



REPORT

To: Chair and Directors

Date: June 18, 2019

From: Tyra Henderson, Corporate Officer

Subject: Fort St. John Airport Subdivision Water and Sewer

RECOMMENDATION #1: [Corporate Unweighted]

That the first three readings of Fort St. John Specified Area Establishment and Loan Authorization Amendment Bylaw No. 2300, 2017 be rescinded and the bylaw marked as never used.

RECOMMENDATION #2: [Corporate Unweighted]

That Fort St. John Airport Subdivision Water System Conversion and Establishment Bylaw No. 2380, 2019 be given first three readings and submitted to the Ministry of Municipal Affairs and Housing for approval; further, that consideration of adoption of Bylaw 2380, 2019 be subject to registration of a Statutory Right of Way in favour of the Peace River Regional District for access to water and sewer system lines running through the property legally described as PID 014-669-447 and registration of a restrictive covenant restricting subdivision of the property except for the severance of the existing home and shop portion of the property that is currently connected to the PRRD water system from the parent parcel.

RECOMMENDATION #3: [Corporate Unweighted]

That Fort St. John Airport Subdivision Sanitary Sewer System Conversion and Establishment Bylaw No. 2381, 2019 be given first three readings and submitted to the Ministry of Municipal Affairs and Housing for approval.

RECOMMENDATION #4: [Corporate Unweighted]

That Fort St. John Airport Subdivision Sanitary Sewer System Regulation Bylaw No. 2382, 2019 be given first three readings.

RECOMMENDATION #5: [Corporate Unweighted – 2/3 Majority]

That Fort St. John Airport Subdivision Sanitary Sewer System Regulation Bylaw No. 2382, 2019 be adopted.

BACKGROUND/RATIONALE:

Staff originally put forward an amendment bylaw which the Board gave three readings in August of 2017. The bylaw was rejected by the Ministry who advised that a conversion bylaw was necessary. Conversion bylaws for both the water and sanitary sewer service operated by the PRRD in the FSJ airport subdivision are now in front of the Board for consideration of three readings.

Additionally, environmental services staff requested that a regulatory bylaw be implemented to regulate the sanitary sewer service. The regulatory bylaw will provide certainty as to appropriate use of the service,

Staff Initials:

Dept. Head:

CAO:

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and will specify responsibility and financial liability. The PRRD will be responsible for maintenance of the existing main lines, and property owners will be responsible for their own connections and their connecting lines between the main and the structure(s). A list of prohibited substances is included to ensure that should any prohibited substance enter the system, the cost of repairs will be the responsibility of the property owner who introduced the substance to the system. In addition, though new service connections are not allowed in this system, any substantive repairs will be required to conform to minimum standards that may not have been in place in 1977 when the system was initially constructed. All other sanitary sewer services operated by the Regional District have similar regulatory bylaws in place to provide certainty around use to protect the infrastructure.

The Peace River Regional District operates both water and sanitary sewer services in the Fort St. John Airport subdivision and has done so since the adoption of Fort St. John Airport Specified Area Establishment and Loan Authorization Bylaw No. 133, 1977 and a parallel sanitary sewer specified area bylaw. The water is provided by a connection to the City of Fort St. John water supply main which also serves the airport itself. By agreement, the water is metered when leaving the City of Fort St. John infrastructure and the consumed amount is billed to the PRRD by the North Peace Airport Society. As per the terms of the specified area service bylaw, the entire cost of providing the service is to be borne by those parcels within the specified area. Bylaw 659, 1990 authorizes a parcel tax for each property capable of connection to the system, and “Fort St. John Airport Specified Area Water User Rates Bylaw No. 1846, 2009” identifies the charges to be paid by consumers based on individual meters to each of the current 59 connections within the subdivision. These rates mirror the rates the City of Fort St. John charges, to pass along the user fees to the consumer.

This conversion bylaw will provide authority for the service as required under current legislation. At the same time, the final connection (a maximum of sixty connections are allowed) will be authorized through a change to the service area.

The parcel being added to the service area is already connected to the system. Adding Mr. Kosick’s property to the service area will allow a meter to be installed and billing to commence. In addition, staff have discussed with Mr. Kosick the need to register a right of way (ROW) over the portion of his property that the water and sanitary sewer lines run under to provide access to the infrastructure. The ROW was surveyed at the time the water & sanitary sewer systems were installed though it was never finalized or registered. Mr. Kosick is in agreement with the registration of a ROW.

Finally, staff have received Mr. Kosick’s written agreement to have a no-subdivide covenant registered against the parcel. This is recommended as inclusion of this property into the water service boundary could raise expectations for subdivision and development of the remainder of the quarter section. However, agreement(s) for the provision of water, involving the PRRD, City of Fort St. John, North Peace Airport Society, and NAV Canada stipulate that no more than sixty (60) connections to the system are permitted and this will be the final connection available. Unless the agreement for the number of water services was renegotiated, it would not be possible to provide additional service connections to any newly created lots.

Should Mr. Kosick subdivide his property in the future, the new lot(s) would technically be included in the service area and could be taxed for the water service. This is not realistic as the PRRD is unable to approve or provide any additional connections. If a future subdivision were to be considered, the service area would need to be amended again to retain only the existing home and shop that is currently connected, and

exclude the remainder of the parcel. Registering the no subdivision covenant will require the property owner to involve the PRRD in any subdivision proposal (that would be under the authority of the Ministry of Transportation and Infrastructure and/or Agricultural Land Commission) to ensure that the authorization for the water service did not flow to any proposed new parcels. The covenant will run with the lands and will include provision for review every five years, (or sooner if mutually agreed by both parties) to consider the conditions and necessity of the covenant.

The *Local Government Act* (Part 10, Division 5) requires that the electoral area participants must consent, in writing, to the proposed service area boundary amendment. Area C Director Brad Sperling has consented to the amended service area in writing.

ALTERNATIVE OPTIONS:

1. That the Regional Board provide further direction.

STRATEGIC PLAN RELEVANCE:

- Not Applicable to Strategic Plan.

FINANCIAL CONSIDERATION(S):

There will be charges payable to the Land Title & Survey Authority to register the no-subdivision covenant and the ROW on the title to the property. Some legal assistance will also be required to prepare and submit the documents.

The Regional District will receive revenue for the sale of any water consumed by Mr. Kosick.

Recent repairs to the FSJ Airport Subdivision sanitary sewer service have been done at a total cost of \$9,400.00, which, absent a regulatory bylaw which clearly articulates user responsibilities and prohibited substances, were borne by the PRRD. Adoption of the bylaw will allow the PRRD, in future, to recover repair costs from property owners who do not comply with the regulations governing appropriate use of the sanitary sewer system.

COMMUNICATIONS CONSIDERATION(S):

The regulatory bylaw and educational materials will be direct mailed to each of the 60 property owners connected to the FSJ Airport Subdivision Sanitary Sewer System to ensure that all users are aware of the prohibited substances and other user responsibilities.

OTHER CONSIDERATION(S):

Attachments:

1. FSJ Airport Subdivision Water Service Conversion and Establishment Bylaw No. 2380, 2019.
2. FSJ Airport Subdivision Sanitary Sewer Service Conversion and Establishment Bylaw No. 2381, 2019.
3. FSJ Airport Subdivision Sanitary Sewer Service Regulation Bylaw No. 2382, 2019.

**PEACE RIVER REGIONAL DISTRICT
Bylaw No. 2380, 2019**

A bylaw to convert the authority for providing potable water within the Fort St. John Airport Subdivision in Area C of the Peace River Regional District from a specified area service to a local service area and to revise the service area boundary.

WHEREAS the Regional Board did establish a specified area service of provision of potable water to the Fort St. John Airport Subdivision in response to a resident petition, by adoption of Fort St. John Specified Area Establishment and Loan Authorization Bylaw No. 133, 1977 (Water) in accordance with the then prevailing Municipal Act;

AND WHEREAS the provision of potable water in the Fort St. John Airport Subdivision (a specified portion of Electora Area C) has been provided as a continued service of the Peace River Regional District in accordance with the previous continuation authority as defined in the *Local Government Act*;

AND WHEREAS the Regional Board wishes to convert the potable water service to a service exercised under the authority of an establishing bylaw and to amend the provisions thereof in accordance with Section 341 of the *Local Government Act*;

AND WHEREAS the Regional Board wishes to amend the service to expand the benefitting area;

AND WHEREAS the written consent of the Director of Electoral Area C has been obtained in writing;

NOW THEREFORE, the Board of the Peace River Regional District in open meeting assembled, enacts as follows:

ADMINISTRATIVE PROVISIONS:

1. This Bylaw may be cited as "Fort St. John Airport Subdivision Water Service Conversion and Establishment Bylaw No. 2380, 2019."

CONVERSION:

2. The potable water service established by Fort St. John Specified Area Establishment Bylaw and Loan Authorization Bylaw No. 133, 1977 is hereby converted to the Fort St. John Airport Subdivision Potable Water Service, and is established as service to provide and distribute potable water to the residents of the Fort St. John Airport Subddivision a defined in Schedule A attached hereto.

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SERVICE:

3. The Peace River Regional District may undertake and carry out, or cause to be carried out, the provision of a potable water service in and for the said service area and do all things necessary in connection therewith, including:
 - 3.1 Enter into agreements;
 - 3.2 Establish, by bylaw regulations governing the use of the potable water service.
 - 3.3 Establish, by bylaw, fees and charges necessary to recoup the costs of the provision of the potable water to the benefitting area.
 - 3.4 Enter onto property for the purpose of inspecting, repairing and/or constructing the necessary infrastructure to provide the service.
 - 3.5 Incurr debt as necessary for the repair and maintenance of the infrastructure.

PARTICIPATING MEMBERS:

4. The Service shall be known as the Fort. St. John Airport Subdivision Potable Water Service, and the participating area is a Defined Portion of Electoral Area C.

BOUNDARY:

5. The boundaries of the service area are a defined portion of Electoral Area C as shown outlined in red on the map attached as Schedule A hereto and which forms a part of this Bylaw.

COST RECOVERY:

6. The cost of providing the potable water service within the defined service area shall be recovered by one or more of the following methods:
 - 6.1 A parcel tax imposed in accordance with the *Local Government Act*;
 - 6.2 The imposition of fees and other charges that may be specified by a separate bylaw;
 - 6.3 Revenues raised by other means authorized by the *Local Government Act* or another Act;
 - 6.4 Revenues received by way of agreement, enterprise, gift, grant, or otherwise.

REQUISITION LIMIT:

7. The maximum amount that may be requisitioned annually for the purpose of funding the Fort St. John Airport Subdivision Potable Water Service is the \$145,000.00 when applied to the net taxable value of land and improvements in the service area.

READ A FIRST TIME THIS _____ day of _____, 2019.

READ A SECOND TIME THIS _____ day of _____, 2019.

READ A THIRD TIME THIS _____ day of _____, 2019

I hereby certify the foregoing to be a true and correct copy of "Fort St. John Airport Subdivision Water Service Conversion and Establishment Bylaw No. 2380, 2019" as read a third time by the Peace River Regional District Board on the _____ day of _____, 2019.

Corporate Officer

Approved by the Inspector of Municipalities this _____ day of _____, 2019.

ADOPTED this _____ day of _____, 2019.

Filed with the Inspector of Municipalities this _____ day of _____, 2019.

(Corporate Seal has been affixed to the original bylaw)

Chair Brad Sperling

Corporate Officer – Tyra Henderson

(Schedule A attached)


I hereby certify this to be a true and correct copy of " Fort St. John Airport Subdivision Water Service Conversion and Establishment Bylaw No. 2380, 2019", as adopted by the Peace River Regional District Board on _____, 2019.

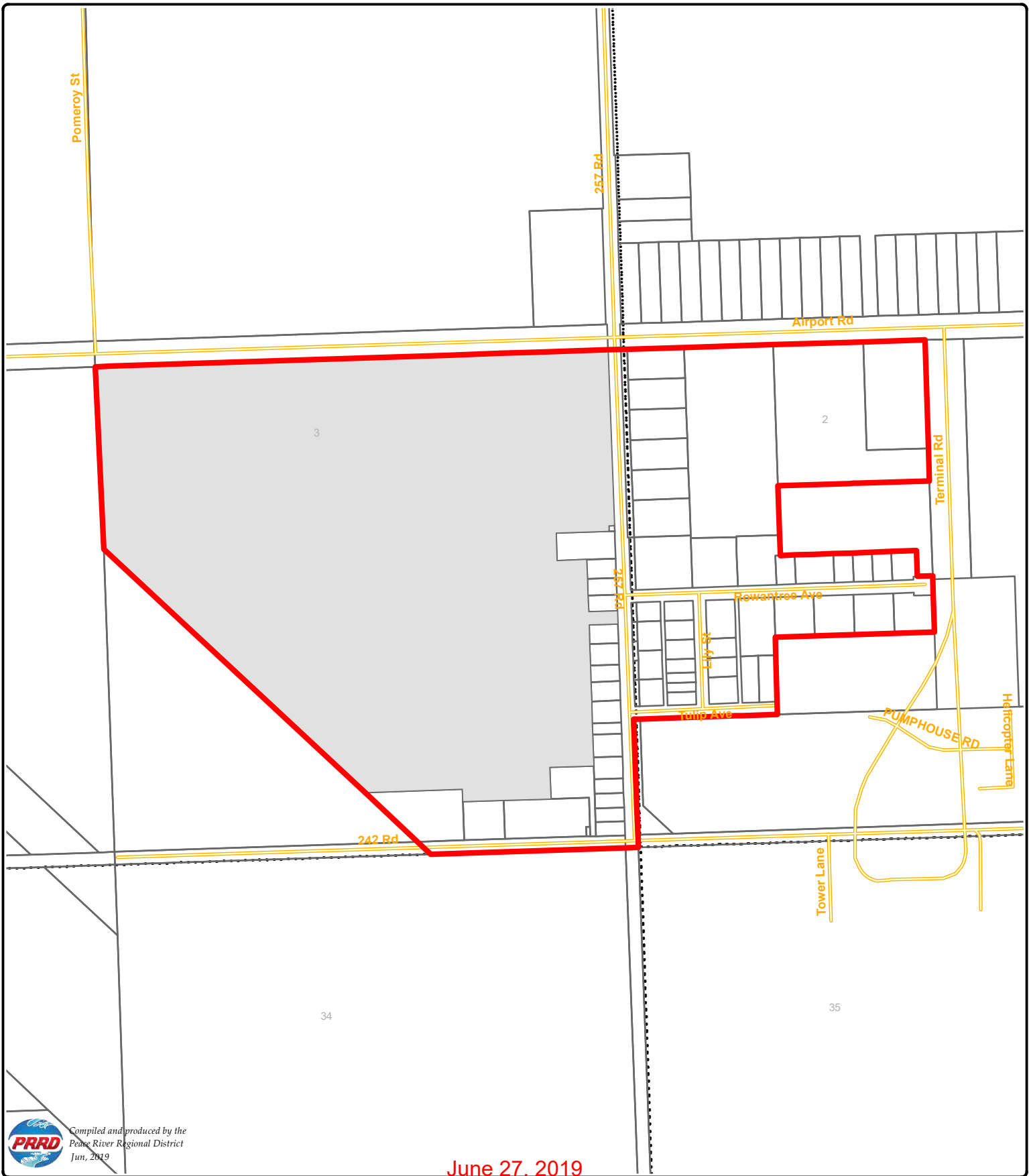
Tyra Henderson, Corporate Officer

B-2 b)

SCHEDULE A Fort St. John Airport Subdivision Water System Conversion and Establishment Bylaw No. 2380, 2019

Bylaw 2380, 2019 Service Area Boundary
 Sections
 Area to be included
 Roads
 Parcel


 1:8,000



**PEACE RIVER REGIONAL DISTRICT
Bylaw No. 2381, 2019**

A bylaw to convert the authority for providing a sanitary sewer service within the Fort St. John Airport Subdivision in Area C of the Peace River Regional District from a specified area service to a local service area and to revise the service area boundary.

WHEREAS the Regional Board did establish a specified area service of provision of a sanitary sewer service to the Fort St. John Airport Subdivision in response to a resident petition, by adoption of Fort St. John Specified Area Establishment and Loan Authorization Bylaw No. 134, 1977 (Sewer) in accordance with the then prevailing *Municipal Act*;

AND WHEREAS the provision of a sanitary sewer service in the Fort St. John Airport Subdivision (a specified portion of Electora Area C) has been provided as a continued service of the Peace River Regional District in accordance with the previous continuation authority as defined in the *Local Government Act*;

AND WHEREAS the Regional Board wishes to convert the sanitary sewer service to a service exercised under the authority of an establishing bylaw and to amend the provisions thereof in accordance with the *Local Government Act*;

AND WHEREAS the Regional Board wishes to amend the service to expand the benefitting area;

AND WHEREAS the written consent of the Director of Electoral Area C has been obtained in writing;

NOW THEREFORE, the Board of the Peace River Regional District in open meeting assembled, enacts as follows:

ADMINISTRATIVE PROVISIONS:

1. This Bylaw may be cited as "Fort St. John Airport Subdivision Sanitary Sewer Conversion and Establishment Bylaw No. 2381, 2019."

CONVERSION:

2. The sanitary sewer service established by Fort St. John Specified Area Establishment Bylaw and Loan Authorization Bylaw No. 134, 1977 is hereby converted to the Fort St. John Airport Subdivision Sanitary Sewer Service, and is established as a service to collect and transport sanitary sewer from the properties located in the Fort St. John Airport Subddivision as defined in Schedule A attached hereto.

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SERVICE:

3. The Peace River Regional District (PRRD) may undertake and carry out, or cause to be carried out, the provision of a sanitary sewer service in and for the said service area and do all things necessary in connection therewith, including:
 - 3.1 Enter into agreements;
 - 3.2 Establish, by bylaw regulations governing the use of the sanitary sewer service.
 - 3.3 Establish, by bylaw, fees and charges necessary to recoup the costs of the provision of the sanitary sewer to the benefitting area.
 - 3.4 Enter onto property for the purpose of inspecting, repairing and/or constructing the necessary infrastructure to provide the service.
 - 3.5 Incurr debt as necessary for the repair and maintenance of the infrastructure.

PARTICIPATING MEMBERS:

4. The Service shall be known as the Fort. St. John Airport Subdivision Sanitary Sewer Service, and the participating area is a Defined Portion of Electoral Area C.

BOUNDARY:

5. The boundaries of the service area are a defined portion of Electoral Area C as shown outlined in red on the map attached as Schedule A hereto and which forms a part of this Bylaw.

COST RECOVERY:

6. The cost of providing the sanitary sewer service within the defined service area shall be recovered by one or more of the following methods:
 - 6.1 A parcel tax imposed in accordance with the *Local Government Act*;
 - 6.2 The imposition of fees and other charges that may be specified by a separate bylaw;
 - 6.3 Revenues raised by other means authorized by the *Local Government Act* or another *Act*;
 - 6.4 Revenues received by way of agreement, enterprise, gift, grant, or otherwise.

REQUISITION LIMIT:

7. The maximum amount that may be requisitioned annually for the purpose of funding the Fort St. John Airport Subdivision Sanitary Sewer Service is \$145,000.00 when applied to the net taxable value of land and improvements in the service area.

READ A FIRST TIME THIS _____ day of _____, 2019.

READ A SECOND TIME THIS _____ day of _____, 2019.

READ A THIRD TIME THIS _____ day of _____, 2019

I hereby certify the foregoing to be a true and correct copy of "Fort St. John Airport Subdivision Sanitary Sewer Service Conversion and Establishment Bylaw No. 2381, 2019" as read a third time by the Peace River Regional District Board on the _____ day of _____, 2019.

Corporate Officer

Approved by the Inspector of Municipalities this _____ day of _____, 2019.

ADOPTED this _____ day of _____, 2019.

Filed with the Inspector of Municipalities this _____ day of _____, 2019.

(Corporate Seal has been affixed to the original bylaw)







Chair Brad Sperling

Corporate Officer – Tyra Henderson

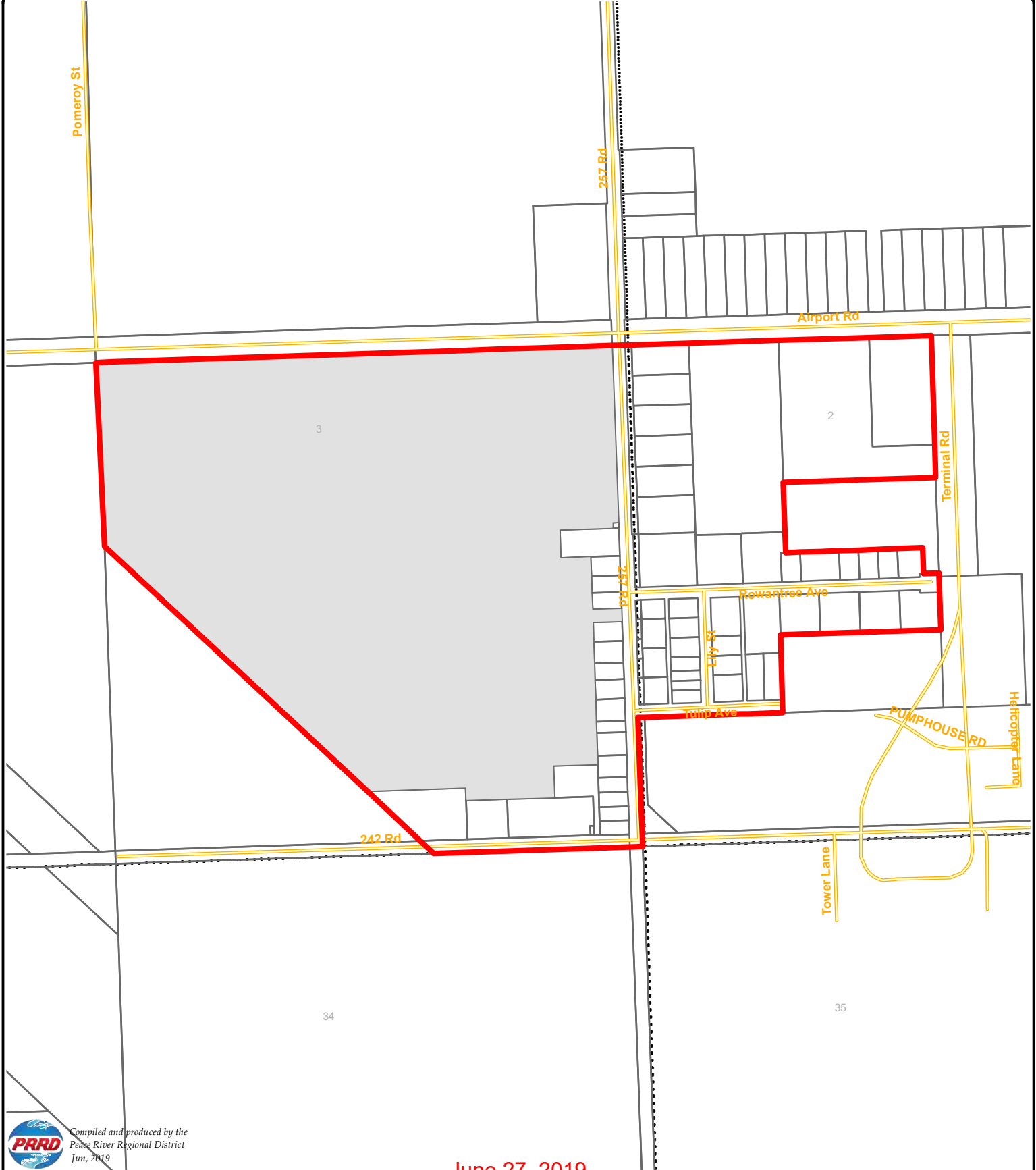
(Schedule A attached)

I hereby certify this to be a true and correct copy of " Fort St. John Airport Subdivision Sanitary Sewer Conversion and Establishment Bylaw No. 2381, 2019", as adopted by the Peace River Regional District Board on _____, 2019.

Tyra Henderson, Corporate Officer

 Bylaw 2381, 2019 Service Area Boundary
 Area to be included
 Parcel
 Sections
 Roads
 N
 1:8,000

SCHEDULE B-2 c)
Fort St. John Airport Subdivision
Sanitary Sewer System Conversion
and Establishment
Bylaw No. 2381, 2019



PEACE RIVER REGIONAL DISTRICT
Bylaw No. 2382, 2019

A bylaw to regulate sewage discharge within
the Fort St. John Airport Subdivision Sanitary Sewer System

WHEREAS the *Local Government Act* authorizes the Regional District to establish and operate any service deemed necessary or desirable; and

WHEREAS the Peace River Regional District has, under the authority of Supplementary Letters Patent dated January 28, 1969, 'Fort St. John Airport Specified Area Establishment and Loan Authorization Bylaw No. 134, 1977, and 'Fort St. John Airport Subdivision Sanitary Sewer System Conversion and Establishment Bylaw No. 2381, 2019', constructed and operates a sanitary sewer system to collect and dispose of waste from the FSJ Airport Subdivision; and

WHEREAS the *Environmental Management Act* authorizes the Regional District to make bylaws respecting the discharge of wastes into any sewer or drain connected to a sewage facility operated by the Regional District; and

WHEREAS the Peace River Regional District has installed a sewage collection system to serve the Fort St. John Airport Subdivision area;

NOW THEREFORE the Regional Board of the Peace River Regional District, in open meeting assembled, enacts as follows:

PART 1 - ADMINISTRATIVE:

1. This bylaw may be cited for all purposes as "Fort St. John Airport Subdivision Sanitary Sewer System Regulation Bylaw No. 2382, 2019."
2. This bylaw applies to the all properties within the Fort St. John Airport Subdivision Sewer System benefitting area that are or may be connected to the Fort St. John Airport Subdivision Sanitary Sewer collection and disposal system, as shown on **Schedule A** to Bylaw 2381.
3. **Schedules A, B, C, and D** are attached to and form part of this bylaw.
4. If any section, subsection, sentence, clause or phrase in this bylaw is for any reason held to be invalid by a decision of any court of competent jurisdiction, the decision shall not affect the validity of the remaining portions of the bylaw.

PART 2 –DEFINITIONS:

5. In this bylaw, the following words and terms have the following meanings assigned to them:

"**B.O.D.5**" means the total five (5) day biochemical oxygen demand.

"**BODY OF WATER**" means a river, stream, brook, creek, water course, lake, pond, spring, lagoon, swamp, marsh, canal or other flowing or standing water.

"**BUILDING DRAIN**" means the horizontal piping, including any vertical offset, that conducts sewage to a building sewer, and includes that part of the drainage system outside and within 1 metre of the wall of a building.

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"BUILDING SEWER" means septic tank, pumps, pipes, valves and fittings connected to a building drain outside a wall of a building and located on private property that lead to a SERVICE CONNECTION to PUBLIC SEWER.

"CONTAMINANT" means any substance, whether gaseous, liquid or solid, whether dissolved or suspended, that:

- a) injures or is capable of injuring the health or safety of a person;
- b) injures or is capable of injuring property or any life form;
- c) interferes or is capable of interfering with the proper operation of a sewer or sewage facilities;
- d) causes or is capable of causing material physical discomfort to a person; or
- e) damages or is capable of damaging the environment.

DAMAGED SEWER— means any crack, misalignment or break in the SEWER SERVICE.

"DOMESTIC SEWAGE" means water and wastewater from humans or household operations that is discharged to or otherwise enters a sewer system.

"GARBAGE" means all putrescible animal and vegetable matter resulting from the handling, preparation, cooking, or consumption of food, including wastes attendant thereto.

"GREASE" means fats, waxes, oils and any other non-volatile material determined in accordance with STANDARD METHODS.

"INDUSTRIAL WASTE" means liquid wastes from an industrial, manufacturing, institutional or commercial establishment.

"INSPECTION CHAMBER" means a below-ground structure built in the line of a sewer or sanitary drain for inspecting or testing the sewer or drain and for clearing obstructions from the surface.

"INSPECTOR" means a person appointed by the Regional Board as Inspector for the Regional District to administer this bylaw as identified in **Schedule D** – Inspectors.

"INTERCEPTOR" means a receptacle that is installed to prevent oil, grease, sand or other materials from passing into the SEWERAGE WORKS.

"LITRE" means metric measurement of liquids.

"PERSON" means any individual, firm, company, association, society, corporation or group owning or occupying any building or place or having the management of any building or place to which this bylaw applies and includes the owner.

"pH" means the logarithm (to the base 10) of the reciprocal of the hydrogen ion concentration in moles per litre and denotes alkalinity or acidity.

"PLOT PLAN" means a plan showing the location of all present and proposed buildings, property lines and dimensions to show the specific location of the BUILDING SEWER.

"PROHIBITED WASTE" means those substances set out in **Schedule B** to this bylaw.

"PUBLIC SEWER" means a sewer main collection pipe that has one or more sewer SERVICE CONNECTIONS used to convey SEWAGE to a sewage treatment facility.

'PUBLIC SEWER' means all facilities located on public land for the collection, transmission, treatment

and disposal of public sewage and includes a drain, sewer pipe or conduit used for the conveyance of sewage and includes a sewage treatment facility.

"**RESTRICTED WASTE**" means waste set out in **Schedule C** to this bylaw.

"**REGIONAL BOARD**" means the Board of the Peace River Regional District.

"**REGIONAL DISTRICT**" means the Peace River Regional District.

"**SANITARY SEWER**" means a sewer which carries sewage and to which storm, surface and ground waters are not intentionally admitted.

"**SEWER SERVICE**" means that portion of the sanitary sewer system between the PUBLIC SEWER and the structure(s).

"**SEWAGE**" means a combination of the water-carried wastes from residences, commercial buildings, institutions and industrial establishments, and does not include surface and storm water runoff;

"**SEWAGE TREATMENT FACILITY**" means any arrangement of equipment and structures used for treating sewage, owned and operated by the Regional District or a municipality;

"**SEWER**" means a pipe or conduit for carrying sewage;

"**SEWERAGE WORKS**" means all facilities for collecting, pumping, treating and disposing of sewage;

"**SPECIAL WASTE**" means special waste as defined in the *Environmental Management Act*.

"**STANDARD METHODS**" means the analytical and examination procedures set forth in the current edition of "Standard Methods for the Examination of Water and Waste Water" published jointly by the American Public Health Association, the American Waterworks Association and the Water Pollution Control Federation;

"**STORM WATER**" means water that is discharged overland from a surface as a result of rainfall or snowfall;

"**SUSPENDED SOLIDS**" means solids that either float on the surface of, or are suspended in water, SEWAGE, or other liquids, and which are removable by laboratory filtering.

"**WATER COURSE**" means a channel in which a flow of water occurs either continuously or intermittently.

PART 3 - WARRANTY OR REPRESENTATION

6. No inspections made by an Inspector, shall in any way constitute a warranty or representation that this bylaw has been complied with and no person shall rely on any of the above listed matters as establishing compliance with this bylaw.

PART 4 - USE OF PUBLIC SEWERS REQUIRED

7. The owners and occupiers of a parcel on which a building is located shall ensure that all DOMESTIC SEWAGE originating from it is discharged into the PUBLIC SEWER.
8. The owners and occupiers of a parcel on which a building is located shall ensure that all SEWERAGE WORKS on that parcel are constructed, installed and maintained in accordance with **Schedule A** - Construction Standards attached hereto, and all other applicable enactments.

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9. No extension or additional connection within a property shall be installed without the express written permission of the Peace River Regional District.
10. The owners and occupiers of a parcel on which a building is located shall ensure that all SEWERAGE WORKS on that parcel operate in a manner that does not damage or interfere with the effective operation of the PUBLIC SEWER.
11. The owner or occupier of every building shall ensure that DOMESTIC SEWAGE emanating from it does not reach the surface of land or discharge into a surface body of water.
12. The owner, proprietor or occupier of any property is responsible for clearing any blockage found in the SEWER SERVICE.
13. DAMAGED SEWER located on the BUILDING SEWER portion of the SEWER SERVICE, shall be repaired or replaced at the owners' expense.
14. DAMAGED SEWER, located within the SERVICE CONNECTION portion of the SEWER SERVICE, shall be repaired or replaced at the expense of the PRRD.
15. In the event that any BUILDING SEWER connection is abandoned, the owner, at his expense, shall effectively cap the connection at a location approved in writing by the Inspector within his property.
16. No person shall discharge, or permit to be discharged, into the PUBLIC SEWER anything except DOMESTIC SEWAGE.
17. Substances found in the course of an investigation or repair, even if not included on the list of CONTAMINANTS, PROHIBITED WASTE, or RESTRICTED WASTE, that are demonstrated to have caused a blockage or damage to the PUBLIC SEWER, that can be traced to a specific property, shall be repaired at the owners' expense.
18. Grease, oil and sand interceptors shall be required on private property for all restaurants, garages, gasoline service stations and vehicle and equipment washing establishments or facilities.
19. Interceptors shall be required for other types of businesses when in the opinion of the Inspector they are necessary for the proper handling of liquid waste containing grease in excessive amounts, or any flammable wastes, sand and other harmful substances, except that such interceptors shall not be required for private living quarters or dwelling units. All interceptors shall be of a type and capacity approved by the Inspector and shall be so located as to be readily and easily accessible for cleaning and inspection. Where installed, all grease, oil and sand interceptors shall be maintained by the property owner at the property owner's expense in continuously efficient operation at all times.

PART 5 - POWER AND AUTHORITY OF INSPECTORS

20. An Inspector as listed in **Schedule D** attached hereto, shall be permitted to enter upon any property for the purpose of inspection, observation, measurement, sampling and testing in accordance with the provisions of this bylaw. If such inspection discloses any failure, omission, neglect, or discloses any defect in the location, construction, design or maintenance of any of the sewer system, the person making such inspection shall in writing notify the owner, proprietor or occupier to rectify, at such person's expense, the failure, omission, neglect or defect.

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PART 6- PENALTIES

21. Every person who commits an offence contrary to the provisions of this bylaw is liable on summary conviction to the maximum penalty pursuant to the *Offence Act* in addition to the costs of prosecution.

READ A FIRST TIME THIS _____ day of _____, 2019.

READ A SECOND TIME THIS _____ day of _____, 2019.

READ A THIRD TIME THIS _____ day of _____, 2019.

ADOPTED THIS _____ day of _____, 2019

Chair

(Corporate Seal has been affixed
to the original bylaw)

Corporate Officer

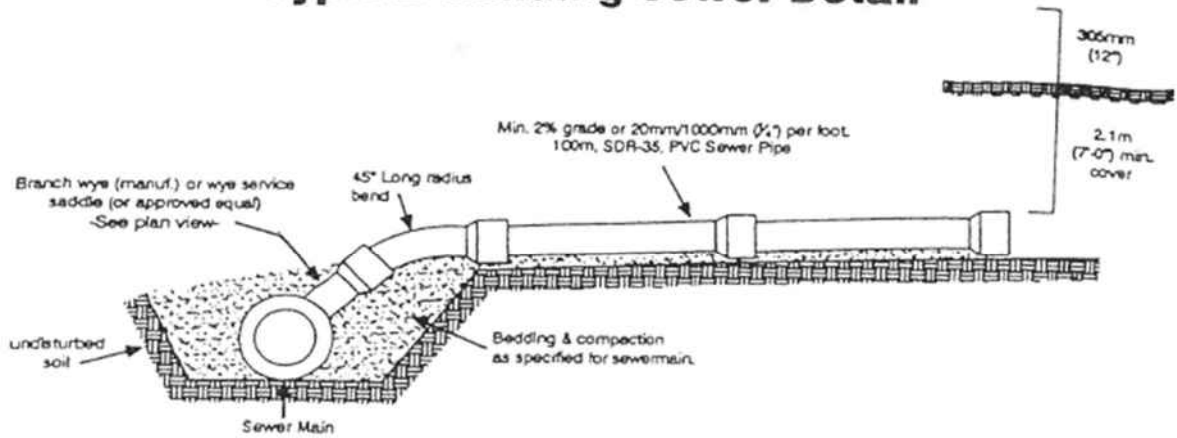
(Schedules A through D attached)

I hereby certify this to be a true and correct copy of "PRRD Fort St. John
Airport Subdivision Sanitary Sewer System Regulation Bylaw No. 2382, 2019",
as adopted by the Peace River Regional District Board
on _____, 20__.

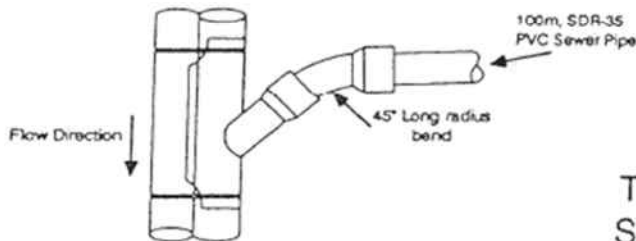
Corporate Officer

BYLAW 2382, 2019
Schedule A - Construction Standards

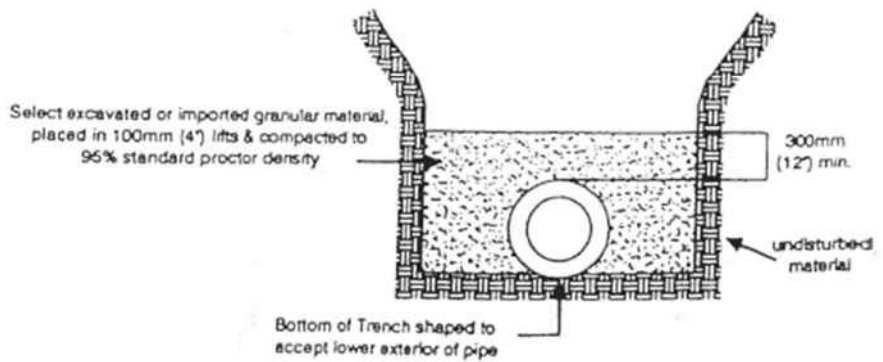
Typical Building Sewer Detail



-Plan View-



Typical Off Roadway Service Trench Detail



BYLAW 2382, 2019
Schedule A - Construction Standards (continued)
Typical Pressure Building Sewer Specifications

A. Pressure Building Sewer System Overview

The sanitary sewer from each lot gravity feeds to:

- i) A (2) two compartment septic tank and to an on-site lift station; **OR**
- ii) An on-site lift station complete with a grinder pump.

Each station pressures up the mainline, pushing the wastewater to the main lift station, where required. From there it flows to the treatment lagoons and is discharged seasonally.

Refer to the attached drawing for a general overview of the sewer service collection system. All materials shall be CSA approved and installed as per the BC Sewerage System Standard practice manual, referred to in the *BC Sewerage Regulations*.

B. Pumps

All pumps to be effluent or grinder pumps complete with controls as per the following specifications:

- Each pump chamber to contain an effluent pump or a grinder pump, isolation valve and check valve;
- Curb stop to be placed at each property line; and
- The size of the pump is dependent on the location of the property and should be chosen in consultation with the Inspector.

General

The installation shall include a complete, automatic, sewage pump station as manufactured by Engineered Pump Systems, ITT Flygt or E/One Sewer Systems or approved equivalent. The pump shall be a submersible sewage pump that meets all of the following specifications:

- All cast iron construction, no sheet metal or plastic parts shall be allowed;
- Recessed type impellers;
- Effluent pump impellers capable of handling ground slurry;
- Grinder pumps capable of reducing all components in normal domestic sewage, including a reasonable amount of “foreign objects,” such as paper, wood, plastic, glass, wipes, rubber and the like, to finely-divided particles which will pass freely through the passages of the pump and the discharge piping;
- Oil filled electrical motors with overload-heat sensor;
- Double shaft seals with seal leak probe;
- Stainless steel cutters; and
- Stainless steel fasteners.

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Schedule A - Construction Standards (continued)
Typical Pressure Building Sewer Specifications

Piping and Valves

- Minimum 1 ¼" piping;
- Check valve; and
- Isolation valves.

Level Controls

Furnish (3) three float switches to provide automatic pump control of the wet well liquid levels. Level switches to provide the following functions:

- FS #3 High level alarm;
- FS #2 Pump on; and
- FS#1 Off (fail-safe).

Control Panel

The pump control panel shall be CSA approved fully automatic type. The panel shall provide "operator friendly" LED type display indication of the following functions:

- Power on light;
- Float switch indication lights;
- Pump on light;
- Seal fail alarm light; and
- High level alarm light and buzzer.

Chamber

Pump chambers shall meet all of the following requirements:

- The sump chamber shall be of fibreglass or concrete construction;
- Concrete tanks must be waterproof;
- Gravity service lines directly to Grinder Pump System chambers shall be minimum 2% slope for 100mm diameter pipes and 1% slope for 150mm diameter pipes; and
- Ground must slope away from pump chambers on all sides.

C. Septic Tanks

Effluent Pump System

Septic tanks installed as part of Effluent Pump Systems shall meet all of the following requirements:

- All septic tanks shall be sized and located in conformance with the latest CSA Standard, Design, Material and manufacturing requirements for prefabricated septic tanks and holding tanks;
- All tanks to have at least two compartments with the pumps in a third chamber;
- Gravity service lines from residences to septic tanks should be 2% slope for 100mm diameter pipes and 1% slope for 150mm diameter pipes;
- Ground must slope away from septic tanks on all sides; and
- All concrete tanks shall be water proof including all risers to the surface.

Grinder Pump System

- Septic tanks are not required as part of Grinder Pump Systems.

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Schedule A - Construction Standards (continued)
Typical Pressure Building Sewer Specifications

D. Piping

- Pipe to be sized for peak flows for all future connections;
- Minimum 50mm diameter for mainlines, 38mm for service lines;
- Minimum 2.7m cover;
- Shut off valves for every 300m of mainline pipe;
- Air relief valves at all high points;
- Horizontal alignment: 2.5m from property line unless in conflict with other utilities;
- Design velocity should be 0.6m/s minimum and 3.0m/s maximum;
- All piping shall be backfilled as followed:
 - Bedding: Sand 50mm below pipe up to 300mm above pipe compacted to 95% SPD
 - Under boulevard or field: 95% SPD compaction
 - Under road or driveway: 98% SPD compaction to 1m below surface
100% SPD compaction to surface
- Acceptable pipe material: HDPE or PVC. All fittings on HDPE pipe to be compression type complete with stainless steel inserts.

E. Allowable Connections

- Domestic sanitary sewer is the only allowable liquid in the system;
- It must be treated by a two compartment septic tank prior to entering the system; and
- Weeping tile and drainage system must not be connected to system.

F. Design

- All systems require detailed designs prepared by a Professional Engineer to be submitted to the Inspector for approval prior to commencing construction; and
- As built drawings for all installations shall be submitted to the Inspector.

G. Appurtenances

- All valves shall be suitable for corrosive soils;
- All bolts to be stainless steel;
- All above grade appurtenances in the road right of way to be adequately protected against boulevard traffic; and
- All concrete shall be Type 50 to protect against corrosive soils.

BYLAW 2382, 2019
Schedule B – Prohibited Waste

The following are prohibited wastes and no person shall discharge, or permit to be discharged, into the Public Sewer, any of the following:

1. **Flammable or Explosive Waste**
Any waste, which is capable of causing or contributing to an explosion or supporting combustion in any sewer or sewage facility including, but not limited to gasoline, benzene, naphtha, propane, diesel or other fuel oil, crankcase oil and sludge resulting from the manufacture of acetylene.
2. **Waste Causing Obstruction or Interference**
Any waste which is capable of obstructing the flow of or interfering with the operation or performance of any sewer or sewage works or facility including, but not limited to earth, concrete and cement based products, sand, gardening or agricultural wastes, ash, cinder, chemicals, metal, glass, tar, asphalt, plastic, wood, waste portions of animals, fish or fowl, solidified fat, or waste containing fat, oil, or grease of such character or quantity, or waste containing suspended solids of such character and quantity that unusual attention or expense is required to handle such waste, paper and brewery waste, or other solid or viscous substance capable of causing obstruction to the flow of Sewage or other interference with the proper operation of the Sewage Works.
3. **Odorous Waste**
Any waste, other than sanitary waste which is capable of creating an odour, or other air contaminant, causing air pollution outside any sewer or sewage facility or creating within any sewer or sewage facility an odour or other air contaminant which would prevent safe entry by authorized personnel.
4. **High Temperature Creating Waste**
 - a) Any waste which may create heat in amounts which will interfere with the operation and maintenance of the sewer and sewage facility or with the treatment of waste in a sewage facility;
 - b) Any waste which will raise the temperature of waste entering any sewage facility to 40 degrees Centigrade or more; and
 - c) Any non-domestic waste with a temperature of 65 degrees Centigrade or more.
5. **Corrosive Waste**
Any waste with corrosive properties which is capable of causing damage to any Sewer or Sewerage Works, structures, equipment, biological sewer treatment processes or sewerage works personnel, including but not limited to waters or wastes having a pH lower than 5.5 or above 12.0.
6. **Pathogenic Waste**
Any waste containing infectious material which is capable of creating a Contaminant in the Sanitary Sewer or Sewerage Works.
7. **Toxic or Poisonous Waste**
Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals, or create any hazard in the receiving waters of the Sewerage Works or sewage treatment plant.

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Schedule C – Restricted Waste

The following are restricted wastes:

1. **Food Waste**

Any non-domestic waste from cooking and handling of food that, at the point of discharge into a sewer, contains particles larger than 0.5 centimetres in any dimension.

2. **Radioactive Waste**

Any waste that, at the point of discharge into a sewer, exceeds radioactivity limitations established by the Atomic Energy Board of Canada from time to time.

3. **pH Waste**

Any non-domestic waste which, at the point of discharge into a sewer, has a pH lower than 5.5 or higher than 11.0 as determined by a grab sample.

4. **Specified Waste**

Any waste which, at the point of discharge into a sewer, contains any substance at a concentration in excess of the levels set out in Tables A, B or C below. All concentrations are expressed as total concentrations which include all forms of the contaminant, combined or uncombined, whether dissolved or undissolved. The concentration criteria apply to both grab samples and composite samples. Definitions and methods of analysis for these substances are outlined in standard methods.

Any non-domestic waste containing any of the substances listed below in Tables A, B or C at dissolved concentrations in excess of the *Special Waste Regulation Leachate Quality Criteria* (as amended from time to time), regardless of the sampling method used, shall qualify as a special waste.

Table A – Conventional Contaminants

Contaminant	Maximum Concentration (mg/L)
Biochemical Oxygen Demand (BOD)	500
Chemical Oxygen Demand	20,000
Phosphorus	200
Dissolved Solids	5,000
Total Kjeldahl Nitrogen	500
Total Oil and Grease ¹ (O&G – Total)	150
Total Suspended Solids (TSS)	600

Note: 1 Total Oil and Grease includes Oil and Grease (Hydrocarbons)

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Schedule C – Restricted Waste (continued)

Table B – Organic Contaminants

Contaminant	Maximum Concentration (mg/L)
Oil and Grease (Hydrocarbon) (O&G –Hydrocarbon)	15
Phenols	1
Chlorophenols ¹	0.05
Polycyclic Aromatic Hydrocarbons ² (PAHs)	0.05
Benzene	0.1
Total BETX ³	1

Notes:

¹ Chlorophenols include:

tetrachlorophenol (2,3,4,5-, 2,3,4,6-, 2,3,5,6-)
 pentachlorophenol

² Polycyclic Aromatic Hydrocarbons (PAHs) include:

acenaphthene	chrysene
acenaphthylene	dibenzo(a,h)anthracene
anthracene	fluoranthene
benzo(a)anthracene	fluorene
benzo(b)fluoranthene	naphthalene
benzo(k)fluoranthene	phenanthrene
benzo(g,h,i)perylene	pyrene
benzo(a)pyrene	indeno(1,2,3-c,d)pyrene

³ BETX includes:

benzene
 ethylbenzene
 toluene
 xylene

Table C – Inorganic Contaminants

Contaminant	Maximum Concentration (mg/L)
Aluminum (Al)	50
Arsenic (As)	1.0
Boron (B)	50
Cadmium (Cd)	0.2
Chlorine (free) (Cl ₂)	5.0
Chromium (total) (Cr)	4.0
Cobalt (Co)	5.0
Copper (Cu)	2.0
Cyanide (CN ⁻)	2.0
Iron (Fe)	10.0
Lead (Pb)	1.0
Manganese (Mn)	5.0
Mercury (Hg)	0.05
Molybdenum (Mo)	1.0
Nickel (Ni)	2.0
Selenium	1.0
Silver (Ag)	1.0
Sulphide (S ²⁻)	3.0
Zinc (Zn)	3.0

Schedule D – Inspectors

General Manager of Environmental Services

Environmental Services Manager

Environmental Services Coordinator

Solid Waste Services Manager

Field Services Working Foreman

Field Services Labourer

Bylaw Enforcement Officer

Building Inspector