - Mainline	14	10595 156 ST	24
2064843	SAN Grease Cut - Mainline	14	15300 104 AVE	24
2064866	SAN Grease Cut - Mainline	24	15439 100 AVE	24
2064868	SAN Grease Cut - Mainline	24	15772 100 AVE	24
2056722	SAN Grease Cut - Mainline	13	105 AVE & 152 ST	24
2066789	SAN Grease Cut - Mainline	34	15315 84 AVE	12
2066801	SAN Grease Cut - Mainline	34	9398 156 ST	12
2066817	SAN Grease Cut - Mainline	72	13776 63B AVE	24
2066740	SAN Grease Cut - Mainline	33	15172 92 AVE	24
2066746	SAN Grease Cut - Mainline	43	8650 148 ST	12
2066747	SAN Grease Cut - Mainline	44	15406 82 AVE	24
2066753	SAN Grease Cut - Mainline	5	11253 163 ST	24
2066829	SAN Grease Cut - Mainline	32	13750 92 AVE	12
2066832	SAN Grease Cut - Mainline	32	136B ST & 90 AVE	12
2066839	SAN Grease Cut - Mainline	31	133 ST & 94 AVE	24
2066843	SAN Grease Cut - Mainline	30	12152 95A AVE	24
2066358	SAN Grease Cut - Mainline	61	12879 68 AVE	24
2066387	SAN Grease Cut - Mainline	62	6688 140 ST	24
2066874	SAN Grease Cut - Mainline	44	15245 84 AVE	12
2066759	SAN Grease Cut - Mainline	71	6321 136 ST	24
2066762	SAN Grease Cut - Mainline	24	156 ST & 98 AVE	24
2066772	SAN Grease Cut - Mainline	72	6378 138 ST	24
2066906	SAN Grease Cut - Mainline	44	15368 82 AVE	24
2066931	SAN Grease Cut - Mainline	44	8440 154 ST	24
2066881	SAN Grease Cut - Mainline	24	10303 154 ST	12
2066887	SAN Grease Cut - Mainline	103	3635 KING GEORGE HWY	12
2062412	SAN Grease Cut - Mainline	35	16086 95A AVE	24
2062419	SAN Grease Cut - Mainline	44	8440 154 ST	24
2072054	SAN Grease Cut - Mainline	69	19286 64 AVE	24
2081720	SAN Grease Cut - Mainline		10015 144 ST	12
2074012	SAN Grease Cut - Mainline	13	10538 152 ST	12
2074033	SAN Grease Cut - Mainline	21	96 AVE & 134 ST	12
2074044	SAN Grease Cut - Mainline	22	13865 FRASER HWY	24
2076777	SAN Grease Cut - Mainline	30	90 AVE & 128 ST	24
2076783	SAN Grease Cut - Mainline	31	12971 92A AVE	12
2076793	SAN Grease Cut - Mainline	33	9049 152 ST	24
2076794	SAN Grease Cut - Mainline	33	9049 152 ST	24
2076795	SAN Grease Cut - Mainline	33	9225 152 ST	12
2076815	SAN Grease Cut - Mainline	42	14309 85 AVE	12

2076829	SAN Grease Cut - Mainline	50	7235 122A ST	24
2086326	SAN Grease Cut - Mainline	23	15146 98 AVE	6
2086327	SAN Grease Cut - Mainline	23	15188 98 AVE	6
2086328	SAN Grease Cut - Mainline	24	156 ST & 100 AVE	24
2096187	SAN Grease Cut - Mainline	120	128 ST & 16 AVE	12
2096199	SAN Grease Cut - Mainline	53	14636 79 AVE	6
2096201	SAN Grease Cut - Mainline	76	61A AVE & 172 ST	12
2096206	SAN Grease Cut - Mainline	61	13031 64 AVE	12
2096213	SAN Grease Cut - Mainline	124	2187 KING GEORGE BLVD	12
2096222	SAN Grease Cut - Mainline	78	18488 63A AVE	24
2096225	SAN Grease Cut - Mainline	124	15369 20 AVE	12
2096241	SAN Grease Cut - Mainline	43	8578 151A ST	6
2096254	SAN Grease Cut - Mainline	128	192 ST & 22 AVE	12
2096256	SAN Grease Cut - Mainline	19	11777 RIVER RD	3
2096258	SAN Grease Cut - Mainline	124	16 AVE & 156 ST	12
2096267	SAN Grease Cut - Mainline	54	7498 152 ST	12
2096268	SAN Grease Cut - Mainline	61	6547 128A ST	24
2086323	SAN Grease Cut - Mainline	14	10505 153 ST	24
2060490	SAN Grease Cut - Mainline	30	9194 120 ST	24
2060494	SAN Grease Cut - Mainline	30	12114 94 AVE	24
2060502	SAN Grease Cut - Mainline	30	9543 127 ST	24
2060508	SAN Grease Cut - Mainline	30	90 AVE & 128 ST	24
2060510	SAN Grease Cut - Mainline	30	9415 WALLACE CR	24
2060511	SAN Grease Cut - Mainline	30	12319 91 AVE	24
2060571	SAN Grease Cut - Mainline	41	13516 80 AVE	24
2060575	SAN Grease Cut - Mainline	42	86 AVE & 142A ST	24
2060577	SAN Grease Cut - Mainline	42	8571 142A ST	24
2060580	SAN Grease Cut - Mainline	42	8666 143 ST	24
2060709	SAN Grease Cut - Mainline	52	138 ST & 72A AVE	24
2060710	SAN Grease Cut - Mainline	52	72A AVE & 138 ST	24
2066783	SAN Grease Cut - Mainline	30	9230 120 ST	24
2066816	SAN Grease Cut - Mainline	62	14076 66 AVE	12
2066828	SAN Grease Cut - Mainline	42	8607 143 ST	24
2066840	SAN Grease Cut - Mainline	32	13746 91A AVE	12
2066438	SAN Grease Cut - Mainline	121	16 AVE & 128 ST	6
2066867	SAN Grease Cut - Mainline	11	WEST WHALLEY RING RD & 105 AVE	12
2066873	SAN Grease Cut - Mainline	44	15457 84 AVE	24
2066877	SAN Grease Cut - Mainline	122	14172 17 A AVE	12
2066765	SAN Grease Cut - Mainline	31	9573 132 ST	24
2066903	SAN Grease Cut - Mainline	5	11265 163 ST	24
2066907	SAN Grease Cut - Mainline	11	13560 105A AVE	24
2066916	SAN Grease Cut - Mainline	52	72A AVE & 138 ST	24
2062421	SAN Grease Cut - Mainline	44	15406 82 AVE	24
2072064	SAN Grease Cut - Mainline	124	KING GEORGE BLVD & 156 ST	24
2074017	SAN Grease Cut - Mainline	13	14918 108 AVE	12
2074022	SAN Grease Cut - Mainline	19	11934 99 AVE	12
2074027	SAN Grease Cut - Mainline	21	9684 128 ST	24
2074043	SAN Grease Cut - Mainline	21	9608 132 ST	12
2074052	SAN Grease Cut - Mainline	23	100 AVE & 151 ST	12
2074060	SAN Grease Cut - Mainline	23	10331 150 ST	12
2076775	SAN Grease Cut - Mainline	30	9585 127 ST	24
2076784	SAN Grease Cut - Mainline	31	92A AVE & CINNAMON DR	12
2076786	SAN Grease Cut - Mainline	31	9272 PRINCE CHARLES BLVD	12
2076791	SAN Grease Cut - Mainline	32	138 ST & 90 AVE	12
2076796	SAN Grease Cut - Mainline	33	9225 152 ST	12
2076801	SAN Grease Cut - Mainline	40	82 AVE & 120A ST	24
2076808	SAN Grease Cut - Mainline	40	8465 122 ST	12
2076813	SAN Grease Cut - Mainline	42	8576 142 ST	24

2077114	SAN Grease Cut - Mainline	51	13557 73 AVE	24
2077120	SAN Grease Cut - Mainline	51	13191 72 AVE	24
2077121	SAN Grease Cut - Mainline	51	COMBER WAY & 72 AVE	12
2077125	SAN Grease Cut - Mainline	51	7263 130 ST	12
2077136	SAN Grease Cut - Mainline	61	13414 72 AVE	12
2077137	SAN Grease Cut - Mainline	123	SOUTHMERE CR & MARTIN DR	12
2086331	SAN Grease Cut - Mainline	22	101 AVE & 144 ST	6
2086340	SAN Grease Cut - Mainline	23	104 AVE & 152 ST	6
2096186	SAN Grease Cut - Mainline	62	140A ST & 67 AVE	24
2096191	SAN Grease Cut - Mainline	61	70A AVE & 135 ST	12
2096205	SAN Grease Cut - Mainline	123	19 AVE & SOUTHMERE CRES E	12
2096212	SAN Grease Cut - Mainline	76	6170 175A ST	12
2096224	SAN Grease Cut - Mainline	61	130 ST & 67A AVE	24
2096245	SAN Grease Cut - Mainline	62	66A AVE & 140 ST	12
2096246	SAN Grease Cut - Mainline	71	13391 59B AVE	12
2096248	SAN Grease Cut - Mainline	61	131A ST & 64 AVE	12
2096253	SAN Grease Cut - Mainline	124	16 AVE & 156 ST	12
2096260	SAN Grease Cut - Mainline	110	SULLIVAN ST & KIDD RD	6
2096270	SAN Grease Cut - Mainline	62	14084 64A AVE	12
2060516	SAN Grease Cut - Mainline	31	WALLACE CR & PRINCE CHARLES BLVD	24
2060519	SAN Grease Cut - Mainline	31	9232 PRINCE CHARLES BLVD	24
2060520	SAN Grease Cut - Mainline	31	92 AVE & STUART CR (131A ST)	24
2060534	SAN Grease Cut - Mainline	32	14315 91A AVE	24
2060566	SAN Grease Cut - Mainline	40	8038 123 ST	24
2060547	SAN Grease Cut - Mainline	33	151A ST & 93 AVE	24
2060556	SAN Grease Cut - Mainline	40	8084 120A ST	24
2060559	SAN Grease Cut - Mainline	40	12125 86 AVE	24
2060579	SAN Grease Cut - Mainline	42	85B AVE & 142A ST	24
2060582	SAN Grease Cut - Mainline	42	8576 143 ST	24
2060587	SAN Grease Cut - Mainline	42	8549 143 ST	24
2060588	SAN Grease Cut - Mainline	42	143 ST & 84A AVE	24
2060684	SAN Grease Cut - Mainline	43	15226 82 AVE	24
2060689	SAN Grease Cut - Mainline	43	8566 151A ST	12
2064844	SAN Grease Cut - Mainline	14	15357 104 AVE	24
2064864	SAN Grease Cut - Mainline	24	154 ST & 100 AVE	24
2056757	SAN Grease Cut - Mainline	23	10376 152 ST	24
2066795	SAN Grease Cut - Mainline	52	13711 76 AVE	24
2066805	SAN Grease Cut - Mainline	31	8827 134B ST	24
2066422	SAN Grease Cut - Mainline	72	13776 63B AVE	24
2066752	SAN Grease Cut - Mainline	5	16279 112 AVE	24
2066841	SAN Grease Cut - Mainline	42	8576 144 ST	12
2066441	SAN Grease Cut - Mainline	123	148A ST & 17 AVE	24
2066361	SAN Grease Cut - Mainline	61	68 AVE & KILBURN PL	24
2066849	SAN Grease Cut - Mainline	41	13558 80 AVE	24
2066384	SAN Grease Cut - Mainline	62	6412 138 ST	24
2066853	SAN Grease Cut - Mainline	42	8549 143 ST	24
2066858	SAN Grease Cut - Mainline	34	156A ST & 88 AVE	24
2066861	SAN Grease Cut - Mainline	51	COMBER WAY & 72 AVE	24
2066871	SAN Grease Cut - Mainline	110	12160 BEECHER ST	12
2066876	SAN Grease Cut - Mainline	43	15226 82 AVE	24
2066781	SAN Grease Cut - Mainline	114	15536 24 AVE	24
2066897	SAN Grease Cut - Mainline	62	70 AVE & 140 ST	12
2066912	SAN Grease Cut - Mainline	24	156 ST & 98 AVE	24
2066917	SAN Grease Cut - Mainline	42	143 ST & 85B AVE	24
2066918	SAN Grease Cut - Mainline	32	138 ST & 91 AVE	12
2066927	SAN Grease Cut - Mainline	24	9830 156 ST	12
2066934	SAN Grease Cut - Mainline	30	127 ST & 93 AVE	24
2074009	SAN Grease Cut - Mainline	13	10483 152 ST	24

2074019 SAN Grease Cut - Mainline	19	11802 99 AVE	24
2074059 SAN Grease Cut - Mainline	23	101 AVE & 152 ST	12
2076776 SAN Grease Cut - Mainline	30	126A ST & 92 AVE	24
2076778 SAN Grease Cut - Mainline	30	12384 91A AVE	24
2076787 SAN Grease Cut - Mainline	31	132 ST & 92 AVE	12
2076789 SAN Grease Cut - Mainline	32	13752 91A AVE	24
2076790 SAN Grease Cut - Mainline	32	138 ST & 91 AVE	12
2076820 SAN Grease Cut - Mainline	43	148 ST & 86 AVE	12
2077108 SAN Grease Cut - Mainline	50	78 AVE & 122 ST	12
2077110 SAN Grease Cut - Mainline	51	13569 76 AVE	24
2077111 SAN Grease Cut - Mainline	51	13569 76 AVE	24
2077122 SAN Grease Cut - Mainline	51	7232 130 ST	12
2077123 SAN Grease Cut - Mainline	51	7307 KING GEORGE HWY	12
2077129 SAN Grease Cut - Mainline	52	137 ST & 74 AVE	24
2096183 SAN Grease Cut - Mainline	44	15681 FRASER HWY	24
2096184 SAN Grease Cut - Mainline	114	2500 KING GEORGE HWY	24
2096188 SAN Grease Cut - Mainline	123	15121 19 AVE	12
2096190 SAN Grease Cut - Mainline	61	13423 71A AVE	12
2096196 SAN Grease Cut - Mainline	69	19298 64 AVE	12
2096228 SAN Grease Cut - Mainline	76	61B AVE & 175A ST	12
2096233 SAN Grease Cut - Mainline	61	13444 72 AVE	12
2096234 SAN Grease Cut - Mainline	61	KING GEORGE HWY & 70A AVE	12
2096235 SAN Grease Cut - Mainline	61	7030 KING GEORGE HWY	12
2096240 SAN Grease Cut - Mainline	31	92 AVE & PRINCE CHARLES BLVD (130 ST)	6
2096242 SAN Grease Cut - Mainline	25	160A ST & 96A AVE	12
2096250 SAN Grease Cut - Mainline	62	6570 138 ST	12
2096264 SAN Grease Cut - Mainline	52	80B AVE & 140 ST	3
2096276 SAN Grease Cut - Mainline	42	14320 84A AVE	6
2060492 SAN Grease Cut - Mainline	30	9386 120 ST	24
2060515 SAN Grease Cut - Mainline	31	9450 PRINCE CHARLES BLVD	24
2060518 SAN Grease Cut - Mainline	31	9368 PRINCE CHARLES BLVD	24
2060533 SAN Grease Cut - Mainline	32	9497 139 ST	24
2060697 SAN Grease Cut - Mainline	51	76 AVE & 135 ST	24
2060699 SAN Grease Cut - Mainline	51	7533 135 ST	12
2060700 SAN Grease Cut - Mainline	51	12780 76 AVE	24
2056760 SAN Grease Cut - Mainline	23	153 ST & 100 AVE	24
2056738 SAN Grease Cut - Mainline	21	MICHEL PL (131 ST) & 103 AVE	24
2066800 SAN Grease Cut - Mainline	21	134 ST & 96 AVE	12
2066810 SAN Grease Cut - Mainline	24	15388 104 AVE	12
2066811 SAN Grease Cut - Mainline	24	154 ST & 102A AVE	12
2066818 SAN Grease Cut - Mainline	62	14067 66 AVE	12
2066426 SAN Grease Cut - Mainline	110	12327 24 AVE	24
2066837 SAN Grease Cut - Mainline	24	155 ST & 100 AVE	24
2066431 SAN Grease Cut - Mainline	120	2102 INDIAN FORT DR	24
2066360 SAN Grease Cut - Mainline	61	KILBURN PLACE & 68 AVE	24
2066362 SAN Grease Cut - Mainline	61	130 ST & 64 AVE	24
2066848 SAN Grease Cut - Mainline	22	13910 96 AVE	24
2066386 SAN Grease Cut - Mainline	62	6446 138 ST	24
2066860 SAN Grease Cut - Mainline	50	7215 122A ST	24
2066875 SAN Grease Cut - Mainline	35	9505 161 ST	24
2066711 SAN Grease Cut - Mainline	44	15202 82 AVE	24
2066755 SAN Grease Cut - Mainline	124	15265 17A AVE	24
2066780 SAN Grease Cut - Mainline	30	12109 94A AVE	24
2066910 SAN Grease Cut - Mainline	110	MCBRIDE AVE & BEECHER ST	24
2066914 SAN Grease Cut - Mainline	43	15256 82 AVE	24
2066891 SAN Grease Cut - Mainline	32	8954 URSUS CR	24
2074003 SAN Grease Cut - Mainline	11	CITY PARKWAY & 105A AVE	24
2074011 SAN Grease Cut - Mainline	13	GLEN AVON DR & 111A AVE	12

2074013 SAN Grease Cut - Mainline	13	14677 108A AVE	12
2074025 SAN Grease Cut - Mainline	20	12205 96 AVE	12
2074032 SAN Grease Cut - Mainline	21	13509 96 AVE	12
2074054 SAN Grease Cut - Mainline	23	10181 152 ST	12
2074072 SAN Grease Cut - Mainline	33	94 AVE & 151A ST	12
2076780 SAN Grease Cut - Mainline	31	PRINCE CHARLES BLVD & 128 ST	24
2076799 SAN Grease Cut - Mainline	40	82 AVE & 120A ST	24
2076805 SAN Grease Cut - Mainline	40	8169 123 ST	24
2076811 SAN Grease Cut - Mainline	41	8051 134 ST	24
2076812 SAN Grease Cut - Mainline	41	13479 80 AVE	12
2077109 SAN Grease Cut - Mainline	50	76 AVE & 122 ST	12
2077113 SAN Grease Cut - Mainline	51	13543 73 AVE	24
2077124 SAN Grease Cut - Mainline	51	73 AVE & 130 ST	12
2077128 SAN Grease Cut - Mainline	52	142 ST & 77 AVE	24
2086325 SAN Grease Cut - Mainline	23	10310 152 ST	6
2086337 SAN Grease Cut - Mainline	14	10595 153 ST	24
2096200 SAN Grease Cut - Mainline	50	12320 78 AVE	6
2096211 SAN Grease Cut - Mainline	103	3601 KING GEORGE HWY	6
2096227 SAN Grease Cut - Mainline	61	13550 70A AVE	12
2096259 SAN Grease Cut - Mainline	114	15531 24 AVE	12
2096261 SAN Grease Cut - Mainline	123	19 AVE & SOUTHMERE CRES E	12
2096269 SAN Grease Cut - Mainline	62	14020 66A AVE	12
2096271 SAN Grease Cut - Mainline	71	13332 58B AVE	12
2096272 SAN Grease Cut - Mainline	114	156 ST & 24 AVE	12
2038664 SAN Grease Cut - Mainline	50	12443 76 AVE	24
2086320 SAN Grease Cut - Mainline	14	10505 153 ST	24
2060498 SAN Grease Cut - Mainline	30	12626 93A AVE	24
2060501 SAN Grease Cut - Mainline	30	9585 127 ST	24
2060514 SAN Grease Cut - Mainline	31	9470 PRINCE CHARLES BLVD	24
2060563 SAN Grease Cut - Mainline	40	8473 121A ST	24
2060564 SAN Grease Cut - Mainline	40	121A ST & 84A AVE	24
2060574 SAN Grease Cut - Mainline	42	8077 KING GEORGE HWY	24
2060548 SAN Grease Cut - Mainline	33	9014 152 ST (SAVE ON FOODS)	24
2060555 SAN Grease Cut - Mainline	40	120A ST & 84 AVE	24
2060695 SAN Grease Cut - Mainline	51	13029 72 AVE	24
2060696 SAN Grease Cut - Mainline	51	COMBER WAY & 72 AVE	24
2060706 SAN Grease Cut - Mainline	52	KING GEORGE HWY & 72 AVE	24
2060707 SAN Grease Cut - Mainline	52	13711 76 AVE	24
2060708 SAN Grease Cut - Mainline	52	13771 72A AVE	24
2064835 SAN Grease Cut - Mainline	5	163 ST & 112 AVE	24
2064839 SAN Grease Cut - Mainline	14	105 AVE & 154 ST	24
2064841 SAN Grease Cut - Mainline	14	10574 156 ST	24
2056712 SAN Grease Cut - Mainline	11	13560 105A AVE	24
2056723 SAN Grease Cut - Mainline	13	10585 152 ST	24
2066786 SAN Grease Cut - Mainline	32	13761 91A AVE	12
2066787 SAN Grease Cut - Mainline	52	13771 72A AVE	24
2066791 SAN Grease Cut - Mainline	33	9014 152 ST (SAVE ON FOODS)	24
2066823 SAN Grease Cut - Mainline	114	156 ST & 24 AVE	24
2066825 SAN Grease Cut - Mainline	120	12777 18 AVE	24
2066827 SAN Grease Cut - Mainline	42	8576 143 ST	24
2066744 SAN Grease Cut - Mainline	43	8566 151A ST	12
2066750 SAN Grease Cut - Mainline	30	122 ST & 95 AVE	24
2066847 SAN Grease Cut - Mainline	114	2563 152 ST	24
2066856 SAN Grease Cut - Mainline	31	134B ST & 88A AVE	12
2066862 SAN Grease Cut - Mainline	31	9112 PRINCE CHARLES BLVD	12
2066872 SAN Grease Cut - Mainline	33	89A AVE & 144 ST	24
2066773 SAN Grease Cut - Mainline	24	154 ST & 96 AVE	24
2066774 SAN Grease Cut - Mainline	62	6412 138 ST	24

2066775 SAN Grease Cut - Mainline	62	138 ST & 65 AVE	12
2066898 SAN Grease Cut - Mainline	120	18 AVE & 128 ST	12
2066900 SAN Grease Cut - Mainline	34	15577 94 AVE	24
2066919 SAN Grease Cut - Mainline	32	13746 92 AVE	12
2066920 SAN Grease Cut - Mainline	42	8666 143 ST	24
2066930 SAN Grease Cut - Mainline	60	126A ST & 70 AVE	12
2066888 SAN Grease Cut - Mainline	13	10585 152 ST	24
2062415 SAN Grease Cut - Mainline	35	8955 161A ST	24
2062416 SAN Grease Cut - Mainline	35	8960 161A ST	24
2062420 SAN Grease Cut - Mainline	44	15368 82 AVE	24
2072078 SAN Grease Cut - Mainline	135	1079 KING GEORGE HWY	24
2074007 SAN Grease Cut - Mainline	12	10871 144 ST	12
2074021 SAN Grease Cut - Mainline	19	11732 97A AVE	12
2074028 SAN Grease Cut - Mainline	21	13333 OLD YALE ROAD	12
2074029 SAN Grease Cut - Mainline	21	10302 CITY PARKWAY	12
2074038 SAN Grease Cut - Mainline	21	134 ST & 98 AVE	12
2074040 SAN Grease Cut - Mainline	21	96 AVE & 132 ST	12
2074042 SAN Grease Cut - Mainline	21	128 ST & 96B AVE	12
2074046 SAN Grease Cut - Mainline	22	10119 EAST WHALLEY RING RD	12
2074055 SAN Grease Cut - Mainline	23	10201 149 ST	12
2074073 SAN Grease Cut - Mainline	62	14311 68 AVE	12
2076803 SAN Grease Cut - Mainline	40	8238 120A ST	24
2076806 SAN Grease Cut - Mainline	40	8186 123 ST	24
2076807 SAN Grease Cut - Mainline	40	8035 123 ST	12
2077105 SAN Grease Cut - Mainline	50	122 ST & 76A AVE	24
2077106 SAN Grease Cut - Mainline	50	122 ST & 76A AVE	24
2077127 SAN Grease Cut - Mainline	52	14137 78 AVE	24
2086330 SAN Grease Cut - Mainline	24	9833 160 ST	12
2086334 SAN Grease Cut - Mainline	23	10194 152 ST	6
2096185 SAN Grease Cut - Mainline	61	130 ST & 65 AVE	24
2096195 SAN Grease Cut - Mainline	34	15428 FRASER HWY	6
2096198 SAN Grease Cut - Mainline	76	17118 60 AVE	6
2096214 SAN Grease Cut - Mainline	32	9376 KING GEORGE HWY	6
2096237 SAN Grease Cut - Mainline	12	16 AVE & 156 ST	12
2096238 SAN Grease Cut - Mainline	124	2205 KING GEORGE BLVD	12
2096239 SAN Grease Cut - Mainline	24	103 AVE & 152 ST	6
2096243 SAN Grease Cut - Mainline	124	2074 KING GEORGE HWY	24
2096244 SAN Grease Cut - Mainline	61	70B AVE & 130 ST	24
2096262 SAN Grease Cut - Mainline	124	1642 160 ST	12
2096273 SAN Grease Cut - Mainline	60	6980 126 ST	12
2096275 SAN Grease Cut - Mainline	135	1661 KING GEORGE BLVD	12
2060495 SAN Grease Cut - Mainline	30	9277 121 ST	24
2060537 SAN Grease Cut - Mainline	32	138 ST & 91 AVE	12
2060565 SAN Grease Cut - Mainline	40	8478 121A ST	24
2060557 SAN Grease Cut - Mainline	40	8110 120A ST	24
2060581 SAN Grease Cut - Mainline	42	143 ST & 85B AVE	24
2060589 SAN Grease Cut - Mainline	42	14289 84A AVE	24
2060590 SAN Grease Cut - Mainline	42	14352 86A AVE	24
2060685 SAN Grease Cut - Mainline	43	15256 82 AVE	24
2064867 SAN Grease Cut - Mainline	24	15734 100 AVE	24
2056759 SAN Grease Cut - Mainline	23	9947 151 ST	24
2056729 SAN Grease Cut - Mainline	19	97B AVE & 116 ST	24
2056735 SAN Grease Cut - Mainline	20	127 ST & 100 AVE	24
2066788 SAN Grease Cut - Mainline	30	12114 94 AVE	24
2066826 SAN Grease Cut - Mainline	40	12125 86 AVE	24
2066749 SAN Grease Cut - Mainline	24	15355 102A AVE	12
2066830 SAN Grease Cut - Mainline	30	9386 120 ST	24
2066831 SAN Grease Cut - Mainline	32	1431S 91A AVE	24

2066359 SAN Grease Cut - Mainline	61	12892 68 AVE	24
2066846 SAN Grease Cut - Mainline	44	8406 152 ST	24
2066365 SAN Grease Cut - Mainline	61	130 ST & 65A AVE	24
2066855 SAN Grease Cut - Mainline	41	13516 80 AVE	24
2066713 SAN Grease Cut - Mainline	30	9194 120 ST	24
2066771 SAN Grease Cut - Mainline	123	14812 17 AVE	12
2066778 SAN Grease Cut - Mainline	35	16086 95A AVE	24
2066899 SAN Grease Cut - Mainline	40	120A ST & 86 AVE	24
2066904 SAN Grease Cut - Mainline	52	13725 72A AVE	12
2066909 SAN Grease Cut - Mainline	30	9164 120 ST	24
2066915 SAN Grease Cut - Mainline	52	138 ST & 72A AVE	24
2066932 SAN Grease Cut - Mainline	60	126A ST & 69 AVE	12
2066933 SAN Grease Cut - Mainline	42	14307 86A AVE	24
2066896 SAN Grease Cut - Mainline	33	8905 151 ST	24
2062413 SAN Grease Cut - Mainline	35	9505 161 ST	24
2074006 SAN Grease Cut - Mainline	12	14097 108 AVE	12
2074008 SAN Grease Cut - Mainline	12	104A AVE & 144 ST	12
2074023 SAN Grease Cut - Mainline	19	11797 98A AVE	12
2074056 SAN Grease Cut - Mainline	23	10237 152 ST	12
2076781 SAN Grease Cut - Mainline	31	9511 132 ST	12
2076782 SAN Grease Cut - Mainline	31	12951 92A AVE	12
2077107 SAN Grease Cut - Mainline	50	123 ST & 78 AVE	12
2077118 SAN Grease Cut - Mainline	S1	13278 79A AVE	24
2077126 SAN Grease Cut - Mainline	51	13017 72 AVE	12
2077139 SAN Grease Cut - Mainline	32	9488 138 ST	12
2086333 SAN Grease Cut - Mainline	22	EAST WHALLY RING ROAD & 102 AVE	6
2086336 SAN Grease Cut - Mainline	23	98 AVE & 151 ST	6
2096189 SAN Grease Cut - Mainline	61	6765 132 ST	12
2096202 SAN Grease Cut - Mainline	41	133A ST & 82B AVE	3
2096207 SAN Grease Cut - Mainline	61	13425 71A AVE	12
2096217 SAN Grease Cut - Mainline	110	2861 GORDON AVE	12
2096218 SAN Grease Cut - Mainline	120	128 ST & 16 AVE	12
2096219 SAN Grease Cut - Mainline	61	13468 72 AVE	12
2096220 SAN Grease Cut - Mainline	79	19556 62A ST	12
2096229 SAN Grease Cut - Mainline	124	2336 156 ST	12
2096251 SAN Grease Cut - Mainline	76	HWY 10 & 172 ST	12
2096252 SAN Grease Cut - Mainline	67	18118 CLAYTONWOOD CR	12
2096263 SAN Grease Cut - Mainline	33	14933 88 AVE	6
2096277 SAN Grease Cut - Mainline	44	8759 157 ST	3
2086321 SAN Grease Cut - Mainline	14	153 ST & 105 AVE	24
2086322 SAN Grease Cut - Mainline	4	15290 112 AVE	24
2060489 SAN Grease Cut - Mainline	30	9164 120 ST	24
2060491 SAN Grease Cut - Mainline	30	9230 120 ST	24
2060499 SAN Grease Cut - Mainline	30	92 AVE & 126A ST	24
2060522 SAN Grease Cut - Mainline	31	9564 134 ST	24
2060546 SAN Grease Cut - Mainline	33	151A ST & 93 AVE	24
2060552 SAN Grease Cut - Mainline	40	8142 120A ST	24
2060553 SAN Grease Cut - Mainline	40	8164 120A ST	24
2060591 SAN Grease Cut - Mainline	42	142 ST & 86 AVE	24
2060692 SAN Grease Cut - Mainline	50	7215 122A ST	24
2021493 SAN Grease Cut - Mainline	24	157 ST & 100 AVE	24
2064832 SAN Grease Cut - Mainline	5	11229 163 ST	24
2064833 SAN Grease Cut - Mainline	5	11265 163 ST	24
2064834 SAN Grease Cut - Mainline	5	162 ST 112 AVE	24
2064837 SAN Grease Cut - Mainline	14	104 AVE & 154A ST	24
2064838 SAN Grease Cut - Mainline	14	10439 154 ST	24
2064831 SAN Grease Cut - Mainline	4	15290 112 AVE, SURREY	24
2056758 SAN Grease Cut - Mainline	23	102A AVE & 149A ST	24

2066784	SAN Grease Cut - Mainline	120	1852 128 ST	12
2066792	SAN Grease Cut - Mainline	34	156A ST & 88 AVE	12
2066804	SAN Grease Cut - Mainline	24	157 ST & 100 AVE	24
2066808	SAN Grease Cut - Mainline	60	6950 126A ST	12
2066820	SAN Grease Cut - Mainline	52	138 ST & 72 AVE	12
2066423	SAN Grease Cut - Mainline	72	6378 138 ST	24
2066748	SAN Grease Cut - Mainline	33	15144 92 AVE	24
2066439	SAN Grease Cut - Mainline	123	15255 18 AVE	24
2066850	SAN Grease Cut - Mainline	30	92 AVE & 126A ST	24
2066851	SAN Grease Cut - Mainline	30	9320 120 ST	24
2066869	SAN Grease Cut - Mainline	31	9112 PRINCE CHARLES BLVD	12
2066712	SAN Grease Cut - Mainline	24	154 ST & 103A AVE	24
2066754	SAN Grease Cut - Mainline	33	15144 92A AVE	24
2066913	SAN Grease Cut - Mainline	30	92 AVE & 126A ST	12
2066882	SAN Grease Cut - Mainline	30	9254 120 ST	24
2066885	SAN Grease Cut - Mainline	110	2760 O'HARA LANE	24
2062396	SAN Grease Cut - Mainline	34	156A ST & 88 AVE	24
2062414	SAN Grease Cut - Mainline	35	95A AVE & 161 ST	24
2062418	SAN Grease Cut - Mainline	44	15202 82 AVE	24
2062422	SAN Grease Cut - Mainline	44	15457 84 AVE	24
2074004	SAN Grease Cut - Mainline	11	135A ST & 105A AVE	24
2074018	SAN Grease Cut - Mainline	13	150 ST & 105 AVE	12
2074051	SAN Grease Cut - Mainline	23	10138 EAST WHALLEY RING RD	12
2074058	SAN Grease Cut - Mainline	23	10237 152 ST	12
2076804	SAN Grease Cut - Mainline	40	8139 123 ST	24
2077116	SAN Grease Cut - Mainline	51	135 ST & 76 AVE	12
2077117	SAN Grease Cut - Mainline	51	13278 79A AVE	24
2086332	SAN Grease Cut - Mainline	23	10263 149 ST	6
2086339	SAN Grease Cut - Mainline	23	15250 102A AVE	6
2096192	SAN Grease Cut - Mainline	34	8878 154 ST	6
2096193	SAN Grease Cut - Mainline		16106 80A AVE	12
2096203	SAN Grease Cut - Mainline	61	65 AVE & 130 ST	24
2096204	SAN Grease Cut - Mainline	86	17577 56 AVE (HWY 10)	12
2096210	SAN Grease Cut - Mainline	61	7005 KING GEORGE HWY	12
2096215	SAN Grease Cut - Mainline	78	184A ST & 63A AVE	24
2096221	SAN Grease Cut - Mainline	124	2143 KING GEORGE BLVD	12
2096230	SAN Grease Cut - Mainline	114	2524 154 ST	24
2096231	SAN Grease Cut - Mainline	30	120 ST & 96 AVE	24
2096232	SAN Grease Cut - Mainline	121	15325 19A AVE	12
2096236	SAN Grease Cut - Mainline	124	15233 17A AVE	12
2096249	SAN Grease Cut - Mainline	61	HALL RD KING GEORGE HWY	12
2096257	SAN Grease Cut - Mainline	34	15698 88 AVE	6
2096265	SAN Grease Cut - Mainline	76	57 AVE & 171 ST	24
2096266	SAN Grease Cut - Mainline	121	130 ST & 23 AVE	24
2096274	SAN Grease Cut - Mainline	61	13087 64 AVE	12

ID	Description	Map Page	Address	CycleIntervalNum
2065713	SAN Root Control & Removal - Mainline	31	9046 BEN NEVIS	12
2074088	SAN Root Control & Removal - Mainline	20	10347 126 ST	12
2028599	SAN Root Control & Removal - Mainline	61	6483 KING GEORGE BLVD	12

ID	Description	Map Page	Address	CycleIntervalNum
2074186	SAN Flush - Mainline	22	10051 144 ST	12
2074194	SAN Flush - Mainline	21	10168 132 ST	12
2088869	SAN Flush - Mainline		10249 160 ST	24
2074197	SAN Flush - Mainline		104 AVE & 150 ST	12
2096289	SAN Flush - Mainline	21	10416 KING GEORGE BLVD	6
2064920	SAN Flush - Mainline	14	10510 154A ST	24
2064919	SAN Flush - Mainline	14	10510 154A ST	24
2074159	SAN Flush - Mainline	13	10535 150 ST	12
2088868	SAN Flush - Mainline	13	10585 152 ST	6
2088864	SAN Flush - Mainline	13	10585 152 ST	6
2066761	SAN Flush - Mainline	14	10595 154A ST	24
2074192	SAN Flush - Mainline	11	105A AVE & 135A ST	12
2088863	SAN Flush - Mainline	13	10698 152 ST	6
2073634	SAN Flush - Mainline	12	10777 141 ST	24
2074158	SAN Flush - Mainline	13	107A AVE & 148 ST	12
2056798	SAN Flush - Mainline	12	108 AVE & 143 ST	24
2088858	SAN Flush - Mainline	1	11545 132A ST	6
2088859	SAN Flush - Mainline	1	11585 132A ST	6
2074161	SAN Flush - Mainline	19	116 ST & 98 AVE	12
2096325	SAN Flush - Mainline	135	1160 KING GEORGE BLVD	6
2066835	SAN Flush - Mainline	19	11797 98A AVE	12
2056811	SAN Flush - Mainline	19	11972 98 AVE	24
2096282	SAN Flush - Mainline	135	12 AVE & 163A ST	12
2096326	SAN Flush - Mainline	135	12 AVE & 164 ST	12
2074163	SAN Flush - Mainline	20	12039 98 AVE	12
2077161	SAN Flush - Mainline	50	122 ST & 72 AVE	12
2077215	SAN Flush - Mainline	80	12216 NEW MCLELLAN RD	24
2056815	SAN Flush - Mainline	20	12255 99 AVE	24
2066273	SAN Flush - Mainline	60	123 ST & 64A AVE	24
2077208	SAN Flush - Mainline	60	12310 64 AVE	12
2077210	SAN Flush - Mainline	60	12353 66 AVE	12
2096338	SAN Flush - Mainline	60	12397 70A AVE	12
2096311	SAN Flush - Mainline	60	124 ST & 70 AVE	12
2056814	SAN Flush - Mainline	20	12411 PARK DR (101B AVE)	24
2066842	SAN Flush - Mainline	20	12411 PARK DR (101B AVE)	24
2074167	SAN Flush - Mainline	20	12454 96A AVE	12
2074168	SAN Flush - Mainline	20	12464 96A AVE	12
2077140	SAN Flush - Mainline	30	12477 88 AVE	12
2066303	SAN Flush - Mainline	110	124B ST & 26 AVE	24
2056816	SAN Flush - Mainline	20	12515 96 AVE	24
2066304	SAN Flush - Mainline	110	12525 26 AVE	24
2066305	SAN Flush - Mainline	110	12546 26A AVE	24
2056817	SAN Flush - Mainline	20	12555 96 AVE	24
2066306	SAN Flush - Mainline	110	126 ST & 28 AVE	24
2096328	SAN Flush - Mainline	60	126 ST & 68 AVE	24
2066276	SAN Flush - Mainline	60	126 ST & 68A AVE	24
2060413	SAN Flush - Mainline	30	126 ST & 93 AVE	24
2066307	SAN Flush - Mainline	110	12624 28 AVE	24
2096304	SAN Flush - Mainline	60	12651 70 AVE	12
2066296	SAN Flush - Mainline	80	12669 STATION PL	24
2066308	SAN Flush - Mainline	110	12672 26A AVE	24

2066297 SAN Flush - Mainline	80	12676 STATION RD	24
2066309 SAN Flush - Mainline	110	12724 25A ST	24
2060453 SAN Flush - Mainline	40	128 ST & 87 AVE	24
2066870 SAN Flush - Mainline	21	128 ST & 99 AVE	12
2077156 SAN Flush - Mainline	50	128 ST & ANVIL WAY	24
2077158 SAN Flush - Mainline	50	12827 76 AVE	12
2077202 SAN Flush - Mainline	51	12877 76TH AVE	24
2074179 SAN Flush - Mainline	21	12897 96A AVE	12
2077160 SAN Flush - Mainline	50	12899 76 AVE	12
2096307 SAN Flush - Mainline	121	129 ST & 22B AVE	12
2074180 SAN Flush - Mainline	21	12919 96 AVE	12
2073631 SAN Flush - Mainline	11	12935 104 AVE	24
2060460 SAN Flush - Mainline	51	12975 76 AVE	24
2096332 SAN Flush - Mainline	121	129A ST & 18 AVE	12
2096302 SAN Flush - Mainline	71	130 ST & 64 AVE	12
2074181 SAN Flush - Mainline	21	13063 97 AVE	12
2066332 SAN Flush - Mainline	121	1307 13 AVE	24
2066333 SAN Flush - Mainline	121	130A ST & 18 AVE	24
2096283 SAN Flush - Mainline	61	131 ST & ENGLISH PL	24
2096334 SAN Flush - Mainline	131	1312 132A ST	12
2077162 SAN Flush - Mainline	51	13121 74 AVE	24
2096296 SAN Flush - Mainline	51	13130 76 AVE	6
2060461 SAN Flush - Mainline	51	13149 72 AVE	24
2060416 SAN Flush - Mainline	31	13167 EDINBURGH PL	24
2060462 SAN Flush - Mainline	51	13183 72 AVE	24
2096306 SAN Flush - Mainline	131	13198 13 AVE	12
2096330 SAN Flush - Mainline	131	13198 13 AVE	12
2096341 SAN Flush - Mainline	61	132 ST & 67B AVE	6
2077201 SAN Flush - Mainline	51	132 ST & 76 AVE	24
2066760 SAN Flush - Mainline	11	13272 105 AVE	12
2074195 SAN Flush - Mainline		13272 105 AVE	12
2088867 SAN Flush - Mainline	1	132A ST & 115 AVE	6
2074172 SAN Flush - Mainline	21	13326 96 AVE	12
2066865 SAN Flush - Mainline	1	13399 CRESTVIEW DR	24
2096329 SAN Flush - Mainline	71	133A ST & 58B AVE (NO ROAD)	12
2077211 SAN Flush - Mainline	61	13414 72 AVE	12
2077164 SAN Flush - Mainline	51	13430 80 AVE	24
2096301 SAN Flush - Mainline	81	13432 55A ST (EASEMENT)	12
2074170 SAN Flush - Mainline	21	13475 96 AVE	12
2077169 SAN Flush - Mainline	51	13479 77 AVE	24
2096331 SAN Flush - Mainline	82	13490 COULTHARD RD	12
2096318 SAN Flush - Mainline	82	13506 55A AVE (EASEMENT)	12
2074169 SAN Flush - Mainline	21	13507 96 AVE	12
2074171 SAN Flush - Mainline	21	13509 96 AVE	12
2077194 SAN Flush - Mainline	51	135A ST & 77 AVE	24
2096343 SAN Flush - Mainline		135A ST & 77 AVE	3
2077219 SAN Flush - Mainline	101	136 ST & CRESCENT RD	12
2096344 SAN Flush - Mainline	62	13870 70 AVE	12
2096339 SAN Flush - Mainline	62	13905 70 AVE	12
2074185 SAN Flush - Mainline	22	13909 102 AVE	12
2056838 SAN Flush - Mainline	22	13910 LAUREL DR.	24

2056840 SAN Flush - Mainline	22	13932 96 AVE	24
2060469 SAN Flush - Mainline	52	139A ST & 78A AVE	24
2066317 SAN Flush - Mainline	112	140 ST & 26 AVE	24
2066318 SAN Flush - Mainline	112	140 ST & 28 AVE	24
2056791 SAN Flush - Mainline	2	14012 114A AVE	24
2066833 SAN Flush - Mainline	2	14012 114A AVE	24
2066319 SAN Flush - Mainline	112	14048 30 AVE	24
2077205 SAN Flush - Mainline	52	14052 78 AVE	24
2077206 SAN Flush - Mainline	52	14052 78 AVE	24
2077218 SAN Flush - Mainline	82	14112 TRITES RD	12
2060418 SAN Flush - Mainline	32	14197 89A AVE	24
2066751 SAN Flush - Mainline	32	141A ST & 90 AVE	12
2074196 SAN Flush - Mainline		142 ST & 68 AVE	12
2096292 SAN Flush - Mainline	52	14313 HAWKSTREAM DR	6
2077213 SAN Flush - Mainline	62	14329 66A AVE	12
2096303 SAN Flush - Mainline	103	144 ST & 34 AVE	12
2096347 SAN Flush - Mainline	62	144 ST & 65 AVE	6
2059384 SAN Flush - Mainline	53	144 ST & 79 AVE	12
2066868 SAN Flush - Mainline	32	144 ST & 88 AVE	24
2077145 SAN Flush - Mainline	33	14422 88 AVE	24
2066889 SAN Flush - Mainline	13	14456 104A AVE	24
2069528 SAN Flush - Mainline		14476 104 AVE	12
2060473 SAN Flush - Mainline	53	145 ST & 75 AVE	24
2076348 SAN Flush - Mainline	53	146 ST & 80A AVE	6
2096294 SAN Flush - Mainline	33	146A ST & 89 AVE	6
2073635 SAN Flush - Mainline	13	14739 109 AVE	24
2074189 SAN Flush - Mainline	23	149 ST & 102A AVE	12
2060455 SAN Flush - Mainline	43	14915 86 AVE	24
2066908 SAN Flush - Mainline	33	150 ST & FRASER HWY	12
2066834 SAN Flush - Mainline	13	15122 PHEASANT DR	12
2077141 SAN Flush - Mainline	33	15167 FRASER HWY	24
2074190 SAN Flush - Mainline	23	151ST & 97B AVE	12
2034539 SAN Flush - Mainline	54	152 ST & 74 AVE	12
2096288 SAN Flush - Mainline	124	15275 19A AVE	12
2088866 SAN Flush - Mainline		153 ST & 101 AVE	12
2088861 SAN Flush - Mainline	14	153 ST & 105 AVE	6
2088862 SAN Flush - Mainline	14	15350 150 AVE	24
2088865 SAN Flush - Mainline	24	15439 100 AVE	24
2088860 SAN Flush - Mainline	24	155A ST & 103A AVE	12
2091994 SAN Flush - Mainline	44	15715 FRASER HWY	12
2081827 SAN Flush - Mainline		1577 & 1563 126A ST	6
2066763 SAN Flush - Mainline	14	158 ST & 111A AVE	24
2066892 SAN Flush - Mainline	14	15838 111A AVE	24
2066838 SAN Flush - Mainline	14	15846 111A AVE	24
2088870 SAN Flush - Mainline	24	160 ST & 100 AVE	6
2096320 SAN Flush - Mainline	124	160 ST & 20 AVE	12
2061912 SAN Flush - Mainline	35	161 ST & 95A AVE	24
2075738 SAN Flush - Mainline		16177 FRASER HWY	24
2096348 SAN Flush - Mainline	135	16193 9 AVE	24
2096312 SAN Flush - Mainline	135	16259 11A AVE	12
2096313 SAN Flush - Mainline	124	16288 16 AVE	12

2096290 SAN Flush - Mainline	135	163B ST & 11 AVE	12
2096336 SAN Flush - Mainline	135	164 ST & 11 AVE	24
2096297 SAN Flush - Mainline	135	165 ST & 10 AVE	12
2091995 SAN Flush - Mainline	76	170B ST & 60 AVE	12
2096284 SAN Flush - Mainline	76	172 ST & 61A AVE	12
2096293 SAN Flush - Mainline	76	17342 62A AVE	12
2096319 SAN Flush - Mainline	76	17351 56 AVE	12
2071984 SAN Flush - Mainline	76	17388 62A AVE	24
2071985 SAN Flush - Mainline	76	17446 62A AVE	24
2096321 SAN Flush - Mainline	76	175 ST & 58A AVE	12
2096323 SAN Flush - Mainline	76	17573 56A AVE	12
2071986 SAN Flush - Mainline	76	175A ST & 62A AVE	24
2096337 SAN Flush - Mainline	77	18340 58B ST	24
2072031 SAN Flush - Mainline	78	184 ST & 58A AVE	24
2096299 SAN Flush - Mainline	78	184 ST & 58A AVE	24
2071982 SAN Flush - Mainline	68	184 ST & 64 AVE	24
2096346 SAN Flush - Mainline	78	18428 58A AVE	24
2096279 SAN Flush - Mainline	78	184A AVE & 58 AVE	12
2096309 SAN Flush - Mainline	88	185 ST & 54 AVE	6
2066924 SAN Flush - Mainline	28	18758 96 AVE	12
2096342 SAN Flush - Mainline		19275 54 AVE	12
2096278 SAN Flush - Mainline	125	20 AVE & 160 ST	12
2066334 SAN Flush - Mainline	122	22A AVE & 140 ST	24
2066335 SAN Flush - Mainline	122	2306 140 ST	24
2066336 SAN Flush - Mainline	122	23A AVE & 140 ST	24
2066337 SAN Flush - Mainline	122	24 AVE & 140 ST	24
2096310 SAN Flush - Mainline	120	24 AVE & HARBOURGREENE DR	24
2066320 SAN Flush - Mainline	112	2468 140 ST	24
2066321 SAN Flush - Mainline	112	2556 140 ST	24
2066310 SAN Flush - Mainline	110	25A AVE & 127 ST	24
2066311 SAN Flush - Mainline	110	26 AVE & 125A ST	24
2066312 SAN Flush - Mainline	110	26 AVE & 127 ST	24
2066322 SAN Flush - Mainline	112	2664 140 ST	24
2066313 SAN Flush - Mainline	110	26A AVE & 127 ST	24
2066323 SAN Flush - Mainline	112	2721 140 ST	24
2066324 SAN Flush - Mainline	112	2842 140 ST	24
2066325 SAN Flush - Mainline	112	2892 140 ST	24
2066326 SAN Flush - Mainline	112	2979 140 ST	24
2066327 SAN Flush - Mainline	112	30 AVE & 140 ST	24
2096281 SAN Flush - Mainline	112	30 AVE & 141 ST	24
2066328 SAN Flush - Mainline	112	30 AVE & 141 ST	24
2096317 SAN Flush - Mainline	82	5353 COULTHARD PL	12
2071999 SAN Flush - Mainline	77	5840 184 ST	24
2071998 SAN Flush - Mainline	77	5840 184 ST	24
2071995 SAN Flush - Mainline	77	5852 184 ST	24
2071997 SAN Flush - Mainline	77	58A AVE & 184 ST	24
2096308 SAN Flush - Mainline	77	58A AVE & 184 ST	24
2096333 SAN Flush - Mainline	70	6104 120 ST	12
2096295 SAN Flush - Mainline	76	6144 170 ST	12
2096335 SAN Flush - Mainline	76	6158 170 ST	12
2071983 SAN Flush - Mainline	76	62A AVE & SORREL PL	24

2096324	SAN Flush - Mainline	77	6343 184TH ST	12
2071206	SAN Flush - Mainline	68	64 AVE & 188A ST	24
2096298	SAN Flush - Mainline	61	64 AVE & KING GEORGE HWY	12
2096286	SAN Flush - Mainline	61	6445 KING GEORGE HWY	12
2096300	SAN Flush - Mainline	61	6475 KING GEORGE HWY	12
2096285	SAN Flush - Mainline	61	6775 132 ST	12
2064360	SAN Flush - Mainline	67	68 AVE & 176 ST	24
2096350	SAN Flush - Mainline		70 AVE & 151 ST	6
2096287	SAN Flush - Mainline	60	70A AVE & 124 ST	12
2096345	SAN Flush - Mainline	60	7127 124 ST	12
2096349	SAN Flush - Mainline	60	71A AVE & 124 ST	12
2096327	SAN Flush - Mainline	60	72 AVE & 124 ST	12
2096291	SAN Flush - Mainline	52	74 AVE & 137 ST	6
2060463	SAN Flush - Mainline	51	7475 135 ST	24
2060465	SAN Flush - Mainline	51	7475 135 ST	24
2060470	SAN Flush - Mainline	52	7475 138 ST	24
2077730	SAN Flush - Mainline	51	7533 130 ST	12
2060464	SAN Flush - Mainline	51	7533 135 ST	24
2077166	SAN Flush - Mainline	51	7577 KING GEORGE HWY	24
2096316	SAN Flush - Mainline	51	76 AVE & HURDLE CRES	6
2077196	SAN Flush - Mainline	51	76 AVE & KING GEORGE HWY	24
2077165	SAN Flush - Mainline	51	7635 KING GEORGE HWY	24
2077195	SAN Flush - Mainline	51	77 AVE & KING GEORGE HWY	24
2077167	SAN Flush - Mainline	51	77 AVE & KING GEORGE HWY	24
2077157	SAN Flush - Mainline	50	7750 128 ST	24
2077168	SAN Flush - Mainline	51	78 AVE & KING GEORGE HWY	24
2077197	SAN Flush - Mainline	51	78A AVE & 132A ST	24
2077163	SAN Flush - Mainline	51	7953 134A ST	24
2077200	SAN Flush - Mainline	51	7965 133A ST	24
2077199	SAN Flush - Mainline	51	7965 80TH AVE	24
2077223	SAN Flush - Mainline	42	8054 140 ST	12
2060454	SAN Flush - Mainline	43	84 AVE & 151 ST	24
2060456	SAN Flush - Mainline	43	8592 146 ST	24
2066822	SAN Flush - Mainline	43	8592 146 ST	24
2060420	SAN Flush - Mainline	33	8951 152 ST	24
2066878	SAN Flush - Mainline	30	9148 122B ST	12
2066768	SAN Flush - Mainline	31	93 AVE & CINNAMON DR (129 ST)	12
2066807	SAN Flush - Mainline	31	93 AVE & CINNAMON DR (129 ST)	12
2077222	SAN Flush - Mainline	31	9349 KING GEORGE BLVD	12
2066796	SAN Flush - Mainline	31	9368 WALLACE CR (129 ST)	24
2074162	SAN Flush - Mainline	20	9577 127 ST	12
2064922	SAN Flush - Mainline	24	96 AVE & 152B ST	24
2074176	SAN Flush - Mainline	21	9672 134 ST	12
2056839	SAN Flush - Mainline	22	9698 139 ST	24
2074165	SAN Flush - Mainline	20	9759 120A ST	12
2056841	SAN Flush - Mainline	22	9763 140 ST	24
2056810	SAN Flush - Mainline	19	9772 116 ST	24
2066886	SAN Flush - Mainline	19	9772 116 ST	24
2074164	SAN Flush - Mainline	20	98 AVE & 120A ST	12
2056844	SAN Flush - Mainline	23	98 AVE & 149A ST	24
2056845	SAN Flush - Mainline	23	98 AVE & 151 ST	24

2056818 SAN Flush - Mainline	20	9821 128 ST	24
2074182 SAN Flush - Mainline	21	9844 128 ST	12
2056819 SAN Flush - Mainline	20	9847 128 ST	24
2074178 SAN Flush - Mainline	21	9884 128 ST	12
2074166 SAN Flush - Mainline	20	9935 120A ST	12
2077203 SAN Flush - Mainline	51	ANVIL WAY & 76 AVE	24
2081676 SAN Flush - Mainline		BEAR CREEK TRUNK LINE	36
2092996 SAN Flush - Mainline	0	BRIDGEVIEW GRAVITY SYSTEM	12
2074630 SAN Flush - Mainline		CATCHMENT FLUSHING CE	6
2096140 SAN Flush - Mainline	2	CATCHMENT N05/06/09	6
2090984 SAN Flush - Mainline	27	CATCHMENT N11	6
2094252 SAN Flush - Mainline	72	CATCHMENT N24/25/47/49/50	6
2073630 SAN Flush - Mainline	11	CITY PARKWAY & 105 AVE	24
2066863 SAN Flush - Mainline	11	CITY PARKWAY & 105A AVE	24
2077143 SAN Flush - Mainline	33	FRASER HWY & 92 AVE	12
2066329 SAN Flush - Mainline	120	HARBOURGREENE DR & COVE PL	24
2096322 SAN Flush - Mainline	76	HIGHWAY 10 (56 AVE) & OLD MCLELLAN RD	6
2096340 SAN Flush - Mainline	77	HIGHWAY 15 & 62 AVE (CLOVERDALE FAIRGROUNDS)	12
2096280 SAN Flush - Mainline	124	HWY 99 & 16 AVE	12
2056800 SAN Flush - Mainline	13	LINCOLN DR. & 152 ST	24
2096314 SAN Flush - Mainline	110	MCBRIDE AVE & GILLEY ST	6
2096305 SAN Flush - Mainline	110	MCBRIDE AVE & SULLIVAN ST	12
2071994 SAN Flush - Mainline	77	MORGAN DR & 60 AVE	24
2096315 SAN Flush - Mainline	77	MORGAN DR & 60 AVE	24
2075349 SAN Flush - Mainline		NE CATCHMENT	6
2039219 SAN Flush - Mainline		OLSEN RD & OLD YALE RD	3
2056792 SAN Flush - Mainline	3	ST ANDREWS DR. & WELLINGTON DR (115A AVE)	24
2077216 SAN Flush - Mainline	80	STATION RD & 125A ST	12
2066782 SAN Flush - Mainline	3	SURREY RD & ST ANDREWS DR (147 ST & 114 AVE)	12
2071685 SAN Flush - Mainline	103	WINTER CRESCENT & KGH BLVD	12

ID	Description	atus	Map Page	Address	CycleIntervalNum
2028211	SAN Root Control & Removal - Lateral	OPEN		5813 175 ST	12
2058911	SAN Root Control & Removal - Lateral	OPEN	33	14952 90A AVE	24
2059305	SAN Root Control & Removal - Lateral	OPEN		14208 MELROSE DR	12
2019826	SAN Root Control & Removal - Lateral	OPEN		9474 133A ST	12
2064894	SAN Root Control & Removal - Lateral	OPEN	61	13063 68 AVE	24
2056308	SAN Root Control & Removal - Lateral	OPEN	19	11785 96 AVE	24
2056310	SAN Root Control & Removal - Lateral	OPEN	19	11762 97 AVE	24
2067264	SAN Root Control & Removal - Lateral	OPEN	12	10564 137A ST	24
2077188	SAN Root Control & Removal - Lateral	OPEN	124	15770 BROOME RD	12
2077298	SAN Root Control & Removal - Lateral	OPEN	44	15332 86 AVE	12
2095417	SAN Root Control & Removal - Lateral	OPEN	77	6195 181A ST	24
2095774	SAN Root Control & Removal - Lateral	OPEN	31	9295 PRINCE CHARLES BLVD	6
2056303	SAN Root Control & Removal - Lateral	OPEN	2	13778 114A AVE	24
2056311	SAN Root Control & Removal - Lateral	OPEN	19	9759 CROWN CRES	24
2067258	SAN Root Control & Removal - Lateral	OPEN	1	13405 CRESTVIEW DR	24
2067265	SAN Root Control & Removal - Lateral	OPEN	12	14095 110 AVE	12
2072127	SAN Root Control & Removal - Lateral	OPEN	30	12442 92 AVE	12
2074834	SAN Root Control & Removal - Lateral	OPEN	52	13965 79A AVE	12
2077294	SAN Root Control & Removal - Lateral	OPEN	35	9447 160A ST	12
2077297	SAN Root Control & Removal - Lateral	OPEN	44	15272 86 AVE, SURREY	24
2077301	SAN Root Control & Removal - Lateral	OPEN	44	8685 152A ST	12
2077065	SAN Root Control & Removal - Lateral	OPEN	20	12254 99A AVE	12
2084178	SAN Root Control & Removal - Lateral	OPEN	2	14383 114AVE	6
2058897	SAN Root Control & Removal - Lateral	OPEN	31	9098 ALEXANDRIA CRES	24
2058906	SAN Root Control & Removal - Lateral	OPEN	31	9284 132A ST	24
2058910	SAN Root Control & Removal - Lateral	OPEN	32	13884 93A AVE	24
2064896	SAN Root Control & Removal - Lateral	OPEN	62	6669 141 ST	24
2056284	SAN Root Control & Removal - Lateral	OPEN	13	14661 107 AVE	12
2056286	SAN Root Control & Removal - Lateral	OPEN	19	11505 97 AVE	6
2056307	SAN Root Control & Removal - Lateral	OPEN	13	14761 106 AVE	24
2072132	SAN Root Control & Removal - Lateral	OPEN	31	12939 CARLUKE CRES	12
2072133	SAN Root Control & Removal - Lateral	OPEN	31	9315 132A ST	24
2072134	SAN Root Control & Removal - Lateral	OPEN	31	13054 LANARK PL	12
2071462	SAN Root Control & Removal - Lateral	OPEN	2	11440 MCBRIDE DR	12
2074778	SAN Root Control & Removal - Lateral	OPEN	31	13480 91 AVE	24
2077299	SAN Root Control & Removal - Lateral	OPEN	44	8738 154A ST	12
2075409	SAN Root Control & Removal - Lateral	OPEN	9	9778 PRINCESS DR	6
2094413	SAN Root Control & Removal - Lateral	OPEN	131	12998 16 AVE	24
2095222	SAN Root Control & Removal - Lateral	OPEN	76	17376 62A AVE	12
2058878	SAN Root Control & Removal - Lateral	OPEN	41	13369 80 AVE	24
2058901	SAN Root Control & Removal - Lateral	OPEN	31	8979 QUEEN MARY BLVD	24
2064895	SAN Root Control & Removal - Lateral	OPEN	61	13368 66A AVE	24
2056302	SAN Root Control & Removal - Lateral	OPEN	1	11392 ALPEN PL	24
2056305	SAN Root Control & Removal - Lateral	OPEN	12	13903 109 AVE	24
2069884	SAN Root Control & Removal - Lateral	OPEN	30	9241 124A ST	12
2072131	SAN Root Control & Removal - Lateral	OPEN	31	13060 LANARK PL	12
2071563	SAN Root Control & Removal - Lateral	OPEN	30	9241 124A ST	12
2074849	SAN Root Control & Removal - Lateral	OPEN	61	13422 66A AVE	30
2074833	SAN Root Control & Removal - Lateral	OPEN	52	14065 79A AVE	24
2077300	SAN Root Control & Removal - Lateral	OPEN	44	15279 86 AVE	12
2077072	SAN Root Control & Removal - Lateral	OPEN	31	12966 CARLUKE CRES	24
2094408	SAN Root Control & Removal - Lateral	OPEN	30	12729 ARRAN PL	6
2094412	SAN Root Control & Removal - Lateral	OPEN	120	2302 COVE PL (123A ST)	24
2097357	SAN Root Control & Removal - Lateral	OPEN	13	10437 NEWARK PL	6

2056306	SAN Root Control & Remova - Lateral	OPEN	13	10424 NEWARK PL	24
2067078	SAN Root Control & Removal - Lateral	OPEN		14080 110 AVE	12
2062367	SAN Root Control & Removal - Lateral	OPEN	44	15342 86 AVE	24
2062372	SAN Root Control & Removal - Lateral	OPEN	44	15322 86 AVE	24
2069093	SAN Root Control & Removal - Lateral	OPEN		13431 113 AVE	12
2070353	SAN Root Control & Removal - Lateral	OPEN	20	12650 97 AVE	6
2072124	SAN Root Control & Removal - Lateral	OPEN	30	12773 ROSS PL	12
2074875	SAN Root Control & Removal - Lateral	OPEN	40	8341 120A ST.	12
2077189	SAN Root Control & Removal - Lateral	OPEN	124	2082 BOWLER DR	12
2094410	SAN Root Control & Removal - Lateral	OPEN	30	9368 123A AVE	6
2095414	SAN Root Control & Removal - Lateral	OPEN	76	17243 60 AVE	24
2095416	SAN Root Control & Removal - Lateral	OPEN	76	6312 173A ST	24

ID	Description	Map Page	Address	CycleIntervalNum
2074777	SAN Grease Cut - Lateral	31	13390 89 AVE	12
2074881	SAN Grease Cut - Lateral	42	8719 142A ST	24
2074837	SAN Grease Cut - Lateral	53	14511 78 AVE	12
2074840	SAN Grease Cut - Lateral	61	6908 130 ST	12
2093017	SAN Grease Cut - Lateral	42	14348 82 AVE	6
2096013	SAN Grease Cut - Lateral	45	8455 166A ST	6
2096019	SAN Grease Cut - Lateral	44	8352 153A ST	12
2096023	SAN Grease Cut - Lateral	44	15156 84 AVE	6
2058634	SAN Grease Cut - Lateral	50	7576 127 ST	24
2072123	SAN Grease Cut - Lateral	21	13352 96 AVE	12
2074774	SAN Grease Cut - Lateral	31	13063 LANARK PL (88 AVE)	24
2074876	SAN Grease Cut - Lateral	41	8379 134 ST	12
2074878	SAN Grease Cut - Lateral	41	13373 87A AVE	12
2077289	SAN Grease Cut - Lateral	24	9634 153 A ST	12
2077291	SAN Grease Cut - Lateral	34	9460 152A ST	12
2091416	SAN Grease Cut - Lateral	14	15828 108 AVE	6
2093004	SAN Grease Cut - Lateral	71	6326 134 ST	6
2093005	SAN Grease Cut - Lateral	50	7401 125A ST	6
2093007	SAN Grease Cut - Lateral	110	12247 SULLIVAN ST	24
2093014	SAN Grease Cut - Lateral	52	13483 72 AVE	6
2093022	SAN Grease Cut - Lateral	72	13635 58 AVE	6
2092718	SAN Grease Cut - Lateral	14	15949 106 AVE	6
2096011	SAN Grease Cut - Lateral	76	6142 176 ST	12
2096016	SAN Grease Cut - Lateral	45	16767 84 AVE	6
2096021	SAN Grease Cut - Lateral	110	2927 MCBRIDE AVE	24
2058630	SAN Grease Cut - Lateral	42	14315 86A AVE	24
2068101	SAN Grease Cut - Lateral	20	10046 127A ST	12
2074773	SAN Grease Cut - Lateral	31	8875 134B ST	24
2074782	SAN Grease Cut - Lateral	32	14217 91 AVE	12
2074828	SAN Grease Cut - Lateral	52	7451 TODD CR	12
2077296	SAN Grease Cut - Lateral	44	15356 84 AVE	12
2088840	SAN Grease Cut - Lateral	87	17720 56 AVE	6
2086368	SAN Grease Cut - Lateral	10	10771 128 ST	6
2092999	SAN Grease Cut - Lateral	30	8066 123 ST	3
2093000	SAN Grease Cut - Lateral	131	13157 14A AVE	12
2093001	SAN Grease Cut - Lateral	121	13047 24 AVE	6
2093003	SAN Grease Cut - Lateral	71	13373 58B AVE	12
2093013	SAN Grease Cut - Lateral	31	13228 90 AVE	6
2095321	SAN Grease Cut - Lateral		8261 153 B ST	6
2058623	SAN Grease Cut - Lateral	40	8041 123 ST	24
2058624	SAN Grease Cut - Lateral	41	13496 84A AVE	24
2077290	SAN Grease Cut - Lateral	34	15354 88 AVE	12
2077050	SAN Grease Cut - Lateral	11	13516 105 AVE	24
2077054	SAN Grease Cut - Lateral	19	11878 98A AVE	12
2091413	SAN Grease Cut - Lateral	44	15560 80 AVE	24
2091417	SAN Grease Cut - Lateral	14	15611 109 AVE	6
2093012	SAN Grease Cut - Lateral	63	14666 64 AVE	6

2093019 SAN Grease Cut - Lateral	60	6713 121A AVE	24
2093020 SAN Grease Cut - Lateral	31	9520 134ST	6
2096020 SAN Grease Cut - Lateral	45	8546 164 ST	6
2068104 SAN Grease Cut - Lateral	21	10337 129 A STREET	12
2069435 SAN Grease Cut - Lateral	1	13075 112 AVE	12
2074779 SAN Grease Cut - Lateral	32	9168 136A ST	12
2074785 SAN Grease Cut - Lateral	33	14921 95A AVE	24
2077303 SAN Grease Cut - Lateral	45	8471 166A ST	12
2077057 SAN Grease Cut - Lateral	13	14495 109 AVE	12
2088472 SAN Grease Cut - Lateral	71	6318 134 ST	6
2091414 SAN Grease Cut - Lateral	14	10575 154A ST	12
2091415 SAN Grease Cut - Lateral	19	11989 97 AVE	6
2093009 SAN Grease Cut - Lateral	131	13468 15 AVE	24
2093011 SAN Grease Cut - Lateral	110	12757 26B AVE	12
2093015 SAN Grease Cut - Lateral	30	12667 93A AVE	6
2093021 SAN Grease Cut - Lateral	71	5842 136 ST	6
2096012 SAN Grease Cut - Lateral		15882 96 AVE	6
2096014 SAN Grease Cut - Lateral	34	9620 153A ST	6
2095748 SAN Grease Cut - Lateral	55		12
2056335 SAN Grease Cut - Lateral	20	13509 96 AVE	24
2074831 SAN Grease Cut - Lateral	52	7471 143B ST	12
2077051 SAN Grease Cut - Lateral	20	10070 122 ST	12
2091419 SAN Grease Cut - Lateral	19	9731 116 ST	6
2093010 SAN Grease Cut - Lateral	71	6148 131 ST	12
2093016 SAN Grease Cut - Lateral	124	1656 156 ST	6
2093018 SAN Grease Cut - Lateral	71	6165 129A ST	24
2098110 SAN Grease Cut - Lateral	44	15329 87A AVE	6
2096010 SAN Grease Cut - Lateral	68	19069 64 AVE	12
2096015 SAN Grease Cut - Lateral	67	17908 67 AVE	24
2040279 SAN Grease Cut - Lateral	70	12481 63A AVE	3
2068107 SAN Grease Cut - Lateral	77	5678 176 ST	12
2074877 SAN Grease Cut - Lateral	41	8278 132 ST	12
2077292 SAN Grease Cut - Lateral	34	15958 92 AVE	12
2077061 SAN Grease Cut - Lateral	20	12322 104 AVE	12
2088839 SAN Grease Cut - Lateral	21	10082 132 ST	6
2096017 SAN Grease Cut - Lateral	74	15430 KILMORE CL	6
2096022 SAN Grease Cut - Lateral	45	8479 166A ST	6
2074882 SAN Grease Cut - Lateral	50	12438 76 AVE	24
2077293 SAN Grease Cut - Lateral	35	9589 161 ST	12
2077295 SAN Grease Cut - Lateral	44	8231 153 ST	12
2077304 SAN Grease Cut - Lateral	76	6022 170B ST	12
2091411 SAN Grease Cut - Lateral	15	10929 164 ST	12
2093002 SAN Grease Cut - Lateral	123	1784 SOUTHMERE CR	24
2093006 SAN Grease Cut - Lateral	61	6543 KING GEORGE HWY	6
2093008 SAN Grease Cut - Lateral	110	12211 SULLIVAN ST	12
2093023 SAN Grease Cut - Lateral	62	14372 68 AVE	3
2096024 SAN Grease Cut - Lateral	77	5950 180 ST	12

2097998	SAN Root Control & Removal - Lateral	OPEN	21	13116 98A AVE	12
2095662	SAN Root Control & Removal - Lateral	OPEN	124	2127 KING GEORGE BLVD	6
2058945	SAN Root Control & Removal - Lateral	OPEN	40	12252 84A AVE	24
2058887	SAN Root Control & Removal - Lateral	OPEN	30	12328 IONA PL	24
2058908	SAN Root Control & Removal - Lateral	OPEN	31	9017 BEN NEVIS CRES	24
2064891	SAN Root Control & Removal - Lateral	OPEN	31	9012 QUEEN MARY BLVD (132 ST)	3
2056285	SAN Root Control & Removal - Lateral	OPEN	13	15099 BLUEBIRD CRES	6
2067261	SAN Root Control & Removal - Lateral	OPEN	1	11256 135 ST	24
2067262	SAN Root Control & Removal - Lateral	OPEN	2	14217 GROSVENOR RD	12
2067263	SAN Root Control & Removal - Lateral	OPEN	11	10541 KING GEORGE BLVD	12
2062369	SAN Root Control & Removal - Lateral	OPEN	44	15362 86 AVE	24
2068895	SAN Root Control & Removal - Lateral	OPEN	11	12964 109 AVE	6
2072125	SAN Root Control & Removal - Lateral	OPEN	30	12432 93 AVE	12
2072128	SAN Root Control & Removal - Lateral	OPEN	30	9246 124A ST	12
2074827	SAN Root Control & Removal - Lateral	OPEN	51	7742 134 ST	36
2077066	SAN Root Control & Removal - Lateral	OPEN	19	11737 96 AVE	12
2095412	SAN Root Control & Removal - Lateral	OPEN	76	5813 175 ST	12
2095413	SAN Root Control & Removal - Lateral	OPEN	79	6312 194B ST	12
2058879	SAN Root Control & Removal - Lateral	OPEN	42	14468 CHARTWELL DR	24
2058890	SAN Root Control & Removal - Lateral	OPEN	30	9234 123A ST	24
2058896	SAN Root Control & Removal - Lateral	OPEN	31	8858 QUEEN MARY BVLD	24
2058907	SAN Root Control & Removal - Lateral	OPEN	31	9233 134 ST	24
2064890	SAN Root Control & Removal - Lateral	OPEN	31	9483 134 ST	24
2056312	SAN Root Control & Removal - Lateral	OPEN	20	9769 120A ST	24
2062370	SAN Root Control & Removal - Lateral	OPEN	44	15298 86 AVE	24
2069073	SAN Root Control & Removal - Lateral	OPEN		11341 136 STREET	12
2072137	SAN Root Control & Removal - Lateral	OPEN	31	9471 134 ST	24
2074784	SAN Root Control & Removal - Lateral	OPEN	32	13854 89A AVE	24
2074874	SAN Root Control & Removal - Lateral	OPEN	33	14834 FRASER HWY	12
2074832	SAN Root Control & Removal - Lateral	OPEN	52	7822 SUNCREST DR	12
2077302	SAN Root Control & Removal - Lateral	OPEN	44	15269 86 AVE	12
2077064	SAN Root Control & Removal - Lateral	OPEN	20	10378 125A ST	12
2094411	SAN Root Control & Removal - Lateral	OPEN	112	14415 30 AVE	24
2095415	SAN Root Control & Removal - Lateral	OPEN	76	5772 176 ST	24
2095419	SAN Root Control & Removal - Lateral	OPEN	124	1634 157 ST	12
2095420	SAN Root Control & Removal - Lateral	OPEN	76	17449 62A AVE	24
2058892	SAN Root Control & Removal - Lateral	OPEN	31	9342 CINNAMON DR	24
2058909	SAN Root Control & Removal - Lateral	OPEN	31	9558 132A ST	24
2056304	SAN Root Control & Removal - Lateral	OPEN	2	11535 141A ST	24
2065928	SAN Root Control & Removal - Lateral	OPEN		13479 77 AVE	12
2062375	SAN Root Control & Removal - Lateral	OPEN	44	15302 86 AVE	24
2072135	SAN Root Control & Removal - Lateral	OPEN	31	9445 134 ST	12
2072136	SAN Root Control & Removal - Lateral	OPEN	31	12836 CARLUKE CRES	36
2072138	SAN Root Control & Removal - Lateral	OPEN	31	9433 134 ST	12
2074873	SAN Root Control & Removal - Lateral	OPEN	33	14859 DELWOOD PL	24
2074879	SAN Root Control & Removal - Lateral	OPEN	41	8324 134 A ST	12
2081844	SAN Root Control & Removal - Lateral	OPEN	33	9484 151A ST	12
2094409	SAN Root Control & Removal - Lateral	OPEN	130	1548 126A ST	24
2093470	SAN Root Control & Removal - Lateral	OPEN	52	13875 79 AVE	6
2095298	SAN Root Control & Removal - Lateral	OPEN	12	13820 112 AVE	6
2095418	SAN Root Control & Removal - Lateral	OPEN	124	15495 17A AVE	12
2058889	SAN Root Control & Removal - Lateral	OPEN	30	9313 124 ST	24
2058891	SAN Root Control & Removal - Lateral	OPEN	31	9021 BEN NEVIS CRES	24
2056289	SAN Root Control & Removal - Lateral	OPEN	20	12735 104 AVE	12

ID	Description	Map Page	Address	CycleIntervalNum
2074186	SAN Flush - Mainline	22	10051 144 ST	12
2074194	SAN Flush - Mainline	21	10168 132 ST	12
2088869	SAN Flush - Mainline		10249 160 ST	24
2074197	SAN Flush - Mainline		104 AVE & 150 ST	12
2096289	SAN Flush - Mainline	21	10416 KING GEORGE BLVD	6
2064920	SAN Flush - Mainline	14	10510 154A ST	24
2064919	SAN Flush - Mainline	14	10510 154A ST	24
2074159	SAN Flush - Mainline	13	10535 150 ST	12
2088868	SAN Flush - Mainline	13	10585 152 ST	6
2088864	SAN Flush - Mainline	13	10585 152 ST	6
2066761	SAN Flush - Mainline	14	10595 154A ST	24
2074192	SAN Flush - Mainline	11	105A AVE & 135A ST	12
2088863	SAN Flush - Mainline	13	10698 152 ST	6
2073634	SAN Flush - Mainline	12	10777 141 ST	24
2074158	SAN Flush - Mainline	13	107A AVE & 148 ST	12
2056798	SAN Flush - Mainline	12	108 AVE & 143 ST	24
2088858	SAN Flush - Mainline	1	11545 132A ST	6
2088859	SAN Flush - Mainline	1	11585 132A ST	6
2074161	SAN Flush - Mainline	19	116 ST & 98 AVE	12
2096325	SAN Flush - Mainline	135	1160 KING GEORGE BLVD	6
2066835	SAN Flush - Mainline	19	11797 98A AVE	12
2056811	SAN Flush - Mainline	19	11972 98 AVE	24
2096282	SAN Flush - Mainline	135	12 AVE & 163A ST	12
2096326	SAN Flush - Mainline	135	12 AVE & 164 ST	12
2074163	SAN Flush - Mainline	20	12039 98 AVE	12
2077161	SAN Flush - Mainline	50	122 ST & 72 AVE	12
2077215	SAN Flush - Mainline	80	12216 NEW MCLELLAN RD	24
2056815	SAN Flush - Mainline	20	12255 99 AVE	24
2066273	SAN Flush - Mainline	60	123 ST & 64A AVE	24
2077208	SAN Flush - Mainline	60	12310 64 AVE	12
2077210	SAN Flush - Mainline	60	12353 66 AVE	12
2096338	SAN Flush - Mainline	60	12397 70A AVE	12
2096311	SAN Flush - Mainline	60	124 ST & 70 AVE	12
2056814	SAN Flush - Mainline	20	12411 PARK DR (101B AVE)	24
2066842	SAN Flush - Mainline	20	12411 PARK DR (101B AVE)	24
2074167	SAN Flush - Mainline	20	12454 96A AVE	12
2074168	SAN Flush - Mainline	20	12464 96A AVE	12
2077140	SAN Flush - Mainline	30	12477 88 AVE	12
2066303	SAN Flush - Mainline	110	124B ST & 26 AVE	24
2056816	SAN Flush - Mainline	20	12515 96 AVE	24
2066304	SAN Flush - Mainline	110	12525 26 AVE	24
2066305	SAN Flush - Mainline	110	12546 26A AVE	24
2056817	SAN Flush - Mainline	20	12555 96 AVE	24
2066306	SAN Flush - Mainline	110	126 ST & 28 AVE	24
2096328	SAN Flush - Mainline	60	126 ST & 68 AVE	24
2066276	SAN Flush - Mainline	60	126 ST & 68A AVE	24
2060413	SAN Flush - Mainline	30	126 ST & 93 AVE	24
2066307	SAN Flush - Mainline	110	12624 28 AVE	24
2096304	SAN Flush - Mainline	60	12651 70 AVE	12
2066296	SAN Flush - Mainline	80	12669 STATION PL	24
2066308	SAN Flush - Mainline	110	12672 26A AVE	24

2066297 SAN Flush - Mainline	80	12676 STATION RD	24
2066309 SAN Flush - Mainline	110	12724 25A ST	24
2060453 SAN Flush - Mainline	40	128 ST & 87 AVE	24
2066870 SAN Flush - Mainline	21	128 ST & 99 AVE	12
2077156 SAN Flush - Mainline	50	128 ST & ANVIL WAY	24
2077158 SAN Flush - Mainline	50	12827 76 AVE	12
2077202 SAN Flush - Mainline	51	12877 76TH AVE	24
2074179 SAN Flush - Mainline	21	12897 96A AVE	12
2077160 SAN Flush - Mainline	50	12899 76 AVE	12
2096307 SAN Flush - Mainline	121	129 ST & 22B AVE	12
2074180 SAN Flush - Mainline	21	12919 96 AVE	12
2073631 SAN Flush - Mainline	11	12935 104 AVE	24
2060460 SAN Flush - Mainline	51	12975 76 AVE	24
2096332 SAN Flush - Mainline	121	129A ST & 18 AVE	12
2096302 SAN Flush - Mainline	71	130 ST & 64 AVE	12
2074181 SAN Flush - Mainline	21	13063 97 AVE	12
2066332 SAN Flush - Mainline	121	1307 13 AVE	24
2066333 SAN Flush - Mainline	121	130A ST & 18 AVE	24
2096283 SAN Flush - Mainline	61	131 ST & ENGLISH PL	24
2096334 SAN Flush - Mainline	131	1312 132A ST	12
2077162 SAN Flush - Mainline	51	13121 74 AVE	24
2096296 SAN Flush - Mainline	51	13130 76 AVE	6
2060461 SAN Flush - Mainline	51	13149 72 AVE	24
2060416 SAN Flush - Mainline	31	13167 EDINBURGH PL	24
2060462 SAN Flush - Mainline	51	13183 72 AVE	24
2096306 SAN Flush - Mainline	131	13198 13 AVE	12
2096330 SAN Flush - Mainline	131	13198 13 AVE	12
2096341 SAN Flush - Mainline	61	132 ST & 67B AVE	6
2077201 SAN Flush - Mainline	51	132 ST & 76 AVE	24
2066760 SAN Flush - Mainline	11	13272 105 AVE	12
2074195 SAN Flush - Mainline		13272 105 AVE	12
2088867 SAN Flush - Mainline	1	132A ST & 115 AVE	6
2074172 SAN Flush - Mainline	21	13326 96 AVE	12
2066865 SAN Flush - Mainline	1	13399 CRESTVIEW DR	24
2096329 SAN Flush - Mainline	71	133A ST & 58B AVE (NO ROAD)	12
2077211 SAN Flush - Mainline	61	13414 72 AVE	12
2077164 SAN Flush - Mainline	51	13430 80 AVE	24
2096301 SAN Flush - Mainline	81	13432 55A ST (EASEMENT)	12
2074170 SAN Flush - Mainline	21	13475 96 AVE	12
2077169 SAN Flush - Mainline	51	13479 77 AVE	24
2096331 SAN Flush - Mainline	82	13490 COULTHARD RD	12
2096318 SAN Flush - Mainline	82	13506 55A AVE (EASEMENT)	12
2074169 SAN Flush - Mainline	21	13507 96 AVE	12
2074171 SAN Flush - Mainline	21	13509 96 AVE	12
2077194 SAN Flush - Mainline	51	135A ST & 77 AVE	24
2096343 SAN Flush - Mainline		135A ST & 77 AVE	3
2077219 SAN Flush - Mainline	101	136 ST & CRESCENT RD	12
2096344 SAN Flush - Mainline	62	13870 70 AVE	12
2096339 SAN Flush - Mainline	62	13905 70 AVE	12
2074185 SAN Flush - Mainline	22	13909 102 AVE	12
2056838 SAN Flush - Mainline	22	13910 LAUREL DR.	24

2056840 SAN Flush - Mainline	22	13932 96 AVE	24
2060469 SAN Flush - Mainline	52	139A ST & 78A AVE	24
2066317 SAN Flush - Mainline	112	140 ST & 26 AVE	24
2066318 SAN Flush - Mainline	112	140 ST & 28 AVE	24
2056791 SAN Flush - Mainline	2	14012 114A AVE	24
2066833 SAN Flush - Mainline	2	14012 114A AVE	24
2066319 SAN Flush - Mainline	112	14048 30 AVE	24
2077205 SAN Flush - Mainline	52	14052 78 AVE	24
2077206 SAN Flush - Mainline	52	14052 78 AVE	24
2077218 SAN Flush - Mainline	82	14112 TRITES RD	12
2060418 SAN Flush - Mainline	32	14197 89A AVE	24
2066751 SAN Flush - Mainline	32	141A ST & 90 AVE	12
2074196 SAN Flush - Mainline		142 ST & 68 AVE	12
2096292 SAN Flush - Mainline	52	14313 HAWKSTREAM DR	6
2077213 SAN Flush - Mainline	62	14329 66A AVE	12
2096303 SAN Flush - Mainline	103	144 ST & 34 AVE	12
2096347 SAN Flush - Mainline	62	144 ST & 65 AVE	6
2059384 SAN Flush - Mainline	53	144 ST & 79 AVE	12
2066868 SAN Flush - Mainline	32	144 ST & 88 AVE	24
2077145 SAN Flush - Mainline	33	14422 88 AVE	24
2066889 SAN Flush - Mainline	13	14456 104A AVE	24
2069528 SAN Flush - Mainline		14476 104 AVE	12
2060473 SAN Flush - Mainline	53	145 ST & 75 AVE	24
2076348 SAN Flush - Mainline	53	146 ST & 80A AVE	6
2096294 SAN Flush - Mainline	33	146A ST & 89 AVE	6
2073635 SAN Flush - Mainline	13	14739 109 AVE	24
2074189 SAN Flush - Mainline	23	149 ST & 102A AVE	12
2060455 SAN Flush - Mainline	43	14915 86 AVE	24
2066908 SAN Flush - Mainline	33	150 ST & FRASER HWY	12
2066834 SAN Flush - Mainline	13	15122 PHEASANT DR	12
2077141 SAN Flush - Mainline	33	15167 FRASER HWY	24
2074190 SAN Flush - Mainline	23	151ST & 97B AVE	12
2034539 SAN Flush - Mainline	54	152 ST & 74 AVE	12
2096288 SAN Flush - Mainline	124	15275 19A AVE	12
2088866 SAN Flush - Mainline		153 ST & 101 AVE	12
2088861 SAN Flush - Mainline	14	153 ST & 105 AVE	6
2088862 SAN Flush - Mainline	14	15350 150 AVE	24
2088865 SAN Flush - Mainline	24	15439 100 AVE	24
2088860 SAN Flush - Mainline	24	155A ST & 103A AVE	12
2091994 SAN Flush - Mainline	44	15715 FRASER HWY	12
2081827 SAN Flush - Mainline		1577 & 1563 126A ST	6
2066763 SAN Flush - Mainline	14	158 ST & 111A AVE	24
2066892 SAN Flush - Mainline	14	15838 111A AVE	24
2066838 SAN Flush - Mainline	14	15846 111A AVE	24
2088870 SAN Flush - Mainline	24	160 ST & 100 AVE	6
2096320 SAN Flush - Mainline	124	160 ST & 20 AVE	12
2061912 SAN Flush - Mainline	35	161 ST & 95A AVE	24
2075738 SAN Flush - Mainline		16177 FRASER HWY	24
2096348 SAN Flush - Mainline	135	16193 9 AVE	24
2096312 SAN Flush - Mainline	135	16259 11A AVE	12
2096313 SAN Flush - Mainline	124	16288 16 AVE	12

2096290 SAN Flush - Mainline	135	163B ST & 11 AVE	12
2096336 SAN Flush - Mainline	135	164 ST & 11 AVE	24
2096297 SAN Flush - Mainline	135	165 ST & 10 AVE	12
2091995 SAN Flush - Mainline	76	170B ST & 60 AVE	12
2096284 SAN Flush - Mainline	76	172 ST & 61A AVE	12
2096293 SAN Flush - Mainline	76	17342 62A AVE	12
2096319 SAN Flush - Mainline	76	17351 56 AVE	12
2071984 SAN Flush - Mainline	76	17388 62A AVE	24
2071985 SAN Flush - Mainline	76	17446 62A AVE	24
2096321 SAN Flush - Mainline	76	175 ST & 58A AVE	12
2096323 SAN Flush - Mainline	76	17573 56A AVE	12
2071986 SAN Flush - Mainline	76	175A ST & 62A AVE	24
2096337 SAN Flush - Mainline	77	18340 58B ST	24
2072031 SAN Flush - Mainline	78	184 ST & 58A AVE	24
2096299 SAN Flush - Mainline	78	184 ST & 58A AVE	24
2071982 SAN Flush - Mainline	68	184 ST & 64 AVE	24
2096346 SAN Flush - Mainline	78	18428 58A AVE	24
2096279 SAN Flush - Mainline	78	184A AVE & 58 AVE	12
2096309 SAN Flush - Mainline	88	185 ST & 54 AVE	6
2066924 SAN Flush - Mainline	28	18758 96 AVE	12
2096342 SAN Flush - Mainline		19275 54 AVE	12
2096278 SAN Flush - Mainline	125	20 AVE & 160 ST	12
2066334 SAN Flush - Mainline	122	22A AVE & 140 ST	24
2066335 SAN Flush - Mainline	122	2306 140 ST	24
2066336 SAN Flush - Mainline	122	23A AVE & 140 ST	24
2066337 SAN Flush - Mainline	122	24 AVE & 140 ST	24
2096310 SAN Flush - Mainline	120	24 AVE & HARBOURGREENE DR	24
2066320 SAN Flush - Mainline	112	2468 140 ST	24
2066321 SAN Flush - Mainline	112	2556 140 ST	24
2066310 SAN Flush - Mainline	110	25A AVE & 127 ST	24
2066311 SAN Flush - Mainline	110	26 AVE & 125A ST	24
2066312 SAN Flush - Mainline	110	26 AVE & 127 ST	24
2066322 SAN Flush - Mainline	112	2664 140 ST	24
2066313 SAN Flush - Mainline	110	26A AVE & 127 ST	24
2066323 SAN Flush - Mainline	112	2721 140 ST	24
2066324 SAN Flush - Mainline	112	2842 140 ST	24
2066325 SAN Flush - Mainline	112	2892 140 ST	24
2066326 SAN Flush - Mainline	112	2979 140 ST	24
2066327 SAN Flush - Mainline	112	30 AVE & 140 ST	24
2096281 SAN Flush - Mainline	112	30 AVE & 141 ST	24
2066328 SAN Flush - Mainline	112	30 AVE & 141 ST	24
2096317 SAN Flush - Mainline	82	5353 COULTHARD PL	12
2071999 SAN Flush - Mainline	77	5840 184 ST	24
2071998 SAN Flush - Mainline	77	5840 184 ST	24
2071995 SAN Flush - Mainline	77	5852 184 ST	24
2071997 SAN Flush - Mainline	77	58A AVE & 184 ST	24
2096308 SAN Flush - Mainline	77	58A AVE & 184 ST	24
2096333 SAN Flush - Mainline	70	6104 120 ST	12
2096295 SAN Flush - Mainline	76	6144 170 ST	12
2096335 SAN Flush - Mainline	76	6158 170 ST	12
2071983 SAN Flush - Mainline	76	62A AVE & SORREL PL	24

2096324 SAN Flush - Mainline	77	6343 184TH ST	12
2071206 SAN Flush - Mainline	68	64 AVE & 188A ST	24
2096298 SAN Flush - Mainline	61	64 AVE & KING GEORGE HWY	12
2096286 SAN Flush - Mainline	61	6445 KING GEORGE HWY	12
2096300 SAN Flush - Mainline	61	6475 KING GEORGE HWY	12
2096285 SAN Flush - Mainline	61	6775 132 ST	12
2064360 SAN Flush - Mainline	67	68 AVE & 176 ST	24
2096350 SAN Flush - Mainline		70 AVE & 151 ST	6
2096287 SAN Flush - Mainline	60	70A AVE & 124 ST	12
2096345 SAN Flush - Mainline	60	7127 124 ST	12
2096349 SAN Flush - Mainline	60	71A AVE & 124 ST	12
2096327 SAN Flush - Mainline	60	72 AVE & 124 ST	12
2096291 SAN Flush - Mainline	52	74 AVE & 137 ST	6
2060463 SAN Flush - Mainline	51	7475 135 ST	24
2060465 SAN Flush - Mainline	51	7475 135 ST	24
2060470 SAN Flush - Mainline	52	7475 138 ST	24
2077730 SAN Flush - Mainline	51	7533 130 ST	12
2060464 SAN Flush - Mainline	51	7533 135 ST	24
2077166 SAN Flush - Mainline	51	7577 KING GEORGE HWY	24
2096316 SAN Flush - Mainline	51	76 AVE & HURDLE CRES	6
2077196 SAN Flush - Mainline	51	76 AVE & KING GEORGE HWY	24
2077165 SAN Flush - Mainline	51	7635 KING GEORGE HWY	24
2077195 SAN Flush - Mainline	51	77 AVE & KING GEORGE HWY	24
2077167 SAN Flush - Mainline	51	77 AVE & KING GEORGE HWY	24
2077157 SAN Flush - Mainline	50	7750 128 ST	24
2077168 SAN Flush - Mainline	51	78 AVE & KING GEORGE HWY	24
2077197 SAN Flush - Mainline	51	78A AVE & 132A ST	24
2077163 SAN Flush - Mainline	51	7953 134A ST	24
2077200 SAN Flush - Mainline	51	7965 133A ST	24
2077199 SAN Flush - Mainline	51	7965 80TH AVE	24
2077223 SAN Flush - Mainline	42	8054 140 ST	12
2060454 SAN Flush - Mainline	43	84 AVE & 151 ST	24
2060456 SAN Flush - Mainline	43	8592 146 ST	24
2066822 SAN Flush - Mainline	43	8592 146 ST	24
2060420 SAN Flush - Mainline	33	8951 152 ST	24
2066878 SAN Flush - Mainline	30	9148 122B ST	12
2066768 SAN Flush - Mainline	31	93 AVE & CINNAMON DR (129 ST)	12
2066807 SAN Flush - Mainline	31	93 AVE & CINNAMON DR (129 ST)	12
2077222 SAN Flush - Mainline	31	9349 KING GEORGE BLVD	12
2066796 SAN Flush - Mainline	31	9368 WALLACE CR (129 ST)	24
2074162 SAN Flush - Mainline	20	9577 127 ST	12
2064922 SAN Flush - Mainline	24	96 AVE & 152B ST	24
2074176 SAN Flush - Mainline	21	9672 134 ST	12
2056839 SAN Flush - Mainline	22	9698 139 ST	24
2074165 SAN Flush - Mainline	20	9759 120A ST	12
2056841 SAN Flush - Mainline	22	9763 140 ST	24
2056810 SAN Flush - Mainline	19	9772 116 ST	24
2066886 SAN Flush - Mainline	19	9772 116 ST	24
2074164 SAN Flush - Mainline	20	98 AVE & 120A ST	12
2056844 SAN Flush - Mainline	23	98 AVE & 149A ST	24
2056845 SAN Flush - Mainline	23	98 AVE & 151 ST	24

2056818 SAN Flush - Mainline	20	9821 128 ST	24
2074182 SAN Flush - Mainline	21	9844 128 ST	12
2056819 SAN Flush - Mainline	20	9847 128 ST	24
2074178 SAN Flush - Mainline	21	9884 128 ST	12
2074166 SAN Flush - Mainline	20	9935 120A ST	12
2077203 SAN Flush - Mainline	51	ANVIL WAY & 76 AVE	24
2081676 SAN Flush - Mainline		BEAR CREEK TRUNK LINE	36
2092996 SAN Flush - Mainline	0	BRIDGEVIEW GRAVITY SYSTEM	12
2074630 SAN Flush - Mainline		CATCHMENT FLUSHING CE	6
2096140 SAN Flush - Mainline	2	CATCHMENT N05/06/09	6
2090984 SAN Flush - Mainline	27	CATCHMENT N11	6
2094252 SAN Flush - Mainline	72	CATCHMENT N24/25/47/49/50	6
2073630 SAN Flush - Mainline	11	CITY PARKWAY & 105 AVE	24
2066863 SAN Flush - Mainline	11	CITY PARKWAY & 105A AVE	24
2077143 SAN Flush - Mainline	33	FRASER HWY & 92 AVE	12
2066329 SAN Flush - Mainline	120	HARBOURGREENE DR & COVE PL	24
2096322 SAN Flush - Mainline	76	HIGHWAY 10 (56 AVE) & OLD MCLELLAN RD	6
2096340 SAN Flush - Mainline	77	HIGHWAY 15 & 62 AVE (CLOVERDALE FAIRGROUNDS)	12
2096280 SAN Flush - Mainline	124	HWY 99 & 16 AVE	12
2056800 SAN Flush - Mainline	13	LINCOLN DR. & 152 ST	24
2096314 SAN Flush - Mainline	110	MCBRIDE AVE & GILLEY ST	6
2096305 SAN Flush - Mainline	110	MCBRIDE AVE & SULLIVAN ST	12
2071994 SAN Flush - Mainline	77	MORGAN DR & 60 AVE	24
2096315 SAN Flush - Mainline	77	MORGAN DR & 60 AVE	24
2075349 SAN Flush - Mainline		NE CATCHMENT	6
2039219 SAN Flush - Mainline		OLSEN RD & OLD YALE RD	3
2056792 SAN Flush - Mainline	3	ST ANDREWS DR. & WELLINGTON DR (115A AVE)	24
2077216 SAN Flush - Mainline	80	STATION RD & 125A ST	12
2066782 SAN Flush - Mainline	3	SURREY RD & ST ANDREWS DR (147 ST & 114 AVE)	12
2071685 SAN Flush - Mainline	103	WINTER CRESCENT & KGH BLVD	12

10.8X

06-09-2017 06:29 PM

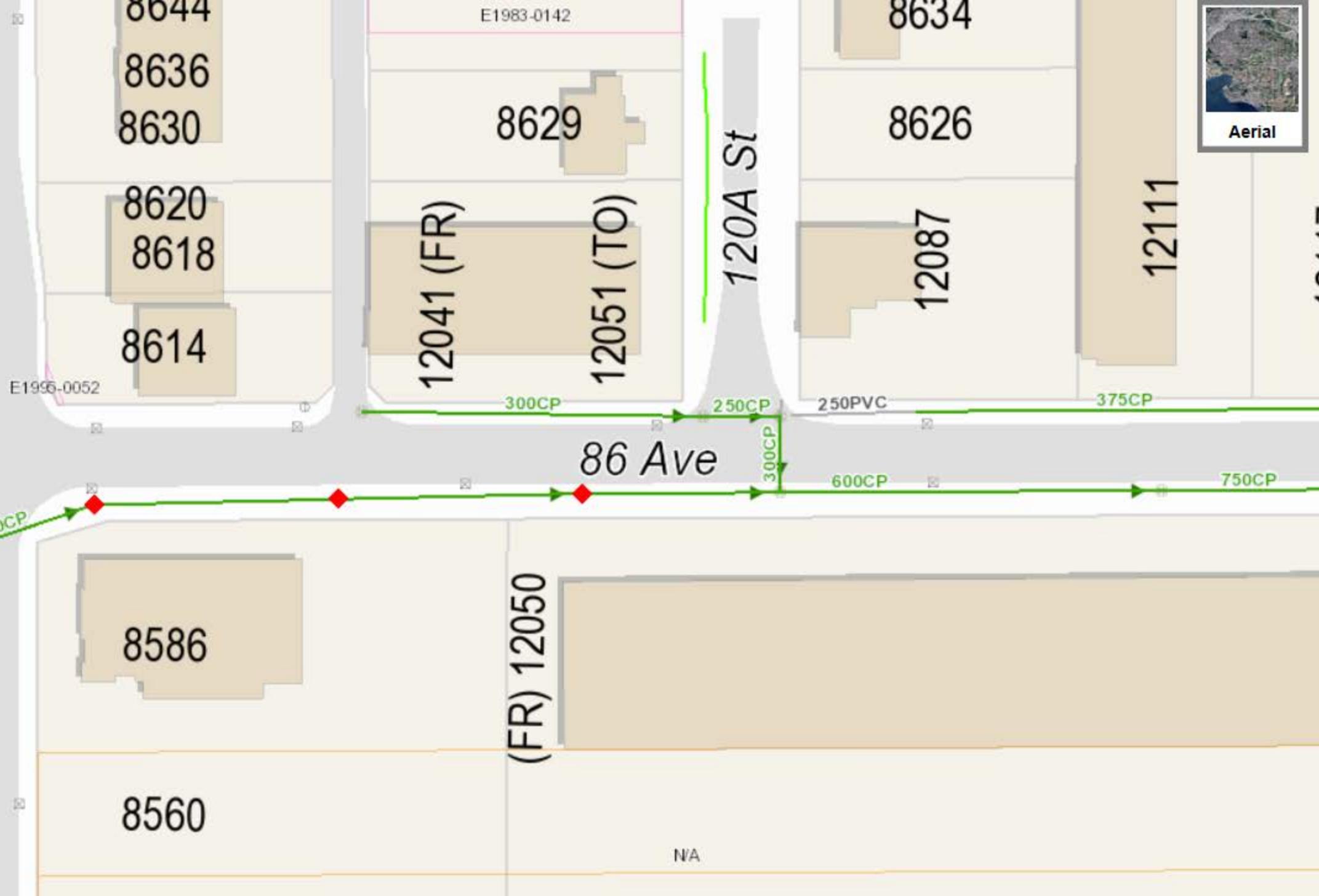
A&S

Storm main
Facility ID 1000747784
600mm Concrete Pipe
12000 block 86 Ave.



Aerial

Map navigation controls including zoom in (+), zoom out (-), home, full screen, search, and close (X) buttons.



Counter: 55.7
OBP(Obstacle External Pipe or Cable)
From: 09
To: 03
Remarks: CROSS BORED GAS SERVICE
Photo: 0021



M

Tabular Report of PSR 1000748074

for City of Surrey

Setup 64	Surveyor T.MACKINTOSH	Certificate # U-606-3519	System Owner CITY OF SURREY
Drainage HIGH PRIORITY	Survey Customer CITY OF SURREY		
P/O #	Date 2015/07/21	Time 10:56	Street 96TH AVE
City SURREY	Further location details NORTH SIDE; 12539 96 AVE TO MH EAST		
Up 1250709625	Rim to invert	Grade to invert	Rim to grade M
Down 1256809625	Rim to invert	Grade to invert	Rim to grade M
Use Stormwater	Direction Up	Flow control Not Controlled	Media No 44095
Shape Circular	Height 250	Width mm	Preclean N
Material Concrete Pipe (non-reinforced)	Joint length M	Total length M	Length Surveyed 55.1 M
Lining	Year laid	Year rehabilitated	Weather Dry
Purpose Routine Assessment	Cat	Pressure	
Additional info FOR ANDREW DYCK - CITY HALL ENGINEERING		Structural	O & M
Location Main Highway - Urban		Miscellaneous	Hydraulic
Project Robson South Project - July 13, 2015		Work Order 2182945	
Northing	Easting	Elevation	
Coordinate System		GPS Accuracy	

Count	Video	CD Code	In1	In2	%	JntFr	To	ImRef	Remarks
0.0		ST							Start of Survey
0.0		AMH							Manhole
0.0		MWL			5				Water Level
1.4	00:00:39	FC				J	01	11	0047
13.7	00:03:21	FC				J	01	04	
16.8	00:03:59	FC				J	03	09	
19.4	00:04:33	FM					03	01	0048
19.6	00:05:18	TB	150				02		
19.9	00:05:55	S01 DSF			5		06		
20.7	00:06:52	TB	200				02		
23.2	00:08:24	F01 DSF			5		06		
28.9	00:09:33	FC				J	03	07	
37.8	00:10:41	TB	100				03		WITH EXCESS GROUT
42.6	00:12:29	FC				J	01	12	
50.3	00:14:41	FC				J	06	10	
51.8	00:15:15	FC				J	03	06	
53.4	00:16:02	FC				J	06	12	
54.2	00:16:56	OBR			5		06		
55.1	00:18:55	DSZ			10		06		CONCRETE FROM HOLES AHEAD
55.1	00:19:29	CM					01	12	
55.1	00:19:54	H					03		
55.1	00:20:20	H					10		0049
55.1	00:20:36	OBP			10		09	03	0050
55.1	00:21:00	MSA							DUE TO DEBRIS

55.1 M Total Length Surveyed

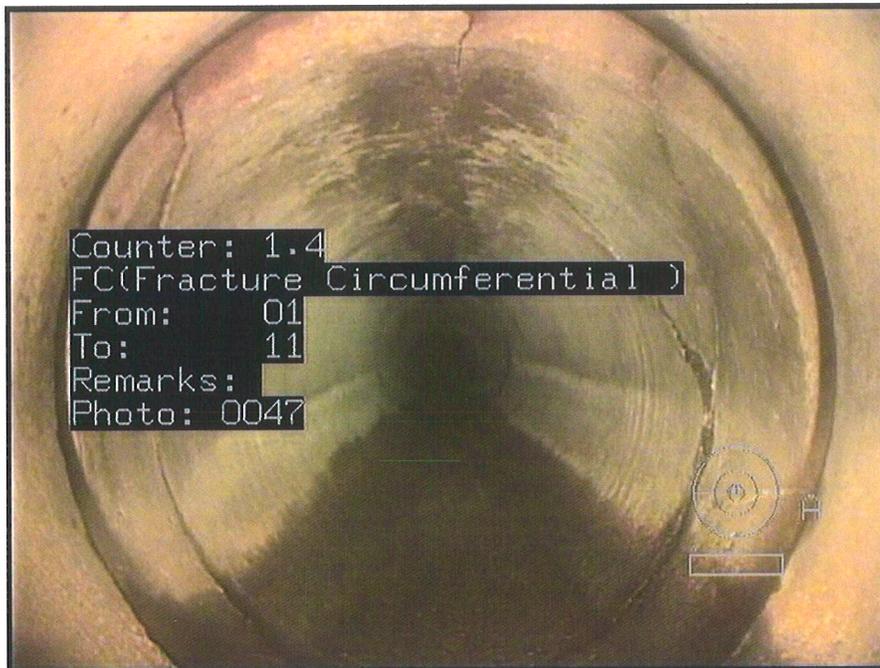
Scores

Structural:	Pipe Rating	Pipe Ratings Index	Peak	Mean Pipe
O&M:	Pipe Rating	Pipe Ratings Index	Peak	Mean Pipe



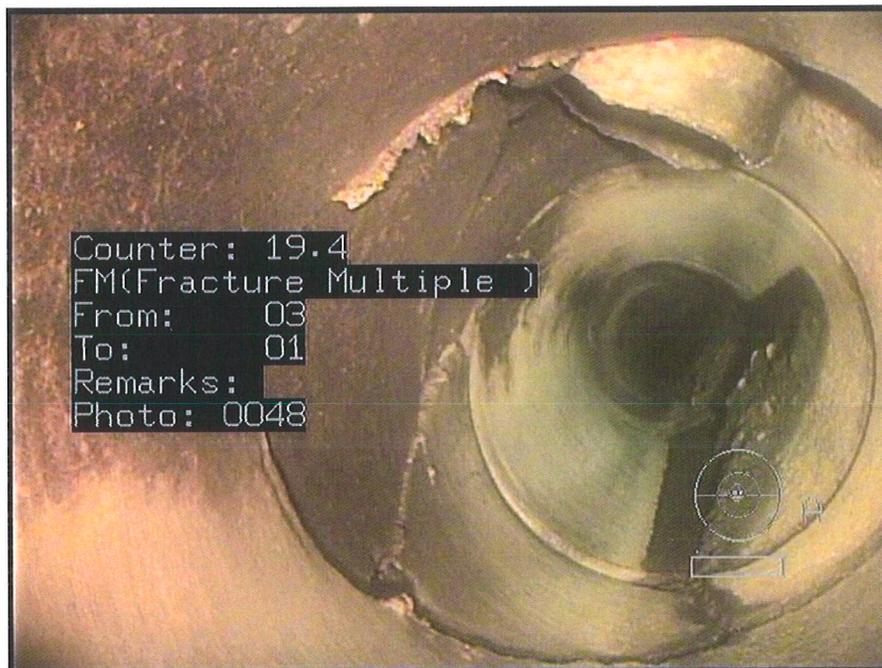
McRaes Environmental Services
 Phone:604-940-6200
 Fax:604-940-6244

Work Order	Surveyed On 2015/07/21	Setup 64
Street Name 96TH AVE		Video 44095
City Name SURREY	Weather Dry	
Location Main Highway - Urban		
From Manhole 1256809625	To Manhole 1250709625	Direction Upstream



Date: 2015/07/21 Distance: 1.4 M Obs: Fracture Circumferential

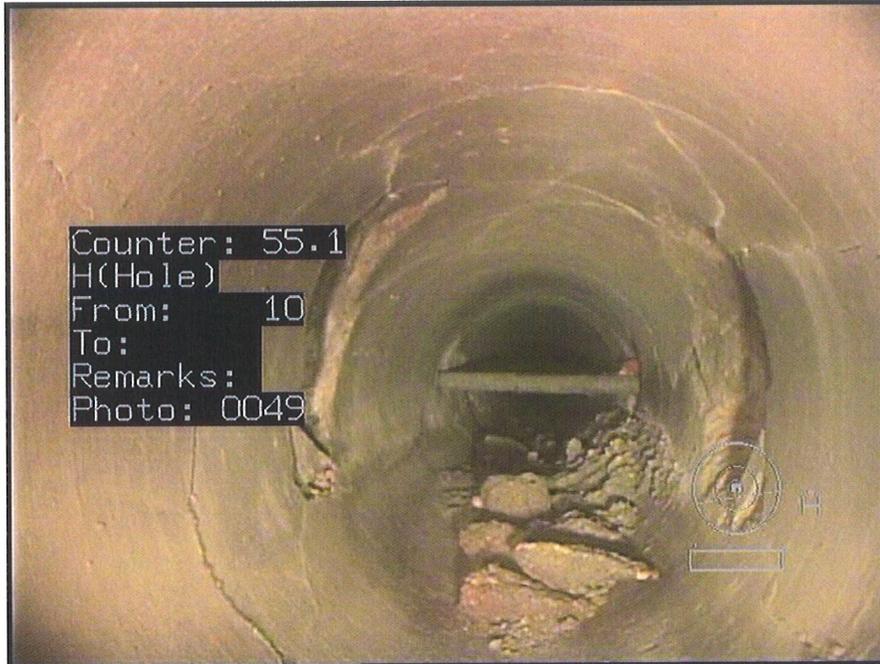
Comments:



Date: 2015/07/21 Distance: 19.4 M Obs: Fracture Multiple

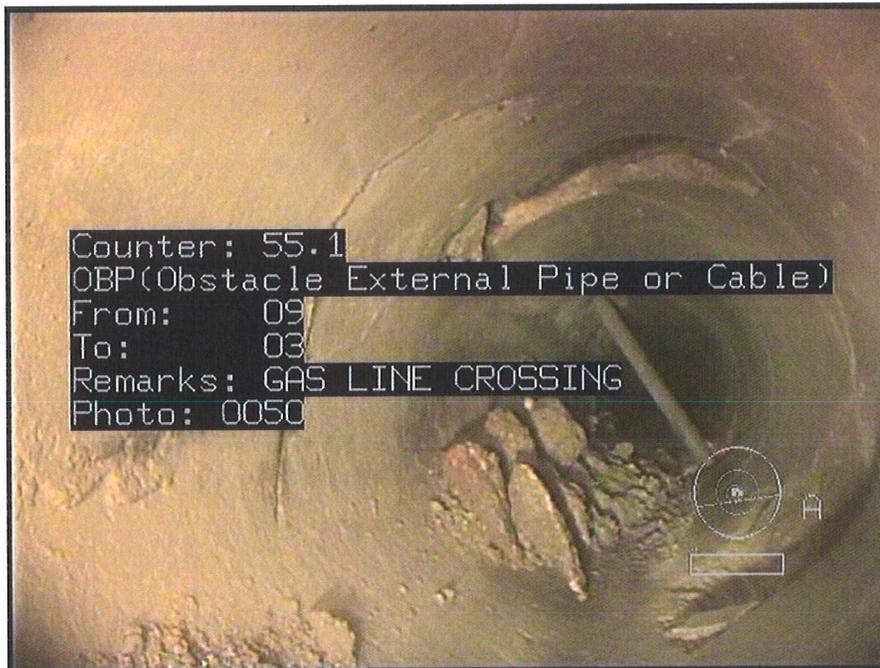
Comments:

Work Order	Surveyed On 2015/07/21	Setup 64
Street Name 96TH AVE		Video 44095
City Name SURREY	Weather Dry	
Location Main Highway - Urban		
From Manhole 1256809625	To Manhole 1250709625	Direction Upstream



Date: 2015/07/21 Distance: 55.1 M Obs: Hole

Comments:



Date: 2015/07/21 Distance: 55.1 M Obs: Obstacle External Pipe or Cable

Comments: GAS LINE CROSSING



ANALYSIS OF COSTS INCURRED BY THE CITY OF SURREY DUE TO FEI'S PRESENCE AND ACTIVITIES WITHIN HIGHWAYS

Project No: 17-173
September 27, 2017
Aplin & Martin Consultants Ltd.



APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

September 27, 2017

File No.: 17-173

City of Surrey
13450 104 Avenue
Surrey, BC V3T 1V8

Attention: Scott Neuman, P.Eng.
Manager of Design and Construction

Dear Sir:

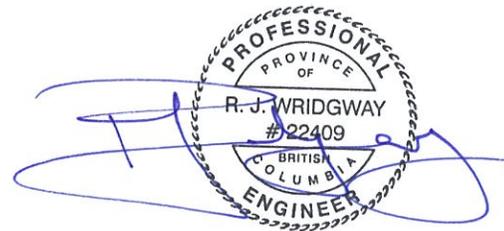
Re: Analysis of Costs Incurred by the City of Surrey due to
FEI's Presence and Activities within Highways

The City of Surrey retained Aplin & Martin Consultants Ltd. to complete a cost impact assessment on the Fortis Gas Infrastructure that is within the City's highways. The objective of this assessment is to define the types of costs and the associated amounts the City is incurring, both directly and indirectly, which the City would not have incurred if Fortis' infrastructure was not present within the City's highways.

Utilizing the City's 10 Year Servicing plan, historical data from past projects, as well as good engineering judgement and local experience, Aplin Martin compiled a set of cost drivers/factors and prepared defensible annual cost estimates for each of the City's utilities when Fortis infrastructure is encountered during future upgrades. This assessment does not take into account work that is performed outside of the City's highway/road right of way boundaries or that is funded and undertaken by other third parties, such as private developments.

Regards,

APLIN & MARTIN CONSULTANTS LTD.



David Chan, P.Eng., M.Eng.
Project Manager

DYC:jv

17-173dycpr001

Reviewed by:
Robert Wridgway, P.Eng.
Senior Project Manager

1. INTRODUCTION

1.1 Background

The jurisdictional vesting and responsibility of highways is with local municipalities for them to govern and maintain. As part of this responsibility, and in order to provide servicing to their residents and businesses, the municipalities are required to provide infrastructure services (roads, utilities, etc.) and this infrastructure is located within highways, which in layman's terms is the road allowance and includes roads, lanes, bridges, etc.

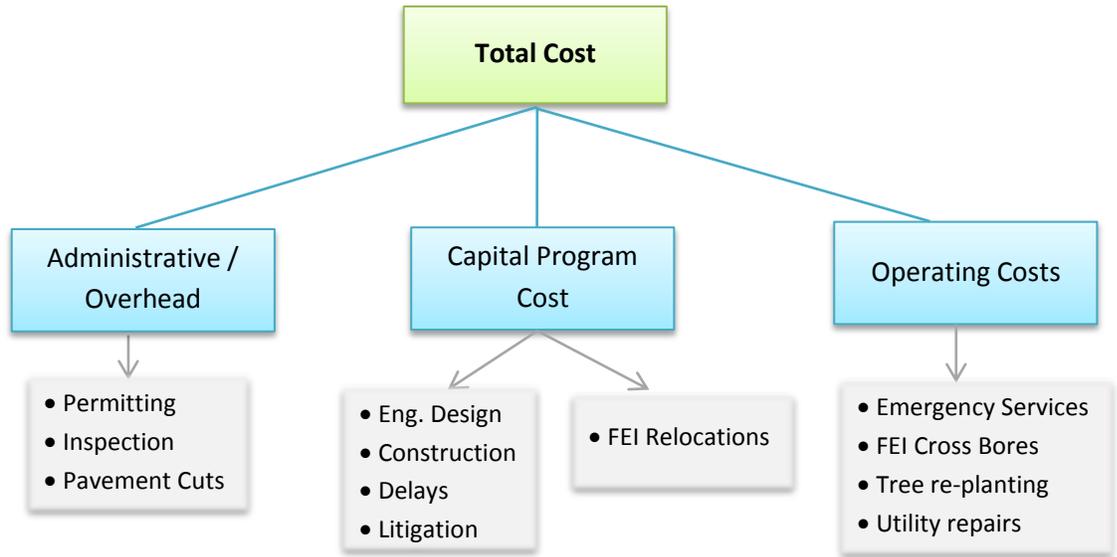
Utility agencies such as Fortis ("FEI"), often referred to as third-party utilities, have the ability to install, operate and maintain their infrastructure within municipal highways. As municipalities continue to grow and develop, and the age of their infrastructure assets declines, there is a pressing need for municipalities to provide servicing to their community and complete infrastructure replacement and upgrades projects, while working within limited and constrained highway corridors. The presence of third party utilities within these highway corridors results in increased costs to municipalities, whether through upfront direct costs, indirect administrative costs or long-term operational costs.

1.2 Scope of Work

Aplin Martin Consultants has been retained by the City of Surrey to undertake an assessment of costs the City incurs, both directly and indirectly, as a result of Fortis' gas infrastructure located within the City's highways, and to establish an estimated annual cost the City of Surrey incurs because of the installation, operation and maintenance of Fortis' infrastructure located within municipal highways in the City of Surrey. These costs include administrative, capital and operational costs that the City would not have incurred if Fortis' infrastructure was located outside the highway/road allowance boundaries, such as in private property and statutory rights-of-ways.

Figure 1 is an illustration of the various costs incurred by the City, differentiated into various categories for clarification purposes, as a result of Fortis infrastructure occupying highways:

Figure 1 – Cost Categories



Specifically, Aplin Martin’s scope of work was limited to the assessment of costs the City incurs as part of its: (1) Administrative and Overheads and (2) annual Capital Program. Given the limited time constraints, Aplin Martin’s assessment did not include a cost quantification of the City’s Operating Costs.

Administrative / Overheads

Regarding the City’s Administrative / Overhead costs, Aplin Martin’s scope of work included quantifying the costs related to permitting and enforcement, including drawing reviews, reviewing permit applications, traffic management reviews, pavement cut fees, road restoration inspections, and payment processing.

Capital Program

Regarding the Capital Program costs, Aplin Martin’s scope of work was to quantify the costs incurred by the City through their annual capital program, which includes infrastructure renewal and replacement projects such as road widenings, sidewalk installations, and watermain and sewer replacements.

Aplin’s scope of work focused solely on the City’s capital construction program / works and does not include costs incurred by the City, nor other parties, as it pertains to infrastructure projects (new or replacements) that are completed through the land development process or by other regional, provincial or federal government agencies (Metro Vancouver, Ministry of Transportation and Infrastructure, Translink, Transport Canada, etc.) within the City of Surrey. Any costs, or portion of, incurred by the City as a result of the aforementioned third party projects are in addition to the costs assessed herein.

Operating Costs

The City also incurs Operating costs as part of its day-to-day operation and maintenance of public places (i.e. highways and Parks). The typical Engineering and Parks operating costs the City incurs as a result of Fortis include, but are not limited to:

- When there is a gas leak, or break, either due to pipe age/condition or construction activity (City, Regional Government, Developer, or 3rd Party Utility Agency), City emergency services are called upon as a first responder;
- Utility cross bores (sanitary and storm sewer) and repair, which are instances where Fortis, or its contractor, has damaged municipal infrastructure by drilling a gas service through a municipal sewer and as a result the City has higher maintenance costs for flushing and inspecting their sewers as the video camera cannot proceed past the service nor can the City utilize root cutting / debris removal equipment as there is a risk to damaging the gas service;
- Tree replanting, whether in roadside boulevards or in Parks, as a result of Fortis' activities and removal of trees to facilitate Fortis' gas pipelines and services;
- Utility / infrastructure repairs are required where Fortis, or its contractor, has completed unauthorized cross bores (described above) or not restored the surface (asphalt, sidewalk, ditch, etc.) to original conditions and/or City standards.

While the above items occur throughout the City on a frequent basis and result in significant operating costs to the City, due to limited time constraints, Aplin Martin's scope of work does not extend to these day-to-day operation and maintenance costs.

2. ADMINISTRATIVE / OVERHEADS

2.1 Costs

Administrative and overhead costs include internal staff time/costs and costs related to processing permits that are incurred as part of the permitting and enforcement of municipal bylaws. In the particular case of Fortis, our cost analysis has been limited to the following:

1. Road and Right-of-Way Use Permits
2. Traffic Obstruction Permits
3. Pavement Cut Fees

To quantify the administrative and operational costs including potential savings, our analysis is based on the information provided on Page 15 of FEI's application to the British Columbia Utilities Commission (BCUC) for "*Approval of Operating Terms with the City of Surrey and FEI, dated May 8, 2017*", wherein FEI estimates on an annual basis the

following number of permits would be required: (i) 1,703 Road Right-of-Way Use (ii) 305 Traffic Obstruction Permits and (iii) 305 Pavement Cut Fee instances for an estimated total of 2,313 financial transactions from FEI to the City.

As part of the permitting process, costs are incurred for administrative duties to facilitate the review, approval, enforcement, inspection and payment processing.

In discussions with City staff, we have determined the following time commitments and costs (see Table 1 below) are required annually to support Fortis infrastructure and the above projected 2,313 permits / instances. Note, the staff time is expressed as a percentage of a Full-time Equivalent (FTE) person and the costs are calculated based on the loaded average hourly rate for the applicable staff positions.

Table 1: Surrey Administrative / Overhead Costs to Permit FEI Work

	Time	Cost
Engineering - Road Use Permits (0.5hr per permit)	44% FTE	\$53,000
Engineering - Traffic Obstruction Permits (1hr per permit, 2hr per TMP)	46% FTE	\$60,000
Engineering - Inspection (surface restoration)	11% FTE	\$15,000
Finance - Payment Processing	14% FTE	\$11,600
Legal Services	5% FTE	\$13,000
Subtotal (Staff time/costs)		\$152,600
Permit Fees (refer to Pg 15 of FEI Application)		\$154,030
Pavement Cut Fees (refer to Pg 15 of FEI Application)		\$204,700
TOTAL COSTS		\$511,330

3. CAPITAL PROGRAM COSTS

3.1 Background

On an annual basis, the City of Surrey's Engineering Department completes approximately \$113 Million in infrastructure improvements across the City. These improvements, the majority of which are located included within municipal highways, include:

- Drainage projects (storm sewers, detention ponds, dyke works, pump stations, etc.);
- Sewer projects (sanitary sewers, sewage forcemains, pump stations, etc.);

- Transportation projects (road widening, sidewalks / multi-use pathways, traffic signals, bridge replacement and pavement rehabilitation); and
- Water projects (watermains, pressure reducing valves, pump stations, etc.)

3.2 10-Year Servicing Plan

As part of the City's long-range infrastructure planning, the Engineering Department has developed, and regularly updates, a 10-Year Servicing Plan that establishes a program of municipal infrastructure works and services that are required to meet the needs of the community, over the 10-year capital program timeframe and longer-term area specific servicing. A copy of the City's 10-Year Servicing Plan is available on their website at: <http://www.surrey.ca/files/10-YearServicingPlan.pdf>.

The City's 10-year Servicing Plan includes both capital asset/projects and operating costs. Table 2 below summarizes the City's projected 10-year Capital Program, which is extracted from the individual program costs for each asset (drainage, sewer, transportation, water) that relate specifically to capital construction program / capitalized assets. In summary, the City's projected 10-year Capital Program equates to an annual average of \$134 Million as per Table 2 below.

Table 2: Projected 10-Year Capital Program

	Drainage	Sewer	Transportation	Water	Total
Asset Investment	\$190,015,537	\$127,653,118	\$869,963,000	\$154,704,631	\$1,342,336,286

From a Capital Program perspective, the City's Capital Program over the next 10-years is projected to average \$134 Million / year. This is a projected 19% increase over the annualized Capital Program over the past 5-years (\$112.7 Million / year), which is summarized in Table 3, thus indicating the City's associated costs will be significantly higher than the historical trend.

Table 3: Historical Capital Program (2012 - 2016)

	2012	2013	2014	2015	2016
Drainage	\$9,524,204	\$12,744,466	\$11,877,148	\$14,878,657	\$20,616,303
Sewer	\$34,79,741	\$13,660,306	\$7,495,942	\$3,292,092	\$22,151,357
Transportation	\$85,466,566	\$112,093,619	\$88,073,532	\$46,507,056	\$53,439,243
Water	\$7,838,052	\$14,966,662	\$9,566,696	\$14,800,453	\$14,557,812
Total	\$102,828,822	\$153,465,053	\$117,013,318	\$79,478,258	\$110,764,715
5-year Average	\$112.7 Million / year				

While the projected 10-year Capital Program is higher than historical trends, the 10-Year Capital Program can be reasonably used as a basis to quantify the costs incurred by the City as a result of Fortis'

infrastructure. As such, the individual infrastructure projects identified within the 10-Year Capital Plan were used, and overlaid upon Fortis' gas pipeline infrastructure, to quantify an estimate of the projected incremental costs the City will incur over the next ten (10) years, over and above the associated costs for Fortis utility relocations.

To assess the potential costs, we have included in Appendix I maps where the Fortis' infrastructure crosses or runs parallel with the proposed infrastructure identified in the 10-Year Capital plan. These maps are compiled based on the pressure class of the Fortis lines and overlaid with each of the Surrey infrastructure types, namely water, sewer, drainage, and roads.

3.3 Cost Drivers/Factors

While completing design and construction of the City's Capital Program, the City incurs both direct and indirect costs as a result of Fortis occupying highways for the installation, operation and maintenance of the gas infrastructure.

During our assessment, our team has distinguished the direct and indirect costs borne by the City of Surrey, as a result of Fortis' infrastructure as follows:

- Costs during design;
- Costs during construction, irrespective of Fortis' gas infrastructure having to be relocated/altered;
- Costs during construction to facilitate, if required, the relocation/alteration of Fortis' gas infrastructure.
- Construction delay costs as a result of Fortis' inability to relocate/alter infrastructure in a timely manner.

3.4 Cost Quantification

Direct engineering design and construction costs are costs incurred to avoid spatial conflicts with Fortis infrastructure during the execution of Surrey's Capital Program. Please refer to Appendix II for a summary of the spatial conflicts/encounters. We have identified three cost scenarios that are applicable to over 90% of the spatial encounters with Fortis infrastructure, which will require varying degrees of engineering redesigns and construction modifications. These scenarios are:

- Proposed City infrastructure crossing Fortis IP/TP mains
- Proposed City infrastructure crossing Fortis DP mains
- Proposed City infrastructure running parallel to DP mains

In each of these scenarios, our team has developed a separate cost estimate for Surrey's water, drainage, sewer, and road infrastructure¹ based on the proposed renewal strategy outlined in the 10-year servicing plan.

Described below are the cost drivers / factors for the individual design, construction, delay and litigation aspects. Please refer to Appendix III for detailed cost calculation for each cost driver/factor.

Design Phase

During the engineering design phase, the City will retain civil engineering consultants who will perform the following key tasks to ensure the existing gas infrastructure in proximity to the project is being identified and that the appropriate amount of engineering effort is being allotted to minimize disruption to the Fortis infrastructure. This effort would not normally be incurred had it not be for the presence of Fortis' infrastructure located within municipal highways in the City of Surrey. Some of these tasks include:

Utility pre-location - Upon receiving record information from BCOne Call, the design consultant is required to physically locate key utilities that are within the project scope and transpose the surveyed data to the drawing in preparation for the detail design.

For example, in May 2017, we requested a quote from one of the local contractors to perform utility pre-location for one of our design projects. The cost to perform pre-locates for each crossing instance averaged at \$4,470 including the contractor effort and the design staff time.

Geotechnical investigation and assessment - This investigation is required when working near IP/TP mains to assess the potential impacts resulting from the City's renewal work in proximity to the Fortis infrastructure. If required, the City will provide a mitigation strategy.

Geotechnical investigation efforts could vary significantly depending on the location and type of infrastructure renewal work. For a typical utility renewal project, the geotechnical investigation and reporting cost is averaged at \$5,675. However, when unfavorable subsoil condition is encountered in a roadworks project, the cost of geotechnical investigation and assessment is averaged at \$67,300 due to the additional assessment that is needed to be performed to ensure the existing Fortis main is not subjected to any negative impact during the subsoil improvement.

¹ Surrey's District Energy Utility has not been included in this assessment as we cannot locate the utility in the 10 Year Plan, but there are known crossing scenarios.

Corrosive soil investigation and stray current review – This investigation is required when working near IP/TP mains in order to assess the potential impacts resulting from City’s water infrastructure renewal in proximity to the Fortis infrastructure. If required, the City will provide a mitigation strategy.

Corrosive soil investigation is often required as part the municipality water main design. However, the presence of Fortis infrastructure and its own corrosion prevention measures, could interfere with the corrosion prevention measure proposed by the waterworks project. Thus, additional design effort is needed to ensure the two systems will work harmoniously. In this assignment, we have attributed 20% of the investigative cost to Fortis, which is averaged at \$2,815.

Electromagnetic field review – This investigation is required when working near IP/TP mains in order to assess the potential impacts resulting from relocating the BC Hydro Transmission infrastructure adjacent to the Fortis infrastructure. This scenario generally occurs when the City widens arterial corridors under Hydro ROW, such as 100 Avenue, 105 Avenue, 160 Street, and 168 Street. The cost of this review is averaged at \$16,520, which from our experience will take place once every two years based on the 10 Year Servicing Plan.

Design efforts to accommodate existing gas mains – Design efforts will need to be expended to address the spatial and surrounding environmental constraints. For a typical utility improvement project, the design effort is averaged at \$2,770. However, when poor subsoil is encountered the design effort is estimated at \$27,700 as it requires specific design requirements to address the existing Fortis infrastructure.

Prepare permit application and liaison during application – In addition to design, the consultant team will be required to prepare and apply for authorization to work near Fortis IP/TP infrastructure, which will often include separate design drawings as well as additional sketches / reports to present findings and a mitigation strategy to the satisfaction of the Fortis representatives. For a typical project, the effort is averaged at \$855. However, for roadworks projects in poor subsoil region, the effort is averaged at \$13,500.

Delay in design approval and revisions – Upon submission to Fortis, iterative revisions and further follow ups will often be required. Typically, the consultant team will expend up to 40 hours of the team’s effort in its attempt to ensure timely approval.

Construction Phase

During the construction phase, the contractor will perform the following tasks to ensure Fortis’ infrastructure is located and protected. In addition, the contractor will also be adhering to the construction

protocols stipulated within the Fortis authorization to work. This effort would not normally incur had it not been for the presence of Fortis' infrastructure located within municipal highways in the City of Surrey. Some of these tasks include:

Site meeting and pre-construction coordination with Fortis - Prior to the start of construction, the contractor will attend an onsite meeting with Fortis' representatives to review the scope of the work, and various safety and emergency response protocols. This task will typically involve a representative from the consultant, the City, and the Contractor. In the case of unfavorable subsoil, there are ongoing meetings for the duration of the project to review the state of Fortis' infrastructure, access / maintenance requirements, and other constructions related issues. Accordingly, we estimated 150 hours of staff time will be required from each party.

Utility pre-location - Prior to excavation, the construction contractor will be responsible for physically locating and marking the Fortis infrastructure including service connections. The cost make up for this task is very similar to that of the utility pre-location during design.

Additional depth in excavation and shoring at the crossing (up to 5m length) - When encountering crossing conflicts with IP/TP mains, the City's infrastructure will often require to go under the existing IP/TP mains; thus resulting in additional costs on excavation, backfill and shoring.

Fortis IP/TP mains are typically situated at 1.2 -1.5m below grade; thus the bottom of the gas line would be at 1.5 - 1.8m below grade. To achieve adequate vertical separation, the top of the proposed utility should be at minimum 2.2m below grade. Without the presence of gas, the proposed utility would have 1.3m - 1.5m cover; thus, the City is trenching an additional 0.8m-1.1m to accommodate the existing Fortis infrastructure.

Loss of production due to hand excavation at crossing over 5m length - When working near any IP/TP mains, Fortis will require the contractor to perform hand excavation. The production rate with hand excavation is assessed at about 20% when the same tasks are performed by machine. The typical machine trenching rate is 7.5m per hour versus 1.5m per hour by hand.

Risk premium associated with the crossing - Additional insurance coverage must be obtained and therefore higher premiums are incurred when working near Fortis IP/TP mains. During our research, we are unable to quantify this amount as the construction insurance premium is assessed on the project as a whole and does not have specific break down for each existing utility.

Presence of Fortis Watchman / Inspectors - Fortis representative(s) will need to be onsite during work performed near IP/TP mains. For typical projects, the Fortis inspector will be onsite up to 8 hours. For projects with unfavorable sub-soil condition, the typical Fortis inspector could be onsite for up to 500 hours over the duration of the project.

Additional installation depth for remaining of the run (100m) - Additional excavation, backfill and shoring costs will be incurred further downstream for storm and sanitary sewer systems resulting from lowering the sewer mains at the crossings. In our assessment, we assumed only the immediate pipe section up to the downstream manhole will be affected. In actual cases, the entire project downstream will need to be deepened or upsized. However, the cost implication of that is too difficult to assess accurately.

Installation of pipe offset or concrete protector pad for IP/TP - For water main crossings of IP/TP mains, the installation of pipe offset will typically be required to go underneath the Fortis infrastructure. For road crossings of IP/TP mains, Fortis typically requires the installation of a concrete pipe protection pad above the gas main across the entire roadway as per Fortis drawing 99000-C-100-100-R3.

Installation of Fortis bypass and monitoring - A IP/TP bypass will be required to be constructed when a road upgrade is being performed under unfavorable sub-soil conditions. From previous experience, when preloading over the Fortis infrastructure, to improve the subsoil conditions, the City will be required to follow specific preload monitoring protocols on preload over the existing infrastructure as well as pay for the bypass which will serve as the future Fortis main once the road upgrade is completed. We based our unit cost for this item on historical data as these are very unique circumstances.

Spatial Encounters with DP mains - Our cost assessment also takes into consideration the two types of spatial encounters, crossings and parallel runs. In crossing situations with IP/TP mains, the proposed City utilities will go underneath the Fortis infrastructure. But when DP mains are encountered during crossing situations, only the proposed water main will go underneath the Fortis infrastructure. The proposed storm and sanitary sewers will maintain the proposed profiles and the Fortis DP mains will be relocated. The cost of this relocation is assessed in the next section - FEI Relocations Costs.

For parallel run situations with DP mains², the proposed City infrastructure will typically maintain a deeper profile than the Fortis infrastructure in order to avoid conflicts between the proposed service

² During the GIS data extraction, we did not identify any parallel runs for proposed City utilities with the IP/TP lines.

connections and the existing Fortis line. Furthermore, due to limited corridor available within the roadway, the proposed City infrastructure will often be running within 2m of the exiting Fortis line. Accordingly, shoring will often be required as a result of the deeper trench and close proximity.

Construction Delays

In City infrastructure renewal projects with IP/TP main crossings, the Contractor (the City) will experience delays to the critical path schedule for each instance. This delay is often attributed to the scheduling of Fortis crew or outstanding terms stated in authorization to work. On one of the previous Aplin Martin projects (26104), we were delayed for 2 months after commencement of construction before receiving our authorization to work. For the purposes of our analysis we have assumed one week of delay on average.

Litigation

We are informed that the City has, over the years, incurred significant litigation costs related to disputes with Fortis. This has resulted in proceedings before the Courts and the Oil and Gas Commission. Legal time is also expended disputing estimates, and responding to correspondence, permits, and emails that raise legal issues.

3.5 FEI Relocation Costs

Annually the City pays Fortis directly for relocating Fortis gas infrastructure (DP, IP/TP) mains when spatial conflicts are encountered during the renewal of municipal infrastructure.

As shown on *“Page 6 of the City of Surrey’s Application to the BCUC, dated May 17, 2017,* Surrey has reimbursed FEI \$5.4 million over the last six years (2010 to 2015) related to relocating FEI facilities to accommodate Surrey’s projects (primarily highway widenings, water and sewer works) as shown in Table 4 below. The annualized average cost over this 6 year period is \$906,000.

Table 4: Surrey Costs Paid to FEI to Relocate Gas Mains (DP, IP, and TP)

Type of Gas Mains	2010	2011	2012	2013	2014	2015
Distribution	\$403,372	\$358,361	\$183,479	\$541,773	\$757,626	\$135,582
Transmission	\$76,293	\$0	\$959,325	\$2,019,032	\$0	\$0
Total Cost	\$479,665	\$358,361	\$1,142,804	\$2,518,533	\$799,898	\$135,582
6-Year Average	\$905,807/ year					

4. COST SUMMARY

Through our local experience, particularly in the City of Surrey, and our discussions with local construction contractors, we have developed unit

rates for each of the cost drivers/factors identified in Section 3. Multiplying the unit rate with the number of occurrences derived from the 10 Year Capital Plan for each type of infrastructure, we determined the total direct costs the City will incur for each of the utilities over the next 10 years in Table 5 below.

Table 5: Total Costs Incurred based on 10- Year Capital Plan (by Infrastructure)

	Water	Storm Sewer	Sanitary Sewer	Roadworks
Ten Year Total	\$5,495,270	\$3,328,526	\$3,773,702	\$10,048,950
Annual Cost Without Inflation Adjustment	\$549,527	\$332,853	\$377,370	\$1,004,895

In Table 6 below, we summarized the direct costs, by cost category, incurred as a result of Fortis infrastructure conflicting with Surrey's Capital Program over the next 10 years.

Table 6: Total Costs Incurred based on 10- Year Capital Plan (by Category)

	Engineering Design	Construction	Delay	Litigation
Ten Year Total	\$4,323,650	\$16,784,658	\$2,166,200	\$10,840,000
Annual Cost Without Inflation Adjustment	\$432,365	\$1,678,466	\$216,620	\$1,084,000

Finally, we carried forward the annual administrative / overhead costs from Table 1, the FEI Relocation Costs from Table 4, and the annual direct costs to the capital program from Table 6 to Table 7 below, for the annualized total cost³ as a result of Fortis' infrastructure operating within the City's highways.

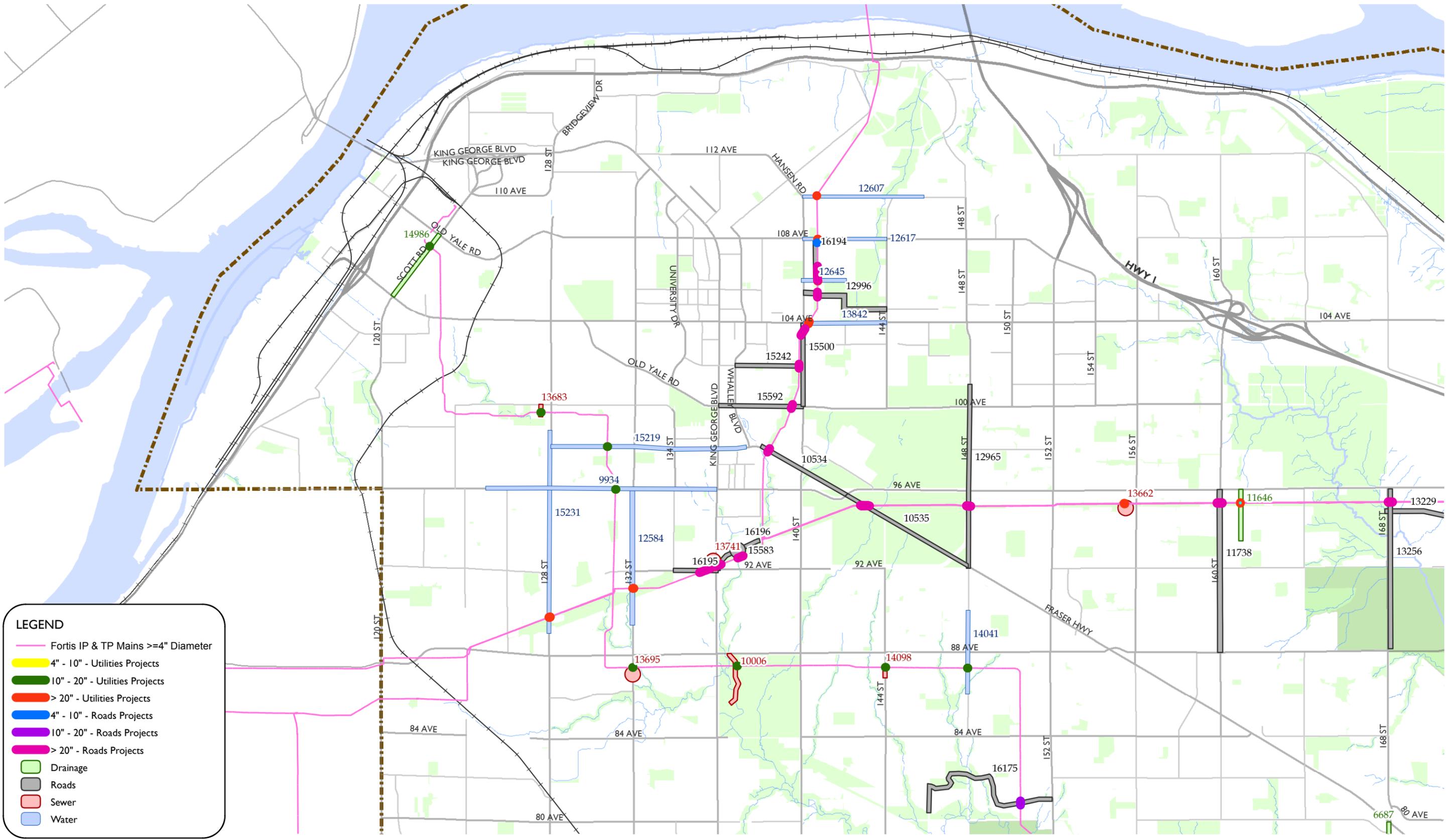
Table 7: Total Costs Incurred by City of Surrey Annually

	Annualized Cost
Administrative / Overhead	
Staff Costs	\$152,600
Permit Fees	\$154,030
Pavement Cut Fees	\$204,700
Capital Costs	
Design Phase	\$432,365
Construction Phase	\$1,687,466
Delay	\$216,620
Litigation	\$100,000
FEI Relocations	\$905,807
Operating Costs	Not Assessed
Estimate Annual Cost to Surrey	\$3,342,258

³ The annualized cost is presented in present value and inflation rate has not been factored into the calculation.

APPENDIX I

MAPS



LEGEND

- Fortis IP & TP Mains $\geq 4"$ Diameter
- 4" - 10" - Utilities Projects
- 10" - 20" - Utilities Projects
- $> 20"$ - Utilities Projects
- 4" - 10" - Roads Projects
- 10" - 20" - Roads Projects
- $> 20"$ - Roads Projects
- Drainage
- Roads
- Sewer
- Water

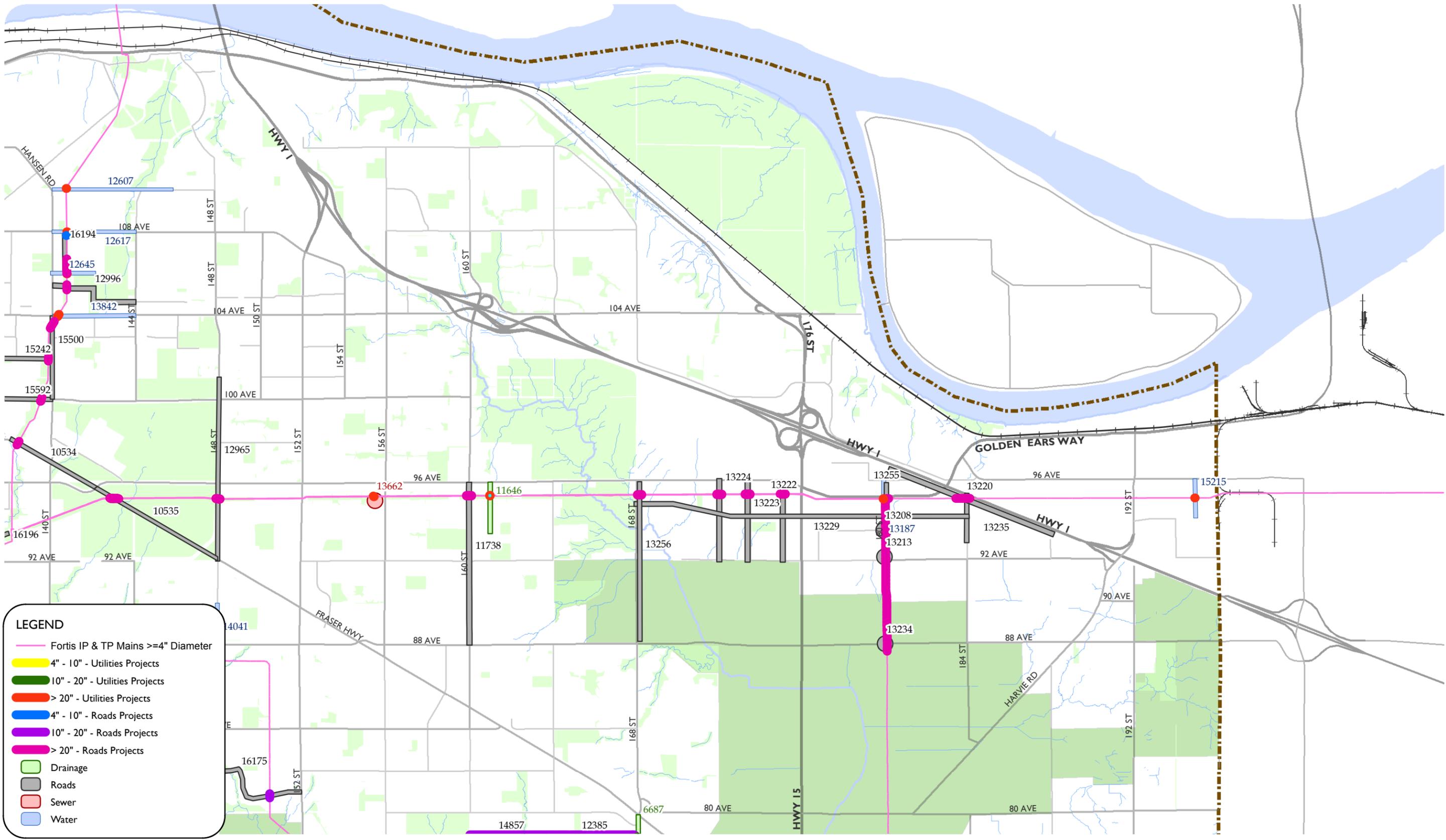
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 1



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



LEGEND

- Fortis IP & TP Mains ≥ 4 " Diameter
- 4" - 10" - Utilities Projects
- 10" - 20" - Utilities Projects
- > 20 " - Utilities Projects
- 4" - 10" - Roads Projects
- 10" - 20" - Roads Projects
- > 20 " - Roads Projects
- Drainage
- Roads
- Sewer
- Water

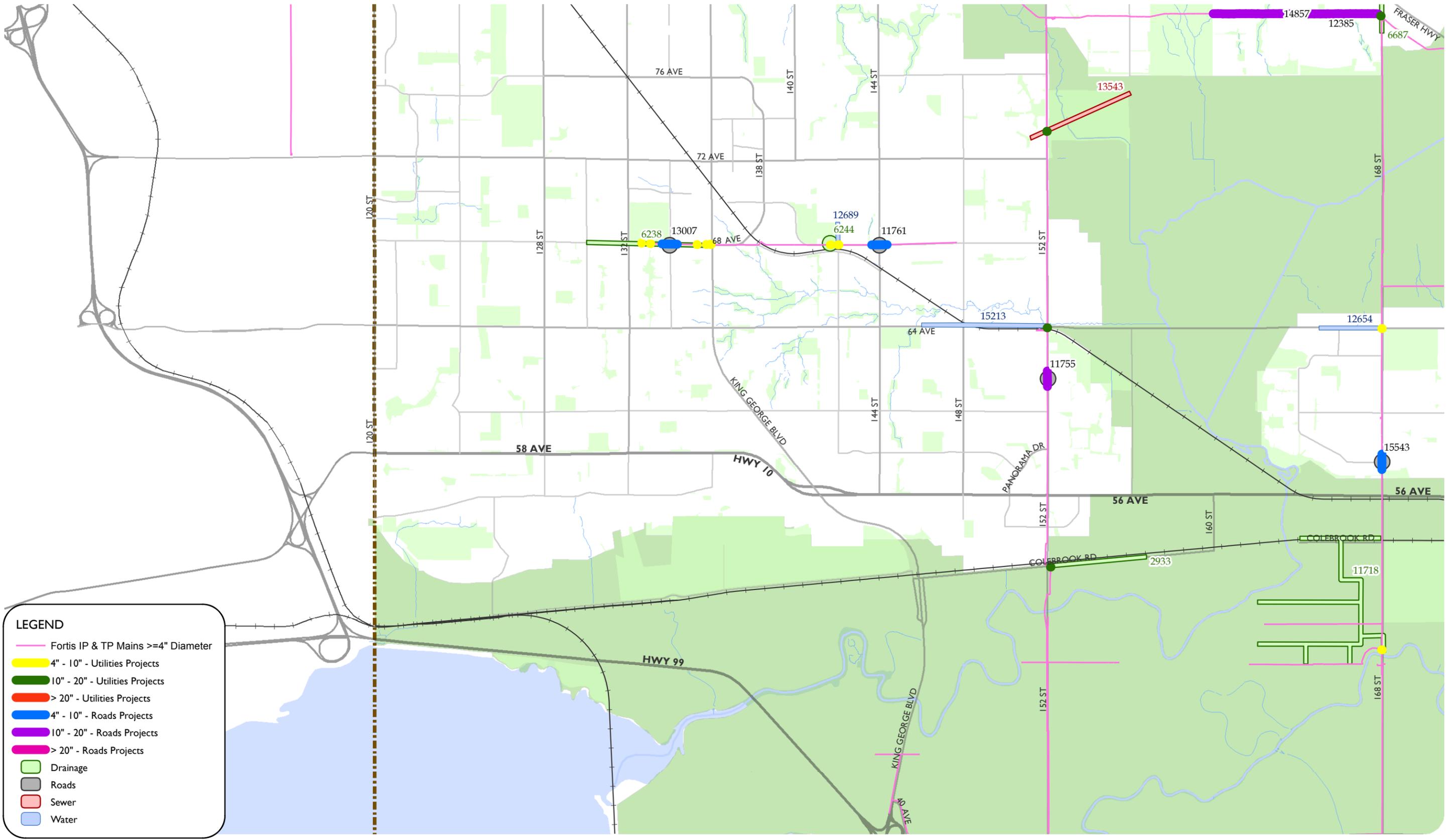
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 2



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



LEGEND

- Fortis IP & TP Mains ≥ 4 " Diameter
- 4" - 10" - Utilities Projects
- 10" - 20" - Utilities Projects
- > 20 " - Utilities Projects
- 4" - 10" - Roads Projects
- 10" - 20" - Roads Projects
- > 20 " - Roads Projects
- Drainage
- Roads
- Sewer
- Water

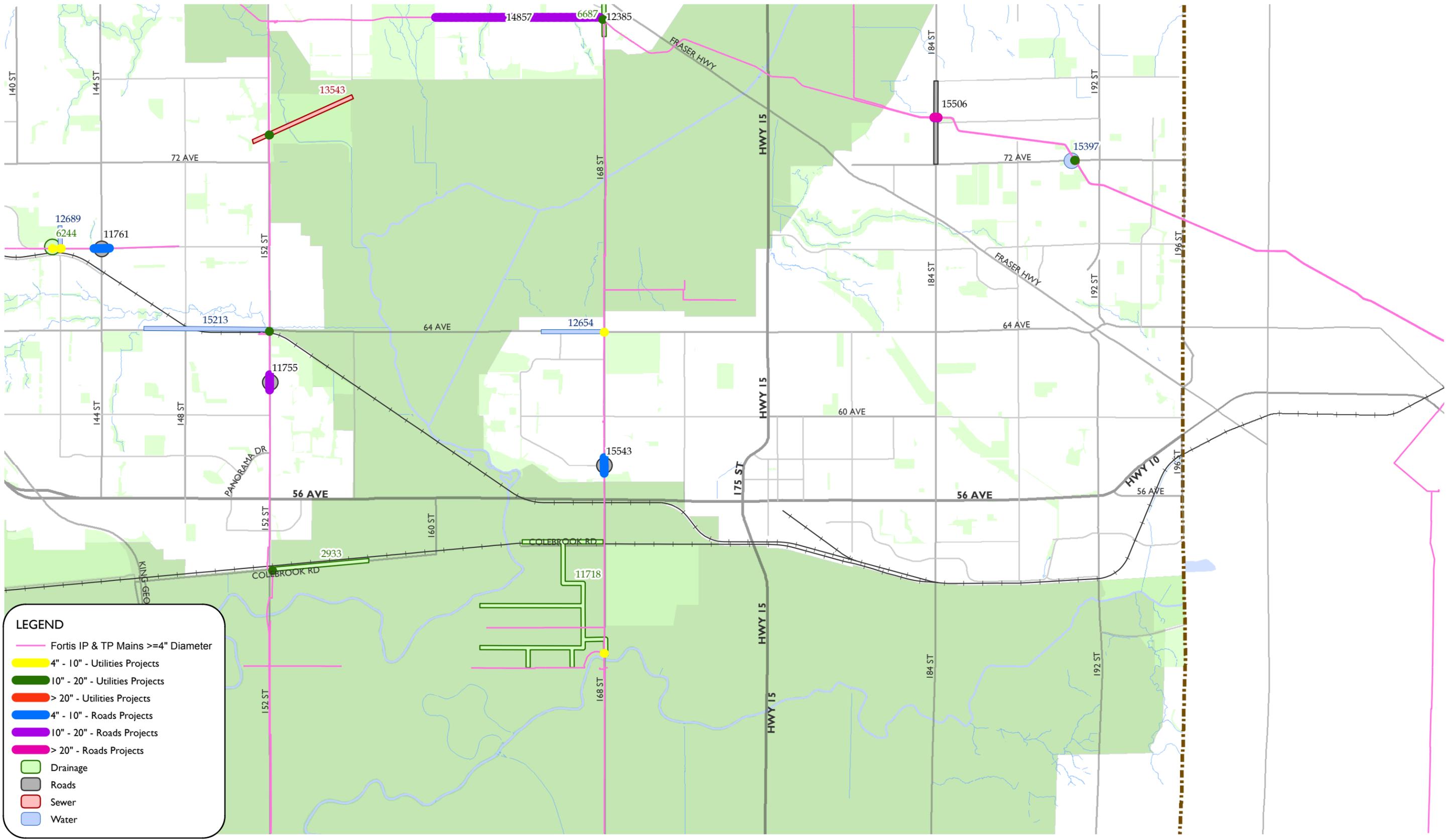
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 3



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



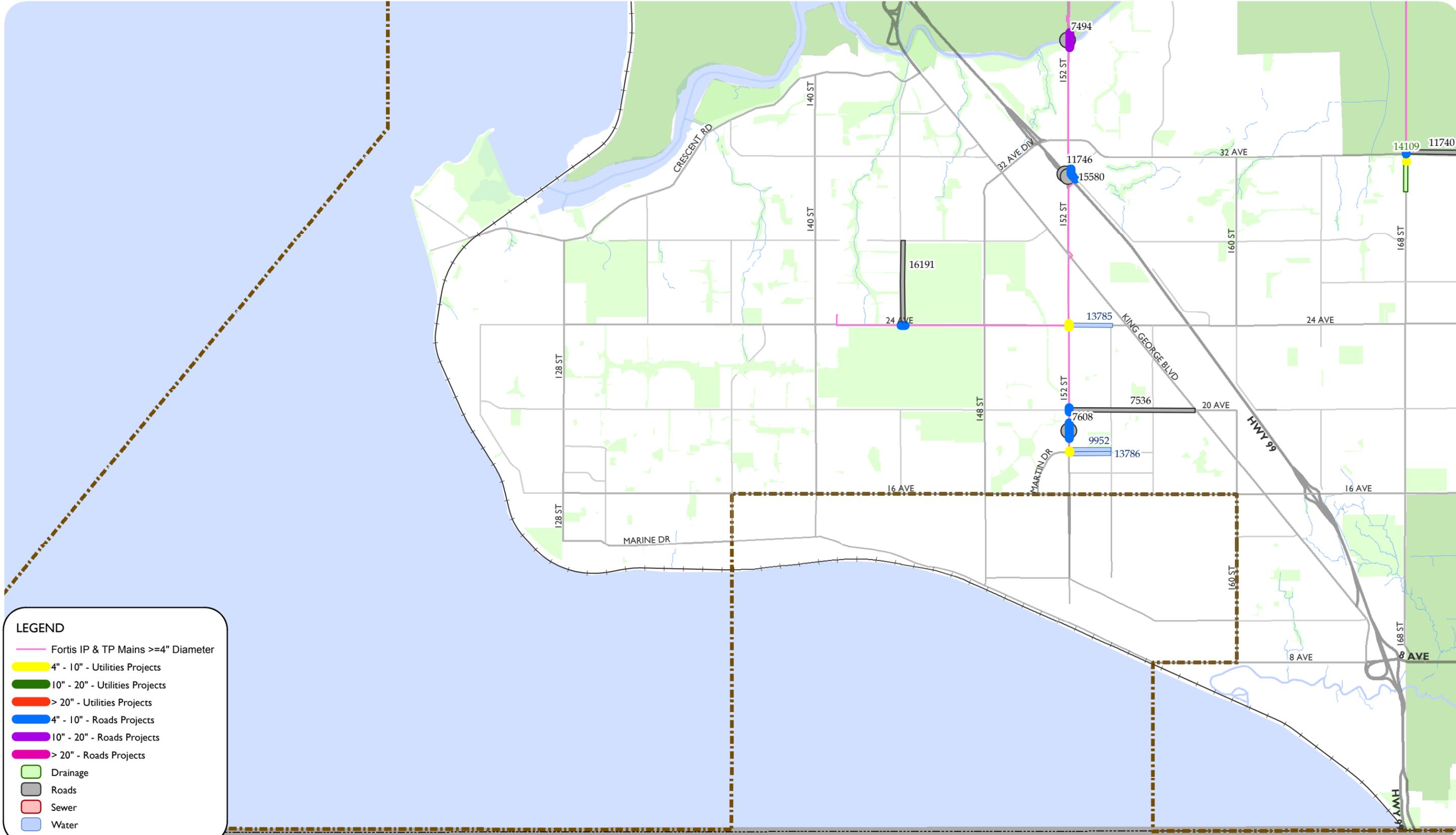
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 4



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



LEGEND

- Fortis IP & TP Mains $\geq 4"$ Diameter
- 4" - 10" - Utilities Projects
- 10" - 20" - Utilities Projects
- $> 20"$ - Utilities Projects
- 4" - 10" - Roads Projects
- 10" - 20" - Roads Projects
- $> 20"$ - Roads Projects
- Drainage
- Roads
- Sewer
- Water

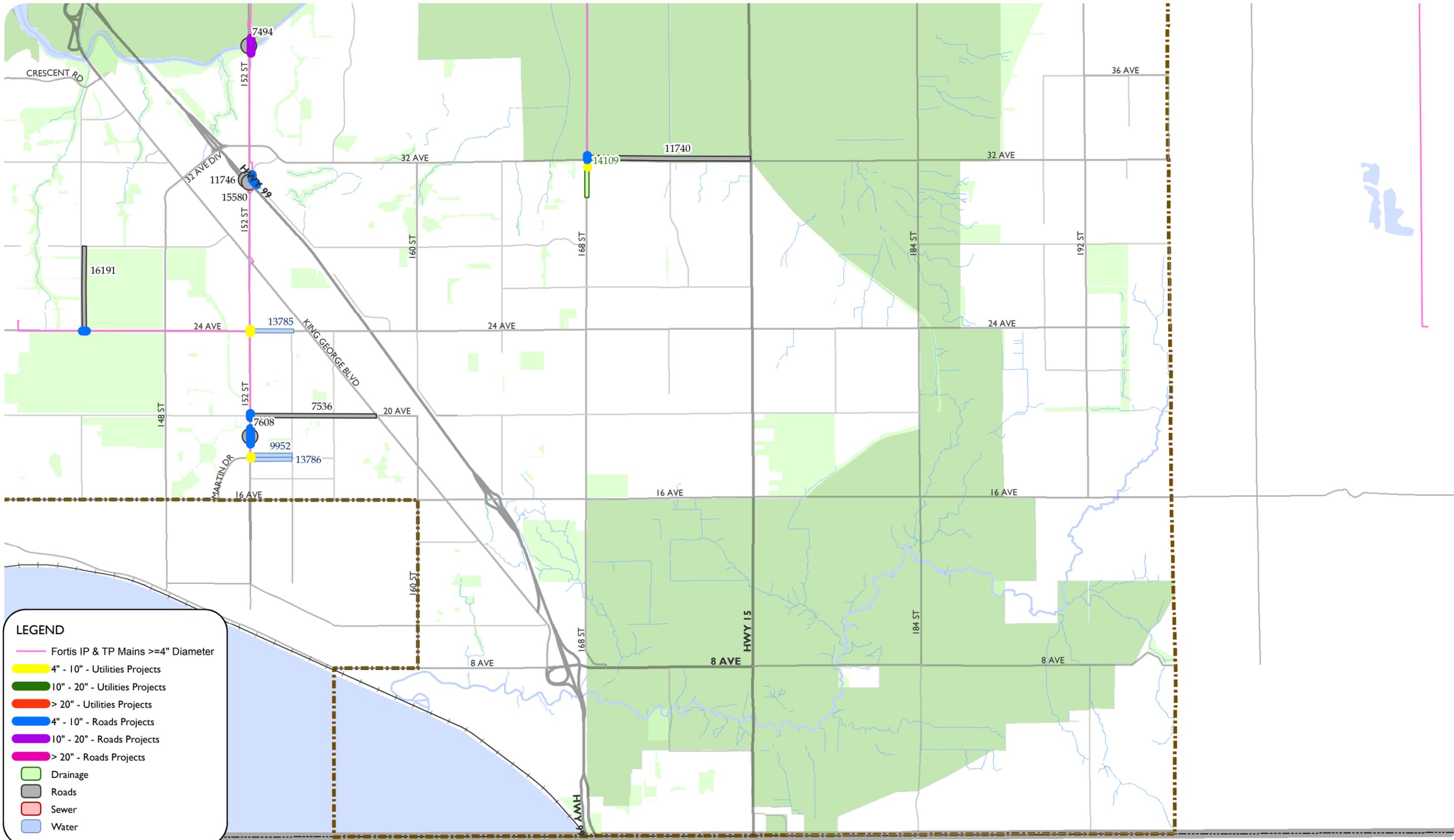
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 5



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



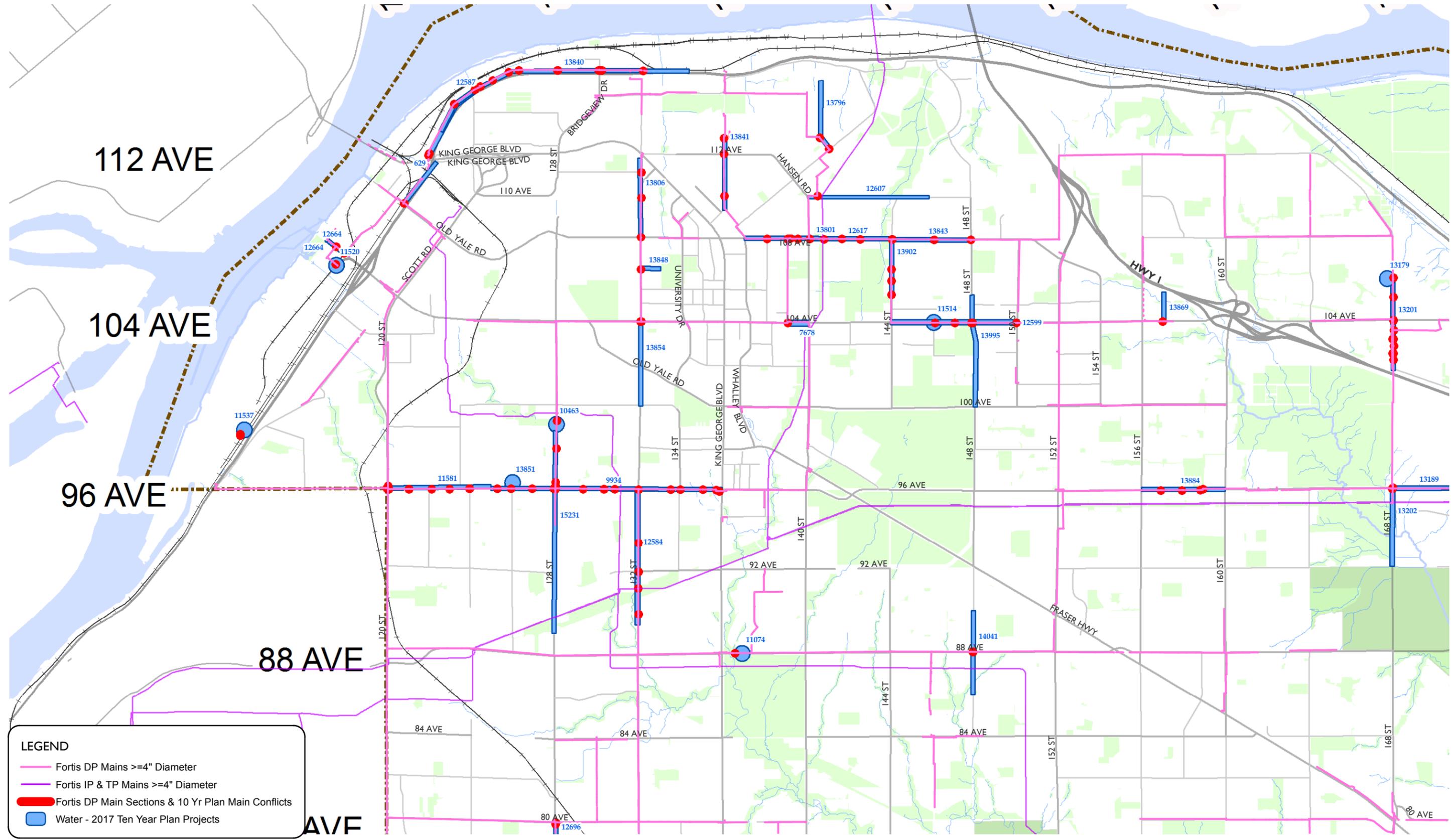
Fortis TP & IP Mains & 2017 10Yr Plan Projects - Map 6



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B.mxd
Cartographer: C9W Date: 16-Aug-2017 © City of Surrey



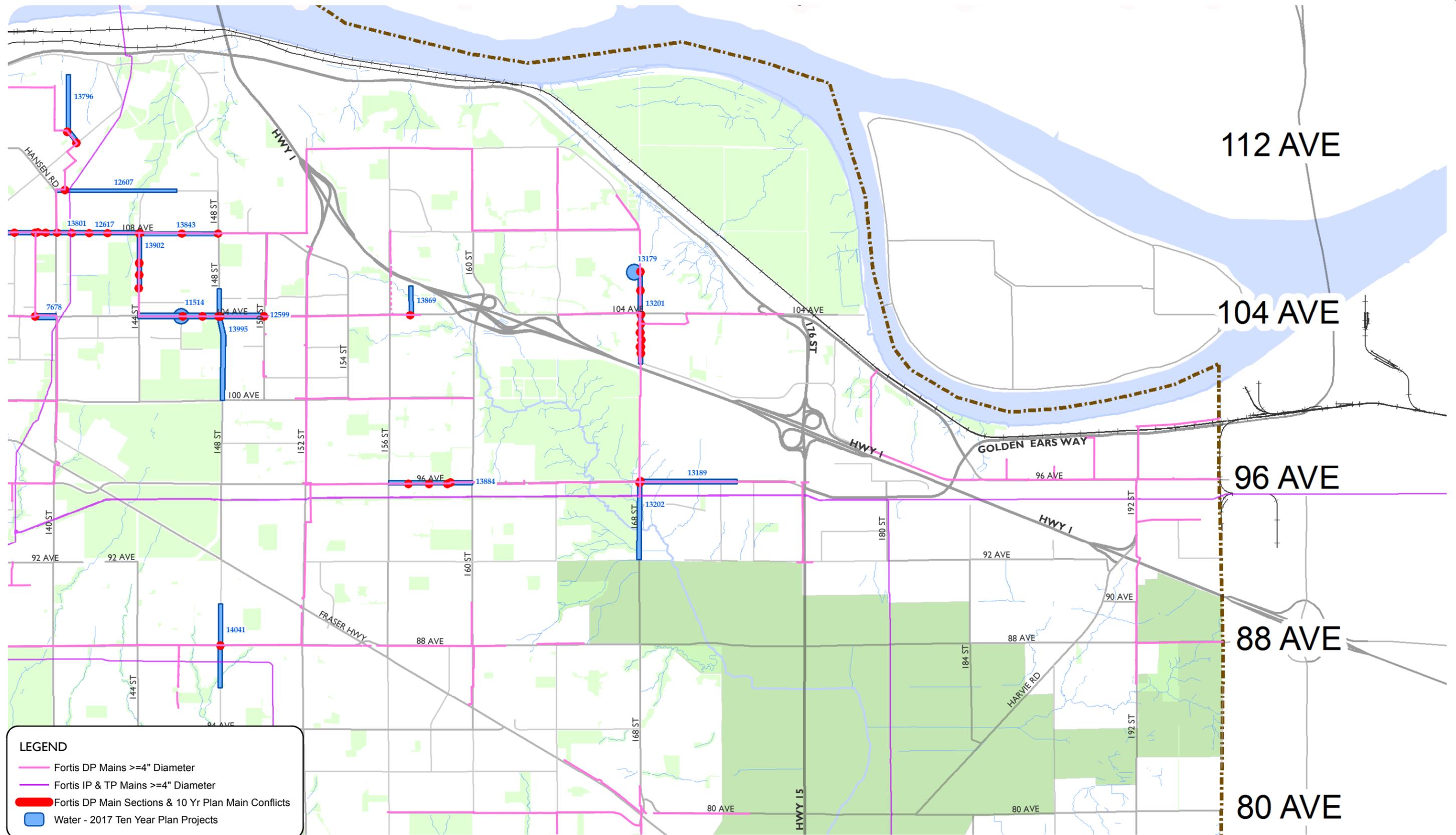
Fortis DP Mains & 2017 10Yr Plan Projects - Map 1



GIS SECTION
ENGINEERING

CITY OF SURREY
the future lives here.

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.



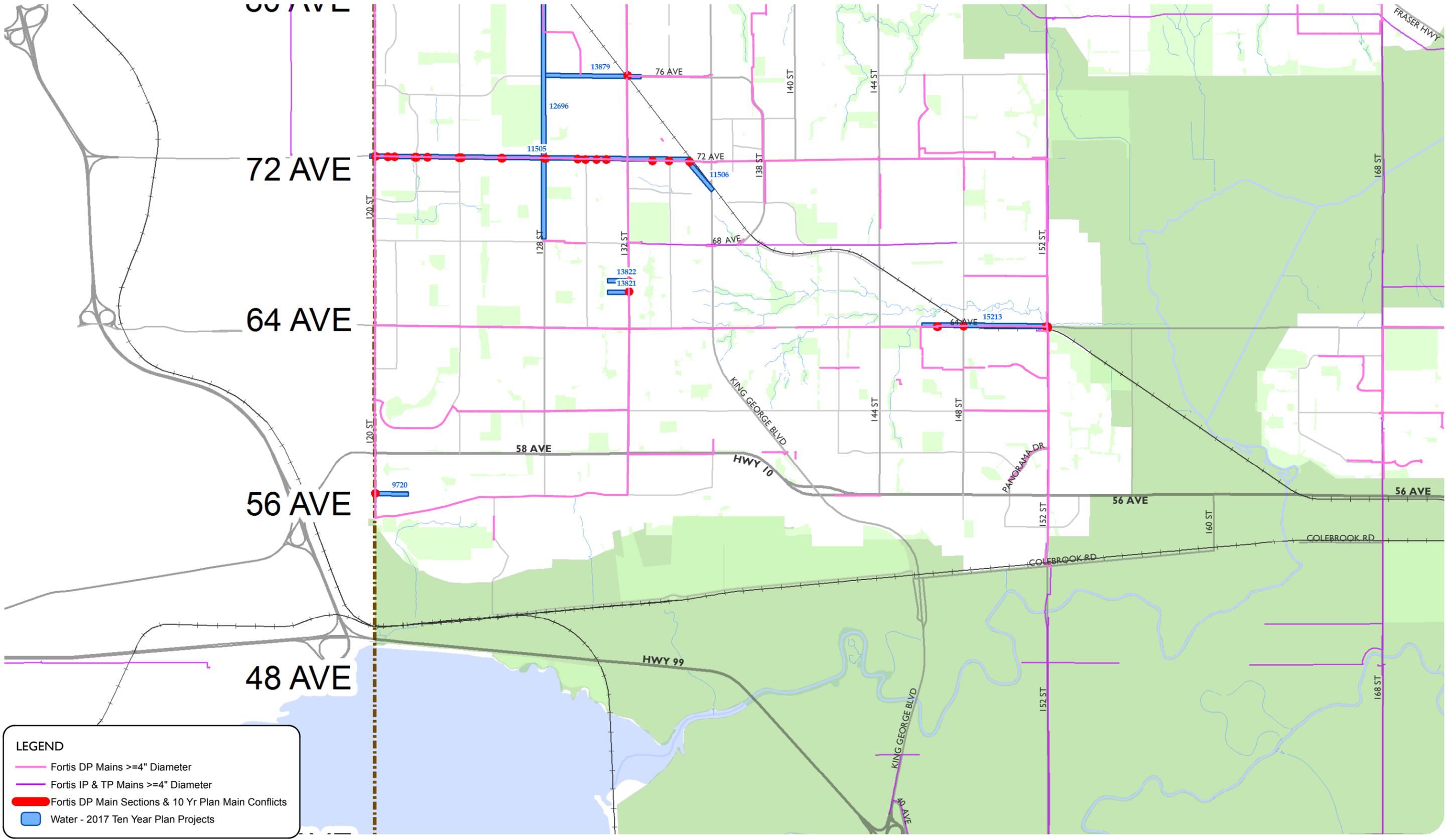
Fortis DP Mains & 2017 10Yr Plan Projects - Map 2



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 30-Aug-2017 © City of Surrey



LEGEND

- Fortis DP Mains >=4" Diameter
- Fortis IP & TP Mains >=4" Diameter
- Fortis DP Main Sections & 10 Yr Plan Main Conflicts
- ▭ Water - 2017 Ten Year Plan Projects

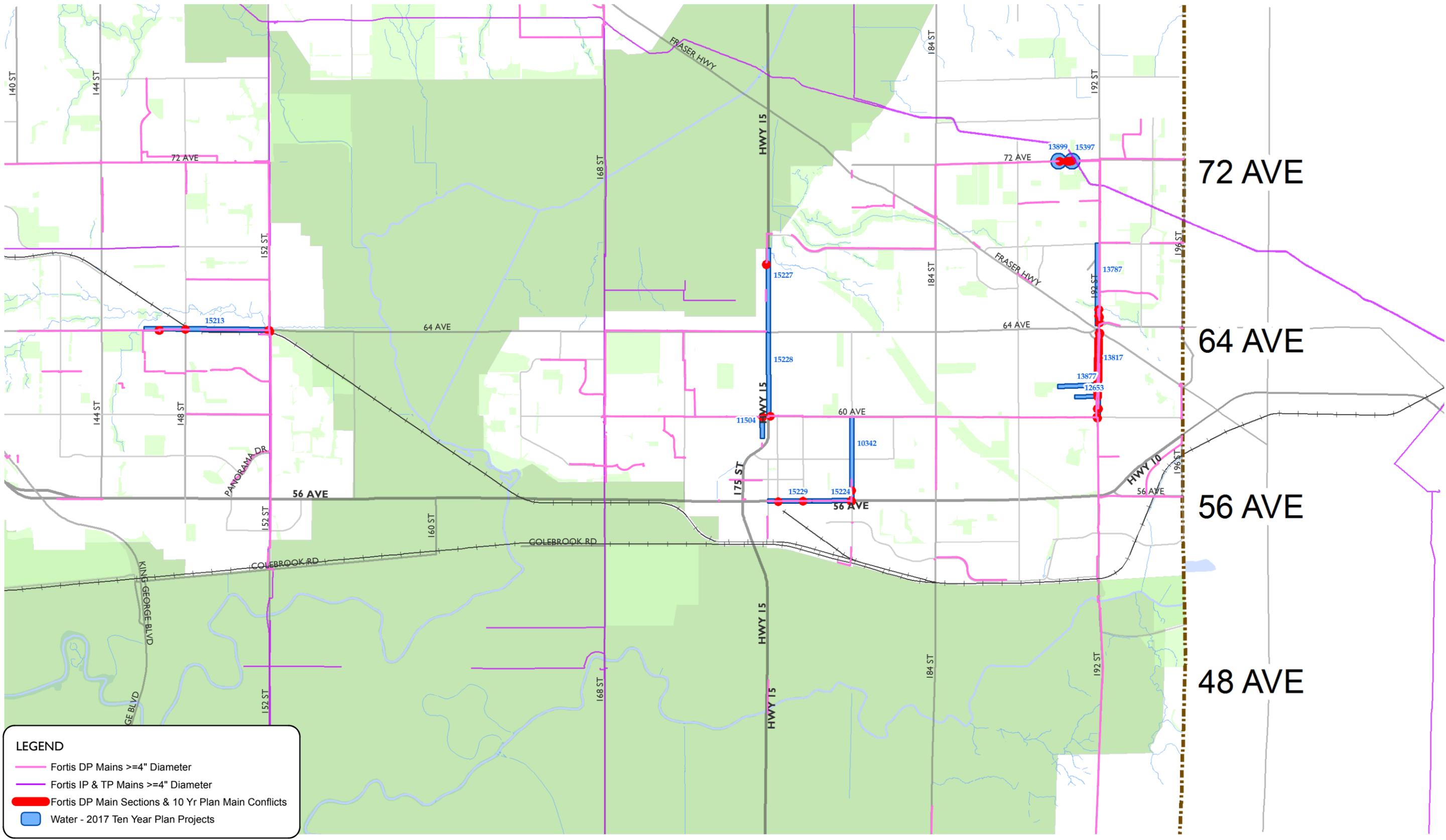
Fortis DP Mains & 2017 10Yr Plan Projects - Map 3



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 30-Aug-2017 © City of Surrey



LEGEND

- Fortis DP Mains >=4" Diameter
- Fortis IP & TP Mains >=4" Diameter
- Fortis DP Main Sections & 10 Yr Plan Main Conflicts
- Water - 2017 Ten Year Plan Projects

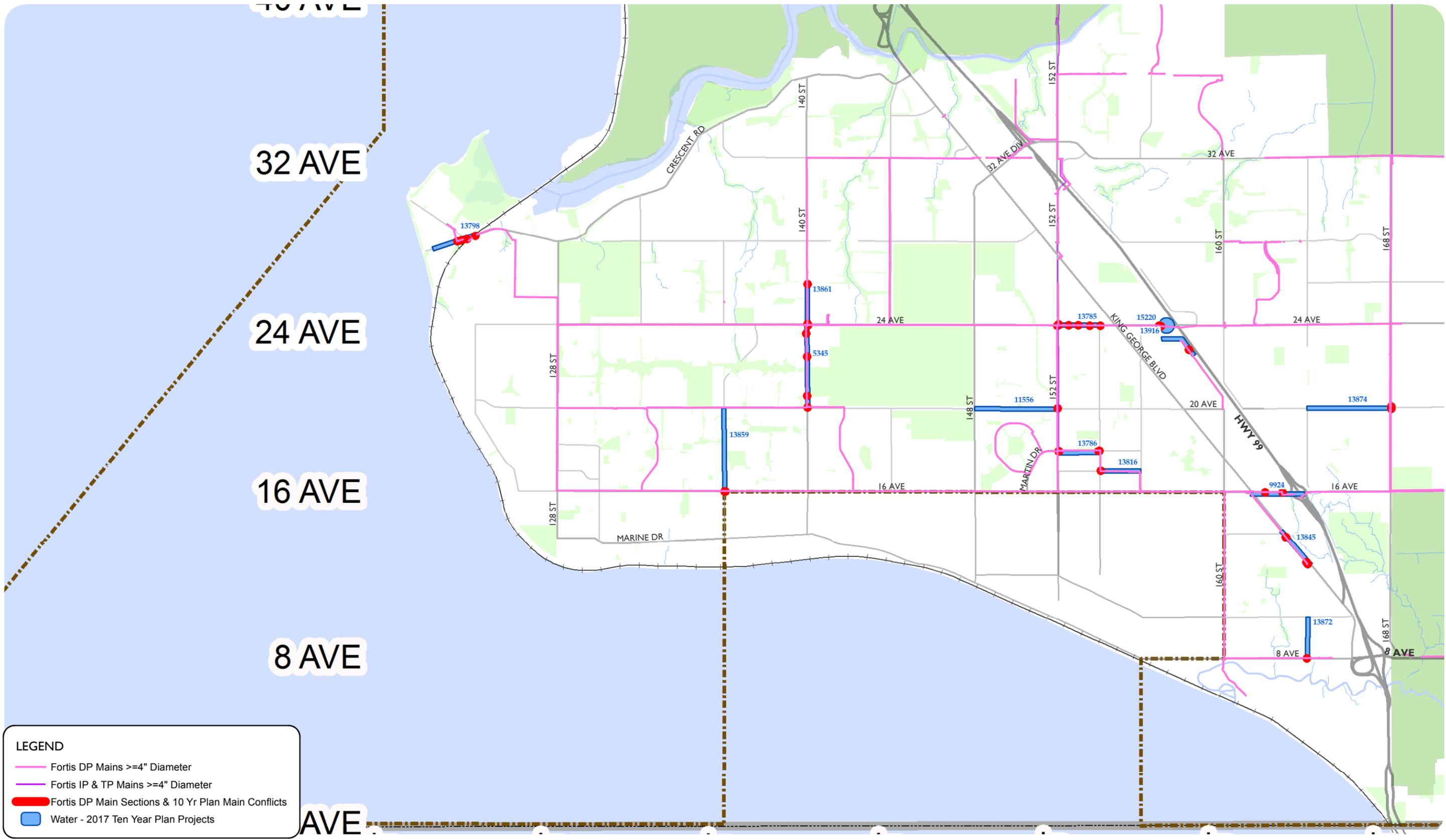
Fortis DP Mains & 2017 10Yr Plan Projects - Map 4



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 30-Aug-2017 © City of Surrey



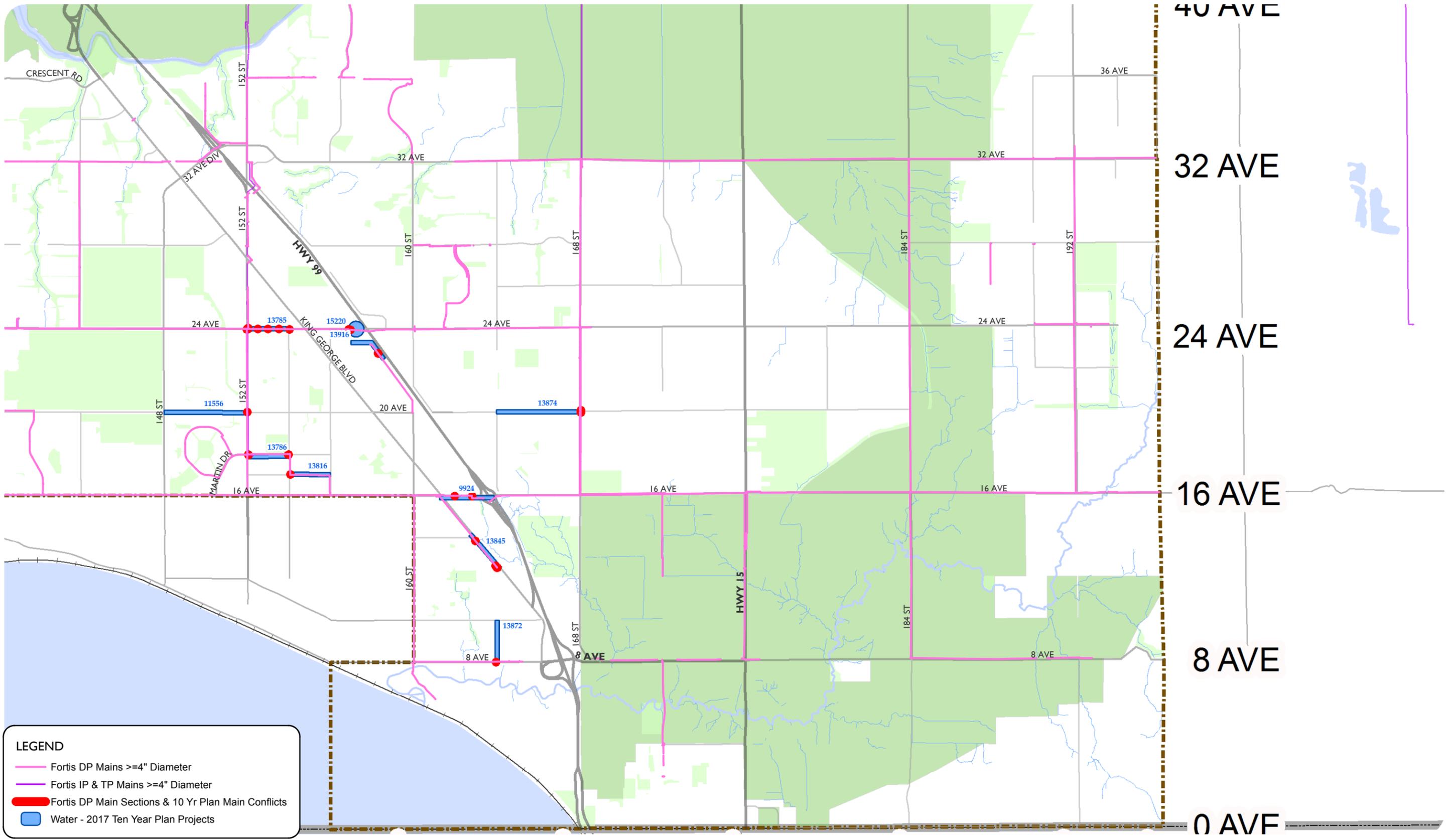
Fortis DP Mains & 2017 10Yr Plan Projects - Map 5



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 30-Aug-2017 © City of Surrey



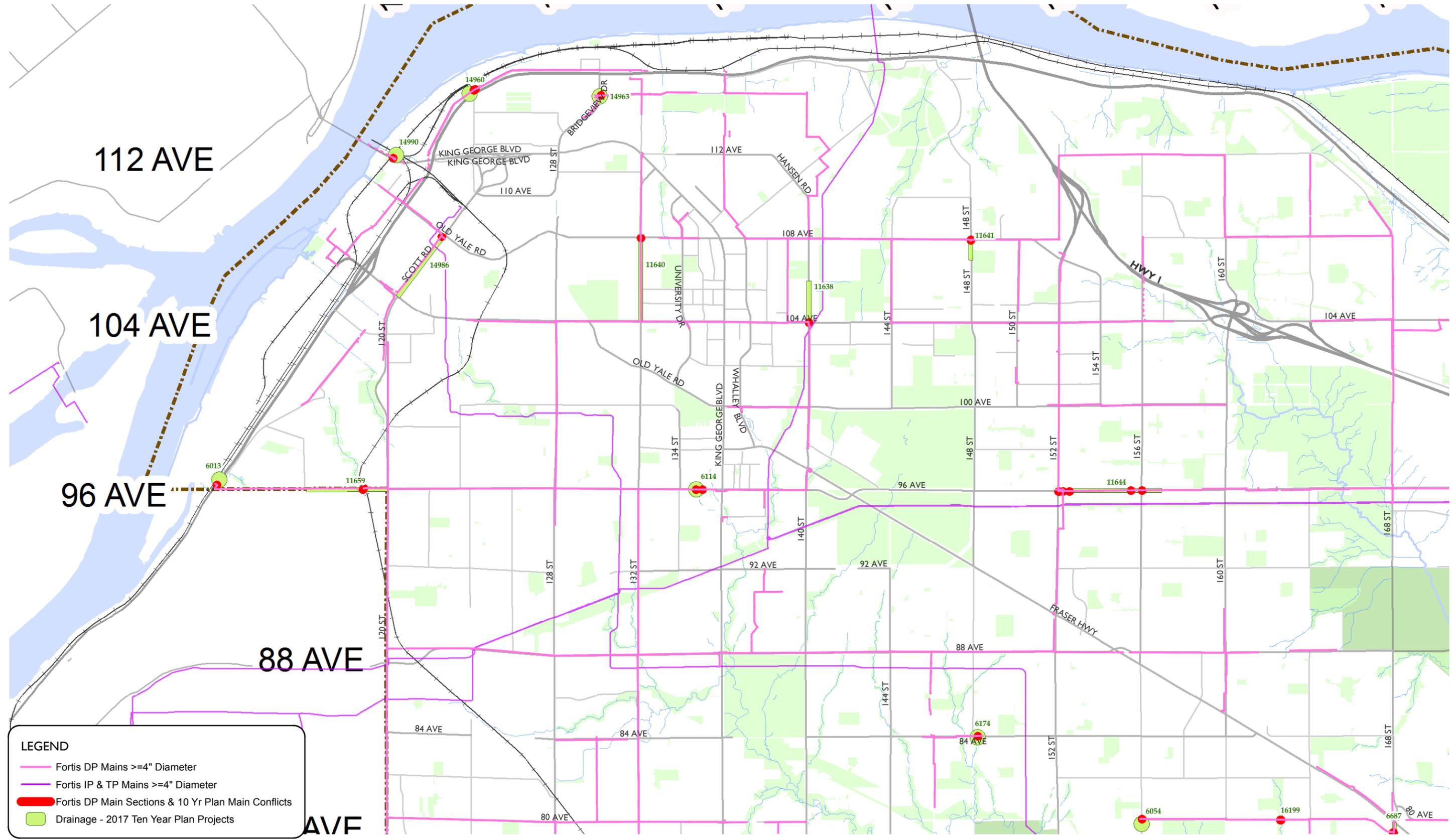
Fortis DP Mains & 2017 10Yr Plan Projects - Map 6



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 30-Aug-2017 © City of Surrey

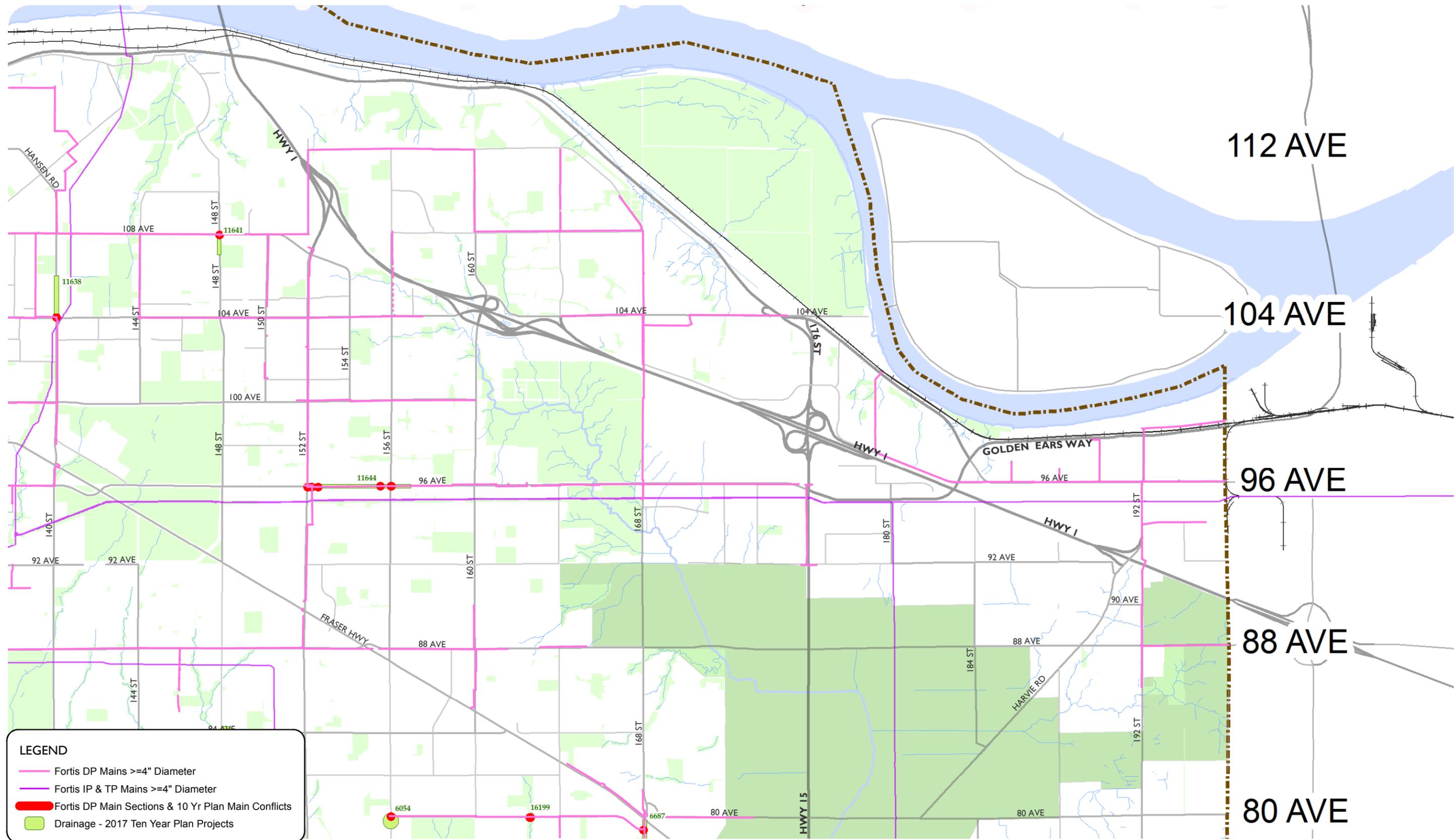


Fortis DP Mains & 2017 10Yr Plan Projects - Map 1



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.



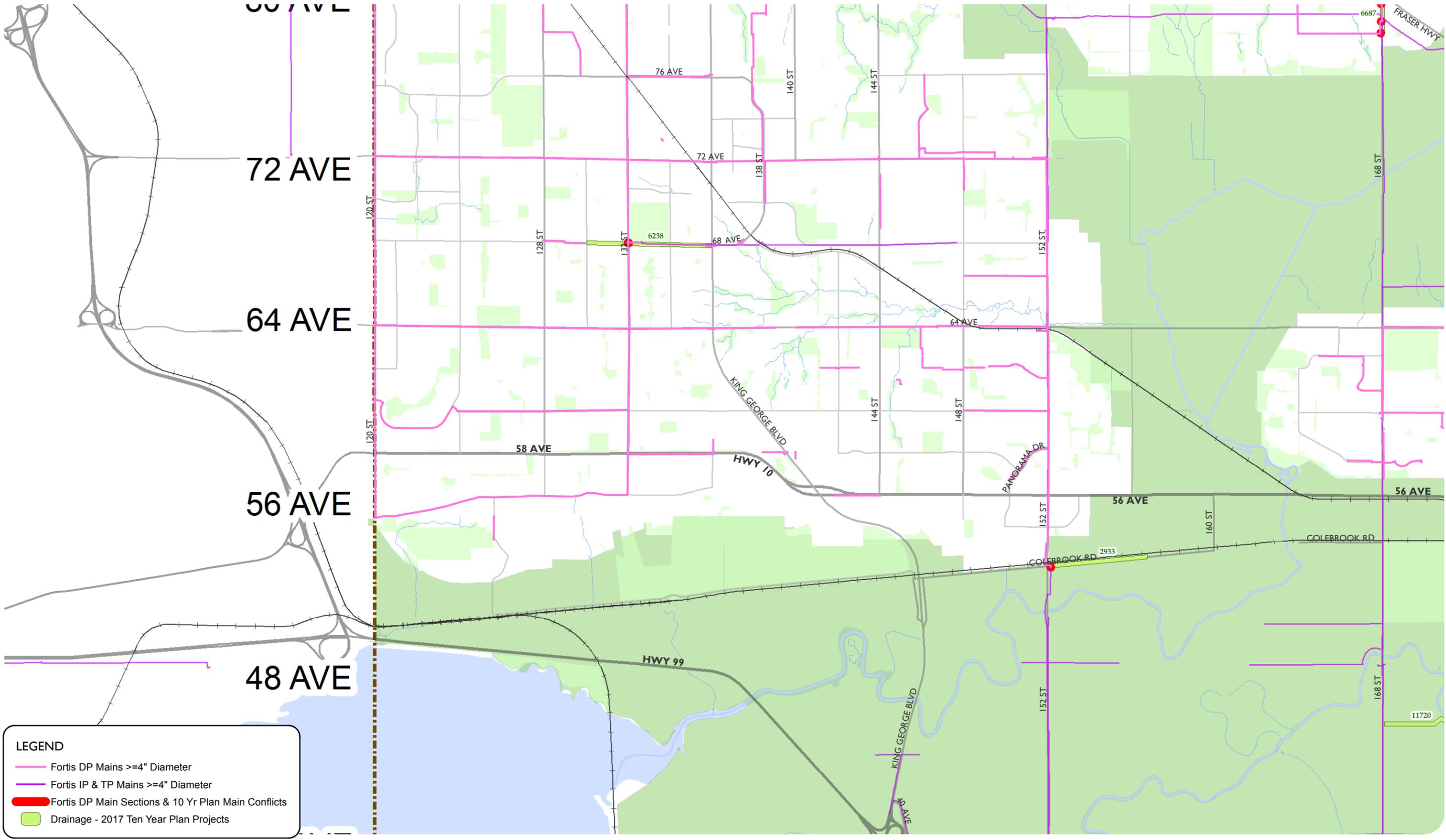
Fortis DP Mains & 2017 10Yr Plan Projects - Map 2



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



LEGEND

- Fortis DP Mains >=4" Diameter
- Fortis IP & TP Mains >=4" Diameter
- Fortis DP Main Sections & 10 Yr Plan Main Conflicts
- Drainage - 2017 Ten Year Plan Projects

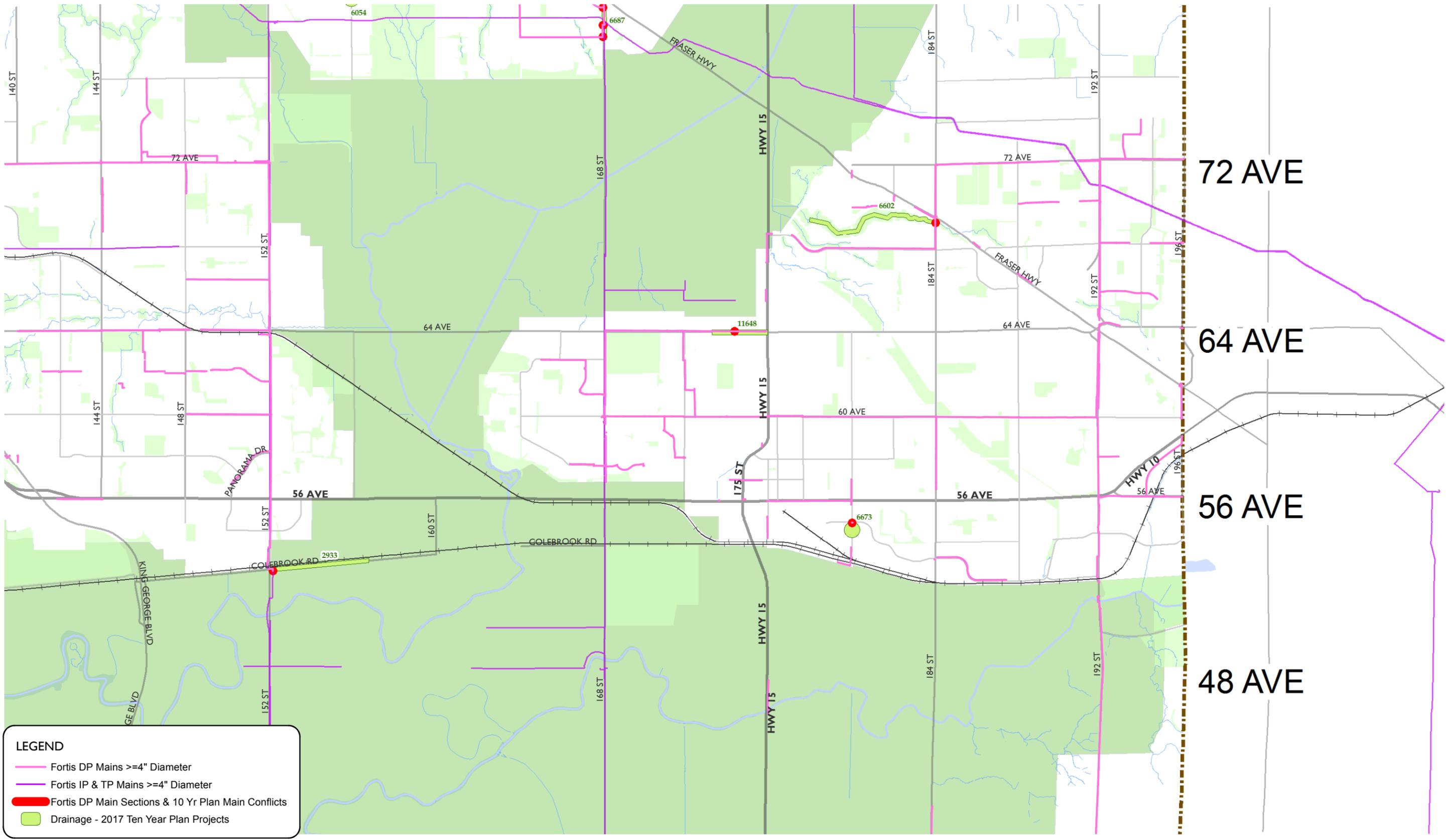
Fortis DP Mains & 2017 10Yr Plan Projects - Map 3



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



LEGEND

- Fortis DP Mains >=4" Diameter
- Fortis IP & TP Mains >=4" Diameter
- Fortis DP Main Sections & 10 Yr Plan Main Conflicts
- Drainage - 2017 Ten Year Plan Projects

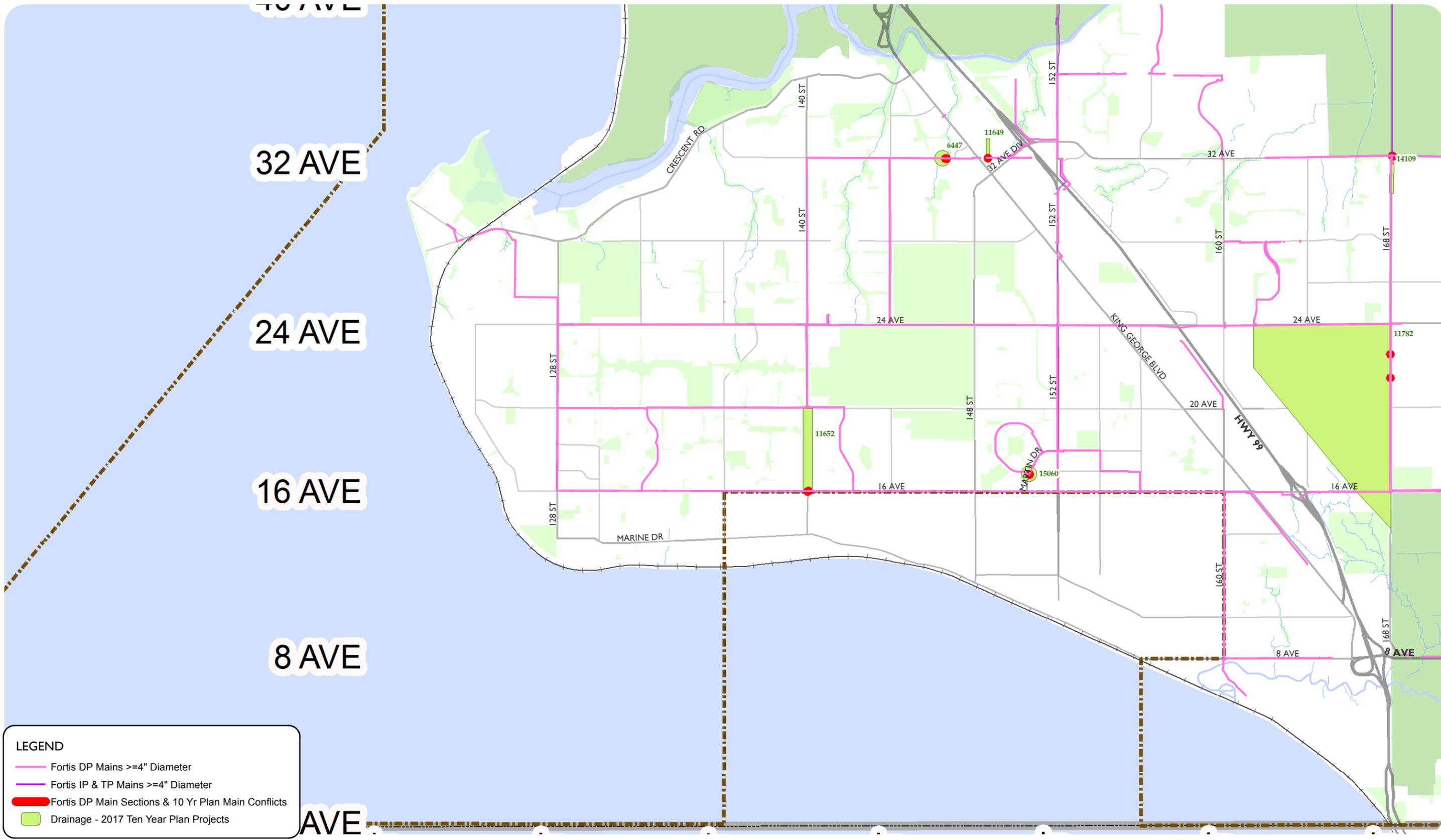
Fortis DP Mains & 2017 10Yr Plan Projects - Map 4



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey

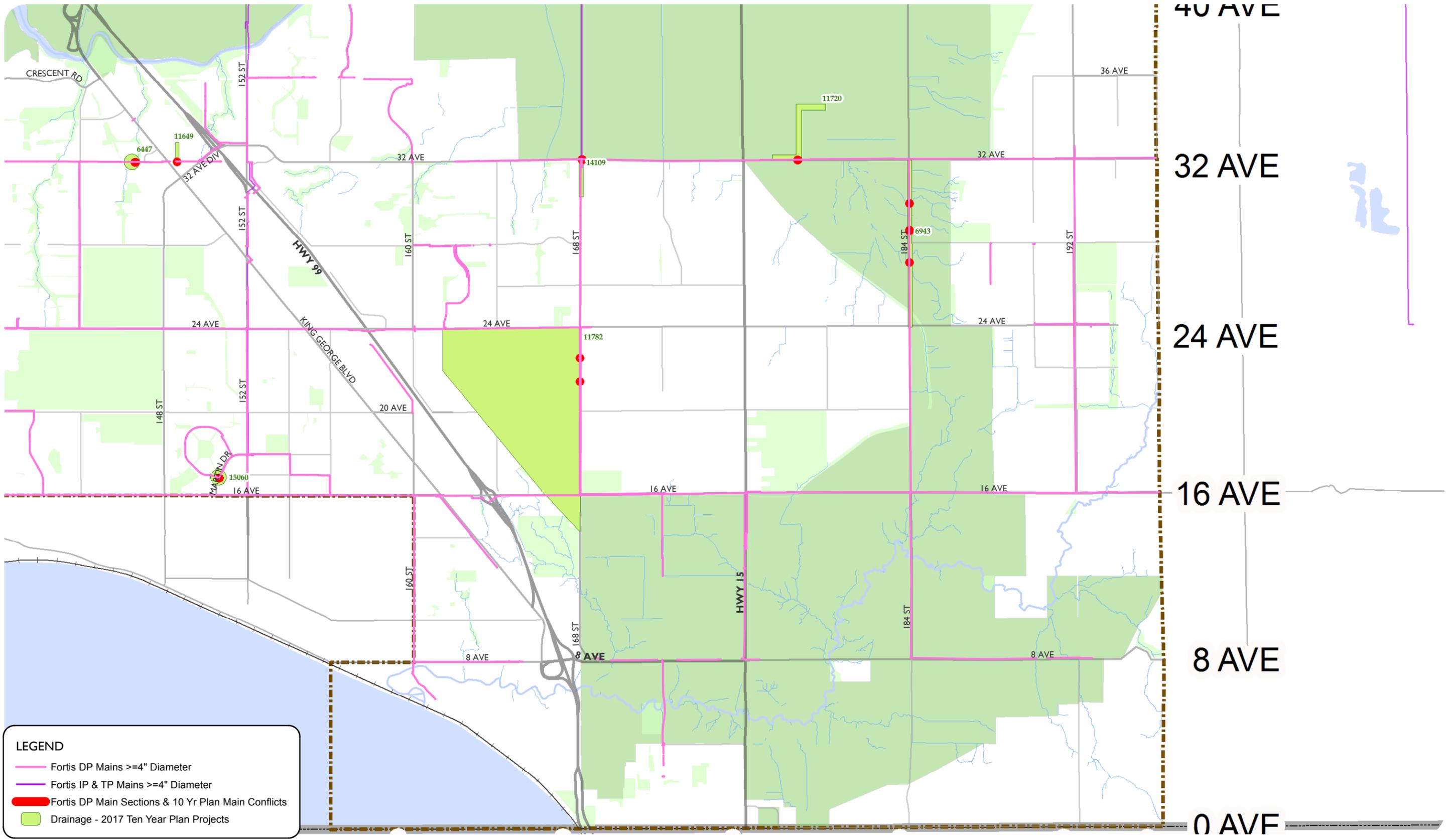


Fortis DP Mains & 2017 10Yr Plan Projects - Map 5



The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
 Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



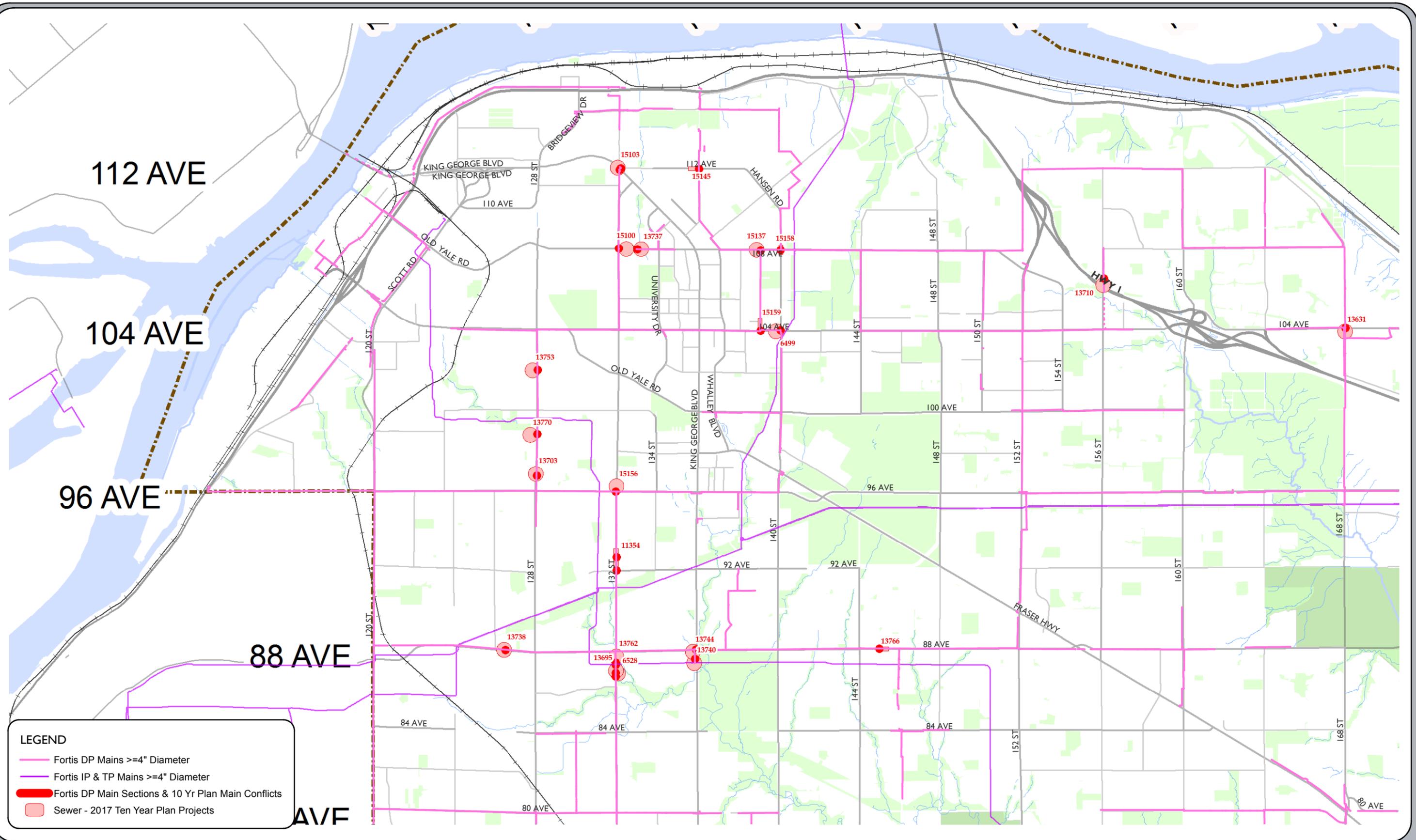
Fortis DP Mains & 2017 10Yr Plan Projects - Map 6



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



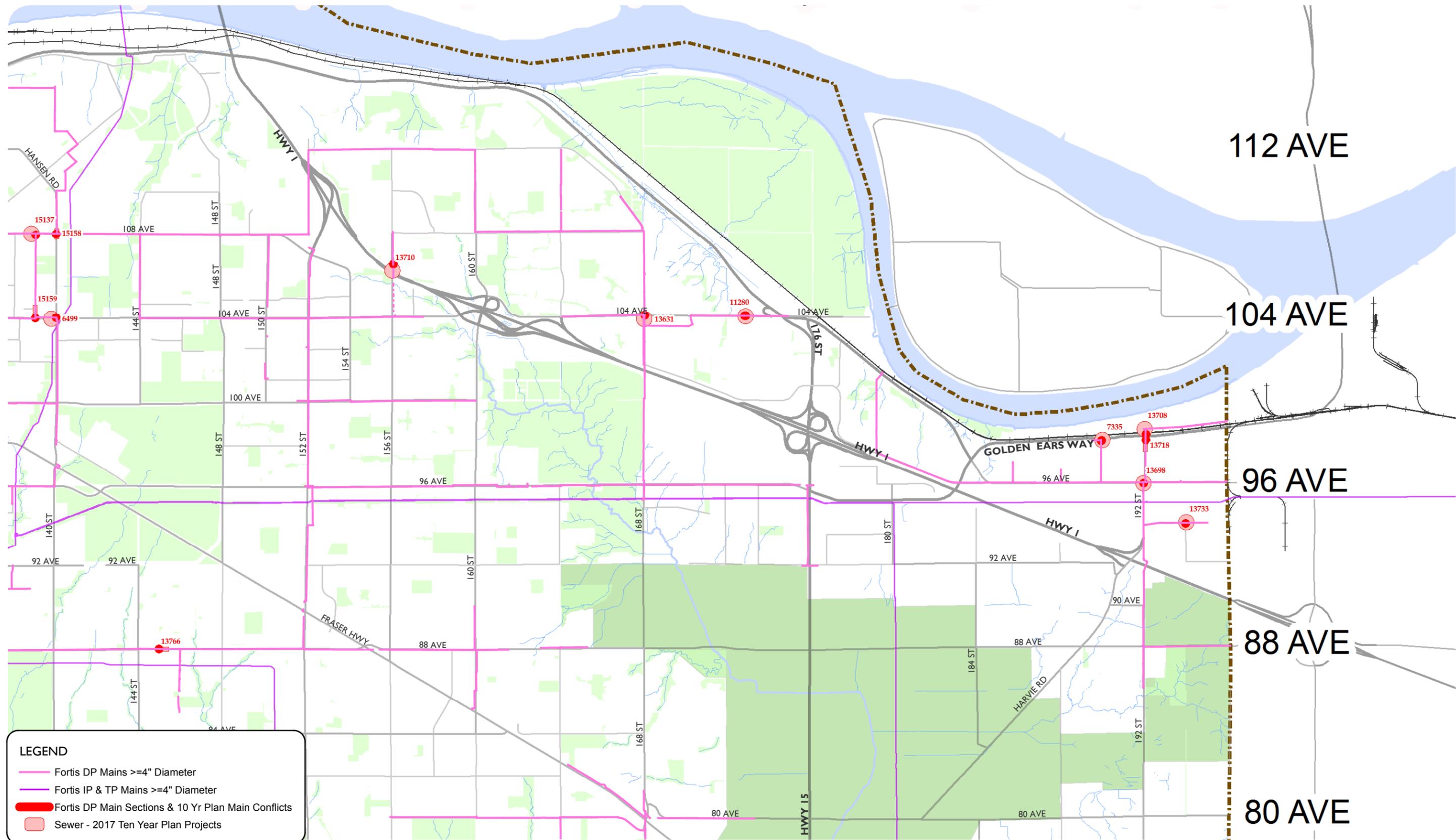
Fortis DP Mains & 2017 10Yr Plan Projects - Map 1



GIS SECTION
ENGINEERING

CITY OF SURREY
the future lives here.

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.



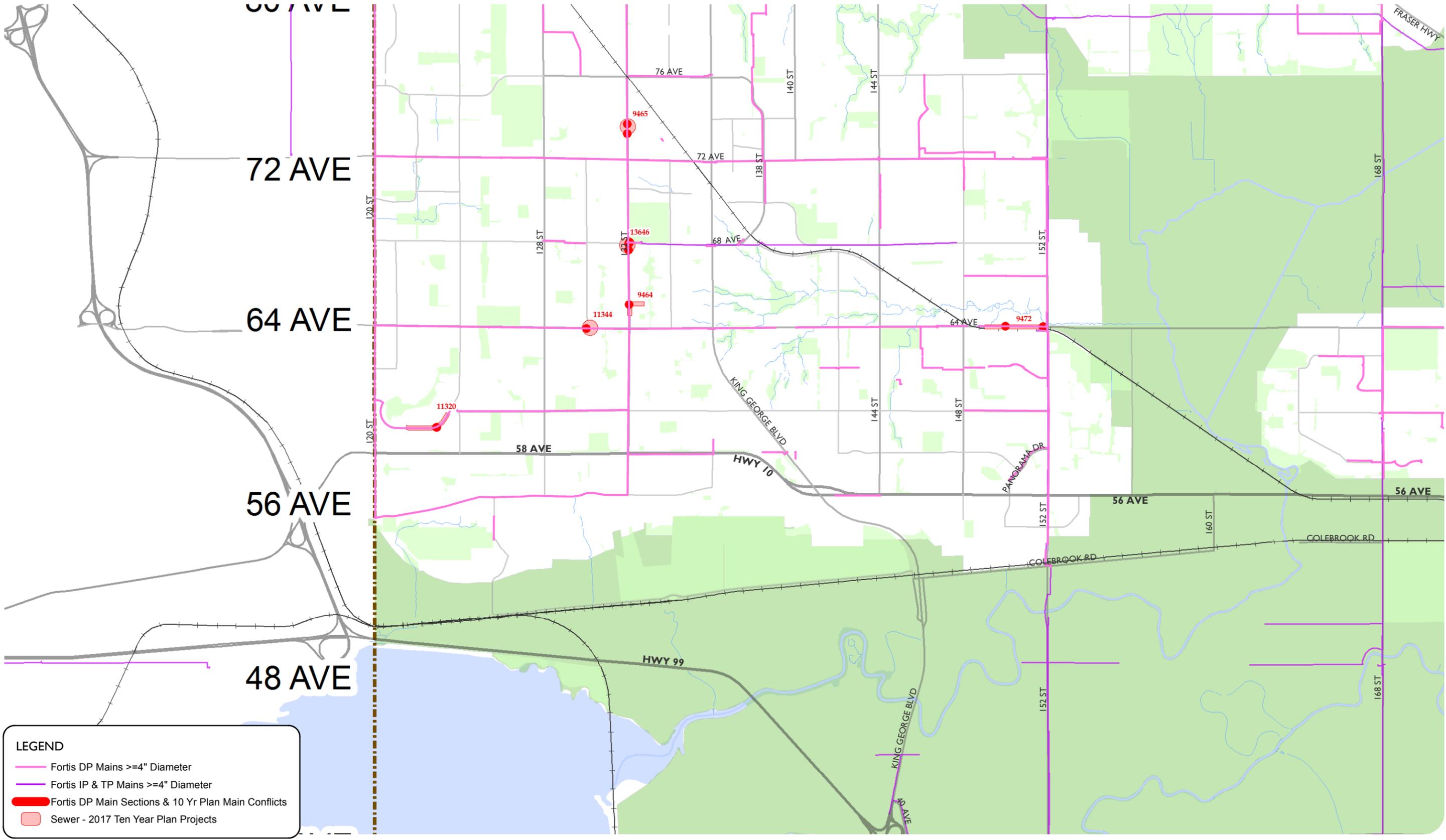
Fortis DP Mains & 2017 10Yr Plan Projects - Map 2



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



LEGEND

- Fortis DP Mains >=4" Diameter
- Fortis IP & TP Mains >=4" Diameter
- Fortis DP Main Sections & 10 Yr Plan Main Conflicts
- Sewer - 2017 Ten Year Plan Projects

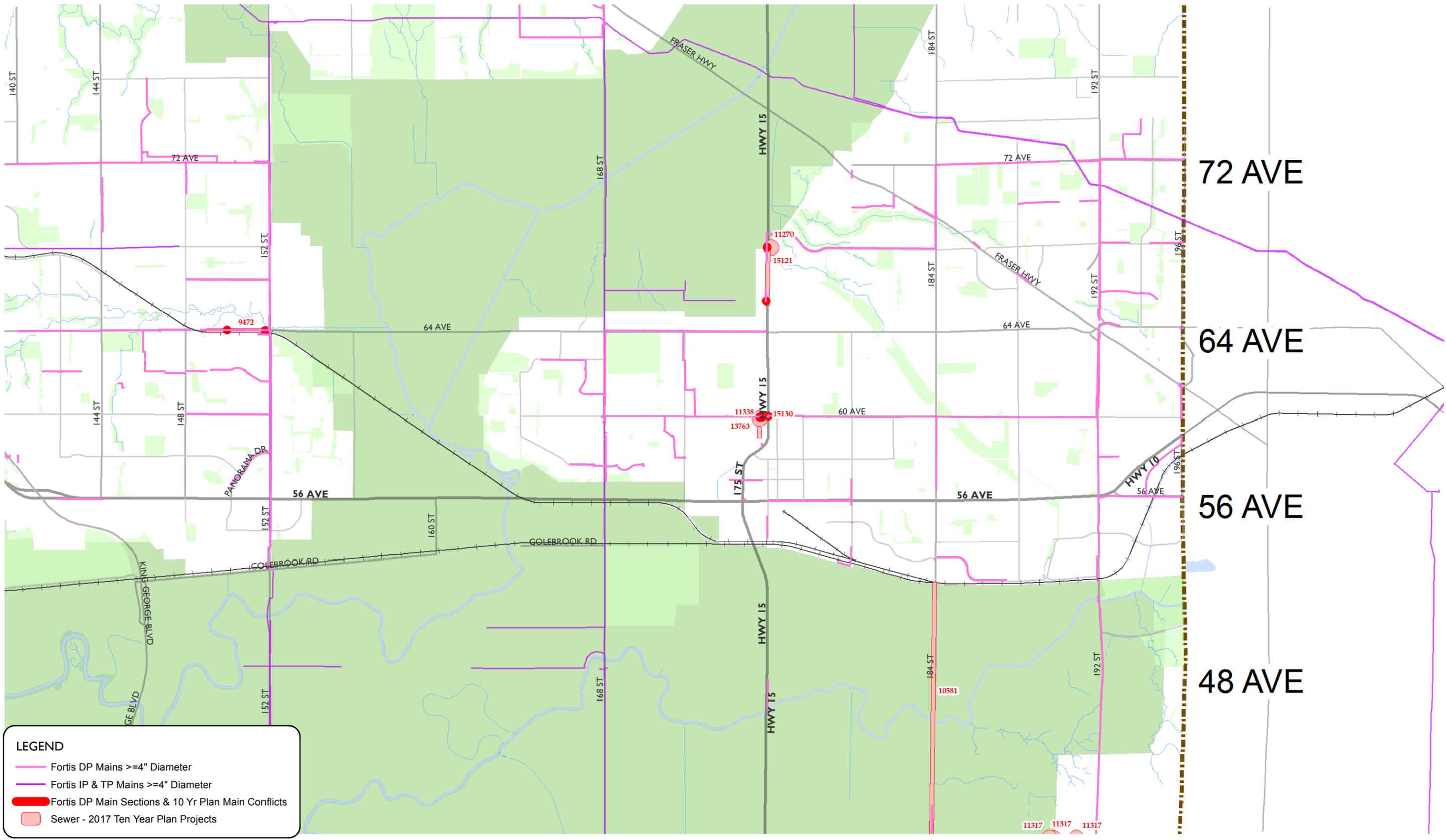
Fortis DP Mains & 2017 10Yr Plan Projects - Map 3



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 07-Sep-2017 © City of Surrey

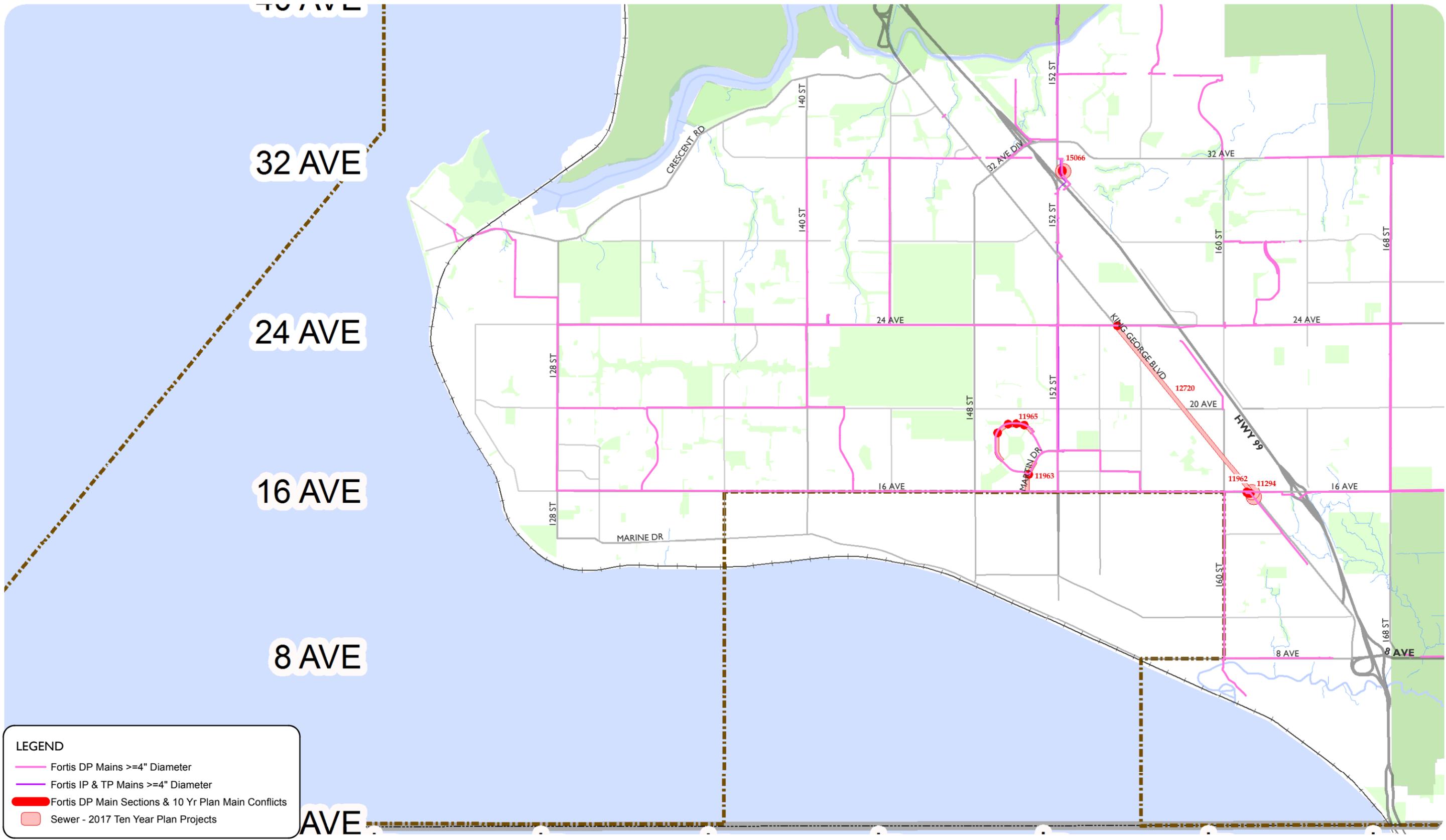


Fortis DP Mains & 2017 10Yr Plan Projects - Map 4



The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
 Cartographer: C9W Date: 07-Sep-2017 © City of Surrey

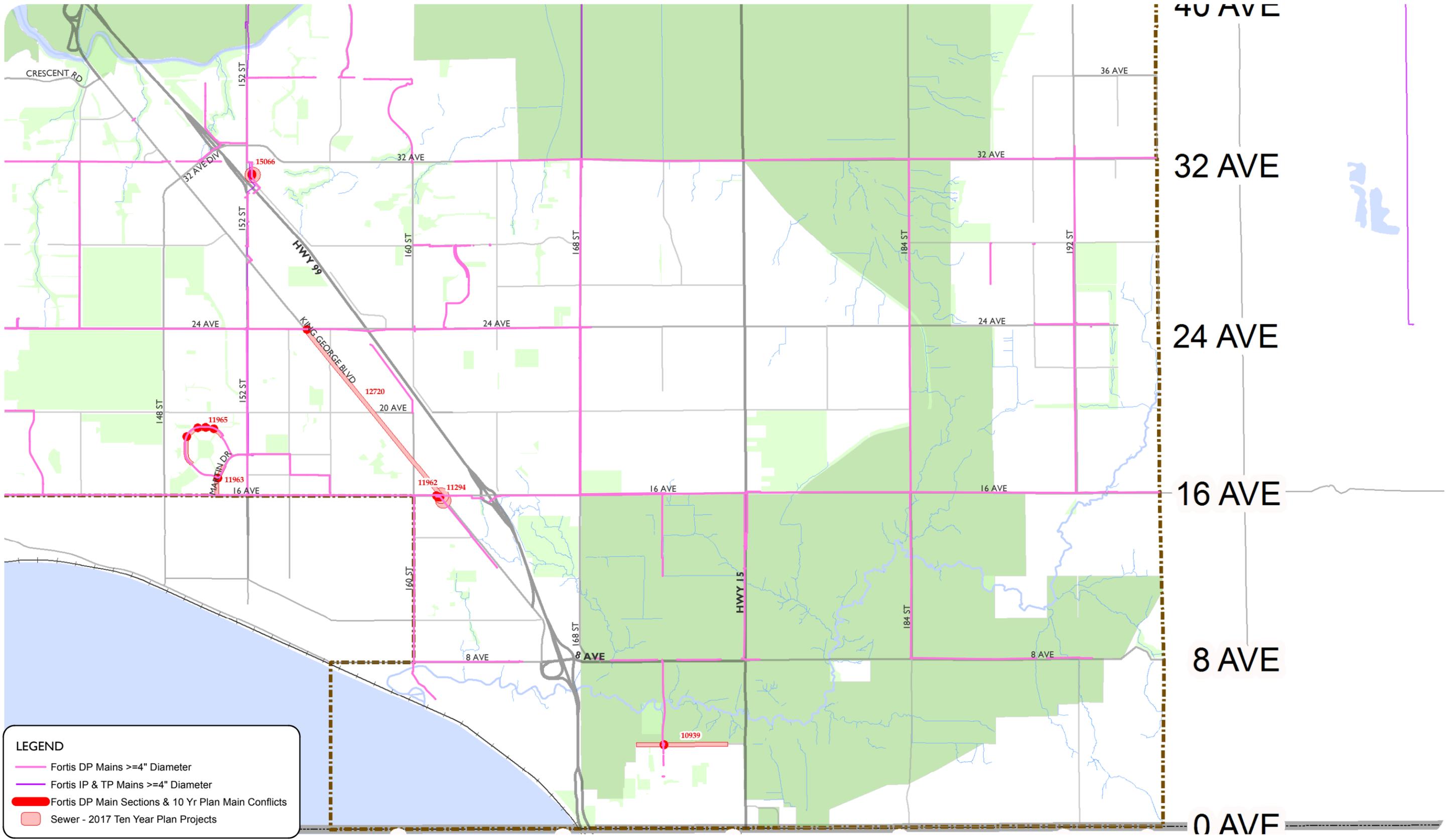


Fortis DP Mains & 2017 10Yr Plan Projects - Map 5



The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
 Cartographer: C9W Date: 07-Sep-2017 © City of Surrey



Fortis DP Mains & 2017 10Yr Plan Projects - Map 6



GIS SECTION
ENGINEERING

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\GIS\Temp\chris\GeneralUtilities\FortisAnalysis\FortisMainCrossing_B_DP_Mains.mxd
Cartographer: C9W Date: 19-Sep-2017 © City of Surrey

APPENDIX II

SUMMARY OF FORTIS ENCOUNTERS

Fortis IP / TP Encounters in Surrey 10 Year Servicing Plan

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term (Years)	Crossing/parallel	Size (mm)	description
D	14986	4-6	Crossing		ex: 375-750
D	11646	7-10	Crossing		ex 600 -> 1200
D	13245	NCP Driven	Crossing	450	
D	2933	4-6	Crossing	ditch	Ditch Widening N side of Colebrook
D	6687	4-6	Crossing & parallel	750	
D	11718	7-10	Crossing & parallel		Inter River Conveyance Works
D	14109	7-10	parallel		525-> 525 & 675->900
D	13236	NCP Driven	parallel	525	
D	13243	NCP Driven	parallel	ditch	ditch improvement & ROW
D	6244	4-6	parallel	900	Upgrade Existing Storm
D	6238	4-6	parallel	ex: 750	
D	13264	NCP Driven	parallel?		Anniedale 3 water quality pond
R	16175	7-10	Crossing		Multi-Use Pathway - Bicycle
R	16195	1-3	Crossing		Multi-Use Pathway - Bicycle
R	10535	4-6	Crossing		Arterial Widening
R	12965	4-6	Crossing		Arterial Ultimate Widening
R	11738	7-10	Crossing		Arterial Widening - 5 Lane
R	13256	NCP Driven	Crossing		Arterial Ultimate Widening
R	10534	1-3	Crossing		Arterial Widening - 5 Lane
R	15592	1-3	Crossing		Arterial Widening - 5 Lane
R	15242	1-3	Crossing		Cycling Upgrade
R	12996	1-3	Crossing		New Collector
R	11746	7-10	Crossing		Interchange Ramps
R	15580	7-10	Crossing		Interchange Ramps
R	7536	4-6	Crossing		Collector Widening
R	16191	4-6	Crossing		Multi-Use Pathway - Bicycle
R	11740	4-6	Crossing		Arterial Widening - 3 Lane
R	13224	NCP Driven	Crossing		Road Upsizing
R	13223	NCP Driven	Crossing		Road Upsizing
R	13222	NCP Driven	Crossing		Road Upsizing
R	13229	NCP Driven	Crossing		Road Upsizing
R	13230	NCP Driven	Crossing		Road Upsizing
R	13220	NCP Driven	Crossing		Road Upsizing
R	13235	NCP Driven	Crossing		Frontage Road Upsizing
R	7455	1-3	Crossing		Arterial Widening
R	15534	7-10	Crossing		Non-Arterial Road Improvements
R	15506	4-6	Crossing		Arterial Widening
R	13255	NCP Driven	Crossing & parallel		Arterial Ultimate Widening
R	15583	1-3	parallel		Pedestrian - Cycle Bridge
R	16196	1-3	parallel		Multi-Use Pathway - Bicycle
R	15500	1-3	parallel		Arterial Widening - 5 Lane
R	16194	1-3	parallel		Multi-Use Pathway - Bicycle

Fortis IP / TP Encounters in Surrey 10 Year
Servicing Plan

Job #: 17-173

Date: 22-09-2017

R	7494	1-3	parallel		Rehabilitate Crossing - Art Bridges
R	13219	NCP Driven	parallel		Road Upsizing
R	14857	4-6	parallel		Fleetwood Greenway - Bicycle Netw
R	12385	1-3	parallel		Street Bicycle Path
S	13683	4-6	Crossing	300	
S	13695	1-3	Crossing	675	
S	13740	4-6	Crossing	900	
S	10006	4-6	Crossing		Tynehead Interceptor
S	10007	7-10	Crossing		Tynehead Interceptor
S	14098	7-10	Crossing	525	
S	13741	4-6	Crossing	750	
S	13662	4-6	Crossing	300	
S	13164	NCP Driven	Crossing	250	
S	13168	NCP Driven	Crossing	250	
S	13166	NCP Driven	Crossing	220	
S	13543	4-6	Crossing		Major Facilities - Lower Tynehead Si
S	11269	7-10	Crossing	375	
S	9472	7-10	Crossing & parallel	375	
W	15219	4-6	Crossing	750	
W	9934	4-6	Crossing	300	
W	15231	7-10	Crossing	750	
W	12584	1-3	Crossing	300	
W	14041	4-6	Crossing	450	
W	13842	4-6	Crossing	300	
W	12645	4-6	Crossing	200	
W	12617	4-6	Crossing	300	
W	12607	4-6	Crossing	200	
W	13785	4-6	Crossing	200	
W	9952	7-10	Crossing	300	
W	13786	7-10	Crossing	300	
W	13184	NCP Driven	Crossing	600	
W	15215	1-3	Crossing	300	
W	12689	1-3	Crossing	300	
W	13811	1-3	Crossing	200	
W	12654	7-10	Crossing	300	
W	13187	NCP Driven	Crossing & parallel	350	
W	15213	7-10	Crossing & parallel	300	
W	15397	1-3	Crossing & parallel		PRV Station

Fortis DP Encounters in Ten Year Servicing
Plan (Water)

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term	Crossing/Parallel	Size	Length of Run
w	12664	7-10	P	300	180
w	13840	7-10	P	300	1960
w	13806	4-6	P	300	670
w	13841	7-10	P	300	630
w	13796	7-10	P	200	160
w	13801	4-6	P	600	460
w	12617	4-6	P	300	820
w	13843	7-10	P	300	770
w	13902	4-6	P	750	575
w	12599	7-10	P	300	835
w	13201	NCP	P	450	860
w	11581	4-6	P	300	830
w	10463	1-3	P	600	100
w	9934	4-6	P	300	2225
w	15231	7-10	P	750	420
w	12584	1-3	P	300	775
w	11074	1-3	P	300	100
w	13884	4-6	P	300	510
w	11505	4-6	P	300	3560
w	15213	7-10	P	300	1140
w	15397	1-3	P	PRV	220
w	15227	7-10	P	500	100
w	13787	1-3	P	200	230
w	13817	1-3	P	200	885
w	15229	7-10	P	450	310
w	10342	1-3	P	450	130
w	13798	7-10	P	250	230
w	13861	4-6	P	200	380
w	5345	1-3	P	400	800
w	13785	4-6	P	200	460
w	15220	1-3	P	450	100
w	13916	4-6	P	300	100
w	13845	4-6	P	300	420
w	9924	NCP	P	400	260
w	11514	7-10		PS	

Total 22205

Fortis DP Encounters in Ten Year Servicing
Plan (Water)

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term	Crossing/Parallel	Size	# of Crossings
w	629	1-3	C	400	1
w	12587	7-10	C	300	1
w	13848	4-6	C	200	1
w	13854	7-10	C	300	1
w	12607	4-6	C	200	1
w	7678	4-6	C	300	1
w	13995	7-10	C	900	1
w	13869	4-6	C	300	1
w	13179	NCP	C	450	1
w	13854	7-10	C	300	1
w	11537	4-6	C	300	1
w	13851	4-6	C	200	1
w	14041	4-6	C	450	1
w	13202	NCP	C	350	1
w	13189	NCP	C	300	1
w	12696	4-6	C	600	1
w	13879	7-10	C	300	1
w	11506	1-3	C	300	1
w	13822	1-3	C	200	1
w	13821	1-3	C	200	1
w	9720	7-10	C	200	1
w	13899	4-6	C	PS	1
w	15228	7-10	C	400	1
w	11504	7-10	C	200	1
w	13877	1-3	C	200	1
w	12653	4-6	C	200	1
w	15224	1-3	C	450	1
w	13859	7-10	C	300	1
w	11556	7-10	C	450	1
w	13874	4-6	C	200	1
w	13786	7-10	C	300	2
w	13816	4-6	C	200	1
w	13872	4-6	C	300	1
w	11520	7-10	C	350	1

Fortis DP Encounters in Ten Year Servicing
Plan (Water)

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term	Crossing/Parallel	Size	# of Crossings
D	11641	7-10	C	600	1
D	11638	7-10	C	300	DOES NOT CROSS
D	16199	NCP	C	900	1
D	6013	4-6	C		
D	6602	NCP	C	1500	4
D	6673	4-6	C	1350	1
D	11649	7-10	C	250	1
D	11652	7-10	C	450	2
Types	Project ID	Term	Crossing/Parallel	Size	Length of Run
D	14963	1-3	P	1200	81m
D	14990	4-6	P	PS	PUMP STATION
D	14960	4-6	P	1350	43
D	14986	4-6	P	750	110m
D	11640	7-10	P	600	110m
D	6114	7-10	P	2550	40m
D	11644	7-10	P	900	810m
D	11659	7-10	P	300	700
D	6238	4-6	P	750	1200m
D	15060	4-6	P	450	125m
D	14109	7-10	P	675	110
D	6174	7-10	P	900	213m
D	6054	7-10	P	1200	30m
D	6687	4-6	P	750	300m
D	11648	7-10	P	675	100m
D	6673	4-6	P	1350	100m
D	2933	4-6	P	DITCH	DITCH WIDENING
D	6447	7-10	P	600	100m
D	15060	4-6	P	450	125m
D	11782	NCP	P	>600	570m (Stormwater Corridors for Sunnyside Heights)
D	11720	4-6	P		Erickson/Burrow Conveyance Works
D	6943	NCP	P	600	600m
Total					5467

Fortis DP Encounters in Ten Year Servicing
Plan (Sanitary)

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term	Crossing/Parallel	Size	Length of Run
S	13646	1-3	P	300	130m
S	11344	7-10	P	300	90m
S	11320	1-3	P	375	100m
S	13737	4-6	P	300	97m
S	13753	7-10	P	450	48m
S	13710	4-6	P	375	37m
S	13698	1-3	P	525	21m
S	13733	4-6	P	375	102m
S	11965	4-6	P	250	340m
S	13718	1-3	P	525	105m
S	15103	4-6	P	750	122m
S	15137	1-3	P	375	130m
S	15100	1-3	P	450	16m
S	15158	7-10	P	250	15m
S	15159	1-3	P	375	100m
S	6499	1-3	P	525	123m
S	13770	4-6	P	375	66
S	13631	1-3	P	250	60m
S	13703	1-3	P	375	97m
S	15156	7-10	P	250	14m
S	11354	1-3	P	300	200m
S	13738	4-6	P	375	26
S	13762	7-10	P	600	113
S	13695	1-3	P	675	13
S	6528	1-3	P	600	49
S	13740	4-6	P	900	25
S	13744	7-10	P	675	91
S	13766	7-10	P	525	82
S	13708	4-6	P	375	24
S	9464	1-3	P	250	115
S	9465	1-3	P	250	45
S	9472	7-10	P	375	365
S	11270	1-3		PS	Pump station
S	15121	NCP	P	400	550
S	13763	7-10	P	1050	100
S	15130	NCP	P	900	41
S	10581	NCP	P	450	
S	11963	7-10	P	300	170
S	11962	7-10		PS	PUMP STATION
S	11294	7-10		PS-T	PUMP STATION SURGE TANK

Total 3822

Fortis DP Encounters in Ten Year Servicing
Plan (Sanitary)

Job #: 17-173

Date: 22-09-2017

Types	Project ID	Term	<u>C</u> rossing/ <u>P</u> arallel	Size	# of Crossings
S	15145	4-6	C	300	1
S	11338	1-3	C	1200	1
S	10939	7-10	C	300	1
S	12720	4-6	C	500	4

APPENDIX III

COST ANALYSIS

IP / TP Gas Crossings	Water (400mm DI)	Sanitary (450mm PVC)	Storm (750mm RF Concrete)	Roadworks	Roadworks (Poor Soil)
DESIGN					
Utility prelocation	\$ 4,470	\$ 4,470	\$ 4,470	\$ 4,470	\$ 4,470
Geotechnical investigation and assessment	\$ 5,675	\$ 5,675	\$ 5,675	\$ 5,675	\$ 67,300
Corrosive soil investigation and stray current review	\$ 2,815				
Electromagnetic field review					\$ 16,520
Design efforts to accommodate existing gas main	\$ 2,770	\$ 2,770	\$ 2,770	\$ 2,770	\$ 27,700
Prepare permit application and liaison during application	\$ 855	\$ 855	\$ 855	\$ 855	\$ 13,500
Delay in design approval and revisions	\$ 3,840	\$ 3,840	\$ 3,840	\$ 3,840	\$ 28,800
SUBTOTAL	\$ 20,425	\$ 17,610	\$ 17,610	\$ 17,610	\$ 158,290
CONSTRUCTION					
Site meeting and pre-construction coordination with Fortis	\$ 1,740	\$ 1,740	\$ 1,740	\$ 1,740	\$ 65,250
Utility prelocation	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750
I Additional depth in excavation and shoring at the crossing (5m length)	\$ 1,250	\$ 1,250	\$ 1,250		
II Loss of production due to hand excavation at crossing over 5m length	\$ 1,450	\$ 1,450	\$ 1,450		
III Risk premium associated with the crossing					
IV Presence of Fortis Watchman / Inspector	\$ 1,320	\$ 1,320	\$ 1,320	\$ 1,320	\$ 82,500
V Additional installation depth for remaining of the run (100m)		\$ 50,000	\$ 50,000		
VI Installation of pipe offset or concrete protector pad TP/IP	\$ 11,025			\$ 6,800	
VIII Installation of Fortis Bypass and monitoring during the preload period					\$ 1,500,000
VII Delay in construction (averaging 1 week)	\$ 21,400	\$ 21,400	\$ 21,400		\$ 200,000
SUBTOTAL	\$ 41,935	\$ 80,910	\$ 80,910	\$ 13,610	\$ 1,851,500
TOTAL PER INCIDENT	\$ 62,360	\$ 98,520	\$ 98,520	\$ 31,220	\$ 2,009,790
NUMBER OF CROSSINGS	17	14	6	23	5
TOTAL OVER NEXT 10 YEAR	\$ 1,060,120	\$ 1,379,280	\$ 591,120	\$ 718,060	\$ 10,048,950
Unaccounted for Costs to the City					
Excess delay in construction					
Crossing for minor road infrastructure such as MUP					
Lowering of the entire gravity system or upsizing of main to minimize grade					

Notes

Fortis IP/TP line typically situates at 1.2 -1.5m below grade; thus the bottom of the gas line would be at 1.5 - 1.8m below. To achieve adequate vertical separation, the top of the proposed utility should be at min 2.2m below grade

I Without the presence of gas, the proposed utility would have 1.3m - 1.5m cover; thus, the City is trenching an additional 0.8m-1.1m to accommodate Fortis

II It is required as part of the Fortis work authorization, all work within Fortis ROW shall be hand excavated. Thus, the production is only at 20% of typical rate at the crossing. Typically trenching rate is 60m / 8hr by machine

III Due to the proximity to the IP/TP line, there is risk of damaging the line during construction

IV Fortis Inspector to be onsite full time during work within 1m of Fortis line

V For gravity utility, once the line is lowered it would continue to be at that depth for the rest of the run. We did not include the further downstream effect for sections beyond the manhole downstream

VI As Fortis drawing 99000-C-100-100-R3, concrete protector pad is required for roadway crossing based on 25m road allowance and pad is placed perpendicular to pipe (25m / 1.5m = 17 pieces)

VII In most cases, works related to Fortis is 2-3 weeks late and thus impacts the construction schedule. Even though the contractor may reallocate work to accommodate, the delay still poses a negative impact to production and lengthen overall schedule. We adopt a 1 week actual delay impact in lieu of 2-3 weeks in our cost assessment.

VIII Based on historical data when poor soil condition is encountered during a roadworks project. A bypass Fortis line needs to be installed first before preload could take place. Continual monitor would be required to ensure the existing Fortis line is operating within the required parameters.

DP Gas Crossings	Water (400mm DI)	Sanitary (450mm PVC)	Storm (525mm RF Concrete)	Roadworks
DESIGN				
Utility prelocation	\$ 4,470	\$ 4,470	\$ 4,470	\$ 4,470
Geotechnical investigation and assessment				
Corrosive soil Investigation and stray current review				
Electromagnetic field review				
Design efforts to accommodate existing gas main	\$ 1,385	\$ 510	\$ 510	\$ 510
Prepare permit application and liaison during application				
Delay in design approval and revisions				
SUBTOTAL	\$ 5,855	\$ 4,980	\$ 4,980	\$ 4,980
CONSTRUCTION				
Site meeting and pre-construction coordination with Fortis	\$ 1,740	\$ 1,740	\$ 1,740	\$ 1,740
Utility prelocation	\$ 3,750	\$ 3,750	\$ 3,750	\$ 3,750
I Additional depth in excavation and shoring at the crossing (5m)	\$ 1,250			
II Loss of production due to hand excavation at crossing over 5m	\$ 1,450			
III Risk premium associated with the crossing				
IV Presence of Fortis Watchman / Inspector				
V Additional installation depth for remaining of the run (100m)				
VI Installation of pipe offset	\$ 11,025			
VII Delay in Fortis DP main relocation (averaging 1 week)				
SUBTOTAL	\$ 19,215	\$ 5,490	\$ 5,490	\$ 5,490
TOTAL	\$ 25,070.00	\$ 10,470.00	\$ 10,470.00	\$ 10,470.00
NUMBER OF CROSSINGS	35	10	7	
TOTAL OVER NEXT 10 YEAR	\$ 877,450	\$ 104,700	\$ 73,290	\$ -
Unaccounted for Costs to the City				
Excess delay in construction				

- Notes
- Fortis IP/TP line typically situates at 1.2 -1.5m below grade; thus the bottom of the gas line would be at 1.5 - 1.8m below. To achieve adequate vertical separation, the top of the proposed utility should be at min2.2m below grade
- I Without the presence of gas, the proposed utility would have 1.3m - 1.5m cover; thus, the City is trenching an additional 0.8m-1.1m to accommodate Fortis
- II It is required as part of the Fortis work authorization, all work within Fortis ROW shall be hand excavated. Thus, the production is only at 20% of typical rate at the crossing. Typically trenching rate is 60m / 8hr by machine
- III Due to the proximity to the IP/TP line, there is risk of damaging the line during construction
- IV Fortis Inspector to be onsite full time during work within 1m of Fortis line
- V For gravity utility, once the line is lowered it would continue to be at that depth for the rest of the run. We did not include the further downstream effect for sections beyond the manhole downstream
- VI As Fortis drawing 99000-C-100-100-R3, concrete protector pad is required for roadway crossing based on 25m road allowance and pad is placed perpendicular to pipe (25m / 1.5m = 17 pieces)
- VII In most cases, works related to Fortis is 2 -3 weeks late and thus impacts the construction schedule. Even though the contractor may reallocate work to accommodate, the delay still poses a negative impact to production and lengthen overall schedule

DP Gas Parallel to Proposed Utilities	Water (400mm DI)	Sanitary (450mm PVC)	Storm (525mm RF Concrete)	Roadworks
DESIGN				
<i>Direct Cost (per Project)</i>				
Utility prelocation at 4 locations	\$ 15,680	\$ 15,680	\$ 15,680	\$ 15,680
Geotechnical investigation and assessment				
Corrosive soil Investigation and stray current review				
Electromagnetic field review				
Design efforts to accommodate existing gas main including review for alternate corridors	\$ 3,960	\$ 3,960	\$ 3,960	\$ 3,960
Prepare permit application and liaison during application				
Delay in design approval and revisions				
Site meeting and pre-construction coordination with Fortis	\$ 1,740	\$ 1,740	\$ 1,740	\$ 1,740
Utility prelocation including gas service connections	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500
SUBTOTAL	\$ 28,880	\$ 28,880	\$ 28,880	\$ 28,880
NUMBER OF PARALLEL RUN INSTANCES	34	10	43	
TOTAL OVER NEXT 10 YEAR	\$ 981,920	\$ 288,800	\$ 1,241,840	\$ -
CONSTRUCTION (based on the entire 10 Year Capital Plan)				
Total Lengths Over 10 years (meters)	22205	5467	3886	
I Additional depth in excavation and shoring to avoid service connection conflict		\$ 1,366,750	\$ 971,500	
II Loss of production due to close proximity to gas line	\$ 2,575,780	\$ 634,172	\$ 450,776	
SUBTOTAL	\$ 2,575,780	\$ 2,000,922	\$ 1,422,276	\$ -
TOTAL	\$ 3,557,700.00	\$ 2,289,722.00	\$ 2,664,116.00	\$ -
Unaccounted for Costs to the City				
Excess delay in construction				
Additional Geotechnical Efforts Due to Poor Soil				
Lowering of the entire gravity system or upsizing of main to minimize grade				

Notes

Fortis IP/TP line typically situates at 1.2 -1.5m below grade; thus the bottom of the gas line would be at 1.5 - 1.8m below. To achieve adequate vertical separation, the top of the proposed utility should be at min2.2m below grade

I Without the presence of gas, the proposed utility would have 1.3m - 1.5m cover; thus, the City is trenching an additional 0.8m-1.1m to accommodate Fortis. On parallel run, the gravity line needs to be lower than the existing gas to all service connections to go under the gas

II It is required as part of the Fortis work authorization, all work within Fortis ROW shall be hand excavated. Thus, the production is only at 20% of typical rate at the crossing. Typically trenching rate is 60m / 8hr by machine. For parallel installation, the labour would be doubled compared to unencumbered installation.

Unit Price Parameters

Engineering Service Hourly Rates

Project Manager	200 \$/hr
Project Engineer	165 \$/hr
Design Support	115 \$/hr
Surveyor	160 \$/hr
Inspector	100 \$/hr

Contractor Crew Hourly Rate

Foreman	90 \$/hr
Labor x 3	195 \$/hr
Traffic Control (2 men crew with truck)	150 \$/hr

City Staff Hourly Rate

City Supervisor	80 \$/hr
Fortis Inspector	165 \$/hr

Construction Unit Price Calculation

		Excavation	Backfill	Shoring	
Additional depth in trenching and shoring based on 1m deep and 2.5m wide trench	250 \$/m	\$87.50	\$137.50	\$25.00	
Additional depth in trenching and shoring based on 2m deep and 2.5m wide trench	500 \$/m	\$175.00	\$275.00	\$50.00	
Watermain offset (400mm Diameter)	11025 \$/each	Excavation \$87.50	Backfill \$137.50	45 deg Bends \$2,000.00	Restraints \$350.00
Concrete protector pad	400 \$/each	Protector Pad \$400.00			
Trenching rate with machine at crossing	0.13 hr/m				
Trenching rate by hand at crossing	0.67 hr/m				
Trenching cost by hand at crossing	290 \$/m				
Trenching rate with machine on parallel run	0.13 hr/m				
Trenching rate by hand on parallel run	0.27 hr/m				
Trenching cost by hand on parallel run	116 \$/m				



APLIN MARTIN

ENGINEERING ARCHITECTURE PLANNING SURVEYING

SURREY

201-12448 82nd Ave
Surrey, BC V3W 3E9
Canada

SURREY CENTRAL

Suite 1680 - 13450 102 Ave
Surrey, BC V3T 5X3
Canada

VANCOUVER

910 - 1111 W Hastings St
Vancouver, BC V6E 2J3
Canada

KELOWNA

454 Leon Ave
Kelowna, BC V1Y 6J3
Canada

CALGARY

9 - 2611 37 Ave NE
Calgary, AB T1Y 5V7
Canada



Telecom Decision CRTC 2013-618

PDF version

Route reference: Telecom Notice of Consultation 2011-614, as amended

Ottawa, 21 November 2013

CISC Model Municipal Access Working Group – Report on a Model Municipal Access Agreement

File number: 8690-C12-201113125

In this decision, the Commission approves the consensus recommendations contained in the CISC Model Municipal Access Working Group's non-consensus report. The Commission determines that the non-consensus items in the report are to be negotiated between a carrier and a municipality when they enter into a municipal access agreement.

Introduction

1. Canadian carriers have a long history of dealing with Canadian municipalities in order to gain access to a municipality's rights-of-way, which is necessary to provide telecommunications services to the public. In certain situations, the Commission has had to resolve disputes between carriers and municipalities in order to ensure that Canadians have access to competitive telecommunications services.
2. Pursuant to sections 42, 43, and 44 of the *Telecommunications Act* (the Act), the Commission, in Decision 2001-23, granted a Canadian carrier¹ access to municipal property in Vancouver under terms and conditions set out in a municipal access agreement (MAA). In that decision, the Commission also established the principles it had used in addressing the dispute before it (the Leducor principles). The Commission anticipated that the Leducor principles would also assist other carriers and municipalities in negotiating the terms and conditions under which carriers would construct, maintain, and operate transmission facilities on or in municipal property.
3. Many MAAs have been successfully negotiated between Canadian carriers and municipalities without the Commission's intervention. However, in exceptional cases, the Commission has had to issue decisions on a case-by-case basis to resolve disputes on matters related to access to municipal rights-of-way.
4. In Telecom Notice of Consultation 2011-614, the Commission considered that since Decision 2001-23 was issued, the case-by-case approach for disputes had served the needs of Canadian carriers and municipalities to a certain degree with respect to access to municipal rights-of-way. However, the Commission considered that a model MAA would benefit both Canadian carriers and municipalities by providing

¹ Leducor Industries Limited

for predictability, lower personnel costs in terms of time and money, and entry into new small markets on a more efficient basis, while allowing for a degree of customization to incorporate unique circumstances.

5. In that notice, the Commission initiated a proceeding calling for comments on a model MAA. The Commission considered that a model MAA should be developed through the following two-step process:
 - i. hold a public consultation to develop principles; and
 - ii. establish an ad hoc CRTC Interconnection Steering Committee (CISC) working group to develop the terms and conditions of a model MAA based on those principles.
 6. In Telecom Notice of Consultation 2011-614-1, the Commission requested CISC to form an ad hoc working group to develop a model MAA based on the Leducor principles established in Decision 2001-23 and other relevant Commission decisions. The Commission also set a deadline for that working group to report back to the Commission. Pursuant to that notice, CISC established the Model Municipal Access Agreement Working Group (the working group) with representatives from Canadian telecommunications companies and municipalities, including the Federation of Canadian Municipalities, which represents municipalities across Canada.
 7. In Telecom Notices of Consultation 2011-614-2, 2011-614-3, and 2011-614-4, the Commission extended the reporting deadline for the working group.
 8. On 18 July 2013, the working group submitted a non-consensus report entitled *Model Municipal Access Agreement* (the report). In the report, the working group reached consensus on the majority of items regarding a model MAA; however, there were also a few non-consensus items. The report can be found in the “Reports” section of the working group’s web page, which is available in the CISC section of the Commission’s website at www.crtc.gc.ca.
 9. The Commission considers that the report raises the following issues:
 - I. Should the Commission approve the consensus items?
 - II. How should the Commission deal with the non-consensus items?
- I. Should the Commission approve the consensus items?**
10. The Commission notes that the working group requested approval of the consensus items contained in the report.
 11. The Commission considers that the consensus items will provide benefits to both Canadian telecommunications carriers and municipalities when a Canadian carrier requests access to a municipality’s rights-of-way. Accordingly, the Commission **approves** the consensus items in the report regarding the model MAA.

II. How should the Commission deal with the non-consensus items?

12. The members of the working group disagreed on how the Commission should deal with the non-consensus items contained in the report.
13. The Canadian telecommunications carrier members submitted that a written follow-up proceeding is needed to clarify the non-consensus items. They stated that these items represent significant and material issues that, in their view, have not been fully dealt with in past Commission decisions. They submitted that the Commission now has an opportunity to provide clarity with respect to these issues and to eliminate cause for unnecessary future disputes. They argued that if the model MAA lacks clarity on these specific items, disputes may increase.
14. The municipal members submitted that all non-consensus items should be left for negotiation between parties using the model MAA as a non-binding resource document, and that a subsequent written proceeding is unnecessary. They submitted that the Commission must not establish a process that would prescribe any particular terms or that could be seen as prejudging the outcome of future disputes in proceedings before the Commission.
15. The Commission notes that, although the working group representatives made substantial progress in reaching consensus on a majority of items for a model MAA, they were unable to agree on the wording for a lesser number of items. The Commission considers that further process is unlikely to lead to the parties reaching agreement on the wording for these items. Further, the Commission considers that in the absence of a specific dispute over access to municipal rights-of-way, it may not be appropriate for the Commission to provide specific wording.
16. Accordingly, the Commission determines that the non-consensus items are to be negotiated between a Canadian telecommunications carrier and a municipality that are entering into an MAA.

Model MAA

17. The consensus and non-consensus items contained in the report (the latter of which are to be negotiated) constitute the model MAA. The wording of the model MAA was drafted in English by the members of the working group and has been translated into French by the Commission for the convenience of all telecommunications carriers and municipalities in Canada. The [model MAA](#) is available in the CISC section of the Commission's website at www.crtc.gc.ca.

Secretary General

Related documents

- *Proceeding to consider a model Municipal Access Agreement*, Telecom Notice of Consultation CRTC 2011-614, 23 September 2011, as amended by *Amended proceeding to consider a model Municipal Access Agreement*, Telecom Notices of Consultation CRTC 2011-614-1, 7 February 2012; 2011-614-2, 3 August 2012; 2011-614 3, 29 November 2012; and 2011-614-4, 11 April 2013
- *Ledcor/Vancouver – Construction, operation and maintenance of transmission lines in Vancouver*, Decision CRTC 2001-23, 25 January 2001

MUNICIPAL ACCESS AGREEMENT

BETWEEN

THE MUNICIPALITY

AND

THE COMPANY

This model Municipal Access Agreement (MAA) is intended to be a non-binding resource document for use by municipalities and carriers when negotiating their own MAAs.

CRTC Decisions on Municipal Access

*Ledcor/Vancouver – Construction, operation and maintenance of transmission lines in Vancouver, Decision CRTC 2001-23, 25 January 2001 (the “**Ledcor Decision**”)*

*Part VII application by MTSA Corp. seeking access to Light Rail Transit (LRT) lands in the City of Edmonton, Telecom Decision CRTC 2005-36, 17 June 2005 (the “**Allstream - Edmonton Decision**”)*

*Shaw Cablesystems Limited's request for access to highways and other public places within the District of Maple Ridge on terms and conditions in accordance with Decision 2001-23, Telecom Decision CRTC 2007-100, 25 October 2007 (the “**Shaw - Maple Ridge Decision**”)*

*Shaw Cablesystems Limited's request for access to highways and other public places in the County of Wheatland, Alberta, Telecom Decision CRTC 2008-45, 30 May 2008 (the “**Shaw - Wheatland Decision**”)*

Application by the City of Baie-Comeau regarding the costs to relocate TELUS Communications Company's telecommunications facilities, Telecom Decision CRTC 2008-91, 19 September 2008 (the “Telus - Baie-Comeau Decision”)

*MTSA Inc. – Application regarding a Municipal Access Agreement with the City of Vancouver, Telecom Regulatory Policy CRTC 2009-150, 19 March 2009 (the “**Allstream – Vancouver Decision**”)*

*Bell Aliant Regional Communications, Limited Partnership and Bell Canada – Application regarding access to municipal property in the City of Thunder Bay, Telecom Decision CRTC 2010-806, 29 October 2010 (the “**Bell – Thunder Bay Decision**”)*

TABLE OF CONTENTS

1. DEFINITIONS AND INTERPRETATION	5
2. USE OF ROWs.....	7
3. PERMITS TO CONDUCT WORK.....	7
4. MANNER OF WORK.....	10
5. REMEDIAL WORK	11
6. LOCATING FACILITIES IN ROWs	13
7. RELOCATION OF PLANT.....	14
8. FEES AND OTHER CHARGES	14
9. TERM AND TERMINATION	15
10. INSURANCE.....	17
11. LIABILITY AND INDEMNIFICATION.....	17
12. ENVIRONMENTAL LIABILITY.....	18
13. FORCE MAJEURE	19
14. DISPUTE RESOLUTION	19
15. NOTICES	20
16. GENERAL.....	21

MUNICIPAL ACCESS AGREEMENT

This Municipal Access Agreement shall be effective as of the ___ day of _____, 20__ (the “**Effective Date**”).

B E T W E E N:

[NAME OF MUNICIPALITY]
(the “**Municipality**”)

- and -

[NAME OF COMPANY]
(the “**Company**”)

(each, a “**Party**” and, collectively, the “**Parties**”)

RECITALS

WHEREAS the Company is a “telecommunications common carrier” as defined in the *Telecommunications Act*, S.C. 1993, c.38 (“**Telecom Act**”) or “distribution undertaking” as defined in the *Broadcasting Act*, S.C. 1991, c.11 (collectively, a “**Carrier**”) and is subject to the jurisdiction of the Canadian Radio-television and Telecommunications Commission (the “**CRTC**”);

AND WHEREAS, in order to operate as a Carrier, the Company requires to construct, maintain and operate its Equipment in, on, over, under, across or along (“**Within**”) the highways, streets, road allowances, lanes, bridges or viaducts which are under the jurisdiction of the Municipality (collectively, “**Rights-of-Way**” or “**ROWS**”) ¹ or other public places ² as agreed to by the Parties;

AND WHEREAS, pursuant to section 43 of the Telecom Act, the Company requires the Municipality’s consent to construct its Equipment Within the ROWs and the Municipality is willing to grant the Company a non-exclusive right to access and use the ROWs; provided that such use will not unduly interfere with the public use and enjoyment of the ROWs, nor any rights or privileges previously conferred or conferred after the Effective Date by the Municipality on

1 Rights-of-way can also be referred to as streets, highways, road allowances and alignments.

2 For a discussion of “other public places”, see the Allstream - Edmonton Decision and the Allstream – Vancouver Decision.

Third Parties to use or access the ROWs;³

AND WHEREAS the Parties have agreed that it would be mutually beneficial to outline the terms and conditions pursuant to which the Municipality hereby provides its consent;

NOW THEREFORE in consideration of the mutual terms, conditions and covenants contained herein, the Parties agree and covenant with each other as follows:

1. DEFINITIONS AND INTERPRETATION

1.1. Definitions.

- (a) **“Affiliate”** means:
 - i. in the case of the Company, “affiliate” as defined in the *Canada Business Corporations Act* that is also a Carrier.
 - ii. in the case of the Municipality, a local board, agency or commission of the Municipality or a corporation which is partially or solely owned by, and is controlled by, the Municipality, and which has as a primary purpose, the management and maintenance of the ROWs.
- (b) **“Emergency”** means an unforeseen situation where immediate action must be taken to preserve the environment, public health, safety or an essential service of either of the Parties.
- (c) **“Hazardous Substance”** means any harmful substance including, without limitation, electromagnetic or other radiation, contaminants, pollutants, dangerous substances, dangerous goods and toxic substances, as defined, judicially interpreted or identified in any applicable law (including the common law).
- (d) **“Equipment”** means the transmission and distribution facilities owned by the Company and its Affiliates, comprising fibre optic, coaxial or other nature or form of cables, pipes, conduits, poles, ducts, manholes, handholds and ancillary structures and equipment located Within the ROWs.
- (e) **“Municipal Consent”** means the written consent of the Municipality, with or without conditions, to allow the Company to perform Work Within the ROWs that requires the excavation or breaking up of the ROWs (as more fully described in **Schedule B**).

³ Sections 43 and 44 of the Telecom Act set out the Company’s and Municipality’s basic statutory rights.

-
- (f) “**Municipal Engineer**” means the [●] of the Municipality or the individual designated by him or her.
 - (g) “**Municipality’s Costs**” means the reasonable and verifiable costs and expenses of the Municipality, including the cost of labour and materials, plus a reasonable overhead charge of [●]⁴.
 - (h) “**Permit**” means a Municipal Consent or a Road Occupancy Permit or both.
 - (i) “**Road Occupancy Permit**” means a Permit issued by the Municipality authorizing the Company to conduct Work that includes any activity that involves a deployment of its workforce, vehicles and other equipment in the ROWs when performing the Work (as more fully described in **Schedule B**).⁵
 - (j) “**Service Drop**” means a cable that, by its design, capacity and relationship to other cables of the Company, can be reasonably considered to be for the sole purpose of connecting backbone of the Equipment to not more than one individual customer or building point of presence or property.
 - (k) “**Third Party**” means any person that is not a party to this Agreement nor an Affiliate of either Party, and includes any person that attaches its facilities in, on or to the Equipment under an agreement with the Company.
 - (l) “**Work**” means, but is not limited to, any installation, removal, construction, maintenance, repair, replacement, relocation, operation, adjustment or other alteration of the Equipment performed by the Company Within the ROWs, including the excavation, repair and restoration of the ROWs.

1.2. **Recitals and Schedules.** The beginning part of this Agreement entitled “Recitals” and the following schedules are annexed to this Agreement and are hereby incorporated by reference into this Agreement and form part hereof:

Schedule A - Fees and Charges Payable by the Company
Schedule B – Permits Required by the Municipality
Schedule C – Relocation Costs

4 Municipality’s Costs are incurred in respect of activities the Municipality performs on behalf of the Company.

5 Not every municipality uses Road Occupancy Permits or similar type permits.

2. USE OF ROWs

- 2.1. **Consent to use ROWs.** The Municipality hereby consents to the Company’s use of the ROWs for the purpose of performing its Work, subject to the terms and conditions of this Agreement and in accordance with all applicable municipal by-laws, rules, policies, standards and guidelines (“**Municipal Guidelines**”) pertaining to the Equipment and the use of the ROWs.
- 2.2. **Proviso.** Notwithstanding [Section 2.1](#) and any other provisions of this Agreement, to the extent that any of the Municipal Guidelines are inconsistent with the terms of this Agreement, the Company shall not be required to comply with such Municipal Guidelines.
- 2.3. **Scope of municipal consent.** The Company shall not, in the exercise of its rights under this Agreement, unduly interfere with the public use and enjoyment of the ROWs.
- 2.4. **No ownership rights.** The Parties acknowledge and agree that:
- (a) the use of the ROWs under this Agreement shall not create nor vest in the Company any ownership or property rights in the ROWs; and
 - (b) the placement of the Equipment Within the ROWs shall not create or vest in the Municipality any ownership or property rights to the Equipment.
- 2.5. **Condition of ROWs.** The Municipality makes no representations or warranties as to the state of repair of the ROWs or the suitability or fitness of the ROWs for any business, activity or purpose whatsoever, and the Company hereby agrees to accept the ROWs on an “as is” basis.

3. PERMITS TO CONDUCT WORK

- 3.1. **Where Permits required.**
- (a) Subject to [Section 3.2](#), Work Within the ROWs by the Company is subject to the authorization requirements of the Municipality as set out in [Schedule B](#).⁶
 - (b) For each Permit required above, the Company shall submit to the Municipality a completed application, in a form specified by the Municipality and including the applicable fee set out in [Schedule A](#).⁷

6 Alternatively, the Municipality may want to refer to its permit by-law.

7 The Municipality may want to refer to its fees by-law instead.

-
- (c) Subject to **Section 3.5**, the Municipality will issue the applicable Permits within ● days of receiving a complete Application, or such other time as agreed to by the Parties having regard to the complexity of the Work covered by the Application and the volume of Permit Applications before the Municipality at that time.

3.2. **No Permits for routine Work.**⁸ Notwithstanding **Section 3.1**, the Company may, with advance notice as required by the Municipality's traffic management policies, but without first obtaining a Permit:

- (a) utilize existing ducts or similar structures of the Equipment;
- (b) carry out routine maintenance and field testing to its Equipment; and
- (c) install and repair Service Drops;

provided that in no case shall the Company break up or otherwise disturb the physical surface of the ROW without the Municipality's prior written consent.

3.3. **Expiry of Permit.** In the event that the Company has not commenced construction of the approved Work associated with a particular Permit within [●] of the date of issuance of the Permit, and has not sought and received an extension to the Permit from the Municipality, which extension shall not be unreasonably withheld, the Permit shall be null and void. In such circumstances, any fees paid by the Company in respect of the expired Permit shall not be refunded and the Company must obtain a new Permit for the Work.

3.4. **Submission of plans.** Unless otherwise agreed to by the Municipality, the Company shall, prior to undertaking any Work that requires a Municipal Consent, submit the following to the Municipal Engineer:

- (a) construction plans of the proposed Work, showing the locations of the proposed and existing Equipment and other facilities, and specifying the boundaries of the area within the Municipality within which the Work is proposed to take place; and
- (b) all other relevant plans, drawings and other information as may be normally required by the Municipal Engineer from time to time for the purposes of issuing Permits.

3.5. **Refusal to issue Permits.** In case of conflict with any *bona fide* municipal purpose, including reasons of public safety and health, conflicts with existing infrastructure, proposed road construction, or the proper functioning of public services, all as identified in writing to the Company by the Municipality, the Municipality may request

⁸ This provision may be used if the Parties do not want to use Schedule B.

amendments to the plans referred to in [Section 3.4](#) or may choose to refuse to issue a Permit in accordance with [Section 3.1](#).

3.6. **Temporary Connections.**

COMMENTARY

The Municipality may want to address the issue of temporary connections or Service Drops, including clauses that require that:

- wires and cables cross ROWs with adequate vertical clearance and do not lie on the ground;
- the temporary connection be removed within a reasonable time (e.g., the next construction season);
- the Company remedy any conditions deemed unsafe by the Municipality within a certain time; and
- the Company not cause any aerial trespass of adjacent or nearby properties.

3.7. **Restoration of the Company’s service during Emergencies.** Notwithstanding [Section 3.1](#), in the event of an Emergency, the Company shall be permitted, provided that the Company gives notice to the Municipality as soon as reasonably practicable, to perform such remedial Work as is reasonably necessary to restore its services without complying with [Section 3.1](#); provided that the Company does comply with [Section 3.1](#) within five (5) business days of completing the Work.

3.8. **Temporary changes by Municipality.** Notwithstanding any other provision in this Agreement, the Municipality reserves the right to set, adjust or change the approved schedule of Work by the Company for the purpose of coordinating or managing any major events or activities, including the restriction of any Work during those restricted time periods; provided however, that any such adjustment or change shall be conducted so as minimize interruption to the Company’s operations. The Municipality shall use its commercially reasonable efforts to provide to the Company forty-eight (48) hours advance written notice of any change to the approved schedule of Work, except that, in the case of any Emergency, the Municipality shall provide such advance notice as is reasonably possible in the circumstances.

3.9. **Security.**

COMMENTARY

This Article sets out the circumstances in which a security deposit may be required of the Company.

4. MANNER OF WORK

- 4.1. **Compliance with Applicable Laws, etc.** All Work shall be conducted and completed to the satisfaction of the Municipality and in accordance with:
- (a) the applicable laws (and, in particular, all laws and codes relating to occupational health and safety);
 - (b) the Municipal Guidelines;
 - (c) this Agreement; and
 - (d) the applicable Permits issued under **Section 3.1**.
- 4.2. **Stoppage of Work.** The Municipality may order the stoppage of the Work for any *bona fide* municipal purpose or cause relating to public health and safety or any circumstances beyond its control. In such circumstances, the Municipality shall provide the Company with a verbal order and reasons to stop the Work and the Company shall cease the Work immediately. Within two (2) business days of the verbal order, the Municipality shall provide the Company with a written stop work order with reasons. When the reasons for the Work stoppage have been resolved, the Municipality shall advise the Company immediately that it can commence the Work.
- 4.3. **Coordination of Work.** The Company shall use its reasonable efforts to minimize the necessity for road cuts, construction and the placement of new Equipment Within the ROW by coordinating its Work and sharing the use of support structures with other existing and new occupants of the ROWs.
- 4.4. **Utility co-ordination committee.** The Company shall participate in a utility co-ordination committee established by the Municipality and contribute to its equitable share of the reasonable costs of the operation and administration of the committee as approved by such committee.
- 4.5. **Emergency contact personnel.** The Company and the Municipality shall provide to each other a list of 24-hour emergency contact personnel, available at all times, including contact particulars, and shall ensure that the list is kept current.
- 4.6. **Emergency work by Municipality.** In the event of an Emergency, the Municipality shall as soon as reasonably practicable contact the Company and, as circumstances permit, allow the Company a reasonable opportunity to remove, relocate, protect or otherwise deal with the Equipment, having regard to the nature of the Emergency. Notwithstanding the foregoing, the Municipality may take all such measures it deems necessary to address the Emergency and otherwise re-establish a safe environment, and the Company shall pay

the Municipality's Costs that are directly attributable to the Work or the presence of the Equipment in the ROWs.

- 4.7. **“As-built” drawings.** Where required by the Municipality, the Company shall, no later than [● days] after completion of any Work provide the Municipal Engineer with accurate “as-built” drawings, prepared in accordance with such standards as may be required by the Municipal Engineer, sufficient to accurately establish the plan, profile and dimensions of the Equipment installed Within the ROWs. Such drawings shall only be used for the purposes of facilitating the Municipal Engineer's conduct of planning and issuance of Work permits. The “as-constructed” drawings must be protected through reasonable measures and must not be shared beyond those who require it for the purposes described above, nor must they be used for any other purpose or combined with other information.
- 4.8. **Where Equipment is located incorrectly.** Where the location of any portion of the Equipment in a ROW is located outside a distance of [●] horizontally (centre-line to centre-line) from the location approved in the Permit or as shown on the as-built drawings (as accepted by the Municipality) and, as a result, the Municipality is unable to install its facilities Within the affected ROWs in the manner it expected based on the Permit or as-built drawings (the “**Conflict**”), the following shall apply:

NON-CONSENSUS – To be negotiated

- 4.9. **Agents and Sub-contractors.** Each Party agrees to work with the other Party directly to resolve any issues arising from any the acts, omissions or performance of its agents and sub-contractors.

5. REMEDIAL WORK

- 5.1. **General.** Following the completion of any Work, the Company shall leave the ROW in a neat, clean, and safe condition and free from nuisance, all to the satisfaction of the Municipality. Subject to **Section 5.5**, where the Company is required to break or otherwise disturb the surface of a ROW to perform its Work, it shall repair and restore the surface of the ROW to substantially the same condition it was in before the Work was undertaken, all in accordance with the Municipal Guidelines and to the satisfaction of the Municipal Engineer.
- 5.2. **Permanent Road Restoration.** If the Company has excavated, broken up or otherwise disturbed the surface of a ROW, the requirements for the Company completing the road restoration work will vary depending on if and when pavement has been recently repaved or overlaid, as follows:

-
- (a) if pavement has been repaved or overlaid during the five-year period immediately prior to the date of issuance of the Permit, then the Municipality may require that the Company grind and overlay the full lane width of pavement in the ROW;
 - (b) if pavement has been repaved or overlaid during the two-year period immediately prior to the date of issuance, then the Municipality may require that the Company grind and overlay the full width of the pavement in the ROW;
 - (c) in either **subsections (a)** or **(b)** above, if Third Parties, including the Municipality as a provider of services to the public, has excavated, broken up or otherwise disturbed the pavement to be ground and overlaid, the costs of that grind and overlay will be apportioned between the Company and the Third Parties on the basis of the area of their respective cuts;
 - (d) the Municipality will not require grind and overlay under **subsections (a)** or **(b)** above for road restoration work involving:
 - i. service connections to buildings where no other reasonable means of providing service exists and the Company had no requirement to provide service before the new pavement was placed;
 - ii. Emergencies; and
 - iii. other situations deemed by the Municipal Engineer to be in the public interest; and
 - (e) if the Municipality has required the Company to grind and overlay under either **subsections (a)** or **(b)** above, the Company will have no obligation to pay Pavement Degradation fees under **Schedule A** in relation to that pavement.

5.3. **Temporary repair.** Where weather limitations or other external conditions beyond the control of the Company do not permit it to complete a final repair to the ROW within the expected period of time, the Company may complete a temporary repair to the ROW; provided that, subject to **Section 5.5**, the Company replaces the temporary repair with a final repair within a reasonable period of time. All repairs to the ROW by the Company shall be performed in accordance with the Municipal Guidelines and to the satisfaction of the Municipality.

If a temporary repair gives rise to an unsafe condition, then this shall be deemed to constitute an Emergency and the provisions of **Section 4.6** shall apply.

5.4. **Warranty for repairs.** The Company warrants its temporary repair, to the satisfaction of the Municipality until such time as the final repair is completed by the Company, or, where the Municipality is performing the final repair, for a period of two (2) years or

until such time as the final repair is completed by the Municipality, whichever is earlier. The Company shall warrant its final repairs for a period of two (2) years from the date of their completion.

5.5. **Repairs completed by Municipality.** Where:

- (a) the Company fails to complete a temporary repair to the satisfaction of the Municipality within [●] of being notified in writing by the Municipality, or such other period as may be agreed to by the Parties⁹; or
- (b) the Company and the Municipality agree that the Municipality should perform the repair,

then the Municipality may effect such work necessary to perform the repair and the Company shall pay the Municipality's Costs of performing the repair.

6. LOCATING FACILITIES IN ROWs

6.1. **Locates.**¹⁰ The Company agrees that, throughout the Term it shall, at its own cost, record and maintain adequate records of the locations of its Equipment. Each Party shall, at its own cost and at the request of the other Party (or its contractors or authorized agents), physically locate its respective facilities by marking the ROW using paint, staking or other suitable identification method ("**Locates**"), under the following circumstances:

- (a) in the event of an Emergency, within two hours of receiving the request or as soon as practicably possible, following which the requesting Party will ensure that it has a representative on site (or alternatively, provide a contact number for its representative) to ensure that the area for the Locates is properly identified; and
- (b) in all other circumstances, within a time reasonably agreed upon by the Parties.

6.2. **Provision of Mark-ups.** The Parties agree to respond within [●] days to any request from the other Party for a mark-up of municipal infrastructure or Equipment design drawings showing the location of any portion of the municipal infrastructure or Equipment, as the case may be, located within the portion of the ROWs shown on the plans (the "**Mark-ups**"), and shall provide such accurate and detailed information as may be reasonably required by the requesting Party.¹¹

9 This time period may be negotiated between the parties. A common time period used is 72 hours.

10 This section may need to be amended to reflect procedures for providing locates that have been established by provincial legislation.

11 Parties to negotiate time (15 days is suggested).

-
- 6.3. **Inaccurate Locates.** Where the Company’s Locates do not accurately correspond with either the Mark-ups or physical location of the Equipment, and as a result, the Municipality is unable to install its facilities Within the affected ROWs in the manner it expected based on the Locates provided by the Company (the “**Error**”), the following shall apply:

NON-CONSENSUS – To be negotiated

7. RELOCATION OF PLANT

- 7.1. **General.** Where the Municipality requires and requests the Company to relocate its Equipment for bona fide municipal purposes, the Municipality shall notify the Company in writing and, subject to **Section 7.3**, the Company shall, within ● days thereafter or such other time as agreed to by the Parties having regard to the schedules of the Parties and the nature of the relocation required, perform the relocation and any other required and associated Work.
- 7.2. **Municipality’s efforts.** The Municipality will make good faith efforts to provide alternative routes for the Equipment affected by the relocation to ensure uninterrupted service to the Company’s customers. Once the Company has provided the Municipality with all information the Municipality requires to enable it to process a Permit application, the Municipality shall provide, on a timely basis, all Permits required to allow the Company to relocate the Equipment.
- 7.3. **Reimbursement by Municipality for the Company’s Relocation Costs.** The Municipality shall reimburse the Company for all or part of its reasonable and verifiable costs of completing a relocation requested by the Municipality (the “**Relocation Costs**”) based upon the principles, methodologies and procedures set out in **Schedule C**.

8. FEES AND OTHER CHARGES

- 8.1. **General.** The Company covenants and agrees to pay to the Municipality the fees, charges and Municipality’s Costs in accordance with this Agreement, including the fees and charges set out in **Schedule A**.¹²
- 8.2. **Invoices.** Unless expressly provided elsewhere in this Agreement, where there are any payments to be made under this Agreement, the Party requesting payment shall first send a written invoice to the other Party, setting out in detail all amounts owing, including any applicable provincial and federal taxes and interest payable on prior overdue invoices,

¹² The Municipality may want to refer to its fees by-law instead.

and the payment terms. The Parties agree that all payments shall be made in full by no later than [●] days after the date of the invoice was received.¹³

- 8.3. **Payment of taxes.** The Company shall pay, and shall expressly indemnify and hold the Municipality harmless from, all taxes lawfully imposed now or in the future by the Municipality or all taxes, rates, duties, levies or fees lawfully imposed now or in future by any regional, provincial, federal, parliamentary or other governmental body, corporate authority, agency or commission (including, without limitation, school boards and utility commissions) but excluding the Municipality, that are attributable to the Company's use of the ROW.

9. TERM AND TERMINATION

- 9.1. **Initial term and renewal.** This Agreement shall have an initial term of ● years commencing on the Effective Date and shall be [renewed automatically for successive ● year terms]¹⁴ unless:
- (a) this Agreement is terminated by either Party in accordance with this Agreement;
 - (b) a Party delivers initial notice of non-renewal to the other Party at least ● days prior to the expiration of the then current term; or
 - (c) this Agreement is replaced by a New Agreement (as defined below) between the Parties.
- 9.2. **Termination by either Party.** Either Party may terminate this Agreement without further obligation to the other Party, upon providing at least twenty-four (24) hours' notice in the event of a material breach of this Agreement by the other Party after notice thereof and failure of the other Party to remedy or cure the breach within thirty (30) days of receipt of the notice. If, however, in the view of the non-breaching Party, it is not possible to remedy or cure the breach within such thirty (30) day period, then the breaching Party shall commence to remedy or cure the breach within such thirty (30) day period and shall complete the remedy or cure within the time period stipulated in writing by the non-breaching Party.
- 9.3. **Termination by Municipality.** The Municipality may terminate this Agreement by providing the Company with at least twenty-four (24) hours' written notice in the event that:

13 The payment terms will be negotiated between the parties.

14 The parties may negotiate the renewal terms.

-
- (a) the Company becomes insolvent, makes an assignment for the benefit of its creditors, has a liquidator, receiver or trustee in bankruptcy appointed for it or becomes voluntarily subject as a debtor to the provisions of the *Companies' Creditors Arrangement Act* or the *Bankruptcy and Insolvency Act*;
 - (b) the Company assigns or transfers this Agreement or any part thereof other than in accordance with [Section 16.7](#); or
 - (c) the Company ceases to be eligible to operate as a Carrier.

9.4. **Obligations and rights upon termination or expiry of Agreement.** Notwithstanding any other provision of this Agreement, if this Agreement is terminated (other than in accordance with [Sections 9.2](#) and [9.3](#)) or expires without renewal, then, subject to the Company's rights to use the ROWs pursuant to the Telecom Act and, unless the Company advises the Municipality in writing that it no longer requires the use of the Equipment:

- (a) the terms and conditions of this Agreement shall remain in full force and effect until a new municipal access agreement (a "**New Agreement**") is executed by the Parties; and
- (b) the Parties shall enter into meaningful and good faith negotiations to execute a New Agreement and, if, after six (6) months following the expiry of this Agreement, the Parties are unable to execute a New Agreement, then either Party may apply to the CRTC to establish the terms and conditions of the New Agreement.

9.5. **Removing abandoned Equipment.** Where the Company advises the Municipality in writing that it no longer requires the use of any Equipment, the Company shall, at the Municipality's request and within a reasonable period of time as agreed to by the Parties, act as follows at the Company's sole cost and expense:

- (a) Remove the abandoned Equipment that is above ground;
- (b) Subject to (c) immediately below, make safe any underground vaults, manholes and any other underground structures that are not occupied or used by a Third Party, (collectively "**Abandoned Underground Structures**");
- (c) Where, in the reasonable opinion of the Municipal Engineer, the Abandoned Underground Structures will interfere with any municipally-approved project that will require excavation or otherwise disturb the portions of the ROWs in which the Abandoned Underground Structures are located, then the Company shall, at or about the time the excavation of such portions of the ROWs for said project commences, remove the Abandoned Underground Structures therein.

Upon removal of the abandoned Equipment or upon the removal or making safe of Underground Structures, the Company shall repair any damage resulting from such removal or making safe and restore the affected ROWs to the condition in which they existed prior to the removal or making safe. If the Company fails to remove such Equipment and restore the ROWs within the time specified above and to the satisfaction of the Municipal Engineer, the Municipality may complete such removal and restoration and the Company shall pay the associated Municipality's Costs.

- 9.6. **Continuing obligations.** Notwithstanding the expiry or earlier termination of this Agreement, each Party shall continue to be liable to the other Party for all payments due and obligations incurred hereunder prior to the date of such expiry or termination.

10. INSURANCE

COMMENTARY

This Article sets out the insurance required of the Company and will depend on the individual requirements of the Parties.

11. LIABILITY AND INDEMNIFICATION

- 11.1. **Definitions.** For the purposes of this **Article 11**, the following definitions shall apply:
- (a) “**Municipality**” means the Municipality and its elected and appointed officials, officers, employees, contractors, agents, successors and assigns;
 - (b) “**Company**” means the Company and its directors, officers, employees, contractors, agents, successors and assigns;
 - (c) “**Claims**” means any and all claims, actions, causes of action, complaints, demands, suits or proceedings of any nature or kind;
 - (d) “**Losses**” means, in respect of any matter, all losses, damages, liabilities, deficiencies, Costs and expenses; and
 - (e) “**Costs**” means those costs (including, without limitation, all legal and other professional fees and disbursements, interest, liquidated damages and amounts paid in settlement, whether from a third party or otherwise) awarded in accordance with the order of a court of competent jurisdiction, the order of a board, tribunal or arbitrator or costs negotiated in the settlement of a claim or action.

11.2. **No liability, Municipality.** Except for Claims or Losses arising, in whole or in part, from the negligence or wilful misconduct of the Municipality, the Municipality shall not:

- (a) be responsible, either directly or indirectly, for any damage to the Equipment howsoever caused; and
- (b) be liable to the Company for any Losses whatsoever suffered or incurred by the Company,

on account of any actions or omissions of the Municipality under this Agreement.

11.3. **No liability, both Parties.** Notwithstanding anything else in this Agreement, neither Party shall be liable to any person in any way for special, incidental, indirect, consequential, exemplary or punitive damages, including damages for pure economic loss or for failure to realize expected profits, howsoever caused or contributed to, in connection with this Agreement and the performance or non-performance of its obligations hereunder.

11.4. **Indemnification by the Company.**

NON-CONSENSUS – To be negotiated

11.5. **Indemnification by Municipality.**

NON-CONSENSUS – To be negotiated

12. ENVIRONMENTAL LIABILITY

12.1. **Municipality not responsible.** The Municipality is not responsible, either directly or indirectly, for any damage to the natural environment or property, including any nuisance, trespass, negligence, or injury to any person, howsoever caused, arising from the presence, deposit, escape, discharge, leak, spill or release of any Hazardous Substance in connection with the Company's occupation or use of the ROWs, unless such damage was caused directly or indirectly by the negligence or wilful misconduct of the Municipality or those for which it is responsible in law.

12.2. **Company to assume environmental liabilities.** The Company agrees to assume all environmental liabilities, claims, fines, penalties, obligations, costs or expenses whatsoever relating to its use of the ROWs, including, without limitation, any liability for the clean-up, removal or remediation of any Hazardous Substance on or under the ROWs that result from:

-
- (a) the occupation, operations or activities of the Company, its contractors, agents or employees or by any person with the express or implied consent of the Company Within the ROWs; or
 - (b) any Equipment brought or placed Within the ROWs by the Company, its contractors, agents or employees or by any person with the express or implied consent of the Company;

unless such damage was caused directly or indirectly in whole or in part by the negligence or wilful misconduct on the part of the Municipality or those for which it is responsible in law.

13. FORCE MAJEURE

Except for the Parties' obligations to make payments to each other under this Agreement, neither Party shall be liable for a delay in its performance or its failure to perform hereunder due to causes beyond its reasonable control, including, but not limited to, acts of God, fire, flood, or other catastrophes; government, legal or statutory restrictions on forms of commercial activity; or order of any civil or military authority; national emergencies, insurrections, riots or wars or strikes, lock-outs or work stoppages (“**Force Majeure**”). In the event of any one or more of the foregoing occurrences, notice shall be given by the Party unable to perform to the other Party and the Party unable to perform shall be permitted to delay its performance for so long as the occurrence continues. Should the suspension of obligations due to Force Majeure exceed two (2) months, either Party may terminate this Agreement without liability upon delivery of notice to the other Party.

14. DISPUTE RESOLUTION

14.1. **General.** The Parties hereby acknowledge and agree that:

- (a) this Agreement has been entered into voluntarily by the Parties with the intention that it shall be final and binding on the Parties until it is terminated or expires in accordance with its terms;
- (b) it is the intention of the Parties that all Disputes (as defined in **Section 14.2**) be resolved in a fair, efficient, and timely manner without incurring undue expense and, wherever possible, without the intervention of the CRTC; and
- (c) the CRTC shall be requested by the Parties to consider and provide a decision only with respect to those matters which form the basis of the original Dispute as set out in the Dispute Notice issued under this **Article 14**.

14.2. **Resolution of Disputes.** The Parties will attempt to resolve any dispute, controversy, claim or alleged breach arising out of or in connection with this Agreement (“**Dispute**”) promptly through discussions at the operational level. In the event a resolution is not achieved, the disputing Party shall provide the other Party with written notice of the Dispute and the Parties shall attempt to resolve such Dispute between senior officers who have the authority to settle the Dispute. All negotiations conducted by such officers shall be confidential and shall be treated as compromise and settlement negotiations. If the Parties fail to resolve the Dispute within thirty (30) days of the non-disputing Party’s receipt of written notice, either Party may initiate legal proceedings and/or submit the Dispute to the CRTC for resolution.

14.3. **Continued performance.** Except where clearly prevented by the nature of the Dispute, the Municipality and the Company agree to continue performing their respective obligations under this Agreement while a Dispute is subject to the terms of this **Article 14**.

15. NOTICES

15.1. **Method of Notice.** Any notice required may be sufficiently given by personal delivery or, if other than the delivery of an original document, by facsimile transmission to either Party at the following addresses:

If to the Municipality:

With a copy to:

If to the Company

With a copy to:

15.2. **Delivery of notice.** Any notice given pursuant to **Section 15.1** shall be deemed to have been received on the date on which it was delivered in person, or, if transmitted by facsimile during the regular business hours of the Party receiving the notice, on the date it was transmitted, or, if transmitted by facsimile outside regular business hours of the Party receiving the notice, on the next regular business day of the Party receiving the notice; provided, however, that either Party may change its address and/or facsimile number for purposes of receipt of any such communication by giving ten (10) days’ prior written notice of such change to the other Party in the manner described above.

15.3. **Alternative Method of Notice.**

COMMENTARY

This Section sets out alternate methods of notice that the Parties may negotiate.

16. GENERAL

- 16.1. **Entire agreement.** This Agreement, together with the Schedules attached hereto, constitutes the complete and exclusive statement of the understandings between the Parties with respect to the rights and obligations hereunder and supersedes all proposals and prior agreements, oral or written, between the Parties.
- 16.2. **Gender and number.** In this Agreement, words importing the singular include the plural and vice versa, words importing gender, include all genders.
- 16.3. **Sections and headings.** The division of this Agreement into articles, sections and subsections and the insertion of headings are for convenience of reference only and do not affect the interpretation of this Agreement. Unless otherwise indicated, references in this Agreement to an article, section, subsection or schedule are to the specified article, section or subsection of or schedule to this Agreement.
- 16.4. **Statutory references.** A reference to a statute includes all regulations and rules made pursuant to the statute and, unless otherwise specified, the provisions of any statute or regulation which amends, supplements or supersedes the statute or the regulation.
- 16.5. **Including.** Where the word “including” or “includes” is used in this Agreement it means “including (or includes) without limitation as to the generality of the foregoing”.
- 16.6. **Currency.** Unless otherwise indicated, references in this Agreement to money amounts are to the lawful currency of Canada.
- 16.7. **Assignment.** This Agreement may not be assigned, in whole or in part, without the prior written consent of the other Party. Notwithstanding the foregoing, either Party shall have the right to assign this Agreement to an Affiliate without the consent of the other Party, provided that: i) it is not in material breach of this Agreement; ii) it has given prompt written notice to the other Party; iii) any assignee agrees to be bound by the terms and conditions of this Agreement; and iv) the assignee is not in direct competition with the other Party, in which case, prior written consent would be required.
- 16.8. **Parties to act reasonably.** Each Party shall at all times act reasonably in the performance of its obligations and the exercise of its rights and discretion under this Agreement.

-
- 16.9. **Amendments.** Except as expressly provided in this Agreement, no modification of or amendment to this Agreement shall be effective unless agreed to in writing by the Municipality and the Company.
- 16.10. **Survival.** The terms and conditions contained in this Agreement that by their sense and context are intended to survive the performance thereof by the Parties hereto shall so survive the completion of performance, the expiration and termination of this Agreement, including, without limitation, provisions with respect to indemnification and the making of any and all payments due hereunder.
- 16.11. **Governing law.** This Agreement shall be governed by the laws of the Province of [●] and all federal laws of Canada applicable therein.
- 16.12. **Waiver.** Failure by either Party to exercise any of its rights, powers or remedies hereunder or its delay to do so shall not constitute a waiver of those rights, powers or remedies. The single or partial exercise of a right, power or remedy shall not prevent its subsequent exercise or the exercise of any other right, power or remedy.
- 16.13. **Severability.** If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision and everything else in this Agreement shall continue in full force and effect
- 16.14. **Inurement.** This Agreement is and shall be binding upon and inure to the benefit of the Parties hereto and their respective legal representatives, successors, and permitted assigns, and may not be changed or modified except in writing, duly signed by the Parties hereto.
- 16.15. **Equitable Relief.** Either Party may, in addition to any other remedies it may have at law or equity, seek equitable relief, including without limitation, injunctive relief, and specific performance to enforce its rights or the other party's obligations under this Agreement.

IN WITNESS WHEREOF the Parties hereto have executed this Agreement by their duly authorized representatives.

MUNICIPALITY

COMPANY

Authorized Signatory, [name & title]

SCHEDULE A FEES AND CHARGES PAYABLE BY THE COMPANY

Definition of Causal Costs

NON-CONSENSUS – To be negotiated

Determination of Causal Costs

COMMENTARY

The discussion below provides a high level description of the methodology established by the CRTC to calculate causal costs based on generally accepted economic principles. This methodology was first described in CRTC Telecom Decision CRTC 79-16, *Inquiry into Telecommunications Carriers' Costing and Accounting Procedures – Phase II: Information Requirements for New Service Tariff Filings* (28 August 1979). However, as discussed below, the parties may mutually agree to negotiate how causal costs may be determined and/or applied through fees and other charges.

“Causal costs” are prospective (*i.e.*, forward-looking, in that "sunk" costs are not included) and incremental (*i.e.*, only costs that change as a result of the project are considered). Such causal costs are determined through an economic study specifying a Reference Plan and an Alternative Plan.

The Reference Plan consists of expected activities if a right of way is not granted to the telecommunications service provider in question. In most cases, the Reference Plan will reflect normal operation of the street, regular maintenance with no (additional) right of way, etc. Occasionally, however, some repair activity may already be planned, e.g. repair of cracks in the pavement. In such cases, the planned activities should be reflected in the Reference Plan.

Similarly, the Alternative Plan should be elaborated by listing all costs associated with the construction of the transmission line by a specific telecommunications service provider. The Alternative Plan should be as specific as possible, giving the location and length of the right of way and the timing of construction.

The resulting costs (expressed as present values) should be added up for each of the Alternative Plan and the Reference Plan. The difference between the total for the Alternative Plan and the Reference Plan is the present value of the costs of the project (*i.e.*, the causal costs).

Municipalities and carriers have the flexibility to negotiate the fee structure for the recovery of these costs. For example, they could be recovered in one lump sum payment, or a series of payments, fees or charges or some combination, as long as the payment scheme chosen by the municipality generates revenues whose present value equals the present value of costs.

In practice, carriers and municipalities often agree on certain fees/charges as a proxy for the municipality's causal costs, rather than requiring the municipality to conduct a cost study which may be complex and time consuming. Through the many cases that have been considered by the Commission and agreements that have been concluded freely between municipalities and carriers, there are a number of fee structures that have been accepted as a means of recuperating a municipality's causal costs.

In this Schedule are listed fees that have been used in agreements in Canada between carriers and larger cities or municipalities. While the quantum of the fees are not listed here as they would differ from municipality to municipality and potentially carrier to carrier, Municipalities and Carriers may wish to familiarize themselves with sample agreements and satisfy themselves that, within a reasonable range and considering inflation and other factors, these fees will adequately reflect the local context.

Recovery of Causal Costs

The following constitutes various fees or charges that have been applied in the past by municipalities. The examples of fees listed below are meant to assist negotiations between municipalities and carriers, but the examples might not all be applicable and there may be others that apply. Such fees may include:

1. Permit application fees;
2. Inspection fees;
3. Lost productivity or workaround costs;
4. Pavement degradation costs; and
5. Lost parking meter revenue and associated costs

To which may be added a loading factor and adjustments for inflation.

1. Permit Application and Permit Change Fees

This fee can be used to allow municipalities to recover their costs that are directly attributable to the review and approval of the carriers' construction projects. The type of work involved is reviewing alignments and providing optimal routing; planning space for

future utility work; providing input to traffic plans; processing and filing design and as-built drawings, etc.¹⁵

The fee can be simplified to differentiate short projects from long projects recognizing differences in the degree of effort required to review, to provide feedback as necessary and to approve final drawings.

Requests for changes to permits (including extensions) can give rise to additional fees. These fees allow municipalities to recover their costs that are directly attributable to the review and approval of the permit change requests.

2. Inspection Fees

The general principle is that the Municipality should be entitled to recover the cost of overseeing the actual construction work and ensuring compliance with the approved plans, as well as the Municipality's reinstatement standards. This may be considered as a separate fee or, for convenience, included in the permit application fee.¹⁶

3. Lost Productivity or "Work Around" Costs

If significant lost productivity costs can be isolated and accurately calculated and attributed to a telecommunications installation, the Municipality can invoice these items directly to the Company.¹⁷

The CRTC has indicated that such invoices should include the following information:

- a description of the costs being recovered;
- the location of the telecommunications equipment and the municipal work being done;
- a description of the municipal work being done;
- an explanation of the nature of the interference of the telecommunications facility;
- an itemized breakdown of the Municipality's additional costs; and
- the methodology and data sources used to determine the costs.

15 For further discussion, see paras. 66-72 of the Ledcor Decision and paras. 59-66 of the Allstream-Vancouver Decision.

16 For further discussion, see paras. 66-72 of the Ledcor Decision and paras. 59-66 of the Allstream-Vancouver Decision.

17 For further discussion, see paras. 89-92 of the Ledcor Decision and paras. 82-89 of the Allstream-Vancouver Decision.

4. Pavement Degradation Costs

These fees reflect the fact that once pavement has been cut, the strength and longevity of the pavement cannot be restored. The cut edges lead to cracks and ultimately potholes and other defects that require ongoing maintenance and premature replacement. The fee reflects that ongoing maintenance and loss of pavement life.¹⁸

5. Lost Parking Meter Revenue and Associated Costs

This fee captures lost revenue due to parking meters rendered unusable during construction. The fee should reflect actual measured or estimated average occupancy rates of the meters. The fee can also include the costs of signage required to take the meters out of service.¹⁹

Further Areas to be Addressed

- (a) *Loading Factor* - It has been recognized that there are miscellaneous indirect and variable common costs that are difficult to quantify. Any such costs that are not quantified directly can be recovered by a loading factor that is applied to all of a municipality's cost-based fees and charges. Alternatively, the municipality may want to charge a flat annual administrative fee.
- (b) *Adjustment to Fees* - This section provides for the adjustment of fees based on CPI or whatever other basis is considered appropriate by the parties.
- (c) *Renegotiation of Fees* - This section can provide a mechanism to renegotiate fees periodically; perhaps every 5 years in order to better reflect changes in legislation, CRTC decisions, municipal bylaws, changes in knowledge or installation techniques.²⁰

18 For further discussion, see paras. 67-73 of the Allstream-Vancouver Decision.

19 For further discussion, see paras. 74-79 of the Ledcor Decision and paras. 90-100 of the Allstream-Vancouver Decision.

20 For further discussion, see para. 47 of the Ledcor Decision.

SCHEDULE B
PERMITS REQUIRED BY THE MUNICIPALITY²¹

WORK ACTIVITY	MC²²	ROP²³	Notifica- tion only²⁴	No Permit or Notification²⁵
Any installation of Plant that requires Excavation ²⁶ in the ROW, including: <ul style="list-style-type: none"> – the installation of buried Plant crossing a road; – the installation of new Above-ground Equipment²⁷; – the relocation of buried Plant or Above-ground Equipment; – the replacement of existing Above-ground Equipment with equipment that is significantly larger; and – the installation of buried Service Drops that cross a road or a break a hard surface of the ROW. 	X	X		
The installation of aerial Plant (excluding aerial Service Drops)		X		
Tree trimming on ROWs		X		
The replacement of existing Above-ground Equipment without adding more Plant or significantly increasing its size (pole replacements excluded)			X	
The installation of buried Service Drops that do not cross a road or break the hard surface of a ROW			X	
Pulling cable through existing underground duct			X	
The installation of or repair to aerial Service Drops				X
The maintenance, testing and repair of Plant where there is minimal physical disturbance or changes to the ROW				X
Any other Work activity agreed to by the Municipality				X

21 This is a sample of how permits may be administered by the Municipality. The actual requirements will vary with each municipality.

22 “**MC**” means Municipal Consent.

23 “**ROP**” means Road Occupancy Permit.

24 Depending on the nature of the Work, the type of ROW or the Municipality’s Traffic Management Policy, the Municipality may require an ROP or other type of consent.

25 Subject to its Traffic Management Policy, the Municipality may require notification or an ROP.

26 “**Excavation**” means the breaching or breaking up of the hard surface of the ROW, and includes activities such as day-lighting, test pitting, digging pits and directional boring but excludes hand-digging.

27 “**Above-ground Equipment**” means, in all cases above, any structure located on the surface of the ROW used to house or support the Plant, and includes cabinets, pedestals, poles and lamp poles but excludes aerial Plant.

SCHEDULE C **RELOCATION COSTS**

COMMENTARY²⁸

The CRTC, in adjudicating disputes between carriers and municipalities has recognized that, in general carriers are entitled to the recovery of all or a portion of their relocation costs caused by the construction or activities of the municipality. The CRTC has not prescribed a single mechanism governing the allocation of relocation costs. It has stated, however, that the parties should negotiate a suitable allocation taking into account the following factors:

- (a) who has requested the relocation, *i.e.*, the municipality, the carrier, or a third party;
- (b) the reason for the requested relocation (e.g., safety reasons, aesthetic reasons, to better serve customers); and
- (c) when the request is made *vis-à-vis* the original date of construction (e.g., whether the request is made a considerable length of time after the original construction, or very shortly after that time).

1. Reimbursement for Relocation Costs

NON-CONSENSUS – To be negotiated

- 2. Equipment affected by Municipality’s Capital Works Plan.** Prior to the issuance of a Permit, the Municipality will advise the Company in writing whether the Company’s proposed location for new Equipment will be affected by the Municipality’s [●]-year capital works plan (the “**Capital Works Plan**”).²⁹ If the Municipality advises that the new Equipment will be so affected and the Company, despite being advised of such, requests the Municipality to issue the Permit, then the Municipality may issue a conditional Permit stating that, if the Municipality requires, pursuant to any project identified in the Capital Works Plan as of the date of approval, the Company to relocate the Equipment within [●] years of the date of the Permit, the Company will be required to relocate the Equipment at its own cost, notwithstanding Section 1.

3. Beautification.

NON-CONSENSUS – To be negotiated

28 For further discussion, see paras. 130-138 of the Ledcor Decision and paras.74-81 of the Allstream-Vancouver Decision.

29 The duration of the Municipality’s capital works program may vary.

4. Municipality not responsible for Third Party Relocation Costs.

Unless otherwise agreed to between the Municipality and the Third Party, in no event shall the Municipality be responsible under this Agreement for:

- (a) the costs of the Company to relocate Equipment at the request of a Third Party; or
- (b) the costs of relocating the facilities of a Third Party installed on or in the Equipment.

5. Company not responsible for Third Party Relocation Costs.

Unless otherwise agreed to between the Company and the Third Party, in no event shall the Company be responsible under this Agreement for:

- (a) the costs of the Company to relocate Equipment at the request of a Third Party [**NON-CONSENSUS – To be negotiated**]; or
- (b) the costs of relocating the facilities of a Third Party [**NON-CONSENSUS – To be negotiated**] installed on or in the Equipment.

- 6. Where Equipment is located incorrectly.** Where the location of any portion of the Equipment in a ROW is located outside a distance of [●] horizontally (centre-line to centre-line) from the location approved in the Permit or as shown on the as-built drawings (as accepted by the Municipality), then the Municipality shall not be responsible for the costs of relocating such Equipment or portion thereof. Notwithstanding the foregoing, in circumstances where records of the approved location of the Equipment are non-existent or unavailable, or where the conditions of the applicable ROW have changed materially from what was described in the Permit, the Parties agree to act reasonably when sharing or allocating the associated Relocation Costs.

7. Maintenance Cover adjustments.

NON-CONSENSUS – To be negotiated

- 8. Equipment Upgrades.** Unless otherwise agreed to by the Parties, Relocation Costs shall not include the installation of any Equipment by the Company for the purpose of providing an up-graded service, which shall be at the sole cost of the Company. The Parties agree that the Relocation Costs to be allocated between the parties shall be based on the use of the same approximate quantity, quality and type of Equipment and manner of construction for the new installation as was used for the original, subject to any adjustments required due to:

- (a) technological change or industry construction methods;

- (b) the need for an installation of greater length or other modifications due to, for example, space constraints or the presence of third party equipment; or
- (c) the undergrounding of aerial Equipment where required as part of the relocation where cost sharing is permitted under this Agreement.

9. Relocation performed by Municipality. If the Company fails to complete the relocation in accordance with [Section 7.1](#) of the Agreement, the Municipality may, at its option, upon reasonable final notice to the Company, complete such relocation and the Company shall pay the Municipality's Costs of the relocation.



Telecom Decision CRTC 2016-51

PDF version

Ottawa, 10 February 2016

File number: 8690-C210-201409219

City of Hamilton – Terms and conditions of a Municipal Access Agreement with Bell Canada

*The Commission **approves with changes** the rates, terms, and conditions of a Municipal Access Agreement (MAA) between the City of Hamilton (the City) and Bell Canada.*

The MAA will govern Bell Canada's access to highways and other public places in the municipality, allowing Bell Canada to provide its services throughout the municipality, and therefore maximizing the choice of telecommunications service providers for residents and businesses.

Introduction

1. In 2012, a Municipal Access Agreement (MAA) between the City of Hamilton (the City) and Bell Canada expired.¹ Since then, the parties have been unsuccessful in coming to an agreement on a new MAA.
2. On 22 August 2014, the City filed an application with the Commission in which it requested interim and final relief regarding a proposed MAA with Bell Canada.²
3. Regarding interim relief, the City requested that the Commission prohibit Bell Canada from further constructing or maintaining its infrastructure in the municipality until either Bell Canada and the City agree to a new MAA, or the Commission approves the terms and conditions of the City's proposed MAA. The Commission denied the City's request for interim relief by letter dated 8 June 2015.
4. Regarding final relief, the City requested that the Commission approve the terms and conditions of the City's proposed MAA with Bell Canada. Among other objectives, the proposed MAA would establish performance requirements and set out new provisions governing non-performance. These provisions were proposed with a view to compel Bell Canada to adhere to what the City referred to as good, industry-

¹ An MAA sets out the terms and conditions of a carrier's access to highways and other public places under a municipality's jurisdiction that is required to provide telecommunications services, including broadcasting services, to the public.

² While the application was filed on 22 August 2014, it was only posted on the Commission's website on 13 January 2015 due to disputes over the confidential nature of certain information filed as part of the application. The Commission addressed which documents were not to be disclosed on the public record in a letter dated 19 December 2014.

recognized engineering practices as a condition of obtaining consent to conduct works in the City's public rights-of-way (ROWs).

5. Bell Canada submitted that the City's arguments ignore the extensive work and success of the Model MAA.³ Bell Canada requested that the Commission direct the parties to negotiate using the Model MAA consensus items⁴ as a baseline for negotiations, which would enable the parties to discuss whether there are unique circumstances that warrant departures from any specific clauses set out in the Model MAA.
6. The Commission received interventions relating to the merits of the City's application from Allstream Inc.; the Federation of Canadian Municipalities; and Quebecor Media Inc., on behalf of Videotron G.P. The public record of this proceeding, which closed on 24 July 2015, is available on the Commission's website at www.crtc.gc.ca or by using the file number provided above.

Issues

7. A significant number of issues were raised on the record of this proceeding. The Commission considers that the following matters must be addressed in detail:
 - the inclusion of the term "other public places" in the MAA's introductory recitals;
 - the definition of the term "Work" in the MAA; and,
 - the allocation of costs associated with municipality-initiated facility relocations in the MAA.
8. Matters in dispute not related to the issues identified above are addressed in the Appendix to this decision.

³ The Model MAA was developed by the CRTC Interconnection Steering Committee (CISC) Municipal Access Working Group (MAWG), a group composed of municipal, industry, and Commission representatives. The Commission approved the Model MAA in Telecom Decision 2013-618.

⁴ In the Model MAA, the clauses on which the CISC MAWG participants agreed are referred to as "consensus items." "Non-consensus items" refer to clauses on which there was no agreement. In Telecom Decision 2013-618, the Commission determined that in the absence of specific disputes over access to municipal ROWs, it may not be appropriate for it to provide specific wording for the non-consensus items.

The principles applied by the Commission to resolve disputed terms of access

9. As noted above, this proceeding was initiated by the City, which sought Commission approval of its proposed MAA. Bell Canada's position is that the Commission should direct the parties to negotiate using the Model MAA as a baseline for negotiations, and that the City should be required to justify every instance in which it proposes to deviate from the Model MAA.
10. The Model MAA was never intended to be binding. It was developed and is intended to be a resource to assist parties in reaching mutually acceptable agreements, and may also serve as a useful resource for the Commission when it is required to adjudicate disputes such as this one.
11. In making its determinations, the Commission has applied the guiding principles established in Decision 2001-23, in which the Commission addressed an MAA dispute involving Leducor Industries and the City of Vancouver (the Leducor decision). This includes the principle of cost neutrality, i.e. that costs directly related to a carrier's infrastructure should be paid by the carrier, not municipal taxpayers. The Commission has acknowledged, however, in both Telecom Decision 2008-91 (the Baie-Comeau decision) and Telecom Regulatory Policy 2009-150 (the Vancouver decision) that it is appropriate to deviate from this principle in certain instances, such as when the costs are incurred as a result of municipality-initiated relocation of facilities.

The inclusion of the term "other public places" in the agreement's introductory recitals

12. The City included the following recital in its proposed MAA:

AND WHEREAS the Company wishes to construct, install and maintain its Equipment in, on, under, over, either along or across ("Within") highways, streets, road allowances, lanes, bridges or viaducts of the Municipality (singularly a "Highway" and collectively, the "Highways").

13. Bell Canada submitted that the words "or other public places" should be included, so that the recital would read "[...] highways, streets, road allowances, lanes, bridges, viaducts or other public places of the Municipality [...]" to reflect the wording in subsection 43(2) of the *Telecommunications Act* (the Act).⁵
14. Bell Canada stated that the City's consent to construct, including in other public places, is obtained through the permitting process, and that the City's proposed MAA contains a section (Section 6) that gives the City Commissioner the discretion to

⁵ Subsection 43(2) of the Act states that subject to subsections (3) and (4) and section 44, a Canadian carrier or distribution undertaking may enter on and break up any highway or other public place for the purpose of constructing, maintaining or operating its transmission lines and may remain there for as long as is necessary for that purpose, but shall not unduly interfere with the public use and enjoyment of the highway or other public place.

refuse any permit for any reason, acting reasonably. Bell Canada also submitted that its proposed wording is similar to the wording contained in the Model MAA, which also includes the term “other public places.”

15. The City argued that the words “or other public places” should not be incorporated since unique circumstances exist for lands that are owned by the City but are outside of established ROWs captured by its proposed wording. The City cited cemeteries as an example. The City submitted that its proposed MAA contemplates and primarily deals with access to established municipal ROWs (e.g. highways, streets, and roads), not other public places. It further indicated that other public places, such as cemeteries and parklands, are dealt with and managed separately by the City’s Real Estate division.

Commission’s analysis and determinations

16. In the Vancouver decision, the Commission acknowledged that the term “other public places” is potentially broad in scope. Further, it was not clear whether the terms and conditions of access to highways would necessarily be appropriate with respect to all “other public places.” The Commission therefore determined that if the parties disagreed in the future as to whether a particular location qualifies as an “other public place,” an application could be made to the Commission for resolution of the dispute.
17. The Commission agrees with the City that in the present case, the terms and conditions applicable to public places, such as highways, streets, and roads, may not necessarily be appropriate with respect to access to other types of public places, such as cemeteries and parklands. Given this, and the potential breadth and scope of the term “other public places,” the MAA should not automatically apply to all other public places.
18. While the terms and conditions contained in the proposed MAA should automatically apply to access by Bell Canada to Highways, as defined in the agreement, the MAA should apply to other public places only when the City and Bell Canada agree to this application. In cases of access to other public places to which the parties agree that the MAA should not apply, the parties are to enter into a new agreement specific to these places.
19. As noted by Bell Canada, Section 6 of the proposed MAA already provides the City Commissioner with the discretion to refuse any permit for any reason. However, to decide whether the MAA should apply to a specific “other public place,” Bell Canada and the City should be given the opportunity to reach an agreement, instead of being subject to a unilateral decision, as is the case when the City Commissioner exercises its power under Section 6.
20. Disagreements on whether a particular location is an “other public place” requiring a new and specific agreement, or whether the terms and conditions in the MAA are appropriate for such places, as well as disagreements on the specific terms of access to be included in any new and specific agreement, can be addressed through agreed-upon arbitration or by way of recourse to the Commission.

21. The recital in question will therefore read as follows:

AND WHEREAS the Company wishes to construct, install and maintain its Equipment in, on, under, over, either along or across (“Within”) highways, streets, road allowances, lanes, bridges or viaducts of the Municipality (singularly a “Highway” and collectively, the “Highways”).

The definition of the term “Work”

22. The City proposed the following definition of the term “Work” as part of its proposed MAA:

“**Work**” means, but is not limited to, any installation, removal, construction, maintenance, repair, replacement, relocation, excavation, adjustment or other alteration of Equipment Within a Highway.

23. Bell Canada argued that the City’s proposed definition is overly broad and, if adopted, would result in imposing on the carrier a requirement to obtain the City’s consent for a number of activities that do not require consent under the Act. Bell Canada argued that subsection 43(3) of the Act requires that a carrier obtain consent from a relevant public authority to proceed with *construction* of its network where such construction takes place on, over, under or along a public place, but does not require that consent be obtained for other purposes.

24. Bell Canada argued for a definition that would be limited to work that requires prior consent from the municipality (i.e. construction), and suggested the following:

“**Work**” means construction for the installation, removal, maintenance, repair, replacement, relocation, excavation, adjustment or other alteration of Equipment Within a Highway.

25. However, Bell Canada also indicated that it would be willing to accept the definition of “Work” from the Model MAA if that definition were accompanied by a schedule similar to Schedule B of the Model MAA, thereby limiting the scope of activities that would be subject to a requirement to obtain a permit from the City.⁶

26. Pursuant to the Model MAA, “Work” is defined as follows:

“**Work**” means, but is not limited to, any installation, removal, construction, maintenance, repair, replacement, relocation, operation, adjustment or other alteration of the Equipment performed by the Company Within the ROWs, including the excavation, repair and restoration of the ROWs.

⁶ Schedule B indicates the types of permits/consent that a carrier requires from a municipality (i.e. Municipal Consent, Road Occupancy Permit, or Notification Only) prior to commencing different types of work activities.

27. The City recognized that some of the activities it seeks to capture within its definition go beyond activities related to active construction. However, it submitted that Bell Canada's proposed definition is too narrow in that it would not account for the costs and challenges that the City would face in cases where it is required to make adjustments or work around Bell Canada's older infrastructure in the process of moving forward with its own activities.
28. The City argued that its proposed definition is critical to its objective of ensuring that the cost impact of Bell Canada's activities in the City's ROWs is properly accounted for. The City submitted that Bell Canada's proposed definition is contrary to the principle reflected in the Ledcor decision that a municipality is entitled to recover costs it incurs as a result of the presence of a carrier's facilities.

Commission's analysis and determinations

29. The City's proposed definition of "Work" is very similar to the definition found in the Model MAA, which Bell Canada indicated it is willing to accept, provided there is a reference to the limited types of work that require the City's consent.
30. Sections 6 to 8 of the City's proposed MAA already address the issue of when the City's consent is required. Specifically, Section 8 is clear that consent is not required for some types of work, including routine maintenance, field testing, subscriber connections, or any work necessary to restore and/or maintain uninterrupted services in the event of an emergency. Accordingly, a reference to the limited types of work that require the City's consent is not explicitly needed since the City's proposed MAA already contains provisions addressing that issue.
31. In light of the above, the definition of "Work" to be included in the MAA between the City and Bell Canada will read as follows:⁷

"Work" means, but is not limited to, any installation, removal, construction, maintenance, repair, replacement, relocation, operation, adjustment or other alteration of the Equipment performed by the Company, or on its behalf, Within a Highway, including the excavation, repair and restoration of the Highways.

The allocation of costs associated with municipality-initiated facility relocations

32. On the issue of how costs associated with municipality-initiated relocation of Bell Canada's facilities should be allocated between Bell Canada and the City, the City proposed a seven-year sliding scale approach similar to the ten-year one approved by the Commission in the Vancouver decision (the Vancouver Model), albeit with a difference in the percentage of the costs the City would pay over time. Under this proposed approach, the percentage of the relocation costs to be paid by the

⁷ The term "ROWs" from the Model MAA's definition is being replaced with the term "Highways" to be consistent with the terminology used in the rest of the City's proposed MAA.

municipality is determined by the number of years since the assets were originally installed, diminishing to zero percent after year seven.

33. The City submitted that its proposed approach was predictable, certain, and based upon a pre-determined cycle of diminishing responsibility by the City for the cost of relocating Bell Canada's infrastructure. This approach, in turn, requires Bell Canada to properly plan its infrastructure works with the City's medium- and long-term planning windows in mind. Furthermore, a sliding scale approach was used in the last MAA between the City and Bell Canada. The City submitted that it has made numerous assumptions in its budgeting for a number of years based upon its calculated exposure under the sliding scale approach.
34. Bell Canada acknowledged that it has signed many past agreements that use a sliding scale approach to allocate responsibility for costs resulting from municipality-initiated relocation of the company's infrastructure. However, the company submitted that it no longer considered such an approach to be appropriate. It argued that the City's proposed sliding scale arbitrarily depreciates telecommunications infrastructure. While Bell Canada agreed to compensate municipalities for their costs associated with its work, it is also seeking to more precisely recover its own costs for relocating its facilities where such relocation is initiated by the City.
35. Bell Canada argued that section 27(b) of the City's proposed MAA already addresses the City's concerns about Bell Canada not properly planning its infrastructure works with the City several years into the future. It submitted that this clause relieves the City of any obligation for reimbursement if Bell Canada is notified at the time of a permit application that a proposed installation may need to be relocated within the next three years and Bell Canada proceeds with the installation nonetheless. Bell Canada submitted that given the existence of this clause, the City is already protected from compensating the company for relocating infrastructure installed in a location that potentially conflicts with the City's three-year capital plan.
36. Bell Canada therefore argued for the model approved in the Baie-Comeau decision regarding the allocation of costs incurred to relocate TELUS Communications Company's facilities in the City of Baie-Comeau where such relocation is initiated by that city (the Baie-Comeau Model). The Baie-Comeau Model calculates and allocates relocation costs based on the ages of the specific assets being relocated, in proportion to the remaining useful life of each asset.⁸ Bell Canada submitted that this model has the benefit of being objective, unlike the Vancouver Model.
37. The City argued that the Baie-Comeau Model is complex and expensive, and would compel the City to rely upon Bell Canada's life-cycle and costing claims, verify such claims itself, or seek the assistance of third-party experts.

⁸ The useful life of each specific asset captured by the Baie-Comeau decision can be found in Telecom Decision 2008-14, in which the Commission determined, among other things, the appropriate asset lives to be used in regulatory economic studies.

Commission's analysis and determinations

38. In making its determinations, the Commission has considered the principle of cost neutrality reflected in the Ledcor decision, i.e. that costs directly related to a carrier's infrastructure should be paid by the carrier, not municipal taxpayers. The Commission has acknowledged, however, in both the Baie-Comeau and Vancouver decisions, that it is appropriate, in certain circumstances, to deviate from this principle with regard to imposing liability for costs. In Decision 2001-23, the Commission indicated that the following factors would generally be relevant in allocating costs between the carrier and the municipality:

- who has requested the relocation (i.e. the municipality, the carrier, or a third party);
- the reason for the requested relocation (e.g. safety, aesthetics, or to better serve customers); and,
- the date on which the request is made compared to the date of original construction (e.g. whether the request is made a considerable length of time after the original construction, or very shortly thereafter).

39. While both models proposed by the parties reflect the principle of cost neutrality to the municipality, the time period for accomplishing each differs.

40. Under the sliding scale approach, there is a complete deviation from the cost neutrality principle in the first few years, when the City is responsible for 100% of the relocation costs. The reasoning is that the City should, within its planning process, reasonably know whether the infrastructure it is authorizing to be installed will have to be relocated within the near future. Considering that with each additional year, it becomes more difficult for the City to foresee whether relocation will be required, the sliding scale approach diminishes the level of the City's responsibility over time. After a set number of years, the City is no longer responsible for any of the relocation costs, meaning the principle of cost neutrality for the City is once again applied.

41. While the Baie-Comeau Model is also a deviation from the cost neutrality principle, the amount of time before cost neutrality is once again applied is strictly related to the useful life of the specific asset being relocated, not the number of years since the asset was originally installed. Under the Baie-Comeau Model, cost neutrality for the City is once again obtained only in cases where the asset to be moved has reached or exceeded its estimated life, which is different for each asset involved.

42. The City and Bell Canada already understand the sliding scale approach, since it was applied in the last MAA between the parties. Also, under this approach, the date of installation, which can be tracked by both parties, is the key factor used to calculate the percentage of relocation costs each party will pay, heavily recognizing the City's accountability in the initial years. This approach also recognizes that the City is unable to reasonably plan around relocations during the entire life of an asset.

43. Under the sliding scale approach, the City bears costs for only a limited, pre-set number of years even though the relocations are City-initiated. However, the Baie-Comeau Model enables a carrier to be compensated during the entire duration of an asset's useful life, in most cases well beyond any reasonable time frame for planning by the City.
44. The circumstances surrounding the Baie-Comeau decision were fact-specific. Among other things, the specific assets at the heart of the associated dispute had been identified by the parties prior to the Commission determining the methodology to be used. In the present case, considering that the MAA between the City and Bell Canada will be in place until at least 2020, the assets that may need to be relocated in the future are presently unknown.
45. In addition, the Baie-Comeau Model, as applied to an open-ended and forward-looking municipal access agreement, would not give proper recognition to the broader partnership between carriers and municipalities, which benefits both parties. Carriers benefit from having in place the required infrastructure to serve as many customers as possible. As for municipalities, and as the Commission indicated in the Leducor decision, "[the] economic base that such facilities support provides generalized benefits throughout the municipality, attracting industry, creating jobs, increasing tax revenue, etc."
46. In light of the above, the sliding scale approach is best suited to the circumstances surrounding this application.
47. The Commission disagrees, however, with the City's proposed seven-year sliding scale since under that model, the City bears 50% or less of the relocation costs starting at just year six, and 0% for year eight onwards. Under the Vancouver Model, the City would pay 35%, 20%, and 10% of the relocation costs for years eight, nine, and ten, respectively.
48. Since the relocations under consideration are initiated by the City, the City should bear appropriate costs for a commensurate period of time, which it fails to do under the proposed seven-year sliding scale.
49. Further, while the 10-year sliding scale used in the Vancouver decision was appropriate considering the specific facts of the associated dispute, it is not appropriate in the present case. Pursuant to the list of assets identified in Telecom Decision 2008-14, 16 years represents the shortest length of the useful life of Bell Canada's assets that are likely to be affected by relocation initiated by the City over the lifetime of the MAA.⁹
50. Accordingly, it would be appropriate to have a 16-year sliding scale to more accurately reflect the mutual benefits derived from the partnership between carriers

⁹ Assets that are likely to be affected by relocation include, but are not limited to, underground, aerial, and buried cables; underground, aerial, and buried fibre optic; as well as poles, lines, and conduits.

and municipalities, without placing undue limitations on either party to plan future investments. Under this sliding scale, the City is primarily responsible for relocation costs in the first five years, following which its responsibility linearly diminishes to zero by the end of the 16th year.

51. Consistent with the Vancouver Model, the City will pay 100% of the costs in the first three years, because it is reasonable for the City to know whether the infrastructure it is authorizing to be installed will have to be relocated within those three years. After the first three years, the percentages will decrease approximately linearly over the remaining thirteen years of the scale.

52. Accordingly, wording of Section 25 of the MAA between the City and Bell Canada will read as follows:

In the case of a Municipality-initiated requirement to relocate a Company facility, the following schedule is to be used to allocate costs directly attributable to such relocation. These costs include, but are not limited to, depreciation, betterment and salvage costs.

Year(s) After Installation of Equipment	Percentage of Relocation Costs Paid by Municipality
1	100%
2	100%
3	100%
4	90%
5	80%
6	70%
7	65%
8	60%
9	55%
10	45%
11	40%
12	35%
13	30%

Year(s) After Installation of Equipment	Percentage of Relocation Costs Paid by Municipality
14	20%
15	10%
16	5%
17 onwards	0%

Consistent with previous Commission determinations,¹⁰ where costs directly attributable to a Municipality-initiated requirement to relocate a Company facility are incurred as a direct result of work undertaken by or on behalf of the Municipality for beautification, aesthetics, or other similar purposes, such costs are to be entirely borne by the Municipality. These costs include, but are not limited to, the depreciation, betterment and salvage costs.

Specific wording to be used for other disputed articles or provisions in the MAA

53. Set out in the Appendix to this decision are the Commission's determinations on the wording for other disputed provisions that have not been addressed above.

Conclusion

54. The Commission **approves** the City's proposed MAA, as set out in Appendix C of the City's application, subject to the modifications set out in this decision.

55. Notwithstanding this approval, the City and Bell Canada are free to negotiate departures from the Commission-approved MAA, should both parties agree to do so. Any agreed-upon changes would not need to be approved by the Commission.

Policy Direction

56. The Policy Direction¹¹ states that the Commission, in exercising its powers and performing its duties under the Act, shall implement the policy objectives set out in section 7 of the Act, in accordance with paragraphs 1(a), (b), and (c) of the Policy Direction.

¹⁰ See Telecom Decision 2007-100 and Telecom Regulatory Policy 2009-150.

¹¹ *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006

57. Subparagraphs 1(a)(ii)¹² and 1(b)(i)¹³ of the Policy Direction apply to the Commission's determinations in this decision.

58. In compliance with subparagraph 1(b)(i) of the Policy Direction, the Commission's findings in this decision advance the policy objectives set out in paragraphs 7(a), (b), (c), (e), (f), and (h)¹⁴ of the Act. Because the parties have reached an impasse and further negotiations cannot be expected to be productive, market forces alone cannot be relied on to achieve the policy objectives. Consistent with subparagraph 1(a)(ii), in pronouncing upon only those conditions of access that were in dispute between the parties, the Commission relied on regulatory measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives. In light of the foregoing, the Commission considers that its determinations in this decision are consistent with the Policy Direction.

Secretary General

¹² Subparagraph 1(a)(ii) states that the Commission, when relying on regulation, should use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary.

¹³ Paragraph 1(b) states, among other things, that the Commission, when relying on regulation, should use measures that satisfy the following criteria, namely, those that (i) specify the telecommunications policy objective that it advanced by those measures and demonstrate compliance with the Policy Direction.

¹⁴ The cited policy objectives of the Act are 7(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions; (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; (c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications; (e) to promote the use of Canadian transmission facilities for telecommunications within Canada and between Canada and points outside Canada; (f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective; and (h) to respond to the economic and social requirements of users of telecommunications services.

Related documents

- *CISC Model Municipal Access Working Group – Report on a Model Municipal Access Agreement*, Telecom Decision CRTC 2013-618, 21 November 2013
- *MTS Allstream Inc. – Application regarding a Municipal Access Agreement with the City of Vancouver*, Telecom Regulatory Policy CRTC 2009-150, 19 March 2009
- *Application by the City of Baie-Comeau regarding costs to relocate TELUS Communications Company's telecommunications facilities*, Telecom Decision CRTC 2008-91, 19 September 2008
- *Review of certain Phase II costing issues*, Telecom Decision CRTC 2008-14, 21 February 2008; as amended by Telecom Decision CRTC 2008-14-1, 11 April 2008
- *Shaw Cablesystems Limited's request for access to highways and other public places within the District of Maple Ridge on terms and conditions in accordance with Decision 2001-23*, Telecom Decision CRTC 2007-100, 25 October 2007
- *Ledcor/Vancouver – Construction, operation and maintenance of transmission lines in Vancouver*, Decision CRTC 2001-23, 25 January 2001

Appendix to Telecom Decision CRTC 2016-51

Section no. (City's proposed MAA)	Section wording as determined by the Commission	Commission rationale
1(e)	“ Contractor ” includes subcontractors, workers, suppliers and material men;	Excluded “agents” from the definition of “Contractor” to reflect the use of these separate terms in other provisions of the MAA.
1(k)	<i>Keep wording as proposed by the City in its proposed MAA</i>	While the inclusion of the words “ <i>includes, but not limited to ...</i> ” may appear to define “Normal Activities” broadly, the activities are still limited to “ <i>activities the Municipality undertakes on a regular basis.</i> ”
2	This Agreement shall be deemed effective on the publication date of Telecom Decision CRTC 2016-51 and shall, unless earlier terminated in accordance with this Agreement, expire four (4) years after the first day of the month in which the Agreement is deemed effective. This Agreement shall automatically renew for up to two (2) consecutive renewal periods of five (5) years each unless either the Municipality or the Company gives written notice of its intention not to renew to the other party not less than six (6) months prior to the expiration of this Agreement or any renewal term thereof, following which all rights and privileges hereunder shall come to an end, save and except for the Company’s continued use of the Highways and the Company’s and Municipality’s applicable obligations pursuant to Sections 15, 17, 20-27 and 30-41 of this Agreement.	In interrogatory replies, parties agreed to an initial 4-year term.
8	Despite Section 6 and Section 7, the Company may carry out routine	Removed “complies with Section 7” and replaced it

	<p>maintenance, field testing and subscriber connections without the consent of the Commissioner, but in no case shall it carry out any physical disruption or change to the Highway or its use, without the Commissioner’s prior written consent, not to be unreasonably withheld. In the event of an Emergency, the Company shall be permitted to carry out such remedial work as is reasonably necessary to restore and/or maintain uninterrupted services, providing the Company provides notification to the Commissioner within two (2) Business Days of completing the Work.</p>	<p>with “provides notification to the Commissioner.”</p> <p>To comply with Section 7 as originally drafted, Bell Canada would have to obtain written consent prior to commencing work. However, Section 8 specifically deals with routine and emergency maintenance for which Bell Canada is not required to obtain prior consent.</p> <p>The new wording removes that contradiction.</p>
9(b)	<p>the Company shall provide the Municipality with contact details and have available at all times, within a reasonable time frame, a Company representative responsible for each location of Work;</p>	<p>Given the extent of its operations, it would be unreasonable for Bell Canada to have company employees attending all locations where work is being performed by a contractor.</p>
9(d) and (e)	<p>On-going inspections, and/or follow-up monitoring, of the Company’s installations and Work, for conformance with the terms and conditions of a Road Occupancy Permit, may be conducted by the Municipality, as the Municipality deems reasonably necessary, at a cost shared equally between the Municipality and the Company;</p>	<p>This wording replaces the City-proposed wording for Sections 9(d) and (e).</p> <p>Having the cost shared equally between the parties puts an additional onus on the City to be reasonable in conducting the inspections, while encouraging Bell Canada to perform its work in such a way that the City will not feel the need to have the work inspected.</p>
9(h)	<p>if the Company breaks the paved surface of a Highway, it shall forthwith</p>	<p>Reflects wording agreed upon by the parties during</p>

	temporarily repair and restore the surface of the Highway to substantially the same condition it was in before such Work was undertaken by the Company in accordance, without limitation, with the Municipality's Procedure for the Installation of Utilities on Road Allowances, as amended from time to time, and to the reasonable satisfaction of the Commissioner;	interrogatory replies.
9(k)	if the Municipality requires the Work to be stopped for any bona fide municipal purpose, cause relating to public health and safety, special events, any circumstances beyond its control or any reasonable reason having regard to the public interest in having access to communications services, including 9-1-1 access services, the Company shall cease all such Work forthwith upon receipt of verbal notice from the Municipality, which notice shall include the reason for the Work stoppage. Within two (2) business days of issuing a verbal stop-work order under this subsection, the Commissioner will provide to the Company written reasons for such order and advise the Company as to when the stop-work order may reasonably be lifted. Upon the Municipality lifting the stop-work order and immediately advising the Company of same in writing, the Company may immediately resume its Work under the existing approval;	<p>Adding "having regard to the public interest in having access to communications services, including 9-1-1 access services" will serve to limit the scope of the discretion afforded to the City in recognition of the importance of public interest in ensuring continued access to telecommunications services, while still providing the City with the flexibility to issue a stop-work order when public health and safety, special events, or any circumstances beyond the City's control are not the primary reason(s) for issuing the order.</p> <p>The last sentence imposes on the City an obligation to not only lift the stop-work order once the conditions have cleared, but to immediately advise Bell Canada that the stop-work order has been lifted.</p>
12	Upon request of the Municipality at the time of the municipal consent application, the Company shall provide to the Municipality, at the Company's expense	Removed reference to Bell Canada's 3-year capital forecast in light of evidence to the effect that the

	<p>and within two (2) months of completing the construction or installation of any of the Equipment, “as-constructed” record drawings in an electronic format compatible with the UCC’s [Utilities Coordinating Committee] utility plan registry.</p> <p>Upon request from the Company, and subject to any licensing restrictions relating to the release of information, any available licensing digital ortho-imagery and/or mapping shall be provided by the Municipality to the Company at the Municipality’s expense for the Company’s use as a base map on which to submit permits to the Municipality.</p> <p>The Company shall, at the request of the Commissioner to support the development and improve the accuracy of the utility plan register, provide to the Municipality, in a format satisfactory to the Municipality, a listing or record of the location of Equipment installed, altered, relocated, or removed by it or on its behalf in the Highways to the date of such request.</p> <p>All information supplied shall only be used for facilitating the Commissioner’s conduct of planning and issuance of Work permits. The information must be protected through reasonable measures and must not be shared beyond those who require it for the purposes described above, nor must it be used for any other purpose or combined with other information.</p>	<p>company does not maintain such a forecast.</p> <p>Added wording to specify which party would be responsible for specific expenses with a view to treating costs in a symmetrical manner.</p> <p>The last paragraph addresses confidentiality concerns raised on the record of this proceeding.</p>
13(b)	<p>The locates provided by the Company to the Municipality for pre-design shall contain sufficient design information and survey detail as reasonably required by the Commissioner, such as line and elevation of the Equipment within the alignments, but excluding information on depth. If the</p>	<p>Addresses the concern that information on Bell Canada’s installations is, in some cases, either incomplete or non-existent.</p> <p>The wording of this section is adjusted based on a</p>

	<p>Company is unable to provide either the line or elevation information within an agreeable time frame, the Municipality may invoice the Company for any costs reasonably incurred by the Municipality in determining the line or elevation of the Equipment within the alignments.</p>	<p>similar MAA section approved by the Commission in Telecom Regulatory Policy 2009-150 to prevent Bell Canada from having to provide the City with a level of detail that is beyond industry practice.</p>
16	<p>Removed</p>	<p>There are detailed provisions throughout the MAA dealing with cost allocation and recovery, including relocation costs and costs incurred by the City in issuing permits.</p> <p>Regarding the costs not accounted for in the remaining sections, such as costs associated with administering the agreement, those correspond to normal costs that any municipality should expect to incur to enable service providers to serve its residents and businesses.</p> <p>While the administration of the MAA, and therefore the presence of Bell Canada on the City's territory, may result in an initial cost to the City, such presence is necessary and economically beneficial to the City.</p>
18(b)	<p>Lost parking meter revenue (net revenue loss);</p>	<p>As indicated in the Ledcor decision, a reasonable estimate of the causal impact of parking meters being taken out of service must represent the net loss of revenue, not the gross</p>

		loss.
20	Upon receipt of no less than ninety (90) days' written notice from the Municipality or such other time as is reasonable having consideration for the complexity and nature of the Work required to complete the relocation and for the minimizing of the potential for service losses or interruptions that may affect the Company's customers, the Company shall relocate or commence to relocate its Equipment within a Highway. The Municipality will make a good faith effort to avoid damage to the Equipment affected by the relocation and to assist the Company in its efforts to ensure uninterrupted service to its customers.	Parties agreed to change the written-notice requirement to 90 days.
21	Adjustment of Equipment located in the Highway to accommodate a regrading, elevation adjustment or resurfacing activity by the Municipality is considered relocation, and the allocation of costs is to be determined in accordance with Section 25.	Such an adjustment should be addressed in the same way as a City-initiated relocation request as set out in Section 25 of the MAA, since the adjustment is the result of a City-initiated activity.
22	<i>Keep wording as proposed by the City in its proposed MAA</i>	This section deals with the actual relocation of Bell Canada facilities and is not repetitive of section 9(j), which addresses repairs linked to restoration work.
23	<i>Keep wording as proposed by the City in its proposed MAA</i>	The City should have the discretion to relocate equipment and recover the costs from Bell Canada, regardless of the type of situation, if Bell Canada has not responded appropriately according to the provisions

		of this agreement.
24	The Municipality will make a good faith effort to provide and approve alternative suggestions, wherever possible, for rerouting the Equipment within the Highway affected by the relocation to ensure uninterrupted service to the Company's customers. However, the Municipality cannot guarantee uninterrupted service to the Company or the Company's customers during relocation, nor is the Municipality responsible for the quality of service offered by the Company to its customers during relocation.	Section takes into consideration the fact that while the City is not responsible for ensuring that Bell Canada's services are available during relocations, all efforts should be taken to limit, as much as possible, the impact of relocation on Bell Canada's customers.
26	Prior to commencing any relocation Work, the Company shall supply to the Municipality a good faith estimate and a project plan that outlines the labour, material, Equipment, and scheduling, and that identifies the project manager for such relocation Work. The Municipality shall be entitled to review and approve the Company's proposed relocation Work and costs, and the Company shall adhere to its costs estimates for said relocation Work. The Company shall not submit any additional costs to the Municipality without the prior written consent of the Municipality. Such written consent must not be unreasonably refused by the Municipality, having regard to the actual costs incurred to perform the Work and the extent to which such additional costs were reasonably foreseeable at the time the estimate and project plan were provided to the Municipality.	This section provides the City with more cost certainty upfront, while still allowing Bell Canada to recoup costs that were not reasonably foreseeable at the time of the initial estimate provided to the City.
27(f)	in no event shall the Municipality be responsible in any way for costs incurred for relocating Equipment that is not installed in the location approved by the Municipality, it being understood that the Municipality shall not be entitled to rely on	This section will require the City to be reasonably flexible if Equipment is installed outside the location approved by the City but within a reasonable

	<p>deviations that are minimal and do not have a material impact on the Municipality, financial or otherwise, in order to avoid responsibility for costs associated with the relocation. Where records are non-existent or Highway conditions may have changed, the parties agree to act reasonably in allocating relocation compensation;</p>	<p>margin of error and without a material impact on the City.</p>
<p>28 and 29</p>	<p>Every time the Company fails to comply with the terms and conditions of this Agreement, the Municipality shall provide written notice to the Company of its non-compliance whereupon the Municipality may suspend the Road Occupancy Permit until a Resolution Plan in respect to curing the non-compliance is agreed to by the Company and the Municipality in writing. Starting on the second event of non-compliance per Road Occupancy Permit, the Company shall deposit security in the form of a Letter of Credit with the Municipality, naming the Municipality as beneficiary, within five (5) business days of the Resolution Plan being agreed to by the Company and the Municipality. The amount of security shall be determined by the Commissioner, having regard to an amount that is proportional to the work being undertaken, and in no case shall the security be less than \$10,000 unless agreed to by the parties. The Company shall deposit with the Municipality only one Letter of Credit per Road Occupancy Permit, regardless of the number of non-compliances associated with a given Road Occupancy Permit.</p> <p>If any non-compliance is not cured within ten (10) business days of the Resolution Plan being agreed to by the Company and the Municipality, the Municipality may draw on the Letter of Credit the amount required to cover the Municipality's reasonable costs to cure the non-</p>	<p>This wording replaces the proposed wording of Sections 28 and 29, and merges these sections into one section.</p> <p>This new section addresses the need for the establishment of proper incentives (which, in this section, include the potential permit suspension) to promote compliance. It also applies the principle of cost neutrality for the City by giving some assurance that should any non-compliance result in a financial burden on the City, it will have quick access to funds from Bell Canada to cover any related financial shortfall.</p> <p>Both the possibility of having the Road Occupancy Permit suspended until a Resolution Plan is agreed upon and having to deposit security in the form of a Letter of Credit in the amount of no less than \$10,000 will provide appropriate incentives to better ensure compliance with the terms and</p>

	<p>compliances. The security, or remaining of, if any, shall be released by the Municipality within five (5) business days after the Municipality's acceptance of the completion of the Company's final restoration Work to the Highway associated with the Road Occupancy Permit.</p>	<p>conditions of this Agreement.</p> <p>Any financial penalty for non-compliance, as originally proposed by the City, would amount to an unjustified source of revenue, and not simply a way to achieve cost neutrality for the City.</p>
38	<p>Claims reported to the Company by a third party or by the Municipality (a "Claimant") shall be promptly investigated by the Company. The Company will report the claim to its claims adjuster(s) and/or insurer(s). The Company will take all reasonable measures to ensure that the Company's claims adjuster(s) and/or insurer(s) initiate an investigation of the claim immediately upon notice, and advise the Claimant by letter of its position regarding resolution as soon as practicable. The Company or its claims representative or insurer shall include in its letter of resolution the reasons for its position. Failure to follow this procedure shall permit the Municipality to appoint an independent adjuster to investigate the claim at the expense of the Company.</p>	<p>This wording is based on Bell Canada's proposed text. The Commission agrees with Bell Canada that it cannot dictate to its insurers how to settle claims.</p>



FORTISBC ENERGY INC.

GENERAL TERMS AND CONDITIONS

THESE GENERAL TERMS AND CONDITIONS ARE EFFECTIVE JANUARY 1, 2015

Long Term Biomethane Contract	A long term contract entered into between FortisBC Energy and a Customer for Biomethane Service, filed as a tariff supplement, for a term of no less than five Years and no greater than ten Years, and for a commitment to purchase no less than 60,000 Gigajoules in aggregate over the term of the contract.
Main	Means pipes used to carry Gas for general or collective use for the purposes of distribution.
Main Extension	Means an extension of one of FortisBC Energy's mains with low, distribution, intermediate or transmission pressures, and includes tapping of transmission pipelines, the installation of any required pressure regulating facilities and upgrading of existing Mains, or pressure regulating facilities on private property.
Marketer	Means a Person who has entered into an agreement to supply a Customer under Commodity Unbundling Service.
Meter Set	Means an assembly of FortisBC Energy owned metering and ancillary equipment and piping.
Month or Monthly	Means a period of time, for billing purposes, of 27 to 34 consecutive Days.
Municipal Operating Fees	Means the aggregate of all monies payable by FortisBC Energy to municipalities or First Nations (a) for the use of the streets and other property to construct and operate the utility business of FortisBC Energy within municipalities or First Nations lands (formerly, reserves within the <i>Indian Act</i>), (b) relating to the revenues received by FortisBC Energy for Gas consumed within municipalities or First Nations lands (formerly, reserves within the <i>Indian Act</i>), or (c) relating, if applicable, to the value of Gas transported by FortisBC Energy through municipalities or First Nations lands (formerly, reserves within the <i>Indian Act</i>).
Other Service	Means the provision of Service other than Gas Service including, but not limited to, rental of equipment, natural gas vehicle fuel compression, alterations and repairs, merchandise purchases, and financing.

N

Order No.: G-133-16

Issued By: Diane Roy, Director, Regulatory Services

Effective Date: October 1, 2016

Accepted for Filing: _____

BCUC Secretary: Original signed by Laurel Ross

Second Revision of Page D-4

16705 Fraser Highway
Surrey, BC, V4N 0E8
Tel: (604) 576-7000
FortisBC.com

January 17, 2017

City of Surrey
13450 104 Avenue
Surrey, BC
V3T 1V8

Subject: Project #2800376336- Eldorbud Place Gas Main Relocation

FortisBC Job Reference: - 30892947
Anticipated Start date: - TBD
Validity of the Quote: - 90 days from letter date

Scope of work: Install new gas main 1.0m off east p/l of Eldorbud Place and abandon existing main on west side to facilitate new sanitary sewer construction.

Assumptions:

1. No overtime, night or weekend work. If required, additional costs can be calculated.
2. Temporary pavement repair only. Permanent repair by Pedre in their contract with Surrey.

Estimated Cost: \$90238.68 excluding tax

Pursuant to the Operating Agreement between the City of Surrey and FortisBC Energy Inc. ("FortisBC"), FortisBC provides this Estimate of cost to the City of Surrey to carry out the Work.

Scheduling of this work will take place in consultation with the City of Surrey within reasonable and mutually agreed upon time frames and after

- (a) the City of Surrey has approved all design drawings and the City of Surrey had accepted the alignment of the proposed pipeline and has confirmed there is no conflict with other utilities or future plans of the City of Surrey including providing to FortisBC the approval of the Municipal Engineer as required by the Operating Agreement;
- (b) the City of Surrey has issued a purchase order to FortisBC equal to the amount of the Estimate which purchase order will serve as the formal request by the City of Surrey to FortisBC to carry out the Work.

FORTIS BC

Important: This is a cost estimate only. The actual costs incurred may differ from this Estimate and as such the costs for which the City of Surrey is responsible under the Operating Agreement may also differ from this Estimate.

The Estimate is provided to you pursuant to the terms and conditions set out in Schedule A attached.

Sincerely,

[Redacted Signature]

Planning & Design Technologist 2

FortisBC Energy Inc.

Tel: [Redacted]

Fax: [Redacted]

Email: [Redacted]@fortisbc.com

Enclosures

MCO 2800376336

FORTIS BC™

SCHEDULE A

Terms and Conditions of Order - Construction

1. General

- 1.1. FortisBC Energy Inc. ("FortisBC") has provided the Customer with an estimate of the cost (the "Estimate") to do certain work (the "Work") at Eldorbud Place south of 60 Avenue (the "Site") for the Customer the details of which are attached to the Letter Agreement and in any addenda issued by FortisBC and these Terms and Conditions. The Customer acknowledges and agrees that the Estimate is an estimate only, and that the Customer shall be liable for payment for the Work in excess of the Estimate amount.
- 1.2. Letter Agreement, together with any addenda issued by FortisBC and these Terms and Conditions are collectively referred to as the "Letter Agreement".

2. Access

- 2.1. In the event the Customer is the owner of the Site and the land in the proximity of the Site (the "Lands"), the Customer shall provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Letter Agreement.
- 2.2. In the event the Customer is not the owner of the Site and/or the Lands or any portion thereof, the Customer shall obtain all necessary permissions and approvals from the owner(s) to provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Letter Agreement.
- 2.3. FortisBC shall remove its vehicles, equipment and materials from the Lands upon completion of the Work, and leave the Site and the Lands in a neat and tidy condition and good state of repair considering the nature of the Work completed hereunder.

3. Commencement of the Work

FortisBC shall commence the Work as soon as reasonably practicable having regard to the availability of FortisBC personnel, equipment and materials, provided however, that FortisBC will not commence the Work until (i) the Customer has delivered a certified cheque and/or bank draft in the amount of the Estimate to FortisBC as required pursuant to Clause 7; (ii) the Customer has provided confirmation that all permissions and approvals described in Clause 2 have been obtained; and (iii) FortisBC and the Customer have obtained all permits and approvals described in Clause 9. FortisBC does not covenant to prosecute the Work diligently or by any scheduled dates, whether or not such

SCHEDULE A

Terms and Conditions of Order - Construction

scheduled dates for commencement or completion of the Work have been specified by the Customer or by FortisBC.

4. Change Orders and Extra Work

FortisBC may at any time make written requests for changes to the Work, and these changes shall become part of the Letter Agreement upon being mutually agreed upon, and include a mutually acceptable increase or decrease in the Estimate.

The Customer may request that FortisBC perform additional work ("Extra Work") which is not within the Scope of Work as set out in the Letter Agreement. The details of the Extra Work shall be discussed, mutually agreed upon and paid at a mutually agreed upon rate prior to commencing the Extra Work.

5. Delay

If there is any delay in the Work caused or attributable to the Customer then FortisBC may, without cost, suspend part or all of the Work under this Letter Agreement until the Work can again be performed efficiently, effectively and without delay.

6. Force Majeure

6.1. "Force Majeure" means any one or more of the following events:

- (a) war or hostilities;
- (b) riot or civil commotion;
- (c) earthquake, major flood not foreseeable in the area of the Site, forest fire or suspensions of work ordered by the Ministry of Forests, or other natural physical disaster preventing the performance of the Work;
- (d) governmental regulations or controls;
- (e) inability to obtain any material or services;
- (f) strike or lock-out or other industrial action; and
- (g) government embargo,

provided, however, that any such event is a major disabling event or circumstance in relation to the normal operations of the party concerned as a whole which is beyond the reasonable control of the party directly affected and results in a material delay, interruption or failure by such party in carrying out its duties, covenants or obligations under the Letter Agreement. Lack of money, financing or credit to resolve such contingencies will not be deemed an event of Force Majeure.

SCHEDULE A

Terms and Conditions of Order - Construction

- 6.2. Lack of funds or other financial cause specific to the Customer shall not be construed as Force Majeure. If either party to the Letter Agreement is prevented from, or delayed in, performing any of its obligations under the Letter Agreement by Force Majeure, then it shall within two (2) days of the commencement of such circumstances notify the other party of the circumstances constituting the Force Majeure and of the obligation and performance of which is thereby delayed or prevented, and the party giving the notice shall thereupon be excused the performance or punctual performance, as the case may be, of such obligation for so long as the circumstances of prevention or delay continue. The provision of written notice by the Customer as aforesaid is a condition precedent to any claim for extra time or for delay in completion as a result of the Force Majeure.
- 6.3. Without limiting any other rights of FortisBC under any other provision of the Letter Agreement, if the suspension of Work exceeds a period of either fourteen (14) consecutive days or thirty (30) cumulative days as a result of Force Majeure, either party shall have the option to terminate the Letter Agreement on giving the other party written notice to that effect.
- 6.4. In the event of termination pursuant to Clause 10, the Customer shall be liable to pay FortisBC for that portion of the Work completed or goods delivered to the date of termination as well as any costs reasonably incurred by FortisBC in relation to the Work after termination.

7. Terms of Payment

- 7.1. If required by FortisBC, the Customer shall deliver a certified cheque and/or bank draft in the amount of the Estimate (the "Prepayment") on or before [date] towards payment for the Work.
- 7.2. While FortisBC has used care in arriving at the Estimate, FortisBC does not warrant that the Estimate is a reasonable estimate of the cost of completing the Work (the "Cost"). The Cost includes all costs directly or indirectly incurred by FortisBC in completing the Work, and includes, but is not limited to labour, equipment, materials, overhead, necessary licenses and permits and any and all costs relating to access to the Site. Notwithstanding the foregoing, if the Cost is less than the Prepayment, FortisBC shall refund the difference to the Customer without interest; and if Cost of completing the work

FORTIS BC™

SCHEDULE A

Terms and Conditions of Order - Construction

exceeds the Prepayment, the Customer agrees to and shall pay such deficiency (the "Deficiency Amount").

- 7.3. FortisBC shall send an invoice (the "Invoice") to the Customer for the Deficiency Amount, and payment for the Deficiency Amount shall be made by the Customer to FortisBC within thirty (30) days from the date of the invoice. The Invoice is due thirty (30) days from the date of the invoice. Late payment charges will accrue interest at a rate of prime plus two (2) percent for the first thirty (30) days the payment remains unpaid, and prime plus five (5) percent thereafter until the invoice is paid in full.
- 7.4. In the event that the Work has not commenced by any scheduled date promised by FortisBC, for such reasons including, but not limited to, delay in acquiring required permissions, permits and approvals, force majeure and failure of the Customer to make payment pursuant to this Clause 7, this Letter Agreement shall be deemed to have expired, unless FortisBC and the Customer have agreed in writing to extend the Letter Agreement beyond that date. If the Customer has provided FortisBC with the Prepayment, prior to expiration of the Letter Agreement pursuant to this Clause 6.3, FortisBC shall return the Prepayment amount without interest to the Customer minus any expenses incurred by FortisBC to date.

8. FortisBC to Retain Ownership

The Customer acknowledges and agrees that all vehicles, equipment, supplies and materials provided by FortisBC, contractor or subcontractor in the course of the Work; howsoever changed, incorporated or used in the Work, shall remain the property of FortisBC, and shall in no event become the property of the Customer.

9. Permits and Approvals

FortisBC shall be responsible for obtaining any permits, certificates and approvals required in connection with the construction, gasification and operation of natural gas pipes, pipelines and associated works. The Customer shall be responsible for obtaining all other permits required for the Work unless otherwise agreed in writing between FortisBC and the Customer.

10. Termination

- 10.1. FortisBC may, at any time without cause and at its sole discretion, terminate this Letter Agreement by giving notice in writing to the Customer.

FORTIS BC™

SCHEDULE A

Terms and Conditions of Order - Construction

10.2. If FortisBC terminates this Letter Agreement in accordance with this Clause 10, FortisBC shall reimburse the Customer the Prepayment amount without any interest, minus any reasonable costs incurred by FortisBC in performing the Work up to or after the date of termination. Such reasonable costs shall include but not be limited to costs to FortisBC for the work performed to date (including but not limited to materials purchased), expenses incurred as a result of early termination of any contractor or third party, and work required to reinstate the facilities to their prior state (or equivalent). If FortisBC satisfies its obligations hereunder, the Customer shall have no further cause to action or right against FortisBC in respect of the termination of this Letter Agreement or otherwise.

11. Confidentiality

11.1. All information or documentation received by the Customer pertaining to or arising from the Work or the business affairs or trade secrets of FortisBC, including but not limited to the Estimate and labour rates quoted in the Estimate, shall be deemed to be confidential and proprietary to FortisBC. Except as otherwise provided herein, the Customer shall not directly or indirectly disclose any such confidential information or documentation to any third party without the prior written consent of FortisBC. Such consent is not required where the third party is another contractor or consultant retained by FortisBC for the purposes of the Letter Agreement and to the extent that such disclosure is necessary for the proper performance of this Letter Agreement or to the extent that such disclosure is required by law.

11.2. Notwithstanding the foregoing, the Customer may use such confidential information or documentation pertaining to or arising from the Work in the preparation for and conduct of submissions to regulatory agencies.

11.3. The obligation of confidentiality set out above shall not apply to material, data or information which is known to the Customer prior to their receipt thereof, which is generally available to the public or which has been obtained from a third party which has the right to disclose the same. The confidentiality covenants of the Customer herein shall survive the termination of this Letter Agreement.

12. Limitation of Liability and Indemnity

FortisBC, its employees, contractors, subcontractors or agents are not responsible or liable for any claim, expense, loss, cost, or other liability incurred by the

FORTIS BC

SCHEDULE A

Terms and Conditions of Order - Construction

Customer or any third party caused by or resulting directly or indirectly from the Work, unless the claim, expense, loss, cost or other liability is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractors or agents. Notwithstanding the foregoing FortisBC, its employees, contractors, subcontractors and agents are in no event liable for any incidental, special, punitive, or consequential damages of any kind (including, but without limitation, loss of income, loss of profits, or other pecuniary loss), even if the loss is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractor or agents.

In no event shall FortisBC's aggregate liability to pay for any claim, expense, loss, cost, or other liability incurred by the Customer resulting from the Work exceed the total amount paid to FortisBC by the Customer for the Work.

The Customer shall indemnify FortisBC and save it harmless from any claim, expense, loss, cost or other liability of any third parties arising out of Work, unless such claim, expense, loss, cost or other liability is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractor or agents.

13. Disputes

13.1. Except for applications for injunctions required to protect confidential information, where any dispute arises out of or in connection with this Letter Agreement, including failure of the parties to reach agreement hereunder:

(a) If the parties have been unable to settle the dispute within thirty (30) days after receipt of notice of such dispute from the other party, a senior officer of each party's management shall meet within fifteen (15) days after that period in an attempt to resolve such dispute.

(b) If the senior officers of the parties are not able pursuant to sub-Clause 13.1(a) to resolve the dispute within the fifteen (15) day period stipulated in sub-Clause 13.1(a), the parties agree to promptly try to resolve the dispute by participating in a structured mediation conference with a mediator under the National Arbitration Rules of the ADR Institute of Canada Inc.

13.2. If the parties fail to resolve the dispute through mediation within thirty (30) days after the end of the fifteen (15) day period stipulated in sub-Clause 13.1(a), subject to sub-Section 13.3 either party at its sole option may pursue litigation to resolve such dispute in any court of competent jurisdiction in the Province of British Columbia. The parties hereto agree that the Courts of the Province of British Columbia shall

SCHEDULE A

Terms and Conditions of Order - Construction

have exclusive jurisdiction to resolve any and all disputes between the parties.

- 13.3. By separate written agreement to arbitrate signed by all parties concerned, which agreement may be arbitrarily withheld, the particular unresolved disputes identified in the agreement to arbitrate shall be referred to and finally resolved or determined by arbitration under the National Arbitration Rules of the ADR Institute of Canada Inc. In the absence of such rules, the rules shall be as agreed by the parties or, failing agreement, the rules as prescribed in such case by, as applicable, the *Commercial Arbitration Act* or *International Arbitration Act* of the Province of British Columbia. Unless the parties agree otherwise the arbitration will be conducted by a single arbitrator.
- 13.4. The arbitrator shall issue a written award that sets forth the essential findings and conclusions on which the award is based. The arbitrator will allow discovery as required by law in arbitration proceedings.
- 13.5. In addition to awarding monetary damages and interest on unpaid amounts, the arbitrator shall have the authority to provide injunctive relief, order specific performance and grant permanent relief.
- 13.6. Each party shall bear its own costs and expenses of the arbitration. The costs and expenses of the arbitration, but not those incurred by the parties, shall be shared equally, unless the arbitrator determines that a specific party prevailed on substantially all issues. In such case, the non-prevailing party shall pay all costs and expenses of the arbitration, but not those of the prevailing party.
- 13.7. The parties will continue to fulfill their respective obligations pursuant to this Letter Agreement during the resolution of any dispute in accordance with this Clause 13.

14. Subcontracting

FortisBC may retain the services of a qualified third party to perform some or all of its obligations under this Letter Agreement.

15. Assignment

The Customer shall not assign its rights or obligations under this Letter Agreement without the prior written consent of FortisBC, which consent may be arbitrarily withheld.

16. Law

This Letter Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia.

17. Enurement

This Letter Agreement shall be for the benefit of and be binding upon FortisBC and the Customer and their respective successors and permitted assigns.

18. Amendments

- 18.1. The Letter Agreement embodies the entire agreement between the parties and supersedes all communications, negotiations and agreements, either written or oral, relating to the Work that were made prior to the date of execution of the Letter Agreement. The Letter Agreement contains all the representations, warranties, covenants, agreements, conditions and understandings between the parties with respect to the subject matter of the Letter Agreement and there are no other representations, warranties, covenants, agreements, conditions or understandings with respect to the Letter Agreement that are not contained herein.
- 18.2. The Customer hereby represents and warrants that in entering into the Letter Agreement it has not and does not rely upon any previous representation of FortisBC, consultant, or any employee, director, officer, servant, consultant or agent of FortisBC, whether express or implied, or upon any inducement or agreement of any kind or nature.
- 18.3. The Letter Agreement may only be amended by written agreement, signed by both parties.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: February 14, 2017 8:46 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [External Email] - RE: Quote For FortisBC Main Relocation- Eldorbud Place, Surrey- 2800376336

Categories: Red Category

Hi [REDACTED]

The estimate breaks down as follows:

-Main Installation and Main Abandonment:

Labour: \$58,867.07
Material: \$13,666.68
Vehicles: \$ 379.45

-12 Service Alterations: \$22,200.00

-Operating Agreement

Discount -\$4874.52

Total (excluding tax): \$90,238.68

Regards,

[REDACTED] CTech
Planning and Design Technologist 2
Langley Muster

Phone: [REDACTED]
Fax: [REDACTED]
[REDACTED]@fortisbc.com

From: [REDACTED][mailto:[REDACTED]@mcelhanney.com]
Sent: February 13, 2017 10:35 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: [External Email] - RE: Quote For FortisBC Main Relocation- Eldorbud Place, Surrey- 2800376336

**** THIS IS AN EXTERNAL EMAIL **** Use caution before opening links / attachments.

Hi [REDACTED]

I was just following up on this, would you be able to provide a breakdown of the costs for the City of Surrey ?

Thanks.

[REDACTED], P.Eng.
Project Manager
McElhanney Consulting Services Ltd.
Suite 2300 Central City Tower | 13450 - 102 Ave | Surrey BC V3T 5X3
D [REDACTED] | C [REDACTED]
[REDACTED]@mcelhanney.com | www.mcelhanney.com

From: [REDACTED]
Sent: Friday, January 27, 2017 2:46 PM
To: [REDACTED]@fortisbc.com>
Cc: [REDACTED]@fortisbc.com>; [REDACTED]@surrey.ca>
Subject: RE: Quote For FortisBC Main Relocation- Eldorbud Place, Surrey- 2800376336

Hi [REDACTED]

I was just chatting with the City of Surrey regarding the Quote for the gas main relocation and they were wondering if they can get a breakdown of the costs.

Thanks.

[REDACTED], P.Eng.
Project Manager
McElhanney Consulting Services Ltd.
Suite 2300 Central City Tower | 13450 - 102 Ave | Surrey BC V3T 5X3
D [REDACTED] | C [REDACTED]
[REDACTED]@mcelhanney.com | www.mcelhanney.com

From: [REDACTED]@fortisbc.com]
Sent: Tuesday, January 17, 2017 11:16 AM
To: [REDACTED]@mcelhanney.com>
Cc: [REDACTED]@fortisbc.com>
Subject: Quote For FortisBC Main Relocation- Eldorbud Place, Surrey- 2800376336

Hello [REDACTED]

Attached is the quote to relocate the gas main on Eldorbud Place per MCO 2800376336.

Please let me know if you have any questions.

Regards,

[REDACTED] CTech
Planning and Design Technologist 2
Langley Muster

Phone: [REDACTED]
Fax: [REDACTED]
[REDACTED]@fortisbc.com

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](mailto:unsubscribe@fortisbc.com) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



This message and attachment may contain privileged and confidential information. If you are not the intended recipient, please notify us of our error, do not disseminate or copy this communication, and destroy all copies.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](mailto:unsubscribe@fortisbc.com) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: March 30, 2017 3:09 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: FortisBC Main Relocation- Eldorbud Place, Surrey- 2800376336
Attachments: HPSC5913.pdf

Categories: Red Category

Hello [REDACTED]
I have attached our survey results from last week.
With a 1.0m offset we are real tight against the hydro poles and dead center of an existing sump at the north end.
South of the sump we are good with 1.0m.

I would like to jog out to 1.5m at the sump location and continue north at 1.5m to the tie-in.

Have a look at the attachment and give me a call tomorrow to discuss.

Thank you.
[REDACTED] Technologist
Planning & Design
FortisBC

T: [REDACTED]
[REDACTED]@fortisbc.com

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

*"FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings, Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: April 5, 2017 10:07 AM
To: [REDACTED]
Cc: [REDACTED]@mcelhanney.com; [REDACTED]@cuccorp.com; [REDACTED]
[REDACTED]@cuccorp.com)
Subject: Fortis design #2800376336 - elderbud lane gas main
Categories: Red Category

Hello [REDACTED],
We did receive an approved drawing from [REDACTED].
However I am having the design revised to reflect the upsize in proposed pipe from 114mm to 168mm and an offset change from 1.0m to 1.5m at the north end where we are tying in on 60 Ave.
The offset change is required to avoid a conflict with an existing residential sump and 3 hydro poles which I have discussed with [REDACTED].
Construction is scheduled for the week of Apr 17.

Also I have revised the original estimate to included municipal discounts for the gas service alterations.

I hope to forward the revised design and estimate to you by Fri of this week.

Thank you.
[REDACTED], Technologist
Planning & Design
FortisBC

T: [REDACTED]
[REDACTED]@fortisbc.com

From: [REDACTED] [mailto:[REDACTED]@surrey.ca]
Sent: Tuesday, April 4, 2017 12:44 PM
To: [REDACTED]
Subject: elderbud lane gas main

[REDACTED]
Have you seen any approved dwgs come back from the City?

[REDACTED] PROJECT SUPERVISOR



CITY OF SURREY
Engineering Department

13450 104th Ave, Surrey, BC, Canada V3T 1V8

T [REDACTED] | www.surrey.ca

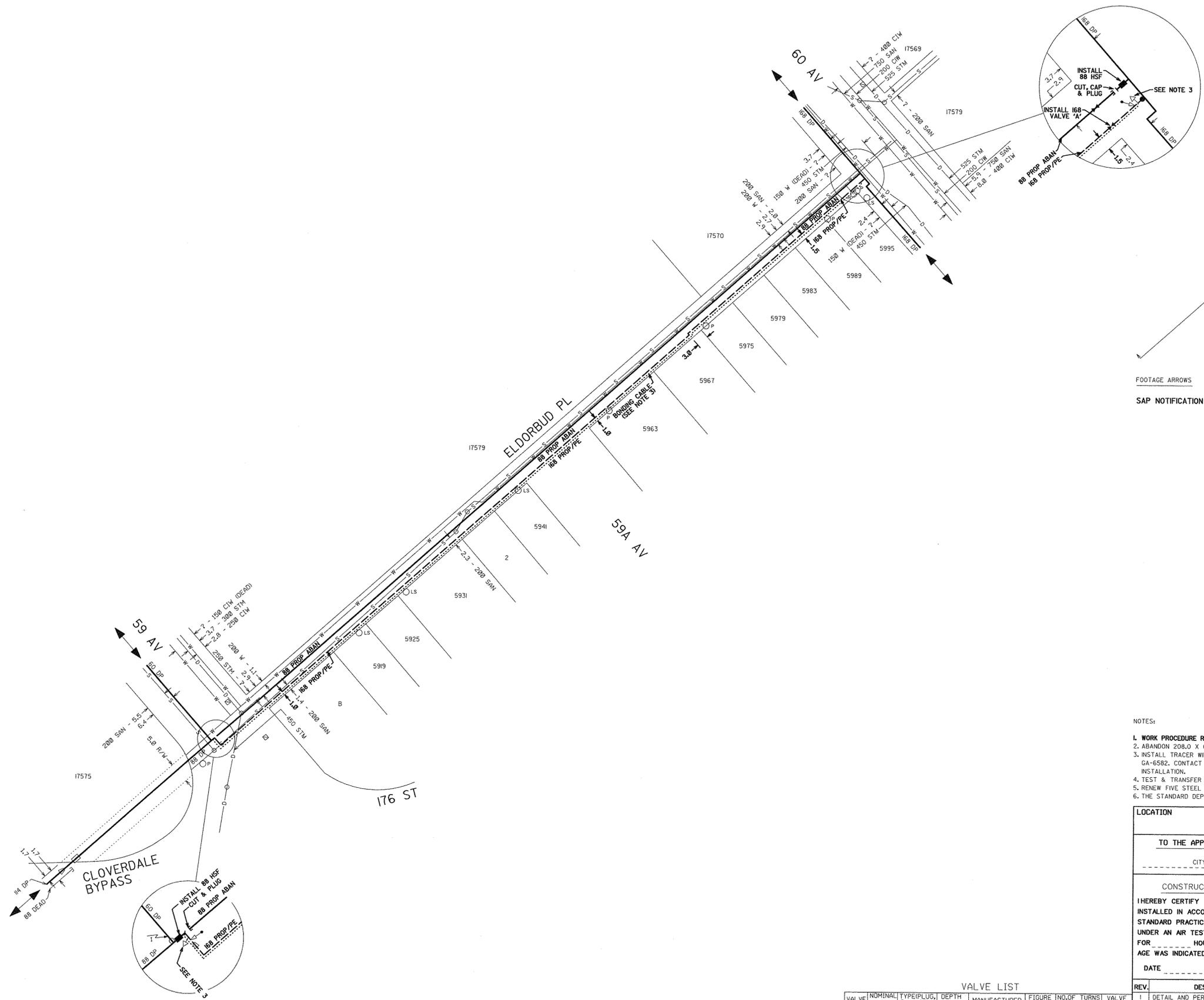
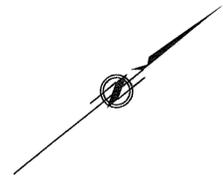


Connect, Share and Engage with your City

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

FortisBC refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



FOOTAGE ARROWS
SAP NOTIFICATION / PROJECT No. 2800376336

- NOTES:
1. WORK PROCEDURE REQUIRED.
 2. ABANDON 208.0 X 60 STL, 1957. CHARGE ALL ABANDONMENT COSTS TO NOT.# 2800376450, S.O.# 30893076.
 3. INSTALL TRACER WIRE TEST POINT PER CON 11-30. INSTALL #2 BONDING CABLE INSIDE 42mm PVC CONDUIT AS PER DRAWING GA-6582. CONTACT CORROSION CONTROL TECHNICIAN SEAN BURNS AT 604-790-6142 PRIOR TO BONDING CABLE INSTALLATION.
 4. TEST & TRANSFER SIX PE SERVICES TO NEW MAIN ON SEPARATE SAP ORDERS.
 5. RENEW FIVE STEEL SERVICES TO PE ON SEPARATE SAP ORDERS.
 6. THE STANDARD DEPTH OF COVER FOR GAS MAIN IN ROAD ALLOWANCES IS 0.6m MINIMUM.

LOCATION
Eldorbud Pl. and 60 Av., SURREY

TO THE APPROVING OFFICE OF: _____ AUTHORIZATION NUMBER OR SIGNATURE _____ DATE _____

CITY OF SURREY

CONSTRUCTION REPORT
I HEREBY CERTIFY THAT THE PIPING WAS INSTALLED IN ACCORDANCE WITH CURRENT STANDARD PRACTICES AND WAS EXAMINED UNDER AN AIR TEST OF _____ kPa FOR _____ HOURS AND THAT NO LEAKAGE WAS INDICATED.

RESOURCES: Yes No Office Only
BACKHOE
DUMPTRUCK
FLAGGERS
BOM
SAWCUTTER
PAVING GRAVEL

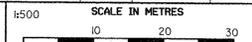
RESOURCES: Yes No Office Only
X-RAY
ECO WASTE
BOM
CONT. SERVICES
LABOUR
PLANT UNITS

TRACER WIRE CONTINUITY CHECK: Yes No

DATE _____ FOREMAN _____ AREA MANAGER _____

VALVE LIST

VALVE	NOMINAL SIZE	TYPE (PLUG, BALL, ETC)	DEPTH (PIPE CL)	MANUFACTURER	FIGURE NUMBER	NO. OF TURNS TO OPERATE	VALVE NUMBER
'A'	168						



ENDPLATE	REDUCER	P.C.T.	WILKINSON TEE	WILKINSON STOPPER	WILKINSON SHORT STOP FITTING	ELECTRO STOP	ANCHORED INS. DRESSER	TEST POINT	ENCASED VALVE	MAINTAINED INSULATED VALVE	MAINTAINED BALL VALVE	MAINTAINED BALL VALVE	MAINTAIN VALVE	INSULATED CURB COCK	REGULATOR VALVE	IP STN.	RECTIFIER	MARKER BULL	POLE OR HYDRANT	CATCH BASIN	DP STEEL & PE GAS MAIN	IP & TP GAS MAIN	DEAD GAS MAIN	PROPOSED GAS MAIN
----------	---------	--------	---------------	-------------------	------------------------------	--------------	-----------------------	------------	---------------	----------------------------	-----------------------	-----------------------	----------------	---------------------	-----------------	---------	-----------	-------------	-----------------	-------------	------------------------	------------------	---------------	-------------------

ATTENTION: DO NOT RELY ON THIS INFORMATION ALONE. YOU MUST MANUALLY DIG TO LOCATE GAS LINES BEFORE USING EXCAVATION MACHINERY. ALL LOCATIONS ARE SHOWN APPROXIMATE ONLY AND GAS LINES BUILT AFTER THE DATE BELOW ARE NOT IN THIS INFORMATION PACKAGE. FORTISBC WILL NOT ACCEPT RESPONSIBILITY FOR ERRORS OR OMISSIONS. DEPTH OF GAS LINE NOT AVAILABLE DUE TO POSSIBLE CHANGE OF GRADE.

DATE COMPILED 2016/12/09

MEASUREMENTS ARE SHOWN IN METRES. NOMINAL PIPE DIAMETER IS SHOWN IN mm.

16705 FRASER HWY., SURREY, B.C. V4N 0E8
PH. 1-888-224-2710

MCO 2800376336





16705 Fraser Highway
Surrey, BC, V4N 0E8
Tel: (604) 576-7000
FortisBC.com

April 6, 2017

City of Surrey
13450 104 Avenue
Surrey, BC
V3T 1V8

Subject: Gas Main Installation on Eldorbud Place between 60 Avenue and 59 Avenue, Surrey

FortisBC Job Reference: - 2800376336
Anticipated Start date: - Week of April 17, 2017
Validity of the Quote: - 90 days from letter date

Scope of work: Install new gas main 1.0m off east p/l of Eldorbud Place and abandon existing main on west side to facilitate new sanitary sewer construction.

Assumptions:

1. No overtime, night or weekend work. If required, additional costs can be calculated.
2. Temporary pavement repair only. Permanent repair by Pedre in their contract with Surrey.

Estimated Cost: \$87,356.12 excluding tax

Pursuant to the Operating Agreement between the City of Surrey and FortisBC Energy Inc. ("FortisBC"), FortisBC provides this Estimate of cost to the City of Surrey to carry out the Work.

Scheduling of this work will take place in consultation with the City of Surrey within reasonable and mutually agreed upon time frames and after

- (a) the City of Surrey has approved all design drawings and the City of Surrey had accepted the alignment of the proposed pipeline and has confirmed there is no conflict with other



utilities or future plans of the City of Surrey including providing to FortisBC the approval of the Municipal Engineer as required by the Operating Agreement;

- (b) the City of Surrey has issued a purchase order to FortisBC equal to the amount of the Estimate which purchase order will serve as the formal request by the City of Surrey to FortisBC to carry out the Work.

Important: This is a cost estimate only. The actual costs incurred may differ from this Estimate and as such the costs for which the City of Surrey is responsible under the Operating Agreement may also differ from this Estimate.

The Estimate is provided to you pursuant to the terms and conditions set out in Schedule A attached.

Sincerely,

[Redacted signature]

[Redacted name]

Planning & Design Technologist 2

FortisBC Energy Inc.

Tel: (604) [Redacted]

Email: [Redacted]@fortisbc.com

Enclosures

MCO 2800376336

SCHEDULE A

Terms and Conditions of Order - Construction

1. General

- 1.1. FortisBC Energy Inc. ("FortisBC") has provided the Customer with an estimate of the cost (the "Estimate") to do certain work (the "Work") at Eldorbud Place south of 60 Avenue (the "Site") for the Customer the details of which are attached to the Letter Agreement and in any addenda issued by FortisBC and these Terms and Conditions. The Customer acknowledges and agrees that the Estimate is an estimate only, and that the Customer shall be liable for payment for the Work in excess of the Estimate amount.
- 1.2. Letter Agreement, together with any addenda issued by FortisBC and these Terms and Conditions are collectively referred to as the "Letter Agreement".

2. Access

- 2.1. In the event the Customer is the owner of the Site and the land in the proximity of the Site (the "Lands"), the Customer shall provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Letter Agreement.
- 2.2. In the event the Customer is not the owner of the Site and/or the Lands or any portion thereof, the Customer shall obtain all necessary permissions and approvals from the owner(s) to provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Letter Agreement.
- 2.3. FortisBC shall remove its vehicles, equipment and materials from the Lands upon completion of the Work, and leave the Site and the Lands in a neat and tidy condition and good state of repair considering the nature of the Work completed hereunder.

3. Commencement of the Work

FortisBC shall commence the Work as soon as reasonably practicable having regard to the availability of FortisBC personnel, equipment and materials, provided however, that FortisBC will not commence the Work until (i) the Customer has delivered a certified cheque and/or bank draft in the amount of

SCHEDULE A

Terms and Conditions of Order - Construction

the Estimate to FortisBC as required pursuant to Clause 7; (ii) the Customer has provided confirmation that all permissions and approvals described in Clause 2 have been obtained; and (iii) FortisBC and the Customer have obtained all permits and approvals described in Clause 9. FortisBC does not covenant to prosecute the Work diligently or by any scheduled dates, whether or not such scheduled dates for commencement or completion of the Work have been specified by the Customer or by FortisBC.

4. Change Orders and Extra Work

FortisBC may at any time make written requests for changes to the Work, and these changes shall become part of the Letter Agreement upon being mutually agreed upon, and include a mutually acceptable increase or decrease in the Estimate.

The Customer may request that FortisBC perform additional work ("Extra Work") which is not within the Scope of Work as set out in the Letter Agreement. The details of the Extra Work shall be discussed, mutually agreed upon and paid at a mutually agreed upon rate prior to commencing the Extra Work.

5. Delay

If there is any delay in the Work caused or attributable to the Customer then FortisBC may, without cost, suspend part or all of the Work under this Letter Agreement until the Work can again be performed efficiently, effectively and without delay.

6. Force Majeure

6.1. "Force Majeure" means any one or more of the following events:

- (a) war or hostilities;
- (b) riot or civil commotion;
- (c) earthquake, major flood not foreseeable in the area of the Site, forest fire or suspensions of work ordered by the Ministry of Forests, or other natural physical disaster preventing the performance of the Work;
- (d) governmental regulations or controls;
- (e) inability to obtain any material or services;

SCHEDULE A

Terms and Conditions of Order - Construction

- (f) strike or lock-out or other industrial action; and
- (g) government embargo,

provided, however, that any such event is a major disabling event or circumstance in relation to the normal operations of the party concerned as a whole which is beyond the reasonable control of the party directly affected and results in a material delay, interruption or failure by such party in carrying out its duties, covenants or obligations under the Letter Agreement. Lack of money, financing or credit to resolve such contingencies will not be deemed an event of Force Majeure.

- 6.2. Lack of funds or other financial cause specific to the Customer shall not be construed as Force Majeure. If either party to the Letter Agreement is prevented from, or delayed in, performing any of its obligations under the Letter Agreement by Force Majeure, then it shall within two (2) days of the commencement of such circumstances notify the other party of the circumstances constituting the Force Majeure and of the obligation and performance of which is thereby delayed or prevented, and the party giving the notice shall thereupon be excused the performance or punctual performance, as the case may be, of such obligation for so long as the circumstances of prevention or delay continue. The provision of written notice by the Customer as aforesaid is a condition precedent to any claim for extra time or for delay in completion as a result of the Force Majeure.
- 6.3. Without limiting any other rights of FortisBC under any other provision of the Letter Agreement, if the suspension of Work exceeds a period of either fourteen (14) consecutive days or thirty (30) cumulative days as a result of Force Majeure, either party shall have the option to terminate the Letter Agreement on giving the other party written notice to that effect.
- 6.4. In the event of termination pursuant to Clause 10, the Customer shall be liable to pay FortisBC for that portion of the Work completed or goods delivered to the date of termination as well as any costs reasonably incurred by FortisBC in relation to the Work after termination.



SCHEDULE A

Terms and Conditions of Order - Construction

7. Terms of Payment

- 7.1. If required by FortisBC, the Customer shall deliver a certified cheque and/or bank draft in the amount of the Estimate (the "Prepayment") on or before [date] towards payment for the Work.
- 7.2. While FortisBC has used care in arriving at the Estimate, FortisBC does not warrant that the Estimate is a reasonable estimate of the cost of completing the Work (the "Cost"). The Cost includes all costs directly or indirectly incurred by FortisBC in completing the Work, and includes, but is not limited to labour, equipment, materials, overhead, necessary licenses and permits and any and all costs relating to access to the Site. Notwithstanding the foregoing, if the Cost is less than the Prepayment, FortisBC shall refund the difference to the Customer without interest; and if Cost of completing the work exceeds the Prepayment, the Customer agrees to and shall pay such deficiency (the "Deficiency Amount").
- 7.3. FortisBC shall send an invoice (the "Invoice") to the Customer for the Deficiency Amount, and payment for the Deficiency Amount shall be made by the Customer to FortisBC within thirty (30) days from the date of the invoice. The Invoice is due thirty (30) days from the date of the invoice. Late payment charges will accrue interest at a rate of prime plus two (2) percent for the first thirty (30) days the payment remains unpaid, and prime plus five (5) percent thereafter until the invoice is paid in full.
- 7.4. In the event that the Work has not commenced by any scheduled date promised by FortisBC, for such reasons including, but not limited to, delay in acquiring required permissions, permits and approvals, force majeure and failure of the Customer to make payment pursuant to this Clause 7, this Letter Agreement shall be deemed to have expired, unless FortisBC and the Customer have agreed in writing to extend the Letter Agreement beyond that date. If the Customer has provided FortisBC with the Prepayment, prior to expiration of the Letter Agreement pursuant to this Clause 6.3, FortisBC shall return the

SCHEDULE A

Terms and Conditions of Order - Construction

Prepayment amount without interest to the Customer minus any expenses incurred by FortisBC to date.

8. FortisBC to Retain Ownership

The Customer acknowledges and agrees that all vehicles, equipment, supplies and materials provided by FortisBC, contractor or subcontractor in the course of the Work; howsoever changed, incorporated or used in the Work, shall remain the property of FortisBC, and shall in no event become the property of the Customer.

9. Permits and Approvals

FortisBC shall be responsible for obtaining any permits, certificates and approvals required in connection with the construction, gasification and operation of natural gas pipes, pipelines and associated works. The Customer shall be responsible for obtaining all other permits required for the Work unless otherwise agreed in writing between FortisBC and the Customer.

10. Termination

- 10.1. FortisBC may, at any time without cause and at its sole discretion, terminate this Letter Agreement by giving notice in writing to the Customer.
- 10.2. If FortisBC terminates this Letter Agreement in accordance with this Clause 10, FortisBC shall reimburse the Customer the Prepayment amount without any interest, minus any reasonable costs incurred by FortisBC in performing the Work up to or after the date of termination. Such reasonable costs shall include but not be limited to costs to FortisBC for the work performed to date (including but not limited to materials purchased), expenses incurred as a result of early termination of any contractor or third party, and work required to reinstate the facilities to their prior state (or equivalent). If FortisBC satisfies its obligations hereunder, the Customer shall have no further cause to action or right against FortisBC in respect of the termination of this Letter Agreement or otherwise.

SCHEDULE A

Terms and Conditions of Order - Construction

11. Confidentiality

- 11.1. All information or documentation received by the Customer pertaining to or arising from the Work or the business affairs or trade secrets of FortisBC, including but not limited to the Estimate and labour rates quoted in the Estimate, shall be deemed to be confidential and proprietary to FortisBC. Except as otherwise provided herein, the Customer shall not directly or indirectly disclose any such confidential information or documentation to any third party without the prior written consent of FortisBC. Such consent is not required where the third party is another contractor or consultant retained by FortisBC for the purposes of the Letter Agreement and to the extent that such disclosure is necessary for the proper performance of this Letter Agreement or to the extent that such disclosure is required by law.
- 11.2. Notwithstanding the foregoing, the Customer may use such confidential information or documentation pertaining to or arising from the Work in the preparation for and conduct of submissions to regulatory agencies.
- 11.3. The obligation of confidentiality set out above shall not apply to material, data or information which is known to the Customer prior to their receipt thereof, which is generally available to the public or which has been obtained from a third party which has the right to disclose the same. The confidentiality covenants of the Customer herein shall survive the termination of this Letter Agreement.

12. Limitation of Liability and Indemnity

FortisBC, its employees, contractors, subcontractors or agents are not responsible or liable for any claim, expense, loss, cost, or other liability incurred by the Customer or any third party caused by or resulting directly or indirectly from the Work, unless the claim, expense, loss, cost or other liability is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractors or agents. Notwithstanding the foregoing FortisBC, its employees, contractors, subcontractors and agents are in no event liable for any incidental, special, punitive, or consequential damages of any kind (including, but without limitation, loss of income, loss of profits, or other pecuniary loss),

SCHEDULE A

Terms and Conditions of Order - Construction

even if the loss is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractor or agents.

In no event shall FortisBC's aggregate liability to pay for any claim, expense, loss, cost, or other liability incurred by the Customer resulting from the Work exceed the total amount paid to FortisBC by the Customer for the Work.

The Customer shall indemnify FortisBC and save it harmless from any claim, expense, loss, cost or other liability of any third parties arising out of Work, unless such claim, expense, loss, cost or other liability is directly attributable to the gross negligence or wilful misconduct of FortisBC, its employees, contractors, subcontractor or agents.

13. Disputes

13.1. Except for applications for injunctions required to protect confidential information, where any dispute arises out of or in connection with this Letter Agreement, including failure of the parties to reach agreement hereunder:

- (a) If the parties have been unable to settle the dispute within thirty (30) days after receipt of notice of such dispute from the other party, a senior officer of each party's management shall meet within fifteen (15) days after that period in an attempt to resolve such dispute.
- (b) If the senior officers of the parties are not able pursuant to sub-Clause 13.1(a) to resolve the dispute within the fifteen (15) day period stipulated in sub-Clause 13.1(a), the parties agree to promptly try to resolve the dispute by participating in a structured mediation conference with a mediator under the National Arbitration Rules of the ADR Institute of Canada Inc.

13.2. If the parties fail to resolve the dispute through mediation within thirty (30) days after the end of the fifteen (15) day period stipulated in sub-Clause 13.1(a), subject to sub-Section 13.3 either party at its sole option may pursue litigation to resolve such dispute in any court of competent jurisdiction in the Province of British Columbia. The parties hereto agree that the Courts of the Province of British Columbia shall

SCHEDULE A

Terms and Conditions of Order - Construction

have exclusive jurisdiction to resolve any and all disputes between the parties.

- 13.3. By separate written agreement to arbitrate signed by all parties concerned, which agreement may be arbitrarily withheld, the particular unresolved disputes identified in the agreement to arbitrate shall be referred to and finally resolved or determined by arbitration under the National Arbitration Rules of the ADR Institute of Canada Inc. In the absence of such rules, the rules shall be as agreed by the parties or, failing agreement, the rules as prescribed in such case by, as applicable, the *Commercial Arbitration Act* or *International Arbitration Act* of the Province of British Columbia. Unless the parties agree otherwise the arbitration will be conducted by a single arbitrator.
- 13.4. The arbitrator shall issue a written award that sets forth the essential findings and conclusions on which the award is based. The arbitrator will allow discovery as required by law in arbitration proceedings.
- 13.5. In addition to awarding monetary damages and interest on unpaid amounts, the arbitrator shall have the authority to provide injunctive relief, order specific performance and grant permanent relief.
- 13.6. Each party shall bear its own costs and expenses of the arbitration. The costs and expenses of the arbitration, but not those incurred by the parties, shall be shared equally, unless the arbitrator determines that a specific party prevailed on substantially all issues. In such case, the non-prevailing party shall pay all costs and expenses of the arbitration, but not those of the prevailing party.
- 13.7. The parties will continue to fulfill their respective obligations pursuant to this Letter Agreement during the resolution of any dispute in accordance with this Clause 13.

14. Subcontracting

FortisBC may retain the services of a qualified third party to perform some or all of its obligations under this Letter Agreement.

SCHEDULE A

Terms and Conditions of Order - Construction

15. Assignment

The Customer shall not assign its rights or obligations under this Letter Agreement without the prior written consent of FortisBC, which consent may be arbitrarily withheld.

16. Law

This Letter Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia.

17. Enurement

This Letter Agreement shall be for the benefit of and be binding upon FortisBC and the Customer and their respective successors and permitted assigns.

18. Amendments

18.1. The Letter Agreement embodies the entire agreement between the parties and supersedes all communications, negotiations and agreements, either written or oral, relating to the Work that were made prior to the date of execution of the Letter Agreement. The Letter Agreement contains all the representations, warranties, covenants, agreements, conditions and understandings between the parties with respect to the subject matter of the Letter Agreement and there are no other representations, warranties, covenants, agreements, conditions or understandings with respect to the Letter Agreement that are not contained herein.

18.2. The Customer hereby represents and warrants that in entering into the Letter Agreement it has not and does not rely upon any previous representation of FortisBC, consultant, or any employee, director, officer, servant, consultant or agent of FortisBC, whether express or implied, or upon any inducement or agreement of any kind or nature.

18.3. The Letter Agreement may only be amended by written agreement, signed by both parties.



16705 Fraser Highway
Surrey, B.C.
V4N 0E8
Bus: 604-576-7000
Toll Free: 1-800-773-7001

June 5, 2017

The City of Surrey
#13450 104 Avenue
Surrey, BC
V3T 1V8

Attention: [REDACTED]

RE: Gas Main Installation on Eldorbud Pl. between 60 Ave. and 59 Ave., Surrey

FortisBC Job Reference : #2800376336
Start date : Week of June 19, 2017
Validity of the Quote : 90 days from letter date

Scope of work:

Install new 168mm PE gas main 1.0m off east p/l of Eldorbud Place and abandon existing 88mm steel main on west side to facilitate new 900mm sanitary sewer construction. Transfer 11 gas services to new gas main.

Gas main abandonment discounts based on the operating agreement have been applied. Additional costs to upsize gas main from 88mm to 168mm and replace 5 steel services to PE are not reflected in this estimate and will be paid by FortisBC.

Assumptions:

1. No overtime, night or weekend work.
2. Temporary pavement repair only. Permanent repair to be completed by City of Surrey contractor.
3. No shoring required.

Estimated Cost: \$73,621 + Taxes

Pursuant to the Operating Agreement between the City of Surrey and FortisBC Energy Inc. ("FortisBC"), FortisBC provides this Estimate of cost to The City of Surrey to carry out the Work.

Scheduling of this work will take place in consultation with the The City of Surrey within reasonable and mutually agreed upon time frames and after:

- (a) the City of Surrey has approved all design drawings and the City of Surrey had accepted the alignment of the proposed pipeline and has confirmed there is no conflict with other utilities or future plans of the City of Surrey including providing to FortisBC the approval of the Municipal Engineer as required by the Operating Agreement; and
- (b) the City of Surrey has issued a purchase order to FortisBC equal to the amount of the Estimate which purchase order will serve as the formal request by the City of Surrey to FortisBC to carry out the Work.

Important: This is a cost estimate only. The actual costs incurred may differ from this Estimate and as such the costs for which The City of Surrey is responsible under the Operating Agreement may also differ from this Estimate.

The Estimate is provided to you pursuant to the terms and conditions set out in Schedule A attached.

Yours Sincerely,


FortisBC Energy Inc.

Planning and Design Technologist, 

Phone: 

Email: @fortisbc.com

Enclosures

SCHEDULE A

1. General

- 1.1. FortisBC Estimate of the cost \$73,621 to do certain Work #2800376336 at Eldorbud Pl. and 60 Avenue, Surrey (the "site") is an estimate only, and the City of Surrey shall be liable for payment for the total cost of the Work. The City of Surrey is liable to pay pursuant to the Operating Agreement even if that cost is in excess of the Estimate amount.
- 1.2. The Terms and Conditions, and the Scope of Work are all attached to the Estimate and collectively form part of the Estimate.

2. Access

This Estimate is in part based on the representation made by the City of Surrey that it is the owner/lessee of the site and the land in the proximity of the Site (the "Lands") and that the City of Surrey shall provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Estimate and the Operating Agreement. FortisBC shall remove its vehicles, equipment and materials from the Lands upon completion of the Work, and leave the lands in a neat and tidy condition and good state of repair considering the nature of the Work completed hereunder.

3. Commencement of the Work

FortisBC shall commence the Work as soon as reasonably practicable having regard to the availability of FortisBC personnel, equipment and materials provided however that FortisBC will not commence the work until (i) the requirements set out in the Estimate have been satisfied; and (ii) FortisBC and the City of Surrey have obtained all permits and approvals described in section 8.

4. Change Orders and Extra Work

FortisBC may at any time provide written notice of changes to the Work and the cost associated with those changes, and these changes shall become part of the Estimate.

5. Delay

If there is any delay in the Work caused or attributable to the City of Surrey then FortisBC may suspend part or all of the Work until the Work can again be performed efficiently, effectively and without delay.

6. Only an Estimate

While FortisBC has used care in arriving at the Estimate, FortisBC does not warrant that the Estimate is a reasonable estimate of the cost of completing the Work.

SCHEDULE A

7. FortisBC to Retain Ownership

All vehicles, equipment, supplies and materials provided by FortisBC, contractor or subcontractor in the course of the Work; howsoever changed, incorporated or used in the Work, shall remain the property of FortisBC, and shall in no event become the property of anyone else.

8. Permits and Approvals

FortisBC shall be responsible for obtaining any permits, certificates and approvals required in connection with the construction, gasification and operation of natural gas pipes, pipelines and associated works. The City of Surrey shall be responsible for obtaining all other permits required for the Work unless otherwise agreed in writing between FortisBC and the City of Surrey.

9. Confidentiality

9.1. All information or documentation received by the Customer pertaining to or arising from the Work or the business affairs or trade secrets of FortisBC, including but not limited to the Estimate and labour rates quoted in the Estimate, shall be deemed to be confidential and proprietary to FortisBC. Except as otherwise provided herein, the Customer shall not directly or indirectly disclose any such confidential information or documentation to any third party without the prior written consent of FortisBC. Such consent is not required where the third party is another contractor or consultant retained by FortisBC for the purposes of the Estimate and to the extent that such disclosure is necessary for the proper performance of the Work or to the extent that such disclosure is required by law.

9.2. Notwithstanding the foregoing, the City of Surrey may use such confidential information or documentation pertaining to or arising from the Work in the preparation for and conduct of submissions to regulatory agencies.

9.3. The obligation of confidentiality set out above shall not apply to material, data or information which is known to the City of Surrey prior to their receipt thereof, which is generally available to the public or which has been obtained from a third party which has the right to disclose the same.

10. Subcontracting

FortisBC may retain the services of a qualified third party to perform some or all of its obligations set out in this Estimate.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: June 13, 2017 7:55 AM
To: [REDACTED]
Subject: RE: [External Email] - RE: Fortis design #2800376336 - Eldorbud lane gas main

Received... thank you.

From: [REDACTED]@surrey.ca]
Sent: Monday, June 12, 2017 3:11 PM
To: [REDACTED]@fortisbc.com>
Cc: [REDACTED]@fortisbc.com>
Subject: [External Email] - RE: Fortis design #2800376336 - Eldorbud lane gas main

**** THIS IS AN EXTERNAL EMAIL **** Use caution before opening links / attachments.

[REDACTED]

The PO No. is 406643. I'll send a more official memo to you later. This is to ensure the works can move forward.

[REDACTED]

From: [REDACTED]
Sent: June-08-17 10:34 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Fortis design #2800376336 - Eldorbud lane gas main

[REDACTED]

I'm process the PO# and will have it for you shortly. Please note the City of Surrey does not recognize the operating agreement referenced in your letter dated June 5, 2017.

Best regards,

[REDACTED] | PROJECT SUPERVISOR



CITY OF SURREY
Engineering Department
13450 104th Ave, Surrey, BC, Canada V3T 1V8
T [REDACTED] www.surrey.ca



Connect, Share and Engage with your City

From: [REDACTED]@fortisbc.com]
Sent: June-07-17 2:39 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Fortis design #2800376336 - Eldorbud lane gas main

Hello [REDACTED]
I have attached a revised quote estimate which contains more details regarding the scope of work and cost allocations. As you know this project has been scheduled for the week of June 19th.

Please forward a PO# at your earliest to avoid scheduling delays.
Do not hesitate to contact me if you have any questions or concerns.

Thank you.
[REDACTED] Technologist
Planning & Design
FortisBC

T: [REDACTED]
[REDACTED]@fortisbc.com

From: [REDACTED]@surrey.ca]
Sent: Thursday, April 6, 2017 4:04 PM
To: [REDACTED]@fortisbc.com>
Subject: RE: Fortis design #2800376336 - elderbud lane gas main

[REDACTED]
As we discussed briefly before, the City feels the cost of the upsize and service connection renewal should be at Fortis's cost. We are simply moving the main from the west of the lane to east, in theory, the connections should be cut and re-connected. I do understand that the material is changing, however to fund the entire upgrade seems excessive. In the interest of time, I will provide a PO for this work. However, I'd like to revisit the cost sharing once the actual costs come in.

From: [REDACTED]@fortisbc.com]
Sent: April-06-17 3:01 PM
To: [REDACTED]
Subject: RE: Fortis design #2800376336 - elderbud lane gas main

Hello [REDACTED]
I have attached the revised quote to reflect municipal discounts for the gas service renewals required as part of this project.
Please provide a PO# at your earliest as I have scheduled this project for the week of Apr 17.

Thank you.

██████████ Technologist
Planning & Design
FortisBC

T: ██████████
██████████@fortisbc.com

From: ██████████
Sent: Wednesday, April 5, 2017 10:07 AM
To: ██████████
Cc: ██████████@mcelhanney.com; ██████████@cuccorp.com; ██████████@cuccorp.com)
Subject: Fortis design #2800376336 - elderbud lane gas main

Hello ██████████
We did receive an approved drawing from ██████████.
However I am having the design revised to reflect the upsize in proposed pipe from 114mm to 168mm and an offset change from 1.0m to 1.5m at the north end where we are tying in on 60 Ave.
The offset change is required to avoid a conflict with an existing residential sump and 3 hydro poles which I have discussed with ██████████.
Construction is scheduled for the week of Apr 17.

Also I have revised the original estimate to included municipal discounts for the gas service alterations.

I hope to forward the revised design and estimate to you by Fri of this week.

Thank you.
██████████, Technologist
Planning & Design
FortisBC

T: ██████████
██████████@fortisbc.com

From: ██████████@surrey.ca]
Sent: Tuesday, April 4, 2017 12:44 PM
To: ██████████
Subject: elderbud lane gas main

██████████
Have you seen any approved dwgs come back from the City?

██████████ PROJECT SUPERVISOR



CITY OF SURREY

Engineering Department
13450 104th Ave, Surrey, BC, Canada V3T 1V8
T [REDACTED] | www.surrey.ca



Connect, Share and Engage with your City

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

Subject: FW: #2800376336 - SAN cleanout conflicts - Eldorbud Pl & 60 Ave Sry

From: [REDACTED]@fortisbc.com]
Sent: July-25-17 11:33 AM
To: [REDACTED]
Subject: RE: #2800376336 - SAN cleanout conflicts - Eldorbud Pl & 60 Ave Sry

Hello [REDACTED]
As you know Fortis contractor CUCC started their trenching Fri July 7 at the north end for the first 2 lots but stopped work and back filled due to the unexpected issue with the concrete cleanouts.
Note that this work completed to date including move-on costs will be in addition to the original estimate as forwarded to you on June 7, 2017.

Please let me know if you have any questions or concerns.

Thank you.
[REDACTED], Technologist
Planning & Design
FortisBC

T: [REDACTED]
[REDACTED]@fortisbc.com

From: [REDACTED] [mailto:[REDACTED]@mcelhanney.com]
Sent: Wednesday, July 19, 2017 9:05 AM
To: [REDACTED]@fortisbc.com>
Cc: [REDACTED]@fortisbc.com>; [REDACTED]@fortisbc.com>; [REDACTED]
[REDACTED]@cuccorp.com) [REDACTED]@cuccorp.com>; [REDACTED]@surrey.ca>; [REDACTED]
[REDACTED]@mcelhanney.com>; [REDACTED]@pedrecontractors.com>; [REDACTED]
[REDACTED]@pedrecontractors.com>; [REDACTED]@pedrecontractors.com>; [REDACTED]
[REDACTED]@mcelhanney.com>
Subject: RE: SAN cleanout conflicts - Eldorbud Pl & 60 Ave Sry

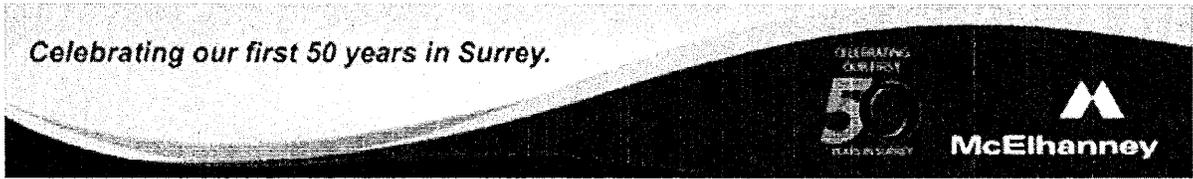
Hello [REDACTED]
We have a tentative commitment from Pedre to remove these inspection chambers during the first week of August. If you could please reschedule CUCC beginning the third week of August, that would be fantastic. I think that gives us enough leeway in case of unforeseen complications.

If you have any questions, please let me know.

Thanks,
[REDACTED] ASCT, CPWI1, MMCD CA
Construction Services
McElhanney Consulting Services Ltd.
www.mcelhanney.com
Suite 2300 Central City Tower | 13450 - 102 Ave | Surrey BC V3T 5X3
D [REDACTED]

██████████@mcelhanney.com

Connect with McElhanney: [Facebook](#) | [Twitter](#) | [LinkedIn](#)



From: ██████████@fortisbc.com
Sent: Friday, July 07, 2017 12:53 PM
To: ██████████@mcelhanney.com
Cc: ██████████@fortisbc.com>; ██████████@fortisbc.com>; ██████████@cuccorp.com) ██████████@cuccorp.com>; ██████████@surrey.ca>; ██████████@mcelhanney.com>
Subject: SAN cleanout conflicts - Eldorbud Pl & 60 Ave Sry

Hello ██████████
As per our telephone conversation note that Fortis contractor CUCC will be pulling off the Eldorbud job site today due to the unexpected find of concrete sanitary sewer cleanouts on the proposed 1.5m gas main offset .

These cleanouts are approximately 0.5m in diameter at 1.0m - 1.5m from the east property line. CUCC started their trenching at the north end and confirmed 2 cleanouts that were approximately 6" below the existing grade. It appears we would run into the same issue with each lot on the east side of Eldorbud between 60 Ave & 59 Ave.

Unfortunately we do not have the option of changing our offset due to the limited space east of the new water main. As discussed it would be preferred that your contractor remove the clean outs prior to CUCC returning to the site to install the gas main at the original offset of 1.5m north of address #5967 and 1.0m south to 59 Ave.

Let me know when your contractor can remove the cleanouts and I will re-schedule CUCC.

Thank you.
██████████, Technologist
Planning & Design
FortisBC

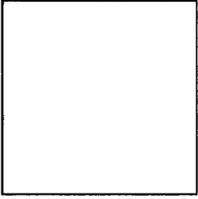
T: ██████████
██████████@fortisbc.com

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

*"FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings, Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

--
This email was checked by Sophos for known Malware. Be on guard for new exploits. Protect your credentials.



This message and attachment may contain privileged and confidential information. If you are not the intended recipient, please notify us of our error, do not disseminate or copy this communication, and destroy all copies.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

*"FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: April 16, 2015 8:06 AM
To: [REDACTED]@binnie.com)
Cc: [REDACTED]
Subject: Gas Main Lowering at 168 Street and Barnston Dr. West
Attachments: MCO 2800324725.pdf

Hi [REDACTED]

I received your voice message last night. I have a call into CUC regarding their schedule for the prior approved main relocation on Barnston Dr.

Attached is the proposed lowering on 168 St. This work has not been scheduled. I will forward to [REDACTED] for Surrey approval and Kinder Morgan for their approval and permits. I received your email to add these charges to the existing PO which is not a problem. I have not revised the original estimate but can advise this additional work is \$16,499.49 plus tax. Included in this estimate is removal of a portion of the dead gas main over the Kinder Morgan pipeline. This was not in the original scope of work due to the distance from the KM pipeline. Now that we are working adjacent to the pipeline it is required to receive their permit.

Once approvals are received I will pass along the construction schedule.

Regards,

[REDACTED] Tech
Planning and Design Technologist 2
Langley Muster

Phone: [REDACTED]
Fax: [REDACTED]
[REDACTED]@fortisbc.com

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](mailto:unsubscribe@fortisbc.com) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



16705 Fraser Highway
Surrey, BC V4N 0E8
Tel: 604-576-7000
Toll-Free: 1-800-773-7001
www.fortisbc.com

March 27, 2013

City of Surrey
Engineering Department
14245 56A Avenue
Surrey, BC V3X 3A2
Attention: [REDACTED] A.Sc.T.
[REDACTED]

REV. 1: COST ESTIMATE FOR HYLAND CREEK CULVERT REPLACEMENT PROJECT (REFERENCE TO SURREY PROJECT #4808-058 D2)

FortisBC Job References (required, prior to the project's road construction schedule start):

30446591 (New Gas Main Install):

- **SOUTH END (east side of 148 Street):** Install Steel Casing under existing Southern Railway/BC Hydro Right-of-Way (via horizontal directional drill method). Install new PE gas main (from existing gas main on 64 Avenue), and insert through the steel casing – north to 6448 148 Street.
- **NORTH END (west side of 148 Street):** Install new PE gas main (from existing gas main on 148 Street @ 65A Avenue, southwards to 6531 168 Street. Provisions for a future gas main extension southwards to provide service to potential gas customers.

30431404 (Existing Gas Main Abandonment – east side of 148 Street):

- Abandon existing gas main, from the northern tie-in location of 148 Street @ 65A Avenue to the southern terminus at 6448 148 Street
- Required, prior to project's road construction start

30446941 (Gas Service Test and Transfer at 6455 148 Street):

- Existing gas service line to be transferred from abandoned gas main to new gas main
- All customer relights and gasification

30586516 (Gas Service Test and Transfer at 101-6448 148 Street):

- Existing gas service line to be transferred from abandoned gas main to new gas main
- All customer relights and gasification

30586534 (Existing Gas Service Line Abandonment at 1-6531 148 Street):

- Done, in conjunction with Service Order 30586705
- Existing gas meters to be removed and relocated

30586705 (New Gas Service Line Install at 1-6531 148 Street):

- New gas service line to be tied into new gas main into new gas meters' location inside property
- All customer house line connects to new gas meters' location; relights; and gasification
- Supply of construction materials and labour to construct concrete slab and mini concrete wall, in order to attach new gas meters' assembly

Anticipated Start Dates: The first or second week of May, 2013 (**ALL FORTISBC WORK MUST BE COMPLETED PRIOR TO JUNE 1, 2013**) – per City of Surrey and the project's civil engineering

consultant (URS Engineering), per Terms and Conditions indicated in Schedule A. This quote is valid for 60 days.

Scope of work (in addition to the mentioned-above):

- Keep all gas supply uninterrupted during our entire construction duration
- Horizontal directional drilling work and gas main tie-in/gasification at south end of project (148 Street @ 64 Avenue) to be planned for night time/non-peak vehicle traffic hours

Assumptions:

- FortisBC is responsible for its own traffic control – per City of Surrey's Traffic Management Permit
- Contractors' representing both City of Surrey and FortisBC to coordinate work schedules and other work requirements prior to commencement of work
- No shoring requirements; no work requirements in the vicinity of Hyland Creek
- All work permit requirements (i.e. traffic management; BC Hydro Right-of-Way Construction; Southern Railway of BC Construction) to be finalized prior to commencement of work
- FortisBC is **not responsible** for any costs and/or labour associated with the removal of any abandoned gas main and/or gas service pipe in private and/or public property

Estimated Costs: \$112,000 (including 5% GST and 7% PST)

Pursuant to the Operating Agreement between the **City of Surrey** and FortisBC Energy Inc. ("FortisBC"), FortisBC provides this Estimate of cost to the **City of Surrey** to carry out the Work.

Scheduling of this work will take place in consultation with the **City of Surrey** within reasonable and mutually agreed upon time frames and after:

- (a) the **City of Surrey** has approved all design drawings and the **City of Surrey** had accepted the alignment of the proposed pipeline and has confirmed there is no conflict with other utilities or future plans of the **City of Surrey** including providing to FortisBC the approval of the Municipal Engineer as required by the Operating Agreement;
- (b) the **City of Surrey** has issued a purchase order to FortisBC equal to the amount of the Estimate which purchase order will serve as the formal request by the **City of Surrey** to FortisBC to carry out the Work.

Important: This is a cost estimate only. The actual costs incurred may differ from this Estimate and as such the costs for which the **City of Surrey** is responsible under the Operating Agreement may also differ from this Estimate.

The Estimate is provided to you pursuant to the terms and conditions set out in Schedule A attached.

Regards,

FortisBC Energy Inc.

[Redacted signature]

Planning and Design Technologist 2

Phone: [Redacted]

Email: [Redacted]@fortisbc.com

Enclosures

SCHEDULE A

1. General

- 1.1. FortisBC's Estimate of the costs (**\$112,000.00**) to do certain Work (**mentioned above**) at **HYLAND CREEK CULVERT REPLACEMENT PROJECT, SURREY** (the "Site") is an estimate only, and the **City of Surrey** shall be liable for payment for the total cost of the Work the **City of Surrey** is liable to pay pursuant to the Operating Agreement even if that cost is in excess of the Estimate amount.
- 1.2. The Terms and Conditions, and the Scope of Work are all attached to the Estimate and collectively form part of the Estimate.

2. Access

This Estimate is in part based on the representation made by the **City of Surrey** that it is the owner/lessee of the Site and the land in the proximity of the Site (the "Lands") and that the **City of Surrey** shall provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Estimate and the Operating Agreement. FortisBC shall remove its vehicles, equipment and materials from the Lands upon completion of the Work, and leave the lands in a neat and tidy condition and good state of repair considering the nature of the Work completed hereunder.

3. Commencement of the Work

FortisBC shall commence the Work as soon as reasonably practicable having regard to the availability of FortisBC personnel, equipment and materials provided however that FortisBC will not commence the Work until (i) the requirements set out in the Estimate have been satisfied; and (ii) FortisBC and the **City of Surrey** have obtained all permits and approvals described in Section 8.

4. Change Orders and Extra Work

FortisBC may at any time provide written notice of changes to the Work and the cost associated with those changes, and these changes shall become part of the Estimate.

5. Delay

If there is any delay in the Work caused or attributable to the **City of Surrey**, then FortisBC may suspend part or all of the Work until the Work can again be performed efficiently, effectively and without delay.

6. Only an Estimate

While FortisBC has used care in arriving at the Estimate, FortisBC does not warrant that the Estimate is a reasonable estimate of the cost of completing the Work.

7. FortisBC to Retain Ownership

All vehicles, equipment, supplies and materials provided by FortisBC, contractor or subcontractor in the course of the Work; howsoever changed, incorporated or used in the Work, shall remain the property of FortisBC, and shall in no event become the property of anyone else.

SCHEDULE A

8. Permits and Approvals

FortisBC shall be responsible for obtaining any permits, certificates and approvals required in connection with the construction, gasification and operation of natural gas pipes, pipelines and associated works. The **City of Surrey** shall be responsible for obtaining all other permits required for the Work unless otherwise agreed in writing between FortisBC and the **City of Surrey**.

9. Confidentiality

9.1. All information or documentation received by the **City of Surrey** pertaining to or arising from the Work or the business affairs or trade secrets of FortisBC, including but not limited to the Estimate and labour rates quoted in the Estimate, shall be deemed to be confidential and proprietary to FortisBC. Except as otherwise provided herein, the **City of Surrey** shall not directly or indirectly disclose any such confidential information or documentation to any third party without the prior written consent of FortisBC. Such consent is not required where the third party is another contractor or consultant retained by FortisBC for the purposes of the Estimate and to the extent that such disclosure is necessary for the proper performance of the Work or to the extent that such disclosure is required by law.

9.2. Notwithstanding the foregoing, the **City of Surrey** may use such confidential information or documentation pertaining to or arising from the Work in the preparation for and conduct of submissions to regulatory agencies.

9.3. The obligation of confidentiality set out above shall not apply to material, data or information which is known to the **City of Surrey** prior to their receipt thereof, which is generally available to the public or which has been obtained from a third party which has the right to disclose the same.

10. Subcontracting

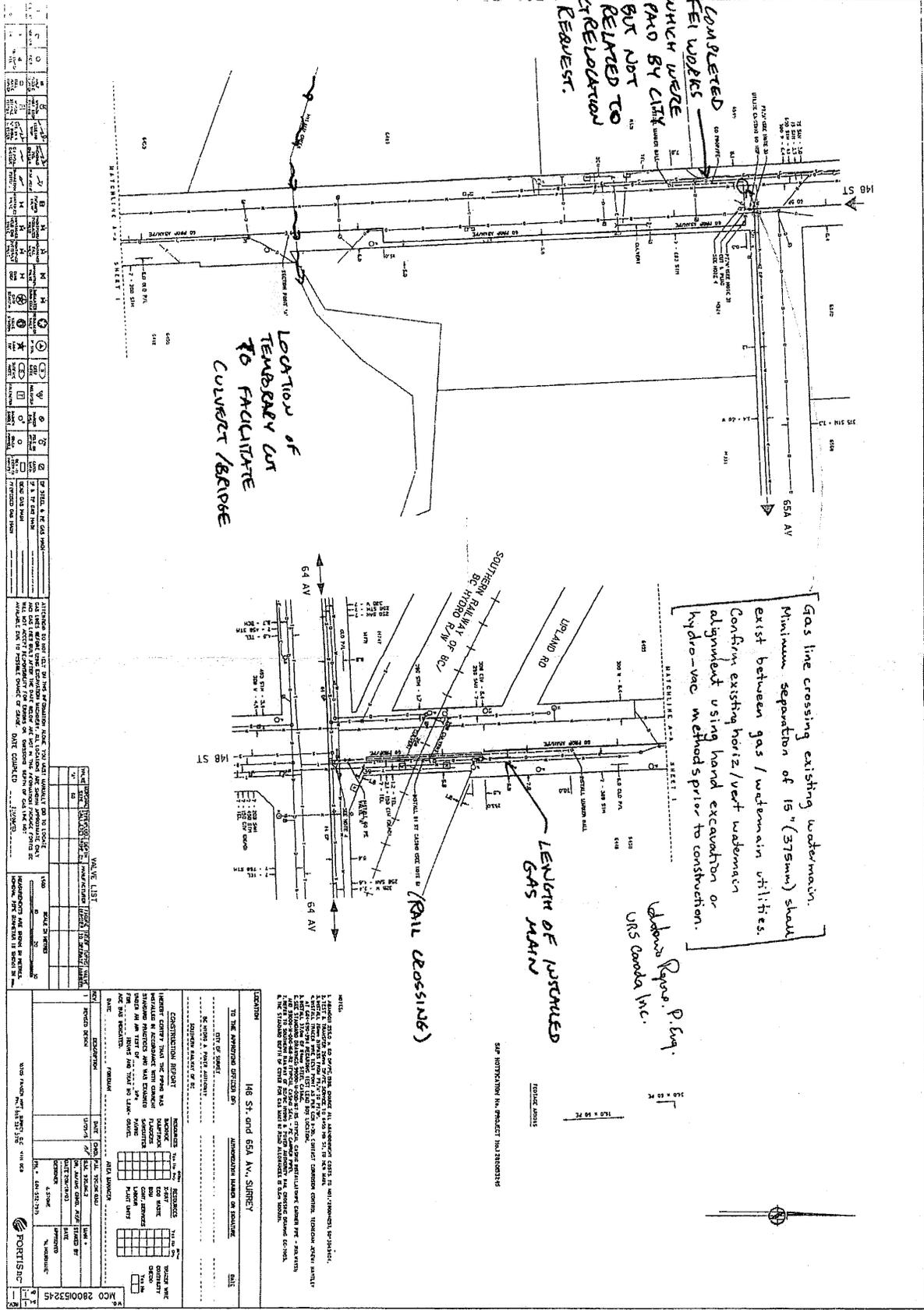
FortisBC may retain the services of a qualified third party to perform some or all of its obligations set out in this Estimate.

COMPLETED
FEL WIDERS
WHICH WERE
PAID BY CITY
BUT NOT
RELATED TO
PROJECT RELATION
REQUEST.

LOCATION OF
TEMPORARY CUT
TO FACILITATE
CULVERT / BRIDGE

Gas line crossing existing watermain.
Minimum separation of 15" (375mm) shall
exist between gas / watermain utilities.
Confirm existing horiz/vert watermain
alignment using hand excavation or
hydro-vac methods prior to construction.

Location of DISTURBED
GAS MAIN
Urban Region P. Eng.
URS Canada Inc.



NO.	DESCRIPTION	DATE	BY	CHECKED	SCALE
1	ISSUED FOR PERMITS	11/15/14	URS	URS	AS SHOWN
2	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
3	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
4	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
5	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
6	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
7	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
8	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
9	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
10	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
11	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
12	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
13	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
14	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
15	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
16	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
17	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
18	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
19	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
20	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN

ATTENTION TO THE CITY OF SURREY: THIS PLAN WAS PREPARED BY URS AND IS SUBJECT TO THE CITY OF SURREY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE CITY OF SURREY'S STANDARD SPECIFICATIONS FOR UTILITIES. THE CITY OF SURREY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED ON THIS PLAN. THE CITY OF SURREY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED ON THIS PLAN. THE CITY OF SURREY IS NOT RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED ON THIS PLAN.

NO.	DESCRIPTION	DATE	BY	CHECKED	SCALE
1	ISSUED FOR PERMITS	11/15/14	URS	URS	AS SHOWN
2	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
3	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
4	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
5	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
6	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
7	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
8	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
9	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
10	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
11	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
12	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
13	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
14	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
15	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
16	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
17	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
18	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
19	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
20	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN

VALVE LIST

NO.	DESCRIPTION	DATE	BY	CHECKED	SCALE
1	ISSUED FOR PERMITS	11/15/14	URS	URS	AS SHOWN
2	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
3	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
4	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
5	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
6	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
7	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
8	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
9	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
10	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
11	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
12	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
13	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
14	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
15	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
16	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
17	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
18	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
19	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN
20	REVISED FOR COMMENTS	11/15/14	URS	URS	AS SHOWN

PROJECT NO: 2800053245

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: January 20, 2015 12:57 PM
To: [REDACTED]
Subject: FW: 72 Avenue Fortis Main Pre-Locates
Attachments: Fortis Drawing MCO 2800317151.pdf; Fortis Drawing MCO 2800317203.pdf

[REDACTED] ASCT
Planning and Design Technologist - 2
FortisBC
[REDACTED]

From: [REDACTED]
Sent: Monday, January 19, 2015 2:02 PM
To: [REDACTED]@aplinmartin.com)
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hello [REDACTED],

I will need a PO number from Surrey to continue our lowering.

Also, attached are copies of our plans to lower the main.

Regards,

[REDACTED] ASCT
Planning and Design Technologist - 2
FortisBC
[REDACTED]

From: [REDACTED]
Sent: Monday, January 19, 2015 10:41 AM
To: [REDACTED]@aplinmartin.com)
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hi [REDACTED],

Please let me know if you have any questions.

Regards,

[REDACTED] ASCT
Planning and Design Technologist - 2
FortisBC
[REDACTED]

From: [REDACTED]
Sent: Friday, January 16, 2015 2:57 PM
To: [REDACTED]
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hello,

FortisBC can lower the main the week of January 26th.

Regards,

[REDACTED], ASCT
Planning and Design Technologist - 2
FortisBC
[REDACTED]

From: [REDACTED] [mailto:[REDACTED]@aplinmartin.com]
Sent: Thursday, January 15, 2015 1:38 PM
To: [REDACTED]
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hi [REDACTED]

You can send the invoice to myself. I will forward it on to the project manager in Surrey.

Thanks,

[REDACTED], EIT
Engineering Designer
Office: [REDACTED]
Mobile: [REDACTED]
Dropbox

From: [REDACTED] [mailto:[REDACTED]@fortisbc.com]
Sent: January-15-15 1:09 PM
To: [REDACTED]
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hello [REDACTED]

Can you confirm if I should send the invoice for this work to City of Surrey? Or should it go to the contractor?

Regards,

[REDACTED], ASCT
Planning and Design Technologist - 2
FortisBC
[REDACTED]

From: [REDACTED] [mailto:[REDACTED]@aplinmartin.com]
Sent: Monday, January 12, 2015 8:46 AM
To: [REDACTED]

Cc: [redacted]@surrey.ca); [redacted]
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Good Morning, [redacted]

The depths listed are below existing grade.

Feel free to contact me if you have further questions.

Thanks,

[redacted], EIT
Engineering Designer
Office: [redacted]
Mobile: [redacted]
[Dropbox](#)

From: [redacted]@fortisbc.com]
Sent: January-12-15 8:45 AM
To: [redacted]
Subject: RE: 72 Avenue Fortis Main Pre-Locates

Hello [redacted]

Can you confirm the depth of the gas main at the 4 locations you investigated? I'm not sure if I read the email correctly. Is the depth of the main at STA. 1+440 0.21m?

- 1. STA I+440, 0.21 +/-
- 2. STA I+505.66, 0.37 +/-
- 3. STA I+591.97, 0.38 +/-
- 4. STA I+651.98, 0.38 +/-

Regards,

[redacted] ASCT
Planning and Design Technologist - 2
FortisBC
[redacted]

From: [redacted]@aplinmartin.com]
Sent: Friday, January 9, 2015 11:59 AM
To: [redacted]
Cc: [redacted]@surrey.ca)
Subject: 72 Avenue Fortis Main Pre-Locates
Importance: High

Hi [redacted]

Further to our discussions in November 2014, our proposed design for the 72 Avenue Arterial Widening project in Surrey proposes a new south curb alignment that is over an existing 60mm dia. Fortis DP main. At that time, we discussed the requirement for a minimum cover of 0.60m over all DP mains and 0.45m over service connections.

Our contractor performed pre-locates yesterday on the existing mains and identified 4 locations that do not meet this cover requirement in current condition and conflict with proposed catchbasin locations. Based on the information provided by the contractor, we are concerned that the main has less than minimum cover along much of the length of the main from 194A Street to 196 Street in its current condition. I have attached the contractor's email for your reference, as well as the design drawings showing the proposed curb alignment.

We would like to address this as soon as possible as construction is currently scheduled to start January 19th.

Please call me at your earliest convenience to discuss how we should proceed.

Thanks,

[REDACTED], EIT
Engineering Designer
Office: **[REDACTED]**
Mobile: **[REDACTED]**
201 – 12448 82nd Avenue
Surrey, BC, V3W 3E9
[Dropbox](#)

APLIN & MARTIN CONSULTANTS LTD. SERVING BRITISH COLUMBIA AND ALBERTA
www.aplinmartin.com  Please consider the environment before printing this email.

Confidentiality notice: This e-mail message is intended only for the use of the addressee(s) and may contain information that is privileged and confidential. If you are not the intended recipient, or have received this e-mail in error, please accept our apologies, notify the sender immediately, delete this message and any attachments, and do not perform any further action on this e-mail. Thank you.

.....

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British

Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

From: [REDACTED]@fortisbc.com>
Sent: June 3, 2016 9:56 AM
To: [REDACTED]
Subject: RE: 14-610: Gas Service Conflict - #14883 68 Ave
Attachments: Fortis Estimate 148 St & 68 Ave.doc

Hello [REDACTED]

I have attached a Fortis estimate for 3 gas service alterations that are required to accommodate your 148 St & 68 Ave road improvement project.

Please review and forward a PO# for my records at your earliest convenience.

The gas service at 14883 68 Ave will be altered on Mon June 6th.

The other 2 gas services will be altered approximately July 2016 when your contractor is working at those 2 specific locations.

Do not hesitate to contact me with any questions or concerns.

Regards,

[REDACTED] Technologist
Planning & Design
FortisBC

T: [REDACTED]
[REDACTED]@fortisbc.com

From: [REDACTED]@binnie.com]
Sent: Tuesday, May 31, 2016 12:11 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: 14-610: Gas Service Conflict - #14883 68 Ave

Hi [REDACTED]

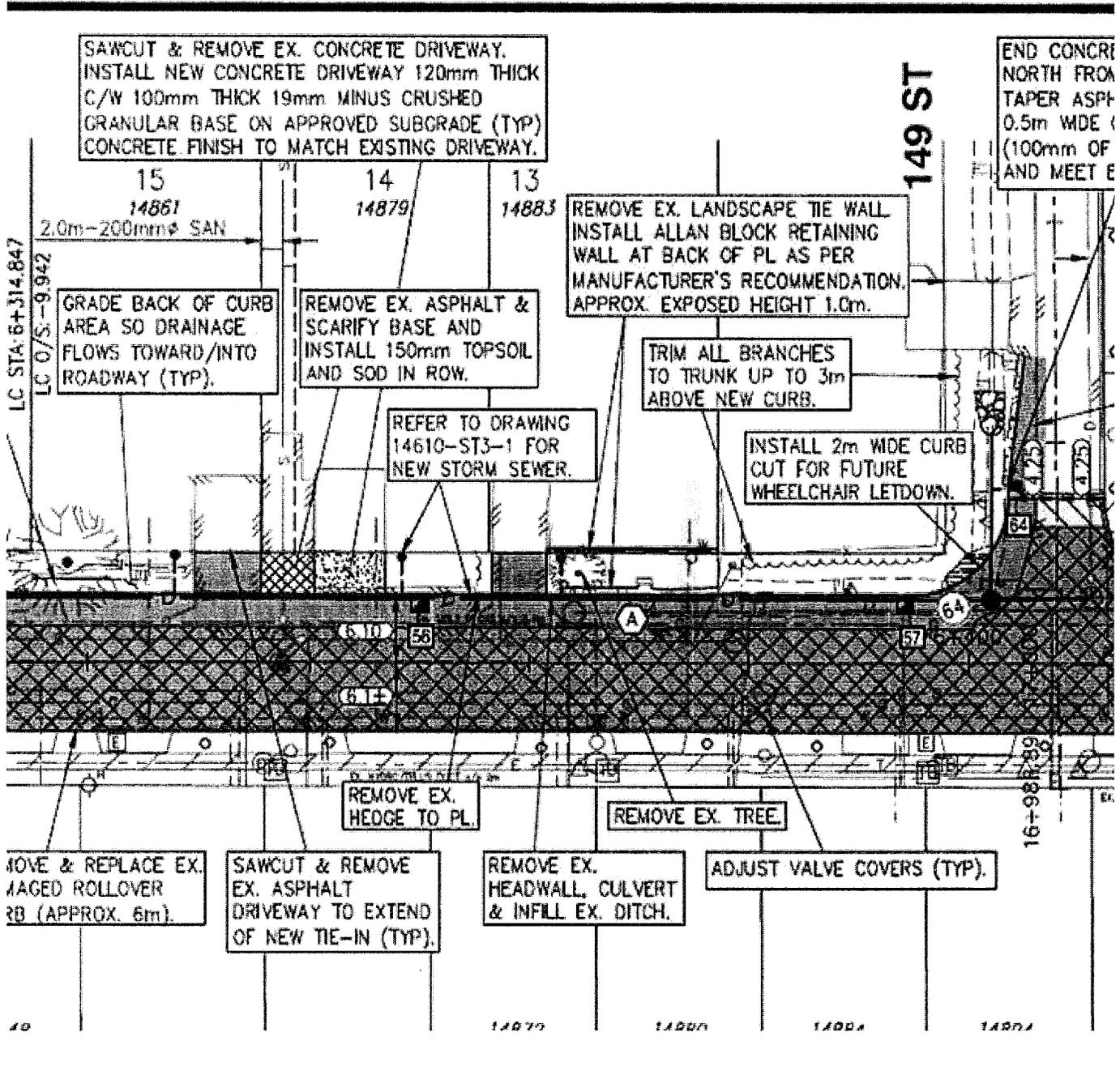
The civil contractor were preparing for the new Allan Block wall to replace the old landscape tie wall at #14883 68 Ave (this work is part of the 68 Ave road widening). They found the existing gas service is shallow and will need to be lowered to build the Allan Block wall.

Can you please arrange to have the gas service lowered?

Thanks,

--
[REDACTED] P.Eng., P.E.
Design Engineer
Direct: [REDACTED]

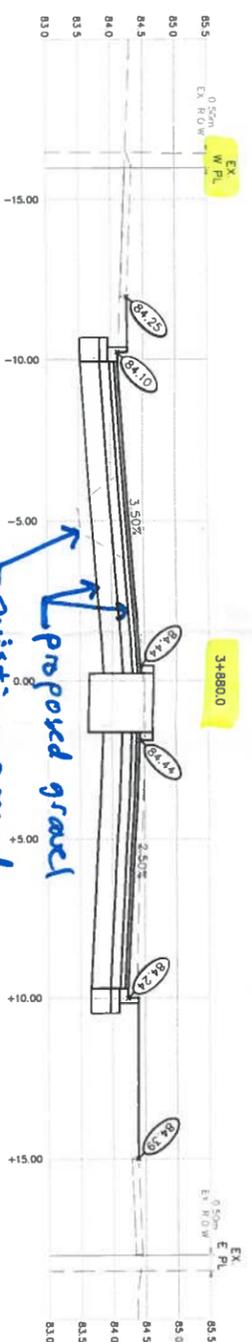
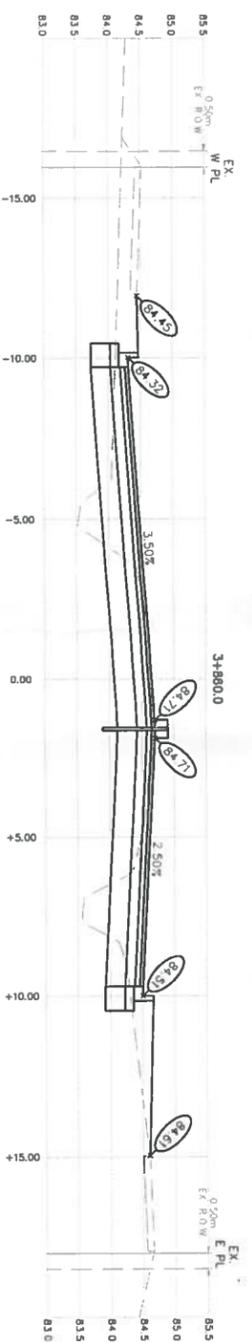
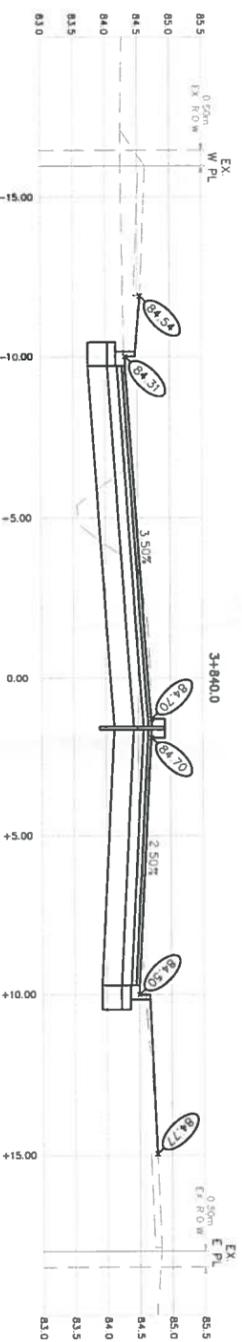
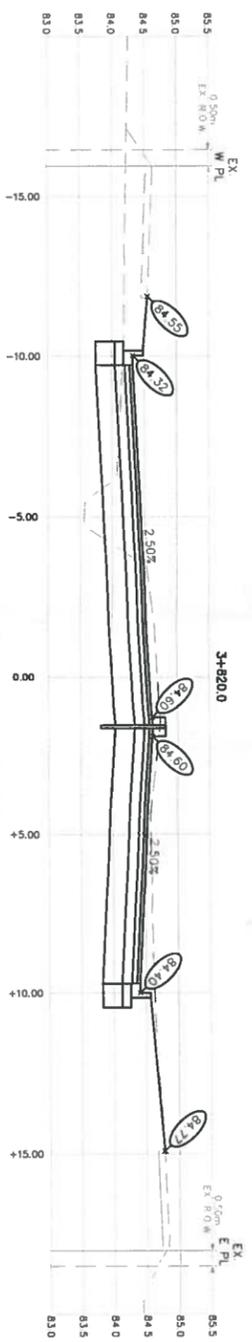
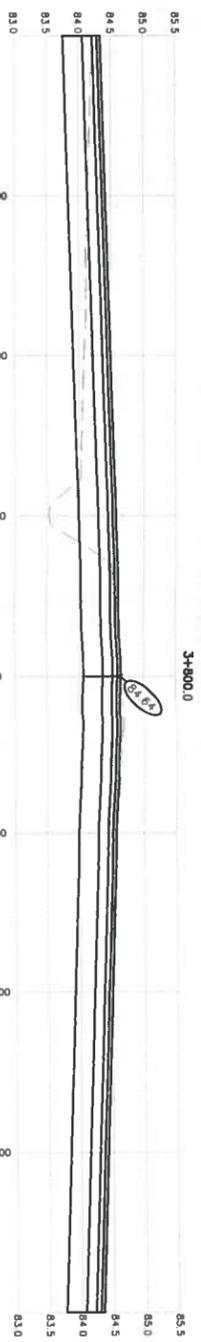
R.F. Binnie & Associates Ltd.
Leading in Quality: OQM Certified March 2013.
101-19232 Enterprise Way



This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](mailto:unsubscribe@fortisbc.com) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings, Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.



REV. NO.	DESCRIPTION	DATE	APP.
1	PROJECT DESIGN SUBMISSION	05/20/11	
2	80% DESIGN SUBMISSION	07/14/11	
3	95% DESIGN SUBMISSION	09/13/12	
4	ISSUED FOR TENDER	09/31/12	

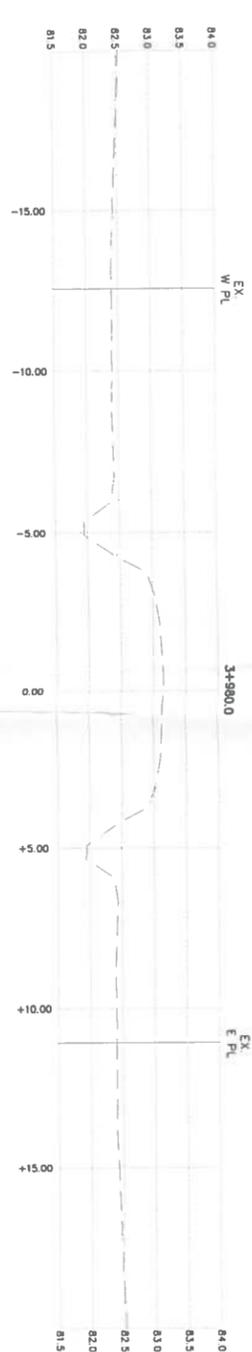
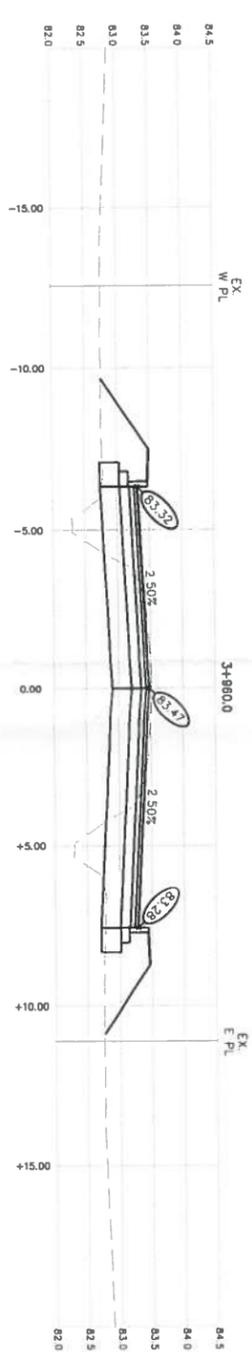
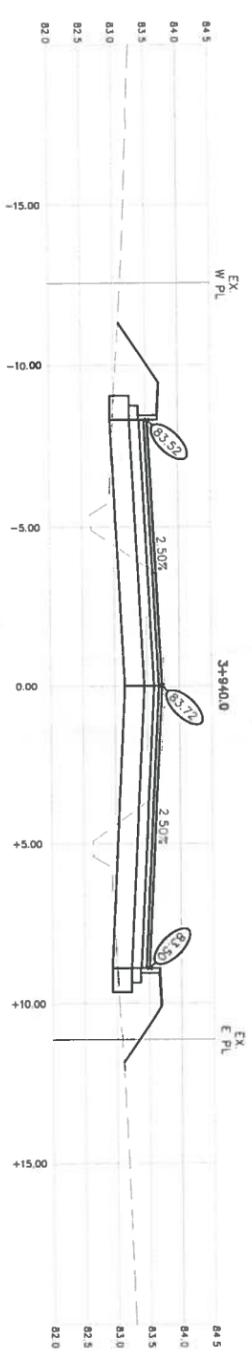
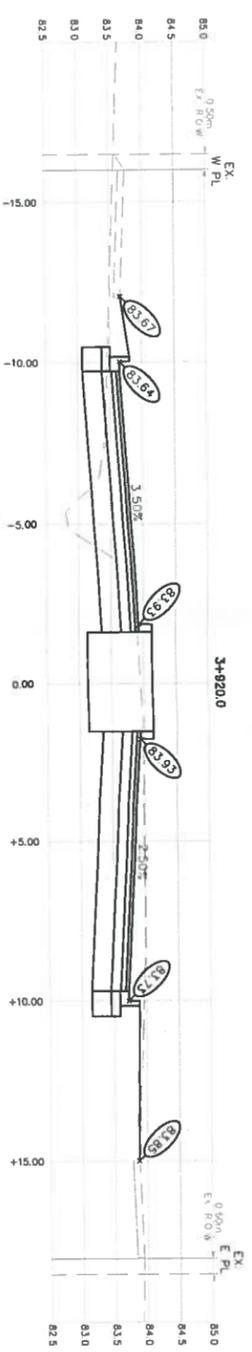
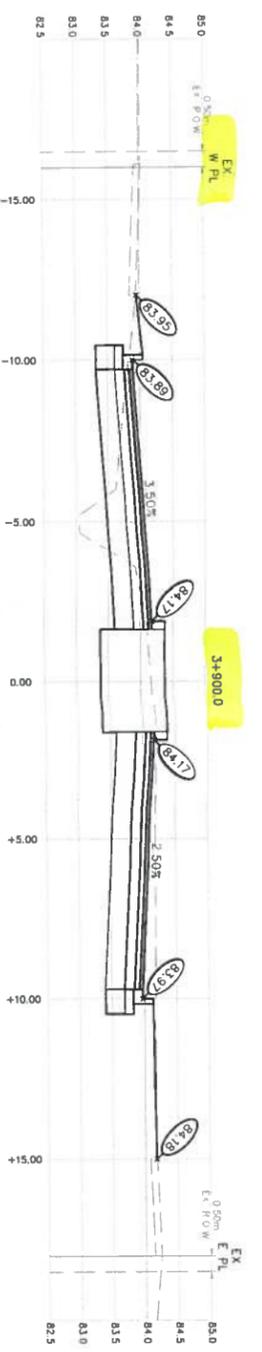
LEGAL DESCRIPTION:
 MOUNTAIN NO. 604 4816 ELEVATION: 82.802
 LOCATED BETWEEN 74 & 72 AVENUE ON 192 STREET CL. (COS DATA)

CLIENT:
CITY OF SURREY
 14245 56 AVENUE, SURREY, BC V3X 3A2
 PH. 604-591-4011

PROJECT:
192 STREET ARTERIAL WIDENING (PHASE 1)
(66A AVENUE - 73 AVENUE)

APL/JN
 MARTIN
 CONSULTANTS LTD
 201 - 12448 82 Avenue, Surrey, B.C. Canada V3W 3E9
 Tel: (604) 597-9058, Fax: (604) 597-9051, Email: general@apljinmartin.com

TITLE	SCALE	DESIGN DRS	CHECK DVC
X-SECTIONS 192 STREET (STA 3+800 - 3+880)	SCALE: VERT: 1:100 A.E.M. DRAWING NO: 26104 - 40	DESIGN DRS DRAWN: DRS	CHECK DVC APPR: DVC
SURREY PACKAGE NO: R08/11		DRAWING DATE: MAY, 2011	REV: 04
SURREY PROJECT NO: 1709-317		SHEET NO: 40 of 46	



REV. NO.	DESCRIPTION	DRS. DYC.	CHK. CH.	DATE	APP.
1	PROJECT DETAILING SUBMISSION	DRS. DYC.		05/20/11	
2	80% DESIGN SUBMISSION	DRS. DYC.		10/14/11	
3	95% DESIGN SUBMISSION	DRS. DYC.		03/13/12	
4	ISSUED FOR TENDER	DRS. DYC.		05/31/12	

LEGAL DESCRIPTION
 B.M. MONUMENT NO. OCM 5816 ELEVATION: 92.902
 LOCATED BETWEEN 74 & 72 AVENUE ON 192 STREET CL. (COS DATUM)

CLIENT:
CITY OF SURREY
 14245 96 AVENUE, SURREY, BC V3V 3A2
 PH: 604-591-1401

PROJECT:
192 STREET ARTERIAL WIDENING (PHASE 1)
(66A AVENUE - 73 AVENUE)

APLIN
 MARTIN
 CONSULTANTS LTD
 PROJECT MANAGER & ENGINEER: P. MARTIN & J. MARTIN
 201 - 12448 82 AVENUE, SURREY, B.C. CANADA V3W 3E9
 TEL: (604) 597-9006, FAX: (604) 597-9011, EMAIL: gmartin@aplincanada.com

TITLE:
X-SECTIONS
192 STREET (STA 3+900 - 3+980)

SURREY PACKAGE NO:
R08/11

SURREY PROJECT NO:
1709-317

SCALE:
 HORIZ: 1:100
 VERT: 1:50
 A & M DRAWING NO:
26104 - 41

DESIGN: DRS
 DRAWN: DRS
 CHECK: DYC
 APPR: DYC

A & M TITLE:
26104

DRAWING DATE:
MAY, 2011

SHEET NO:
41 of 46

REV:
04



16705 Fraser Highway
Surrey, B.C. V4N 0E8
Tel: 1-888-224-2710 (option 2)
www.fortisbc.com

April 10, 2013

City of Surrey
14245 56 Avenue
Surrey, BC V3X 3A2
Attn. [REDACTED]
Engineering Construction Project Supervisor

REVISION 1: GAS SERVICES LOWERING ON WEST SIDE OF 192 STREET, SURREY (N/O 73 AVENUE)

FortisBC Job References:

A. Gas Main Lowering:

Service Order 30605046 (60mm and 42mm DP/PE mains at the east side of 192 Street north of 73 Avenue). (Upon further site review, this order no longer is applicable)

B. Gas Services Lowering [originally, a total of (9) gas services to be lowered. Upon further site review, a total of (13) gas services are anticipated to be lowered]. This is indicated in bold (below):

- Service Order: 30603132 (7313 192 Street)
- Service Order: 30603855 (7317 192 Street)
- Service Order: 30603936 (7319 192 Street)
- Service Order: 30604061 (7323 192 Street)
- Service Order: 30604830 (7325 192 Street)
- **Service Order: 30620154 (7305 192 Street)**
- **Service Order: 30620174 (7311 192 Street)**
- Service Order: 30604833 (7329 192 Street)
- Service Order: 30604957 (7331 192 Street)
- Service Order: 30605017 (7337 192 Street)
- Service Order: 30605022 (7339 192 Street)
- **Service Order: 30620182 (19283 72 Avenue)**
- **Service Order: 30620171 (7307 192 Street)**

Anticipated Start Date:

According to my information communicated to me, our Crews are planning to start work this afternoon (April 10). The Purchase Order (#100-44374) was received from you on February 14. As per emailed correspondences to you today, we will leave the estimated costs as before (considering the additional four gas service lowerings, and the gas main lowering on the east side of 192 Street no longer required).

Scope of work:

Our Crews need to lower our existing gas services (locations listed above), as B&B Contracting will be constructing curbing and sidewalks. Resulting from the change of road grades, these gas services and main have shallow ground cover (below 0.6 metres from top of finished grade). Our Crews originally installed the gas main and gas services with at least 0.6 metres of ground cover (from top of finished road grade). Unless communicated to us previously to the required installation work, this is our standard installation practise.

Assumptions:

1. Crew's work includes digging; lowering of gas main and services; padding of trenched areas; and backfilling.
2. The estimated gas services lowering costs are based on each service (locations indicated above) having a maximum of 12.0 metres of service length needing to be lowered.
3. Coordination of our work with both B&B Contracting and Aplin & Martin.

4. FortisBC providing our own traffic control.
5. FortisBC relighting all existing gas customers who will be affected by this work.

Estimated Cost: \$34,500.00 (\$30,803.57 + \$3,696.43 HST)

Pursuant to the Operating Agreement between the **City of Surrey** and FortisBC Energy Inc. ("FortisBC"), FortisBC provides this Estimate of cost to the **City of Surrey** to carry out the Work. Scheduling of this work will take place in consultation with the **City of Surrey** within reasonable and mutually agreed upon time frames and after:

- (a) The **City of Surrey** has approved all design drawings and the **City of Surrey** had accepted the alignment of the proposed pipeline and has confirmed there is no conflict with other utilities or future plans of the **City of Surrey** including providing to FortisBC the approval of the Municipal Engineer as required by the Operating Agreement;
- (b) The **City of Surrey** has issued a purchase order to FortisBC equal to the amount of the Estimate which purchase order will serve as the formal request by the **City of Surrey** to FortisBC to carry out the Work.

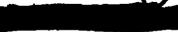
IMPORTANT:

This is a cost estimate only. The actual costs incurred may differ from this Estimate and as such the costs for which the **City of Surrey** is responsible under the Operating Agreement may also differ from this Estimate.

The Estimate is provided to you pursuant to the terms and conditions set out in 'Schedule A' attached.

Regards,

FortisBC Energy Inc.



Planning & Design Technologist 2

Office: 

Mobile: 

Email: @fortisbc.com

Enclosures

SCHEDULE A

1. General

- 1.1. FortisBC's Estimate of the cost **\$34,500 (including HST)** to do certain Work (mentioned above, on page 1) at the west side of 192 Street N/O 73 Avenue, Surrey (the "Site") is an estimate only, and the **City of Surrey** shall be liable for payment for the total cost of the Work. The **City of Surrey** is liable to pay pursuant to the Operating Agreement even if that cost is in excess of the Estimate amount.
- 1.2. The Terms and Conditions, and the Scope of Work are all attached to the Estimate and collectively form part of the Estimate.

2. Access

This Estimate is in part based on the representation made by the **City of Surrey** that it is the owner/lessee of the Site and the land in the proximity of the Site (the "Lands") and that the **City of Surrey** shall provide FortisBC with full and unrestricted access to the Site and the Lands to complete the Work pursuant to this Estimate and the Operating Agreement. FortisBC shall remove its vehicles, equipment and materials from the Lands upon completion of the Work, and leave the lands in a neat and tidy condition and good state of repair considering the nature of the Work completed hereunder.

3. Commencement of the Work

FortisBC shall commence the Work as soon as reasonably practicable having regard to the availability of FortisBC personnel, equipment and materials provided however that FortisBC will not commence the Work until (i) the requirements set out in the Estimate have been satisfied; and (ii) FortisBC and the «City/Municipality» have obtained all permits and approvals described in Section 8.

4. Change Orders and Extra Work

FortisBC may at any time provide written notice of changes to the Work and the cost associated with those changes, and these changes shall become part of the Estimate.

5. Delay

If there is any delay in the Work caused or attributable to the **City of Surrey** then FortisBC may suspend part or all of the Work until the Work can again be performed efficiently, effectively and without delay.

6. Only an Estimate

While FortisBC has used care in arriving at the Estimate, FortisBC does not warrant that the Estimate is a reasonable estimate of the cost of completing the Work.

7. FortisBC to Retain Ownership

All vehicles, equipment, supplies and materials provided by FortisBC, contractor or subcontractor in the course of the Work; howsoever changed, incorporated or used in the Work, shall remain the property of FortisBC, and shall in no event become the property of anyone else.

SCHEDULE A

8. Permits and Approvals

FortisBC shall be responsible for obtaining any permits, certificates and approvals required in connection with the construction, gasification and operation of natural gas pipes, pipelines and associated works. The **City of Surrey** shall be responsible for obtaining all other permits required for the Work unless otherwise agreed in writing between FortisBC and the **City of Surrey**.

9. Confidentiality

- 9.1. All information or documentation received by the **City of Surrey** pertaining to or arising from the Work or the business affairs or trade secrets of FortisBC, including but not limited to the Estimate and labour rates quoted in the Estimate, shall be deemed to be confidential and proprietary to FortisBC. Except as otherwise provided herein, the **City of Surrey** shall not directly or indirectly disclose any such confidential information or documentation to any third party without the prior written consent of FortisBC. Such consent is not required where the third party is another contractor or consultant retained by FortisBC for the purposes of the Estimate and to the extent that such disclosure is necessary for the proper performance of the Work or to the extent that such disclosure is required by law.
- 9.2. Notwithstanding the foregoing, the **City of Surrey** may use such confidential information or documentation pertaining to or arising from the Work in the preparation for and conduct of submissions to regulatory agencies.
- 9.3. The obligation of confidentiality set out above shall not apply to material, data or information which is known to the **City of Surrey** prior to their receipt thereof, which is generally available to the public or which has been obtained from a third party which has the right to disclose the same.

10. Subcontracting

FortisBC may retain the services of a qualified third party to perform some or all of its obligations set out in this Estimate.



PIPELINE AND/OR RIGHT OF WAY PERMIT (Pursuant to the Oil and Gas Activities Act of British Columbia)

Date Issued(Y/M/D) 2016/04/27	Expiry Date(Y/M/D) 2017/12/31	Permit Number: (Use this number when requesting info) 4200012929	BCOne Reference Number
----------------------------------	----------------------------------	---	------------------------

Applicant Information			
Applicant Name City of Surrey	Telephone Number 604-591-4284	Applicant Company Name Ryan Icasiano	Drawing #(s):
Mailing Address: Street No & Name/Apt No./Town/Province 13450 104 Ave Surrey, BC, CA			Postal Code V3T 1V8

Location of Works		
Applicant Name(s) Vacant	Contact Number 000-000-0000	Pipeline Type TP

On-Site Contact Information	
Person On-Site and Contact Number:	

Permit Approval Information	
Permission is hereby granted to construct the following facilities across or near pipelines and/or within pipeline right of way belonging to FortisBC Energy Inc. (hereinafter referred to as FortisBC): install storm sewer and ditch infill	

Work Location and Pipeline Specifications				
Location/Station: 173A ST & 96 AVE Surrey				Class:
1	O.D. 762mm	M.O.P. 4020 kPa	Width	Pipeline Offset
2	O.D. 1066mm	M.O.P. 4020 kPa	Width	Pipeline Offset
3	O.D.	M.O.P.	Width	Pipeline Offset
4	O.D.	M.O.P.	Width	Pipeline Offset

FortisBC Information Only:			
Functional Location: B-LE-SUR-030 E(X) Coordinates: N(Y) Coordinates: UTM Zone :	ROW File #: FN161.R	Employee Charge Number, Service Order Number: 30856137	Plate Map/Mosaic #: 92G.017.073.4

Inspection and Notification		
FortisBC Energy Inc. Surrey Operations Center 16705 Fraser Highway Surrey BC, V4N 0E8	FortisBC Representative: Gord Spelay	Telephone: (604) 328-9203

FortisBC Permit Consent	
Signature LEONA SCHAFER	For: JEFF DELA CRUZ Date: MARCH 09, 2017
Print Name	Date

**PIPELINE AND/OR
RIGHT OF WAY PERMIT** (Pursuant to the Oil and Gas Activities Act of British Columbia)

Date Issued(Y/M/D) 2016/04/27	Expiry Date(Y/M/D) 2017/12/31	Permit Number: (Use this number when requesting info) 4200012929	BCOne Reference Number
---	---	--	-------------------------------

***** VERY IMPORTANT *** (Must be read and understood)**

Upon receipt of this Permit from FortisBC, it shall be the responsibility of the Applicant or his Agent to provide FortisBC with a minimum of seventy-two (72) hours notice, excluding Saturdays, Sundays and holidays, which is mandatory by law, prior to the start of any construction or excavation work, FortisBC will dispatch a representative. The Applicant may, at the discretion of FortisBC, be charged for such inspection costs. The applicant will be charged for inspection costs that require a FortisBC representative to be on site to meet the contractor's needs, beyond normal working hours Monday - Friday, weekends and statutory holidays.

A copy of this Permit and related drawings must be on the job site prior to commencement of any work.

Do not proceed without a FortisBC Representative on site. Construction, excavation or backfilling may not take place on a FortisBC Right of Way or in the vicinity of FortisBC facilities unless a FortisBC Representative is present.

Non compliance with any of the Terms and Conditions of this permit will result in construction delays or permit cancellation.

SPECIAL CONDITIONS

- All conditions contained in this permit are subject to the onsite approval of the FortisBC Pipeline and Right of Way Inspector. No activity is to take place without a FortisBC Inspector on site.

The applicant is to ensure that all applicable WCB Regulations are complied with prior to the commencement of any work near FortisBC facilities. (WCB Regulation 20.79)

The FortisBC consent granted under this permit is contingent on the Applicant first obtaining consent from the registered property owner, and all affected stakeholders where separate approval is required. These stakeholders include, but are not limited to; BC Hydro, Work Safe BC, Municipal, Provincial, Federal Authorities.

- This permit is strictly for installation of storm sewer and ditch infill. It must not be used for any other work purpose other than the above.
- If the applicant wants to do any other works then they must obtain another permit specific to that job.
- The applicant is responsible for ensuring that their proposed facilities/works will not damage, impair the usefulness or safety of, or interfere with the existing FortisBC facilities and, prior to commencing the work under this permit, the applicant shall undertake the necessary due diligence and engineering assessment to ensure its proposed facilities will not damage, impair the usefulness or safety of, or interfere with the existing FortisBC facilities. The applicant shall provide copies of all reports and assessments to FortisBC upon request.
- Prior to the works, the location of FortisBC gas lines must be clearly marked in the field.

**PIPELINE AND/OR
RIGHT OF WAY PERMIT** (Pursuant to the Oil and Gas Activities Act of British Columbia)

Date Issued(Y/M/D)	Expiry Date(Y/M/D)	Permit Number: (Use this number when requesting info)	BCOne Reference Number
2016/04/27	2017/12/31	4200012929	

- The applicant must ensure that the whole operation is cautiously executed and at no times, FortisBC gas line is subject to risk.
- Minimum 0.3m separation between gas pipeline and utility.
- Crossing angle of utility must be between 45 and 90 degrees to the gas pipeline.
- The applicant must ensure that a good stable crossing surface is installed so that there is no loss of soil cover over FortisBC gas pipeline.
- Exact location of gas pipeline shall be determined by hand excavation. Machine excavation is not permitted within 1m of gas pipeline.
- Prior to the installation of the utility, it is recommended that the applicant "daylight" the gas pipeline at the crossing location to determine the elevation of either the invert/crown of the pipeline.
- Pipe joints are not to be located directly above or near the gas pipeline. The crossing pipe section should be centered over the gas pipeline.
- Catch basins and manholes are not permitted within the right of way.
- The stockpiling of excavated, building or other materials within the right of way is prohibited.
- There is to be no deterioration of soil stability or drainage patterns within the right of way.
- All fill material placed within the right of way must be clean and free of any hazardous substances.
- No widening of existing road.
- Concrete slabs are required at ditch and creek locations where there will be less than 1.0 m of cover over the pipeline.
- The designed depth of cover over FortisBC gas pipeline must satisfy the following standard unless written consent has been provided by FortisBC:

i.	Minimum Depth of Cover:	1.2 meters (4')
ii.	Maximum Depth of Cover:	1.8 meters (6')
- No vibratory rollers permitted over FortisBC gas pipeline. Static rollers only.
- Insure the pressure wand is in motion at all times.
- Build a sump, below the level of the pipeline that is being exposed, to limit the amount of abrasive material available to impinge onto the pipeline.
- Inspect the pipeline for damage to the coating and steel before backfilling.
- Additional activities not identified on the permit are not permitted without the prior written consent of FortisBC.

**PIPELINE AND/OR
RIGHT OF WAY PERMIT** (Pursuant to the Oil and Gas Activities Act of British Columbia)

Date Issued(Y/M/D)	Expiry Date(Y/M/D)	Permit Number: (Use this number when requesting info)	BCOne Reference Number
2016/04/27	2017/12/31	4200012929	

TERMS AND CONDITIONS

- A.** It shall be the responsibility of the Applicant to hand-expose the gas pipeline facility, in the presence of the FortisBC Representative, to ascertain its exact location and to excavate and backfill a minimum of one (1) metre in any direction of the gas pipeline by hand, with particular attention being taken not to damage the gas pipeline coating.
- B.** Once the Works have commenced, they shall be carried out as expeditiously as possible and backfilling over the gas pipeline shall be completed as soon as possible.
- C.** Gas pipelines left suspended in excavations greater than three (3) metres in length shall be adequately supported. In all excavations where a gas pipeline has been exposed, backfill shall be compacted to at least the top of the pipe.
- D.** Any changes made to the design or the conditions under this Permit must be approved by FortisBC prior to commencement of Works, as required by the Oil and Gas Activities Act of British Columbia or any amendments thereto which may come into force from time to time. Approval for minor changes may be obtained by verbal communication followed by as-built drawings within fifteen (15) days of the installation. For major changes, re-application will be necessary.
- E.** Any person assigned by FortisBC to inspect the Works shall have unrestricted access to the job site at all times, but full responsibility for the safe performance of the work remains with the owner of the Works and the contractor responsible for the Works. FortisBC personnel will not enter an unsafe work area that is not in compliance with WorkSafeBC regulations.
- F.** The Applicant shall ensure that all subcontractors comply with all the requirements as contained herein and that they are adhered to in all respects.
- G.** The Applicant shall indemnify and save harmless FortisBC against any and from all costs, damages, actions, proceedings, claims and demands, whatsoever arising and by whosoever incurred, brought, made or prosecuted, caused directly or indirectly as a result of the Works.
- H.** The Applicant releases FortisBC of and from all manner of action, suit, debts, dues, sums of money, claims, demands whatsoever, either at law or in equity, which it has or may at some time have, by reason of the existence or operation of the gas pipeline(s) except insofar as a result from the negligence of FortisBC.
- I.** The Applicant agrees that prior to commencing Works within the FortisBC pipeline right of way or near FortisBC facilities it will obtain the necessary permits, orders or authorization from all Authorities having jurisdiction over such activities and all parties having an interest in any lands affected by such activities.
- J.** This approved Permit may be cancelled at any time prior to or after commencement of the Works stipulated on this Permit by FortisBC should the Applicant fail to observe and perform the conditions outlined in this Permit and instructions of the FortisBC Representative on site.
- K.** This Permit is valid for a period of up to one year after the date issued. If the Works have not been completed within one year then re-application for the Works will be necessary.

**PIPELINE AND/OR
RIGHT OF WAY PERMIT** (Pursuant to the Oil and Gas Activities Act of British Columbia)

Date Issued(Y/M/D)	Expiry Date(Y/M/D)	Permit Number: (Use this number when requesting info)	BCOne Reference Number
2016/04/27	2017/12/31	4200012929	

L. WORKSAFEBBC

Regulation 20.79 - Underground Utilities

- (1) Before excavating or drilling with powered tools and equipment, the location of all underground utility services in the area must be accurately determined, and any danger to workers from services must be controlled.
- (2) Excavation or drilling in proximity to an underground service must be undertaken in conformity with the requirements of the owner of the service and with the requirements of the applicable regulations of the provincial or federal authority having jurisdiction.
- (3) Pointed tools must not be used to probe for underground gas and electrical services.
- (4) Powered equipment used for excavating must be operated so as to avoid damage to underground utility services or danger to workers.

M. If necessary, the applicant must obtain prior approvals from landowners and other concerning agencies before the commencement of proposed works.

Neuman, Scott

From: [REDACTED]
Sent: September 21, 2017 8:25 AM
To: Neuman, Scott
Subject: Fwd: [External Email] - RE: Permit
Attachments: image001.jpg

FYI

Sent from my iPhone

Begin forwarded message:

From: [REDACTED]@fortisbc.com>
Date: September 21, 2017 at 7:52:44 AM PDT
To: [REDACTED]@surrey.ca>
Subject: Re: [External Email] - RE: Permit

Good morning. Each situation is to be approved by engineering and can vary so there is no general rule except a minimum of 12" separation which will be required in this case.

[REDACTED], CTech
FortisBC Right of Way Inspector
[REDACTED]@fortisbc.com<mailto:[REDACTED]@fortisbc.com>
[REDACTED]

16705 Fraser Highway
Surrey, BC V4N 0E8

On Sep 20, 2017, at 3:17 PM, [REDACTED]
<[REDACTED]@surrey.ca<mailto:[REDACTED]@surrey.ca>> wrote:

**** THIS IS AN EXTERNAL EMAIL **** Use caution before opening links / attachments.

Thanks [REDACTED]

Can you please clarify the cover specifications within creeks and ditches as per our conversation.

Regards,
[REDACTED] | Project Supervisor

CITY OF SURREY
Design and Construction Division
13450 104th Ave, Surrey, BC, Canada V3T 1V8
T [REDACTED], Cell [REDACTED] | www.surrey.ca

From: [REDACTED] [mailto:[REDACTED]@fortisbc.com]
Sent: September-20-17 3:04 PM
To: [REDACTED]
Subject:

Hi [REDACTED]

Permit attached.

[REDACTED], CTech
Pipeline Right-of-Way Inspector
16705 Fraser Highway | Surrey BC V4N 0E8
• [REDACTED]
•: [REDACTED]@fortisbc.com<mailto:[REDACTED]@fortisbc.com>
<image001.jpg>
ü Please consider the environment before printing this email.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can unsubscribe<<http://www.fortisbc.com/About/Newsletters/Unsubscribe/Pages/default.aspx>> from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com<<mailto:unsubscribe@fortisbc.com>>.

*"FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can unsubscribe<<http://www.fortisbc.com/About/Newsletters/Unsubscribe/Pages/default.aspx>> from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com<<mailto:unsubscribe@fortisbc.com>>.

*"FortisBC" refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis

Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

Neuman, Scott

From: [REDACTED]
Sent: September 12, 2017 12:41 PM
To: Neuman, Scott
Subject: FW: [External Email] - RE: Permit Application - 10523 140B St, Surrey

[REDACTED], B.Tech. | Early Works Lead & City Infrastructure

Engineering Department, Rapid Transit
13450-104 Avenue, Surrey, BC, Canada V3T 1V8
T [REDACTED] | www.surrey.ca

Please consider the environment before printing this email

From: [REDACTED]y [mailto:[REDACTED]@fortisbc.com]
Sent: September-11-17 1:49 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: [External Email] - RE: Permit Application - 10523 140B St, Surrey

Hi [REDACTED],

Our Engineering department has completed the assessment for this proposed new road.

Here are the requirements and recommendation prior to any road construction:

1. Prior to any road construction, the existing 610mm transmission pressure gas pipeline shall be exposed for the length of the road boundaries with 1.5m buffer on each side of the travelled surface of the road. Ones exposed, the pipeline shall be thoroughly inspected for defects including coating damage, corrosion, dents, etc with repair if necessary; and all existing pipeline welds exposed shall be non-destructively tested or repairs conducted as approved by FortisBC Engineering.
2. The vehicle crossing shall be constructed so that the angle between the centerline of the road and the centerline of the pipeline as as close to 90 degrees as possible and in no case less than 45 degrees.
3. Final depth of cover above the gas lines within the road allowance shall be a minimum of the following:
 - o 1200mm under all traveled road services
4. Selection, placement and compaction of the soil used for embedment and backfill shall meet the requirement outlined in FortisBC standard.

Our Engineering is currently performing the cost estimate for this project. As soon as I hear back from them I will let you know. Are we going to address the quotation to the City of Surrey?

Thanks,

[REDACTED], ASCT
Pipeline Right-of-Way Representative
FortisBC | Property Services

16705 Fraser Highway | Surrey | BC | V4N 0E8
Tel: [REDACTED] | Fax: [REDACTED]
[REDACTED]@fortisbc.com

 Please consider the environment before printing this email.

From: [REDACTED]@aplinmartin.com]
Sent: Tuesday, August 22, 2017 11:28 AM
To: [REDACTED]@fortisbc.com>
Cc: [REDACTED]@surrey.ca) [REDACTED]@surrey.ca>
Subject: [External Email] - RE: Permit Application - 10523 140B St, Surrey

**** THIS IS AN EXTERNAL EMAIL **** Use caution before opening links / attachments.

Hi [REDACTED]:

Please see attached for your reference.

Thanks,

[REDACTED], EIT
Engineering Designer
Office: [REDACTED]
Mobile: [REDACTED]
[File Upload](#)



APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

MAKING SUSTAINABLE COMMUNITIES A REALITY

www.aplinmartin.com



Please consider the environment before printing this email

Confidentiality notice: This e-mail message is intended only for the use of the addressee(s) and may contain information that is privileged and confidential. If you are not the intended recipient, or have received this e-mail in error, please accept our apologies, notify the sender immediately, delete this message and any attachments, and do not perform any further action on this e-mail. Thank you.

From: [REDACTED] [mailto:[REDACTED]@fortisbc.com]
Sent: August-16-17 1:46 PM
To: [REDACTED]@aplinmartin.com>
Subject: Permit Application - 10523 140B St, Surrey

Hi [REDACTED]:

I am reviewing your proposed permit application for the above site address. Since this is for a new road construction, I will have to get an Engineering assessment to see if the existing gas pipeline can withstand the proposed road. Could you please forward me a copy of geotechnical soil condition report for this new road construction? Our Engineering department will require this on their assessment.

Thanks,

[REDACTED] ASCT
Pipeline Right-of-Way Representative

FortisBC | Property Services
16705 Fraser Highway | Surrey | BC | V4N 0E8
Tel: [REDACTED] | Fax: [REDACTED]
[REDACTED]@fortisbc.com

 Please consider the environment before printing this email.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

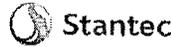
This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

This email was sent to you by FortisBC*. The contact information to reach an authorized representative of FortisBC is 16705 Fraser Highway, Surrey, British Columbia, V4N 0E8, Attention: Communications Department. You can [unsubscribe](#) from receiving further emails from FortisBC or email us at unsubscribe@fortisbc.com.

**FortisBC* refers to the FortisBC group of companies which includes FortisBC Holdings. Inc., FortisBC Energy Inc., FortisBC Inc., FortisBC Alternative Energy Services Inc. and Fortis Generation Inc.

This e-mail is the property of FortisBC and may contain confidential material for the sole use of the intended recipient(s). Any review, use, distribution or disclosure by others is strictly prohibited. FortisBC does not accept liability for any errors or omissions which arise as a result of e-mail transmission. If you are not the intended recipient, please contact the sender immediately and delete all copies of the message including removal from your hard drive. Thank you.

steer daviess gleave



Memo

To [REDACTED] - Translink
 CC [REDACTED] - Hatch
 From [REDACTED] - Hatch Mott MacDonald JV
 Prepared by Stantec Consulting Ltd.
 [REDACTED]
 Date 14 July 2016
 Project South of Fraser Rapid Transit – Design Freeze 2

350135-UT-311-A0-0004

Project No. 350135

Fortis Working Paper

The following summarizes information obtained to date regarding Fortis infrastructure and proposed relocation works to assess utility requirements along the proposed South of Fraser Rapid Transit (SoFRT) project Newton-Guildford Line from the Guildford Terminus west of 152nd Street to the Newton Terminus south of 72nd Avenue in Surrey, BC.

Fortis Meetings

- Two meetings were held with Fortis BC. An introductory meeting was held March 23, 2016 and a follow up meeting was held June 2 with Bill Padda of Fortis to review details.

Fortis Record Drawings

- Record drawings along the proposed alignment were obtained through BC One Call.

Utility Overview

- The distribution system along 104th Avenue was installed using steel mains.
- King George Boulevard is a mixture of steel and HDPE mains.
- The depth of the transmission crossings can not be confirmed; however they are likely in the range of 1.2m cover.
- Fortis is currently designing the twinning of the Nicole to Roebuck main on King George Boulevard with the intent to construct in 2017.

Design Considerations

- Fortis distribution would be replaced with HDPE lines as required.
- A minimum 0.8m offset from property line would acceptable for distribution mains.
- Distribution mains have a minimum of 0.6m cover.

- If replacing an existing steel distribution system with HDPE the entire system including services require upgrade to avoid corrosion issues. This would require upgrade of the service from property line to the gas meter.
- Casings for service crossings would be considered to reduce future costs.
- Adjustment to the existing Transmission Mains would likely be done by directional drilling to minimize impact to the local roadways
- No casings would be required for the Transmission Main crossings. Design would take into consideration loading and installation method so that the appropriate pipe material is selected.
- Fortis would be open to confirming the depth of the existing Transmission Mains crossing 104th Avenue and King George Boulevard. Arrangements could be made to retain Fortis directly or through an approved contractor. Permits would be required.

Schedule Consideration

- Work on Transmission Mains is preferred in the summer to reduce risk to customers.
- Peak demand window is October to April.

Construction Consideration

- Fortis is open to certified contractors working on their infrastructure with proper Fortis inspection.
- Fortis is open to working with the Proponent regarding work schedules and work areas once the project commences.

Cost Implications

- High level budgetary numbers associated with the proposed works were provided by Fortis for reference. These budgetary numbers were based on some of the following assumptions:
 - Direct impacts to system as assessed by Fortis
 - Works to include complete restoration
 - Upgrade of Transmission Mains would be done live as currently there are no provisions for bypassing flows in these lines (this is reflected in the high cost of the upgrades)
- Upon completion of the Nicole to Roebuck twinning the cost to upgrade the existing 610mm diameter Transmission Main on King George Boulevard would be reduced.
- Synergies between the Proponent and Fortis during construction would see cost savings. Fortis would be open to concepts involving common trenching. Also with the scale of the proposed reconstruction restoration cost could be reduced through coordination of work.

Attachments

The following documents are attached for reference:

1. Fortis BC High level estimate 104th and KGB



CITY POLICY

No. H-25

REFERENCE:	APPROVED BY:	MUNICIPAL COUNCIL
REGULAR COUNCIL MINUTES 24 NOVEMBER 2008 CORPORATE REPORT R224	DATE:	NOVEMBER 24, 2008 (RES.R08-2568)
	HISTORY:	03 OCTOBER 2005 04 FEBRUARY 1991 20 NOVEMBER 1989

TITLE: EXCESS OR EXTENDED SERVICES – FRONTAGE LATECOMER AGREEMENTS

1. Where the City has required a developer to provide a highway or water, sewer, or drainage facilities that serves or fronts land other than the land being subdivided or developed, this policy shall apply.
2. The Applicant shall pay all the costs of the road, water, sanitary sewer, or storm sewer extension, and may apply to the City to enter into a Latecomer Agreement in accordance with this policy.
3. Under the Latecomer Agreement, the City shall impose a charge on subsequent owners who obtain physical access to, connect to, front or benefit from the extension. Such charge shall be paid to the City who will, in turn, pay the frontender on a semi-annual basis.
4. The City may pay the cost of upsizing the road, water, storm sewer or sanitary sewer systems, or the provision of additional works not required by the Subdivision & Development By-law, subject to funding availability and policy. The developer shall not be eligible for latecomer benefits on any upsizing or additional component of system extensions paid for by Surrey.
5. The cost of the extension used to determine the latecomer charges shall be based on the actual cost of the extension required to serve the frontender's land in accordance with the standards prescribed in the Subdivision and Development By-law No. 8830. The cost of the extension shall only include the following:

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.

- (i) land or rights-of-way acquisition costs (only those incurred outside the Applicant's land);
- (ii) actual construction costs;
- (iii) design and inspection costs;

all as certified by a Professional Engineer and as agreed to by the General Manager of Engineering.

The General Manager of Engineering reserves the right to request three public tender prices for costs submitted under Section 5(ii).

6. Within the benefiting lands of a Latecomer Agreement, the road, water, storm, and sanitary latecomer charge per metre shall be calculated from the costs of the works determined in Section 5., divided by the total amount of benefiting frontage.
7. All latecomer charges collected by the City, will be paid semi-annually to the frontender. No payment shall be made after the Latecomer Agreement has expired. The total amount paid to any frontender under the Latecomer Agreement during the entire term of the Agreement shall not exceed the total cost of the extension plus accumulated interest minus the frontender share of the costs.
8. All lands that were connected to the City system adequate for the existing Zone and use prior to a Latecomer Agreement are exempt from latecomer charges except where a new or larger connection is applied for.
9. A property owner who already had an existing connection to a road, or already fronted a Municipal main of adequate size and capacity for the intended land use prior to the date of a Latecomer Agreement is exempt from all payments under Section 3 for those works that were already connected unless the property is developed to a higher density.
10. Exempt properties shall not be taken into account when calculating the total amount of benefiting frontage.
11. The latecomer charges shall be escalated by an interest rate prescribed in the Surrey Subdivision and Development By-law No. 8830. The accumulation of interest shall be compounded annually on the anniversary date of the completion of the extension.

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.

12. An owner within the benefiting lands shall pay, at the time of application for connection, a latecomer charge equal to the unit latecomer charge, multiplied by the benefiting frontage for that lot unless waived from the Latecomer Agreement by the Applicant.
13. The Applicant may choose to waive or eliminate latecomer charges for certain lands within the benefiting land. Waived properties shall be taken into account when calculating the total amount of benefiting frontage.
14. The term of the Latecomer Agreement shall not exceed 15 years; however, the Latecomer Agreement shall become null and void when all extension costs have been collected and paid to the frontender.
15. No provision of this policy shall be deemed to exempt any land from payment of frontage taxes, development cost charges or any like charges or fees imposed by any by-law of the City.
16. No provision of this policy shall be deemed to be held to limit or restrict the City Council from exercising full jurisdiction and control over the operations of the extended Municipal system, nor shall it exempt any person receiving service thereby from any regulation, order or By-law of the Municipality.
17. If a developer has entered into a Servicing Agreement, or has commenced construction of works prior to the application for Latecomer Agreement, they shall be deemed to have forfeited their right to receive latecomer benefits.
18. The General Manager of Engineering is authorized to adopt a procedure which implements this policy.
19. See the Engineering Department document titled "Latecomer Procedure Manual" for a definition of terms used in this policy.

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.



CITY POLICY

No. H-43

REFERENCE:	APPROVED BY:	CITY COUNCIL
REGULAR COUNCIL MINUTES 24 NOVEMBER 2008 CORPORATE REPORT R224	DATE:	NOVEMBER 24, 2008 (RES.R08-2568)
	HISTORY:	OCTOBER 3, 2005 MARCH 27, 1995

TITLE: EXCESS OR EXTENDED SERVICES - AREA LATECOMER AGREEMENTS

1. Where the City has required a developer to provide a sanitary sewer pump station or drainage pump station and/or related appurtenances that serves land other than the land being subdivided or developed, this policy shall apply.
2. The Applicant shall pay all the costs of the Works and may apply to the City to enter into an Area Latecomer Agreement in accordance with this policy.
3. Under the Area Latecomer Agreement, the City shall impose a charge on subsequent owners who obtain benefit from the Works. Such charge shall be paid to the City who will, in turn, pay the frontender on a semi-annual basis.
4. The City may pay the cost of upsizing the Works, or the provision of additional works not required by the Subdivision & Development By-law No. 8830, subject to funding availability and policy. The developer shall not be eligible for latecomer benefits on any upsizing or additional component of system extensions paid for by Surrey.
5. The cost of the Works used to determine the latecomer charges shall be based on the actual cost of the Works required to serve the frontender and benefiting lands in accordance with the standards prescribed in the Subdivision and Development By-law No. 8830. The cost of the extension shall only include the following:
 - (i) land or rights-of-way acquisition costs (only those incurred outside the Applicant's land);
 - (ii) actual construction costs;
 - (iii) design and inspection costs for the works;

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.

all as certified by a Professional Engineer and as agreed to by the General Manager of Engineering.

The General Manager of Engineering reserves the right to request three public tender prices for costs submitted under Section 5(ii).

6. Within the benefiting lands of an Area Latecomer Agreement, the latecomer charge per hectare shall be calculated from the costs of the work determined in Section 5., divided by the total amount of gross developable benefiting area.
7. All latecomer charges collected by the City, will be paid semi-annually to the frontender. No payment shall be made after the Area Latecomer Agreement has expired. The total amount paid to any frontender under the Area Latecomer Agreement during the entire term of the Agreement shall not exceed the total cost of the extension plus accumulated interest, minus the frontender share of the costs.
8. All lands that were connected to City system adequate for the existing Zone and use prior to an Area Latecomer Agreement are exempt from latecomer charges.
9. Exempt properties shall not be taken into account when calculating the total amount of benefiting area.
10. The latecomer charges shall be escalated by an interest rate prescribed in the Surrey Subdivision and Development By-law No. 8830. The accumulation of interest shall be compounded annually on the anniversary date of the completion of the extension.
11. An owner within the benefiting lands shall pay, at the time of Rezone, or Subdivision, or application for connection, a latecomer charge equal to the unit latecomer charge, multiplied by the benefiting area for that lot unless waived from the Area Latecomer Agreement by the Applicant.
12. The Applicant may choose to waive or eliminate latecomer charges for certain lands within the benefiting lands. Waived properties shall be taken into account when calculating the total amount of benefiting area.
13. The term of the Area Latecomer Agreement shall not exceed 15 years; however, the Area Latecomer Agreement shall become null and void when all works costs in excess of the frontender costs have been collected and paid to the frontender.
14. No provision of this policy shall be deemed to exempt any land from payment of frontage taxes, development cost charges or any like charges or fees imposed by any by-law of the City.

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.

-
15. No provision of this policy shall be deemed to be held to limit or restrict the City Council from exercising full jurisdiction and control over the operations of the extended Municipal system, nor shall it exempt any person receiving service thereby from any regulation, order or By-law of the City.
 16. If a developer has entered into a Servicing Agreement or has commenced construction of works prior to the application for an Area Latecomer Agreement, they shall be deemed to have forfeited their right to receive latecomer benefits.
 17. The General Manager of Engineering is authorized to adopt a procedure which implements this policy.
 18. See the Engineering Department document titled "Latecomer Procedure Manual" for a definition of terms used in this policy.

* This policy is subject to any specific provisions of the Local Government Act, or other relevant legislation or Union agreement.



Engineering Department PRACTICE

No. LD6

AUTHORITY: H-1

APPROVED BY: _____

Fraser Smith
General Manager, Engineering

REFERENCE:

SUPERSEDES: LD8 dated January 1, 1992

TITLE: GUIDELINES FOR THE APPLICATION OF DEVELOPMENT COORDINATED WORKS (DCW) AND UPSIZING WORKS

1. The use of development coordinated works (DCW) is to provide additional City infrastructure that are not required by the developer as per the Subdivision & Development Bylaw, No. 8830, as amended nor specifically identified in the 10 Year Servicing Plan in conjunction with a development application.
 - 1.1. The demand for DCW may exceed the budget available and the decision to proceed should follow the guidelines flowchart.
 - 1.2. The developer must agree to construct the DCW which should generally be limited to no more than 50% of the total construction value in the Servicing Agreement.
 - 1.3. The application of DCW will typically include the following:
 - a) Sidewalks, pedestrian letdowns and other pedestrian infrastructure;
 - b) Curb & gutter, catch basins, medians;
 - c) Pavement widening and repair;
 - d) Street lighting; and/or
 - e) Service connections.

2. The use of upsizing funds is to upsize the infrastructure from the minimum servicing requirement as identified in the Subdivision & Development Bylaw, No. 8830, as amended, to the necessary standard as identified by the Asset Program in conjunction with a development application.
 - 2.1 The demand for upsizing works may exceed the available budget and should follow the guideline flowchart.
 - 2.2 The developer must include the upsizing works as part of the Servicing Agreement in order to provide the efficient delivery of City infrastructure.
 - 2.3 The application of upsizing works will be used for the following:
 - a) Upgrading to the Collector Road Standard;
 - b) Water main upsize;
 - c) Sanitary sewer main upsize; and/or

d) Storm trunk main upsize.

g:\wp-docs\practice & procedures\2016 updates\o6-land development\ld6 guidelines for the application of development coordinated works (practice).docx
JS 8/22/17 9:34 AM



CITY OF SURREY
ENGINEERING DEPARTMENT

P R O C E D U R E

Page 1 of 1

No. LD6-P

AUTHORITY: **H-1**

APPROVED BY: _____
Fraser Smith
General Manager, Engineering

REFERENCE:

DATE:

SUPERSEDES: LD8-P dated January 1, 1992

TITLE: GUIDELINES FOR THE APPLICATION OF DEVELOPMENT COORDINATED WORKS (DCW) AND UPSIZING WORKS

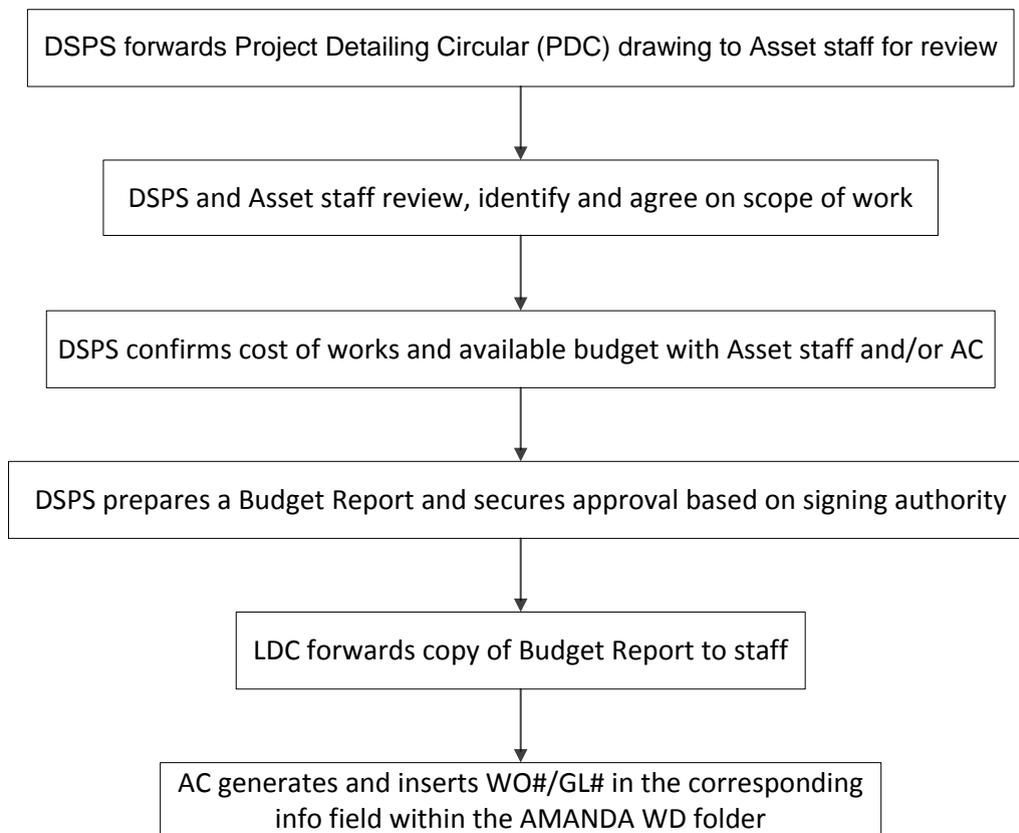
1. The application of funds for improvements is in the following general priority:
 - 1.1 Sidewalks/ditch enclosure on arterial roads.
 - 1.2 Widening to 6-metre pavement.
 - 1.3 Ditch enclosure – non arterial roads.
 - 1.4 Sidewalk – non-arterial roads.
 - 1.5 Paving of gravel shoulders.
 - 1.6 Street lighting.
 - 1.7 Curb and gutter.
 - 1.8 Upsizing of utilities (sewer, drainage, water).
 - 1.9 Upsizing of collector roads.
 - 1.10 Service connections (SDR, DDR, WDR).
 - 1.11 School and/or park frontages.

2. The hierarchy of roads for the application of funds is:
 - 2.1 Major Road Network
 - 2.2 Arterials
 - 2.3 Collectors
 - 2.4 Locals

3. Land Development project that requires work on Tier 1 Major Road Network (MRN) and Arterial roads is to utilize one of the pre-qualified Tier 1 paving contractors defined by the Engineering Department.

GUIDELINES FOR THE APPLICATION OF:

- **DEVELOPMENT COORDINATED WORKS (DCW)**
 - SDR, Drainage, Non-Arterial Road, Arterial Road, and School/Park
- **UPSIZING WORKS**
 - Water, Sanitary Sewer, Storm Sewer, and Collector Road



DSPTS: Development Services Project Supervisor
AC: Accounting Clerk – Sharon Mancini
LDC: Land Development Clerk

Note: Land Development project that requires work on Tier 1 Major Road Network (MRN) and Arterial roads is to utilise one of the pre-qualified Tier 1 paving contractors defined by the Engineering Department.