

TOWN OF FORT FRANCES

Operations and Facilities Executive Committee

AGENDA - November 21, 2018, 8:30 AM

MEETING - Civic Centre

Session #014

	Page
1. <u>Call to Order</u>	
2. <u>Disclosure of pecuniary interest and the general nature thereof</u>	
3. <u>Approval of Previous Committee Minutes</u>	
3.1 Minutes from the previous meeting on November 7, 2018.	2 - 3
4. <u>Non-agenda Items</u>	
5. <u>Items Referred from Council</u>	
5.1 Letter from Fort Frances and District Community Living - Re: Accessibility Ramp	4 - 16
6. <u>New Business</u>	
6.1 2019 Operations and Facilities Division User Fees and Charges	17 - 31
6.2 Sanitary Capacity Study of the Scott Street Sanitary Sewer Main and White Pine Lift Station	32 - 63
6.3 October 2018 Drinking Water Systems Monthly Summary Report	64 - 71
7. <u>Information</u>	
7.1 Operations and Facilities Division - Environmental Area - Operational Statistics - October 2018	72 - 73
8. <u>Adjourn / Next Meeting Date</u>	

TOWN OF FORT FRANCES

MINUTES

SESSION NO. #012

October 4, 2018

The meeting of Operations & Facilities Executive Committee of the Town of Fort Frances was held in the Civic Centre on October 4, 2018 from 8:30 a.m. to 10:00 a.m.

PRESENT: Ken Perry, June Caul, Doug Brown and Travis Rob.

ALSO PRESENT: Tara Allaire (8:30 a.m. to 9:00 a.m.)

1. Call to Order

The meeting was called to order at 8:38 a.m.

2. Disclosure of pecuniary interest and the general nature thereof

None

3. Approval of Previous Committee Minutes

3.1 Minutes from the previous meeting on September 19, 2018 - the minutes were approved as amended.

4. Non-agenda Items

4.1 Whitefish Bay First Nations Landfill

5. Items Referred from Council

5.1 Request from the Municipality of Emo for Recycling Services - the administration report was approved as presented. (Tara Allaire present from 8:30 a.m. to 9:00 a.m.)

5.2 Whitefish Bay First Nation Landfill Request - a verbal update on conversation with MOECC.

6. New Business

6.1 Award of Tender 18-OF-08 - Heavy Duty Tandem Drive Articulated Grader - the administration report was approved as presented.

6.2 Changes to the Minimum Maintenance Standards - Staffing Requirements - the administration report was approved as recommended.

7. Information

- 7.1 Tonnage at the Landfill Site - updated September 25, 2018 - the Landfill statistics were reviewed and will be forwarded to Council as information only. No further action required.

8. Adjourn / Next Meeting Date

The meeting adjourned at 10:00 a.m.

Executive Committee Chair

T. Rob, Manager of Operations & Facilities

November 21, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: Letter Dated November 1, 2018 from Community Living RE Accessibility Ramp

At the November 13 meeting of Council, a letter from Julie Crichton, board chair for the Community Living Fort Frances and District regarding their accessibility ramp was referred to the Operations and Facilities Executive Committee.

Mrs. Crichton's letter referenced the work completed on the accessibility ramp front Community Living's building on Scott Street as part of the 300 block of Scott Street Sidewalk Renewal project. Prior to tendering the project, I connected with Alanna Barr, Chief Executive Officer for this organization to discuss the ramp and suggest that they look at replacement and further suggest that we could tender it within the sidewalk contract and see a cost benefit from doing so. At that time, I gave a rough cost of \$20,000.00 to \$25,000.00 for the replacement. She was concerned about her organization being able to fund that replacement mid year and I suggested she write a letter to council to see if they could pay for that work in instalments or some other arrangement. I urged Mrs. Barr to complete this during tendering so she could know what would be required on her part at tender award. Prior to tendering the scope of works was agreed to between the parties and included in the tender. After tender close I let Mrs. Barr know the costs and that I would need to know if she wanted to proceed or not and if she had any questions or required any clarification. I received an executed work authorization from Mrs. Barr for the work to proceed and proceeded with the work. Mrs. Barr put me in contact with Mr. Barry McTavish as a contact prior to the construction to facilitate access and the work and that was the last contact I had with Mrs. Barr.

Mrs. Crichton came to see me after the work was 90% complete and had some questions about what had transpired up to that point and I went through the process from the start of conversation with Mrs. Barr to the time of the conversation. The letter referred was what resulted from that conversation. Attached to this report is the email correspondence leading up to the work starting as well as the tender price for the ramp work, signed authorization and design drawing.

In regards to the points brought up in the letter, the work was bid as a design build to be sure that the ramp structure would be sufficient to not succumb to the same issues as the previous ramp as that ramp had settled tremendously and was starting to lean from the differential fill weight, in addition it ensures that the new ramp is Ontario Building Code compliant and puts the risk on the contractor for bidding and construction. Further the cost for hand formed curb was referenced in the letter being \$215.00 per meter, however if the Rainy Lake Square project is considered, where there are a substantial number of retaining walls the price for 23m of 200mm wide wall was \$1235.00 per meter and the price for 145m of 150mm wide wall was \$1084.00 per meter. Using the lower price and the approximate 17m length the cost would have been \$18,428.00 plus taxes for just construction, plus design and demolition. The costs per meter for this wall would be \$676.47 per meter. The existing railings were removed and replaced, and the contractor did work to straighten the rail where possible upon re-installation.

The installation of the brick within the ramp structure was completed at the cost of the Town, as was completed at the CIBC in 2017, while the sidewalk was completed. Historically when the Town includes private works within their contracts the costs are passed to the entity in whole including a portion of the

mobilization/demobilization and engineering/inspection if applicable. It is the recommendation of the Operations and Facilities Executive Committee that

1. the costs for the ramp be borne by Community Living Fort Frances and District
2. that a deferred payment plan be considered taking into account the fact that Community Living is a not for profit organization.
3. That the matter be further referred to the Administration and Finance Executive Committee

Respectfully Submitted

A handwritten signature in black ink, appearing to read 'Travis Rob', with a stylized flourish at the end.

Travis Rob, P.Eng

Council approval of this report will agree to the recommendation of the Operations and Facilities Executive Committee that the costs for the ramp be borne by Community Living Fort Frances and District, but that a deferred payment plan be considered taking into account the fact that Community Living is a not for profit organization.

Manager of Operations and Facilities

2019Nov Community Living Letter Accessibility Ramp

November 1, 2018

Town of Fort Frances
320 Portage Avenue
Fort Frances, ON
P9A 3P9

RE: ACCESSIBILITY RAMP FOR COMMUNITY LIVING, 338-342 SCOTT STREET

Dear Mayor and Council:

We, the Board of Directors for Community Living Fort Frances and District (CLFFD) write today in reference to your letter dated July 10, 2018 stating the contract price from Tender No. 18-OF-09 from Makinga Contracting and Equipment Rentals, for the design, removal and replacement of the existing accessibility ramp fronting 338-342 Scott Street.

The contract price of \$22, 524.20 includes all works, less unistone surface of the ramp.

Community Living paid the Town of Fort Frances to construct this accessibility ramp in 1991 for a price of \$10,450. We understand that the ramp was in disrepair but it was also fully functional. We also refer to a letter dated May 8, 1991 from the Town to CLFFD where we were "assured that the materials and workmanship will be of the highest quality and procured at the most reasonable cost to the Association for Community Living". That price included the brushed aluminum railing.

The Town's decision to once again beautify the downtown area should not monetarily impact our organization to such a great extent.

The ramp is +/- 17m in length, the current contract price for hand laid concrete curb, and gutter, for the same contractor working on various projects within the town in the 2018 construction season is \$215/m. We understand that the hand formed retaining wall for the

Mission Statement

To ensure that all people live in a state of dignity, sharing & participating in all elements of living in the community.

Administration Office 340 Scott Street Fort Frances, ON P9A 3M5	24 Hour Care Supports 145 Hudson Drive Fort Frances, ON P9A 3P7 807-274-2427 807-274-9678	Community Support Services 336 Scott Street Fort Frances, ON P9A 1G9 807-274-5703	Employment Supports 340 Scott Street Fort Frances, ON P9A 1G9 807-274-8727	Good Impressions 342 Scott Street Fort Frances, ON P9A 1G9 807-274-3233 giprint@jam21.net	Transitional Services 525 Mowat Avenue Fort Frances, ON P9A 1Z1 807-274-5556
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ramp is different than regular curb and gutter as it likely has a footing and higher curb to form the wall. CLFFD also chose to reuse the existing railing to save on costs. The original cost of this railing was \$4200.

We are not quite sure why there was a need for design as the ramp as the ramp was a basic replacement. We have also not seen a complete drawing/design and detailed estimate to justify this price, only a letter stating a final cost.

If the new retaining wall was triple in size of a regular curb and gutter as in the amount of concrete, rebar and man hours the costs would be in the neighborhood of \$11,000 +tax. If a total transparent and complete cost estimated was provided with drawings, we would be able to understand the amount being passed on to CLFFD.

As you know, Community Living Fort Frances and District is a Non Profit organization with a fixed budget, with very little room for unnecessary expenses.

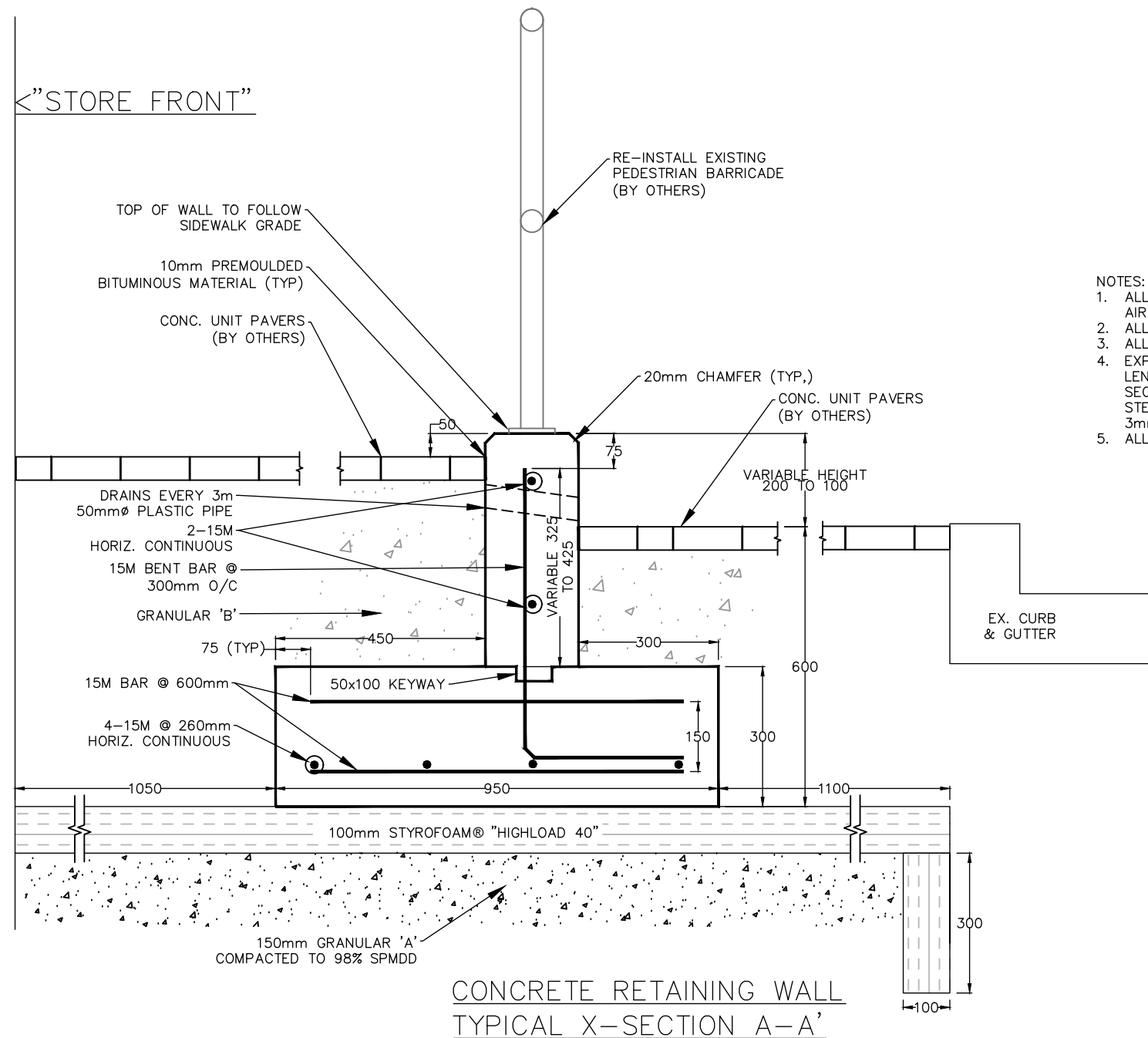
We would appreciate if the Town of Fort Frances would consider adjusting the amount that CLFFD will have to pay to keep more in line with and reflect the current contract tender prices for 2018.

We look forward to hearing from you.

A handwritten signature in black ink, appearing to read 'Julie M. Crichton', with a large, stylized loop at the end.

Julie M. Crichton

Board Chair, Community Living Fort Frances and District.



- NOTES:
1. ALL CONCRETE SHALL BE 32 MPa WITH 5% TO 8% AIR ENTRAINMENT
 2. ALL REINFORCING STEEL SHALL BE GRADE 400 STEEL
 3. ALL REINFORCING BARS TO HAVE 75mm COVER
 4. EXPANSION/CONTROL JOINTS TO BE PROVIDED AT 9m LENGTH AND OR AT CHANGES IN THE WALL CROSS SECTION. PROVIDE EXPANSION JOINTS AT LOCATIONS OF STEP FOOTINGS. PROVIDE 40mm DEEP SAW CUT 3mm-5mm WIDE AND FILL WITH BITUMINOUS FIBER
 5. ALL DIMENSIONS ARE IN mm OR AS NOTED

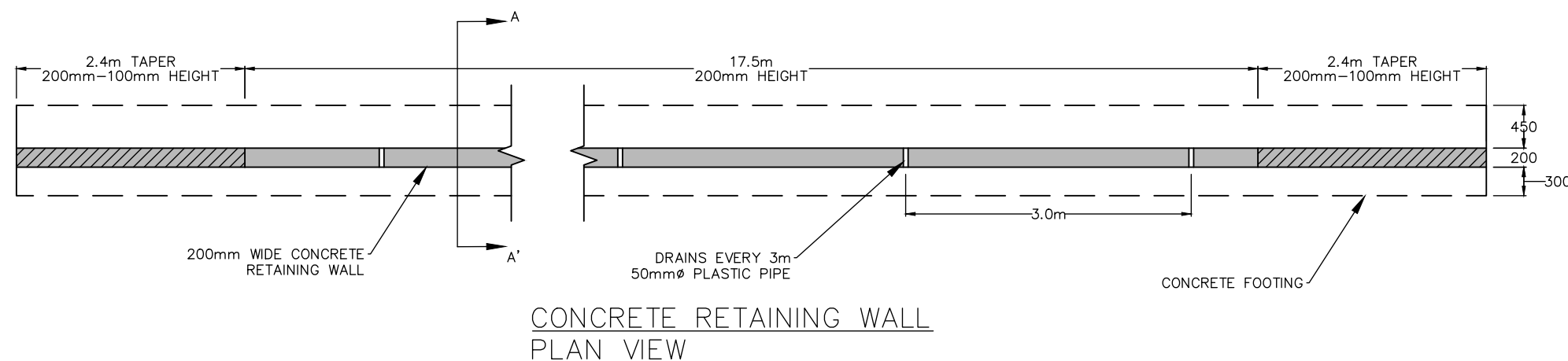


PROJECT
RAMP RETAINING WALL
340 SCOTT ST, FORT FRANCES

CLIENT
**ZULO
CONTRACTING Ltd**

DRAWING TITLE
PLAN VIEW AND SECTION

DATE
24 AUGUST 2018



Administration & Finance Division
Planning & Development Division
Phone: (807)274-5323
Fax: (807)274-8479

Mailing Address for All Divisions:
320 Portage Avenue
Fort Frances, ON
P9A 3P9



Operations & Facilities Division
Phone: (807)274-9893
Fax: (807)274-7360

Community Service Division
Phone: (807)274-4561
Fax: (807)274-3799

Email: town@fortfrances.ca
www.fortfrances.ca

July 10, 2018

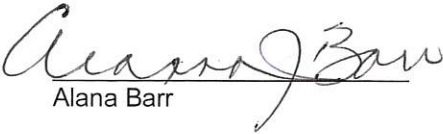
Re: Letter of Authorization from Community Living Fort Frances and District to authorize the Town to design and re-install an accessibility ramp fronting the property at their property 338 Scott Street in accordance with Tender No. 18-OF-09.

The Town has been working with Alana Barr to provide design build services for the reconstruction of the accessibility ramp structure located at their site located at 338 Scott Street within the Town of Fort Frances. The Town has included the necessary scope of works within tender No. 18-OF-09 which closed on July 3, 2018.

On July 9, 2018 Alana Barr was given an outline of the tender bid received from Makkinga Contracting and Equipment Rentals, the low bidder retained by the Town to complete the sidewalk works for 2018.

Based on the tender bid received from Makkinga Contracting and Equipment Rentals, it is estimated that it will cost \$22,524.20 inclusive of HST to complete the design build works to reconstruct the accessibility ramp. The above stated amount is based on estimated quantities where the total actual costs will be based on actual quantities once Makkinga Contracting has completed the work. Community Living Fort Frances and District. will be responsible for all costs to remove the existing, design and install the necessary new infrastructure where the Town will install the paving stone surface within the ramp structure.

I Alana Barr on behalf of Community Living Fort Frances and District, owner of 338 Scott Street Property fully understand the information contained in this Letter of Authorization and have the authority to authorize the Town to install the necessary infrastructure as outlined in the Tender No 18-OF-09 documents and drawings.


Alana Barr

This 10 day of July, 2018

Witnessed



Item #	Description	Estimated Quantity	Units	Daryl's Custom Landscapes Ltd.		Makkinga Contracting		portion of project	Portion of Mob Demob
				Unit Price	Total Cost	Unit Price	Total Cost		
1	Tree Removal & grubbing	10	ea	\$ 1,500.00	\$ 15,000.00	\$ 1,725.00	\$ 17,250.00	4.69%	\$ 1,195.53
2	Sidewalk Stone Removal & Disposal	1	L.S.	\$ 56,000.00	\$ 56,000.00	\$ 37,375.00	\$ 37,375.00	10.16%	\$ 2,590.31
3	Sidewalk base preparation	1	L.S.	\$ 56,000.00	\$ 56,000.00	\$ 44,850.00	\$ 44,850.00	12.19%	\$ 3,108.37
4	Detectable pad installation & associated concrete works	4	ea	\$ 6,000.00	\$ 24,000.00	\$ 2,300.00	\$ 9,200.00	2.50%	\$ 637.61
5	Concrete Curb and gutter (Scott and Victoria)	7	m	\$ 400.00	\$ 2,800.00	\$ 167.00	\$ 1,169.00	0.32%	\$ 81.02
6	Paving Stone installation	1	L.S.	\$ 252,000.00	\$ 252,000.00	\$ 234,940.00	\$ 234,940.00	63.85%	\$ 16,282.73
7	Removal of Existing Ramp Strucutre	1	L.S.	\$ 5,000.00	\$ 5,000.00	\$ 2,300.00	\$ 2,300.00	0.63%	\$ 159.40
8	Design works for new ramp structure	1	L.S.	\$ 4,500.00	\$ 4,500.00	\$ 6,900.00	\$ 6,900.00	1.88%	\$ 478.21
9	Construction of Ramp Structure	1	L.S.	\$ 45,000.00	\$ 45,000.00	\$ 11,500.00	\$ 11,500.00	3.13%	\$ 797.02
10	Installation of Paving Stone within Ramp Structire	1	L.S.	\$ 4,500.00	\$ 4,500.00	\$ 2,450.00	\$ 2,450.00	0.67%	\$ 169.80
11	Mobilization/Demobilization	1	L.S.	\$ 10,000.00	\$ 10,000.00	\$ 25,500.00	\$ 25,500.00	6.93%	
12	Contingency	1	L.S.	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	4.08%	
				Subtotal Tender Price		\$ 489,800.00			
				Private Works Portion		\$ 54,500.00			
				TOTAL TOWN TENDER VALUE		\$ 435,300.00			
				Town's Portion HST		\$ 7,661.28			
				TOTAL TOWN COST		\$ 442,961.28			
				2018 Capital Budget Allocation		\$ 302,500.00			
				Shortfall/(Surplus)		\$ 140,461.28			
						\$ 408,434.00			
						\$ 20,700.00			
						\$ 387,734.00			
						\$ 6,824.12			
						\$ 394,558.12			
						\$ 302,500.00			
						\$ 92,058.12			
								Total Mob \$ 1,434.63	
								\$ 22,134.63	
								Total Private Works \$ 22,524.20	

Travis Rob

From: Travis Rob
Sent: Tuesday, July 10, 2018 12:23 PM
To: 'Alanna j Barr'
Subject: RE: 300 Block of Scott Street Ramp
Attachments: 2018June LetterofUndertaking - Community Living REV.pdf

Sorry, please see revised.

Travis

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Travis Rob
Sent: Tuesday, July 10, 2018 12:23 PM
To: 'Alanna j Barr' <ajbarrclffd@vianet.ca>
Subject: RE: 300 Block of Scott Street Ramp

Good Afternoon Alana,

Please see attached authorization letter. I will need this signed ASAP so that the contractor can start the process of design so as to not delay the project progress.

Regards,

Travis

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Alanna j Barr [<mailto:ajbarrclffd@vianet.ca>]
Sent: Monday, July 9, 2018 1:59 PM
To: Travis Rob <trob@fortfrances.ca>
Subject: Re: 300 Block of Scott Street Ramp

Ok thanks.

Sent from my iPhone

On Jul 9, 2018, at 1:48 PM, Travis Rob <trob@fortfrances.ca> wrote:

Yes it was tendered to re-use railing

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Alanna j Barr [<mailto:ajbarrclffd@vianet.ca>]
Sent: Monday, July 9, 2018 1:48 PM
To: Travis Rob <trob@fortfrances.ca>
Subject: Re: 300 Block of Scott Street Ramp

Was using our own railing taken into consideration in the cost?

Sent from my iPhone

On Jul 9, 2018, at 1:40 PM, Travis Rob <trob@fortfrances.ca> wrote:

Sorry by that I mean, removed, stored and replaced upon completion.

Travis

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Alanna j Barr [<mailto:ajbarrclffd@vianet.ca>]
Sent: Monday, July 9, 2018 12:30 PM
To: Travis Rob <trob@fortfrances.ca>
Subject: Re: 300 Block of Scott Street Ramp

Travis we wish to use the existing railing not replace it.

Sent from my iPhone

On Jul 9, 2018, at 11:14 AM, Travis Rob <trob@fortfrances.ca> wrote:

Yes the railing will be removed and replaced.

Travis

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Alanna j Barr [<mailto:ajbarrclffd@vianet.ca>]
Sent: Monday, July 9, 2018 10:01 AM

To: Travis Rob <trob@fortfrances.ca>
Subject: Re: 300 Block of Scott Street Ramp

Travis did you take into consideration we wish to use our existing aluminium railing?

Sent from my iPhone

On Jul 9, 2018, at 9:14 AM, Travis Rob <trob@fortfrances.ca> wrote:

Good Morning Alana,

The tenders have closed and the low bidder came in at a cost of \$22,524.20 including the removal of the ramp structure, design of the new structure, installation, portion of mobilization/demobilization and applicable taxes, less the installation of the brick.

I have not yet seen anything come through council for a deferred payment plan and the next council meeting is August 13. I will be starting the works ASAP and will be looking for an authorization from you to proceed with the work on your ramp.

I have cc'd the Clerk on this as she will be involved in the process and executing the documents for the corporation.

Please let me know if you have any questions.

Travis

Travis Rob P.Eng.
Manager of Operations & Facilities
Town of Fort Frances
P: (807)274-9893 ext 1316
C: (807)275-9757

From: Travis Rob
Sent: Thursday, June 7, 2018 4:06 PM
To: Alanna J. Barr <ajbarrclffd@vianet.ca>
Subject: RE: 300 Block of Scott Street Ramp

I am going to swing over there and take a look tomorrow, I let you know my thoughts. Yes those railings are expensive but they are sure easier than painted steel!

Travis

Travis Rob, P.Eng.
Manager of Operations and Facilities

Town of Fort Frances
P: (807)274-9893
C: (807)275-9757

From: Alanna J. Barr <ajbarrclffd@vianet.ca>
Sent: Thursday, June 7, 2018 4:04 PM
To: Travis Rob <trob@fortfrances.ca>
Subject: RE: 300 Block of Scott Street Ramp

I think that with a stable foundation it might work. There is a small piece on the eastern bottom side that is missing that we could replace.

That railing was more expensive than the painted steel railing, maintenance free for aluminum.

Alanna J. Barr
CEO
Community Living Fort Frances and District
P.O. Box 147
Fort Frances, ON
P9A 3M5

Phone: 807-274-5556 X 211
Fax: 807-274-5009
<image001.jpg>

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From: Travis Rob <trob@fortfrances.ca>
Sent: June 7, 2018 3:33 PM
To: Alanna J. Barr <ajbarrclffd@vianet.ca>
Subject: RE: 300 Block of Scott Street Ramp

Hi Alanna,

I want to look at the railing, what is the condition? Memory seems to make me think that it is too in tough shape. What are your thoughts?

Thanks
Travis

Travis Rob, P.Eng.
Manager of Operations and Facilities
Town of Fort Frances
P: (807)274-9893
C: (807)275-9757

From: Alanna J. Barr <ajbarrclffd@vianet.ca>
Sent: Thursday, June 7, 2018 3:17 PM
To: Travis Rob <trob@fortfrances.ca>
Subject: RE: 300 Block of Scott Street Ramp

Hello Travis:

In reviewing our file I confirm that the Town of Fort Frances constructed the ramp and that Community Living paid the costs of the ramp.

Dimensions are: Width 1.500 m plus 0.200 for curb
Length 17.43 m

Total Width of sidewalk 3.266 m

Height of Ramp above sidewalk 0.203 m

26 m of unistone sidewalk

24 m of brushed anodized aluminum railing

Once the new ramp is installed I will the current railing be reinstalled?

Regards

Alanna J. Barr

CEO

Community Living Fort Frances and District

P.O. Box 147

Fort Frances, ON

P9A 3M5

Phone: 807-274-5556 X 211

Fax: 807-274-5009

<image001.jpg>

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From: Travis Rob <trob@fortfrances.ca>
Sent: June 7, 2018 2:30 PM
To: ajbarrclffd@vianet.ca
Subject: 300 Block of Scott Street Ramp

Hi Alana,

Thank you for the call today and just to follow up surrounding your ramp at your property on Scott Street, the following was discussed:

- The Town will tender for the design/build of a replacement ramp at the front of your property
- The Town will separate the structural concrete and design portions from the paving stone portion and the Town will pay for the paving stone portion as it has at other properties on the 200 block of Scott Street
- That the Town will request that you enter into a standard land use agreement covering expectations for care and maintenance of the ramp going forward.
- CLFFD will write a letter to Mayor and Council asking to spread the costs over a time that would be suitable to them in an effort to ensure that this important work is completed with the town's sidewalk renewal and CLFFD's budget.

Please see attached land use agreement with the Salvation Army. This agreement would be registered on title for the property at a nominal fee.

Please let me know if you have any questions. I will proceed to tender this work.

Thanks
Travis

Travis Rob, P.Eng.
Manager of Operations and Facilities
Town of Fort Frances
P: (807)274-9893
C: (807)275-9757

November 8, 2017

Report To: Mayor & Council

From: Travis Rob, Manager of Operations & Facilities

SUBJECT: 2019 Operations & Facilities Division User Fees & Charges

Please find attached spreadsheets outlining the proposed 2019 user fees and charges for the Operations & Facilities Division. The 2018 rates were increased by 2.6% across the board with a few exceptions.

The exceptions are as follows and are shown highlighted in “green” on the spreadsheets;

1. No change to the environmental fee from \$5.00 set in 2017 or the price of bag tags for 2019
2. Landfill minimum charge for the landfill remains the same as 2018 at \$18.00
3. The minimum charge for providing services to unplug a blockage in a sanitary sewer service line were rounded to the nearest dollar.
4. No change to the per square inch cost for monument foundations proposed for 2019
5. The camping fees at the Pither’s Point Park were rounded up to the nearest 50 cents including all applicable taxes;
 - a. Full service camp site - \$35.75 (HST included) - \$0.75 increase compared to 2018
 - b. Tenting site - \$18.50 (HST included) - \$0.50 increase compared to 2018
 - c. Partial Service camp site - \$28.75 (HST included) - \$0.75 increase from 2017
6. All fees are rounded to the nearest \$0.05 or \$0.10

The Cemetery Price list will be reviewed and approved at the same time as reviewing all of the other user fees and charges for the Operations & Facilities Division. The 2019 Cemetery Price List doesn’t have to be approved by the Ministry of Consumer Services.

The forecasted increase in revenue is as follows for the Operations & Facilities Division;

Rate Increase	2.6% & adjustments
---------------	--------------------

Public Works	\$ 2,043.66
Waste Management System	\$13,675.05
Parks	\$ 636.82
Cemetery Charges	\$ 5,434.15
Airport	\$ 6,874.11
Total	\$24,025.70

Water and Sewer fees will be reviewed in early 2019 and will be set prior to the first billing cycle in 2019.

The Operations & Facilities Executive Committee recommends the following:

- 1) That Council endorses the 2019 proposed user fees and charges for the Operations & Facilities Division in principle with an increase of 2.6% with a few exceptions where the rate increase is other than 2.6% as outlined on the attached spreadsheets and that a by-law be prepared prior to January 1st, 2019.
- 2) That Council endorses the proposed Cemetery Price List as outlined on the attached spreadsheet in principle with an increase of 2.6% and that it will go into effect on January 1st, 2018.

Respectfully submitted,



Travis Rob, P.Eng.
Manager of Operations & Facilities

Council Approval of this report will ensure the following:

- 1) That Council endorses the 2019 proposed user fees and charges for the Operations & Facilities Division in principle with an increase of 2.6 % with a few exceptions where the rate increase is other than 2.6% as outlined on the attached spreadsheets and that a by-law be prepared prior to January 1st, 2019.**
- 2) That Council endorses the proposed Cemetery Price List as outlined on the attached spreadsheet in principle with an increase of 2.6% and that it will go into effect on January 1st, 2019.**

2018Nov O&F Division 2019 User Fees & Charges

Spreadsheet No. 1 - Operations & Facilities Fees and Service Charges							
PUBLIC WORKS - Updated on November 13, 2018 - effective January 1st, 2019							
Description	Units	# of Units	2016	2017	2018	2019	Increase Revenue
			2015 + 1.2%	2016+1.5%	2017+1.5%	2018 + 2.6%	2018+2.6%
Private Work							
Labour							
Labour billed on hourly rate - regular hours	Hours	140	\$41.97	\$42.60	\$43.25	\$44.35	\$154.00
Overtime Labour Rate			\$62.96	\$63.90	\$64.85	\$66.55	
Double Time Labour Rate (Statutory Holidays)			\$83.94	\$85.19	\$86.45	\$88.70	
Non-Residential Labour Rate			listed rate+ 25%	listed rate+ 25%	listed rate+ 25%	listed rate+ 25%	
Vehicle Rates							
Non-residential equipment & vehicle rates			listed rate+ 25%	listed rate+ 25%	listed rate+ 25%	listed rate+ 25%	
All 1/2 tons, 3/4 tons, crew cabs, compacts & van	Hours	29	\$21.82	\$22.15	\$22.50	\$23.10	\$17.40
V109 - Sand Truck			\$81.51	\$82.74	\$84.00	\$86.20	
V110 - Dump/Plow Truck			\$37.58	\$38.14	\$38.70	\$39.70	
V115 - Sander/Plow Truck			\$91.02	\$92.39	\$93.75	\$96.20	
V122 - Tandem Truck		18	\$81.51	\$82.74	\$84.00	\$86.20	\$39.60
V121 - Tandem Truck		19	\$81.51	\$82.74	\$84.00	\$86.20	\$41.80
Equipment Rates							
E205 & E207 Graders	Hours						
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Machine with wing			\$68.92	\$69.96	\$71.00	\$72.85	
Total per hour per grader			\$110.89	\$112.55	\$114.25	\$117.20	
E206 - Vacuum/Pressure Truck							
a) Labour - 2 men			\$83.94	\$85.19	\$86.50	\$88.75	
b) Truck			\$151.49	\$153.76	\$156.05	\$160.10	
Total per hour		24	\$235.42	\$238.95	\$242.55	\$248.85	\$151.20
E305 - Sidewalk machine c/w any attachment							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment with bucket			\$61.11	\$62.02	\$62.95	\$64.60	
Total per hour		8	\$103.07	\$104.62	\$106.20	\$108.95	\$22.00
E309 - Hyundai Backhoe							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment with bucket			\$84.53	\$85.80	\$87.10	\$89.35	
Total per hour		4	\$126.50	\$128.40	\$130.35	\$133.75	\$13.60
E313 - Large Snow Blower & Loader							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$87.61	\$88.93	\$90.25	\$92.60	
Total per hour			\$129.58	\$131.52	\$133.50	\$136.95	
E318 - Cat 930H Loader							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$52.37	\$53.15	\$53.95	\$55.35	
Total per hour		4	\$94.33	\$95.75	\$97.20	\$99.75	\$10.21
E315 - Loader Bobcat							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment with attachments			\$47.91	\$48.63	\$49.35	\$50.65	
Total per hour			\$89.88	\$91.23	\$92.60	\$95.00	
E317 - IT38 Cat Loader							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$53.09	\$53.89	\$54.70	\$56.10	
Total per hour		4	\$95.06	\$96.48	\$97.95	\$100.50	\$10.22
E321 - Loader/Backhoe							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$45.34	\$46.02	\$46.70	\$47.90	
Total per hour		4	\$87.31	\$88.62	\$89.95	\$92.30	\$9.40
E597 - Ingersoll Rand Packer							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$73.87	\$74.97	\$76.10	\$78.10	
Total per hour			\$115.83	\$117.57	\$119.35	\$122.45	
E713 - Low Pressure Steamer							
a) Labour- 2 men			\$83.94	\$85.19	\$86.50	\$88.75	
b) Equipment			\$31.28	\$31.75	\$32.30	\$33.15	
c) Half Ton Truck			\$21.82	\$22.15	\$22.50	\$23.10	
Total per hour		8	\$137.04	\$139.09	\$141.30	\$144.95	\$29.20

Spreadsheet No. 1 - Operations & Facilities Fees and Service Charges							
PUBLIC WORKS - Updated on November 13, 2018 - effective January 1st, 2019							
Description	Units	# of Units	2016	2017	2018	2019	Increase Revenue
			2015 + 1.2%	2016+1.5%	2017+1.5%	2018 + 2.6%	2018+2.6%
E726 - Rigid Drain Cleaning Machine							
a) Labour - 2 Men	Plugged		\$83.94	\$85.19	\$86.50	\$88.75	
b) Equipment	Sewer		\$3.39	\$3.44	\$3.50	\$3.60	
c) Half Ton	Per Hour		\$22.12	\$22.45	\$22.50	\$23.10	
d) Total per hour		67	\$109.45	\$111.09	\$112.50	\$115.45	\$197.65
E816 - Street Sweeper							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$87.28	\$88.59	\$89.90	\$92.25	
Total per hour		40	\$129.24	\$131.18	\$133.15	\$136.60	\$138.00
E830 - DBH Thawing Machine							
a) Labour 2 Men			\$83.94	\$85.19	\$86.50	\$88.75	
b) Equipment			\$56.25	\$57.09	\$57.95	\$59.45	
c) 3/4 Ton			\$22.12	\$22.45	\$22.50	\$23.10	
Total per hour		7	\$162.30	\$164.74	\$166.95	\$171.30	\$30.47
E830 - Pulse De-icer (Thawing) Machine							
a) Labour 2 Men			\$83.94	\$85.19	\$86.50	\$88.75	
b) Equipment			\$15.36	\$15.59	\$15.85	\$16.25	
c) 3/4 Ton			\$22.12	\$22.45	\$22.50	\$23.10	
Total per hour		1	\$121.42	\$123.24	\$124.85	\$128.10	\$3.25
E838 - Air Compressor							
a) Labour			\$41.97	\$42.60	\$43.25	\$44.35	
b) Equipment			\$30.72	\$31.18	\$31.65	\$32.45	
c) 3/4 Ton			\$22.12	\$22.45	\$22.50	\$23.10	
Total per hour			\$94.81	\$96.23	\$97.40	\$99.95	
Private Concrete Crossing or Replacement of Sidewalk for private crossing							
Removal, Supply & installation of concrete driveway	Square Feet	1100	\$18.20	\$18.47	\$18.75	\$19.25	\$553.10
Private Crossing - Culvert	Feet	54	\$164.63	\$167.10	\$169.60	\$174.00	\$237.60
Removal of concrete driveway crossing			\$6.08	\$6.17	\$6.25	\$6.40	
Removal of highback concrete curb & gutter and replace with low back concrete curb & gutter for new driveway crossing installation	Linear Ft	16	\$38.14	\$38.71	\$39.30	\$40.30	\$16.00
Removal of highback concrete curb & gutter and replace with low back concrete curb & gutter for new driveway crossing installation	Linear Ft		\$38.14	\$38.71	\$39.30	\$40.30	
Engineering Services							
Engineering Services Minimum One Hour							
Televising Customer Sewer at their request on regular hours	Per Hour	8	\$187.37	\$190.18	\$193.05	\$198.05	\$40.00
Televising Customer Sewer at their request on overtime hours			\$374.74	\$380.36	\$386.50	\$396.55	
Tracing Customer Water & Sewers at their request on regular hours		7	\$124.91	\$126.79	\$128.70	\$132.05	\$23.45
Tracing Customer Water & Sewers at their request on overtime hours			\$249.82	\$253.57	\$257.35	\$264.05	
Setting Lot Grades only - regular hours	Per Lot Grade	23	\$112.67	\$114.36	\$116.05	\$119.05	\$69.00
Copying Blue Prints	Each		\$13.47	\$13.67	\$13.90	\$14.25	
Scanning Blue Prints (data storage not included)	Each						
New for 2018 - 1 to 15 pages					\$5.00	\$5.15	
New for 2018 - 16 to 30 pages					\$4.00	\$4.10	
New for 2018 - 31 pages or more					\$3.00	\$3.10	
GIS Drawings or Maps- Hardcopy							
size- 8.5" by 11"			\$5.66	\$5.74	\$5.85	\$6.00	
size- 11" by 17"			\$11.32	\$11.49	\$11.65	\$11.95	
size - 24" by 36"			\$28.29	\$28.72	\$29.15	\$29.90	
Digital Aerial Photography - .ecw format only			\$1,131.69	\$1,148.67	\$1,165.90	\$1,196.20	
GIS Shapefiles- per infrastructure layer			\$282.92	\$287.17	\$291.50	\$299.10	
GIS Shapefiles- base map -property lines and addresses			\$282.92	\$287.16	\$291.50	\$299.10	
Landfill Tipping Fees (NO TAXES)							
0-250 kgs		5700	\$18.00	\$18.00	\$18.00	\$18.00	\$0.00
251-500 kgs							
251-1,000 kgs		5988	\$68.85	\$69.88	\$70.95	\$72.80	\$11,077.80

Spreadsheet No. 1 - Operations & Facilities Fees and Service Charges							
PUBLIC WORKS - Updated on November 13, 2018 - effective January 1st, 2019							
Description	Units	# of Units	2016	2017	2018	2019	Increase Revenue
			2015 + 1.2%	2016+1.5%	2017+1.5%	2018 + 2.6%	2018+2.6%
Flate rate period when scales are not in operation.							
Passenger Vehicles- minivans, SUV & Cars			\$18.00	\$18.00	\$18.00	\$18.00	
Single Axle Trailers pulled by truck			\$29.31	\$29.75	\$30.20	\$31.00	
Half-ton Trucks- 3/4 ton & compact			\$20.60	\$20.91	\$21.20	\$21.75	
Single Axle Trucks			\$95.06	\$96.49	\$97.95	\$100.50	
Tandem Trucks and Trailers			\$237.66	\$241.22	\$244.85	\$251.20	
Garbage Trucks, Containerized Hauling Units & Tanker Trucks			\$285.19	\$289.47	\$293.80	\$301.45	
Fees to be used when scales are in operation.							
Minimum Charge			\$18.00	\$18.00	\$18.00	\$18.00	
Rate per Tonne			\$68.85	\$69.88	\$70.95	\$72.80	
Weighing Vehicle Only			\$30.90	\$31.36	\$31.85	\$32.70	
Contaminated Soil Suitable for Cover Material - per tonne			\$3.79	\$3.85	\$3.90	\$4.00	
Car Tires - each			\$8.32	\$8.44	\$8.60	\$8.80	
Truck Tires - up to and including 18 wheelers			\$19.41	\$19.70	\$20.00	\$20.50	
Off Road Tires (anything over 18 wheeler			\$97.04	\$98.50	\$100.00	\$102.60	
Tires by the Tonne			\$484.82	\$492.09	\$499.50	\$512.50	
Refrigeration Unit - containing Refrigerant or no notification sticker affixed to the unit			\$40.40	\$41.01	\$41.60	\$42.70	
Sale of Blue Boxes							
Sale of Composters							
Sale of Bag Tags		12000	\$2.25	\$2.25	\$2.25	\$2.25	\$0.00
Monthly Environmental Fee per water account		3463	\$4.25	\$5.00	\$5.00	\$5.00	\$2,597.25
Water and Sewer (NO Taxes)							
If sewer and water are in separate trenches	Per Trench		Cost Plus	Cost Plus	Cost Plus	Cost Plus	
If sewer and water are in the same trench			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
Termination of Water and Sewer							
If sewer and water are in separate trenches	Per Trench		Cost Plus	Cost Plus	Cost Plus	Cost Plus	
If sewer and water are in the same trench			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
Termination of Services							
Inspecting the termination prior to backfilling	Inspection	6	\$44.28	\$44.94	\$45.60	\$46.80	\$7.95
Reconnection of Services							
Inspecting the reconnection prior to backfilling			\$44.28	\$44.94	\$45.60	\$46.80	\$0.00
Regular request to turn water on or off (maintenance)	Per Turn	127	\$44.28	\$44.94	\$45.60	\$46.80	\$168.28
Non-maintenance shut off for delinquent accounts		8	\$124.98	\$126.86	\$128.75	\$132.10	\$30.14
Non-maintenance turn on for delinquent accounts		8	\$124.98	\$126.86	\$128.75	\$132.10	\$30.14
Sale and Installation of Water Meters							
3/4" Water Meter			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
1" Water Meter			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
1 1/2" Water Meter			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
2" Water Meter			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
Testing of Backflow Device			Cost Plus	Cost Plus	Cost Plus	Cost Plus	
Minimum Rate to Unplug Blockage in Sanitary Sewer Line							
During Regular Business Hours			\$25.00	\$25.50	\$25.50	\$26.00	
Overtime Hours			\$37.50	\$38.00	\$38.00	\$39.00	
Statutory Holiday			\$50.00	\$50.50	\$50.50	\$52.00	
Stores- (Applicable Taxes Extra)							
Sale of all items to private sector	Per Item						
						Total	\$15,718.71
						WMS	\$13,675.05
						Other PW	\$2,043.66

Fees and Services Charges - all applicable taxes included unless otherwise expressed

Spreadsheet No. 1 - Updated November 13, 2018 - Parks & Cemeteries 2019 Proposed Fees - January 1st, 2019								Revenue
Fees and Services Charges - all applicable taxes included unless otherwise expressed								Increase
	Units	#Units	2016 2015+1.2%	2017 2016+1.5%	2018 2017+1.5%	2019 2018+2.6%	2019 2018+2.6%	
Cemeteries						2.6%		

4.6.1 SALE OF LOTS - Plus applicable taxes

4.6.1.1	Adult Single	lots	11	\$514.81	\$522.53	\$590.80	\$598.80	\$88.02
4.6.1.2	Adult Double	lots	10	\$776.92	\$788.57	\$896.00	\$911.95	\$159.50
4.6.1.3	Child Single	lot	1	\$255.94	\$259.78	\$292.81	\$296.01	\$3.21
4.6.1.4	Cremation	lot	1	\$229.43	\$232.87	\$261.95	\$264.35	\$2.40
4.6.1.5	Non-residents	Above Rates Plus 40% - plus GST						
4.6.1.6	Care and Maintenance Fund Contribution included in sale price -							

4.6.2 SALE OF COLUMBARIUM NICHES - Plus applicable taxes

SALE OF COLUMBARIUM NICHES - Plus applicable taxes			Niches	10					
Sale price per Niche									
Includes One (1)			Second						
Interment			Interment						
4.6.2.1	Top 2 Rows		\$178.65	2	\$1,355.28	\$1,375.61	\$1,398.14	\$1,621.00	\$445.72
4.6.2.2	Middle 4 Rows		\$178.65	5	\$1,671.27	\$1,696.34	\$1,723.67	\$1,998.40	\$1,373.64
4.6.2.3	Bottom 2 Rows		\$178.65	3	\$1,118.27	\$1,135.04	\$1,153.94	\$1,337.85	\$551.73

Each Niche is classified as a double and will hold two cremated remains.

The Price Above includes:

- Purchase of Double Niche
- Bronze Plaque and Installation
- One Interment
- Required contribution to the care and maintenance fund

The second interment into the double niche will have an additional charge of \$137.42

4.6.2.4	Non-residents	Above Rates Plus 40% - plus applicable taxes							
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4.6.3 INTERMENTS - Plus applicable taxes

May 1st to October 31 Interment Rates

4.6.3.1	Adult	Burials	27	\$753.57	\$764.88	\$776.33	\$796.50	\$544.59
4.6.3.2	Adult with Vault	Vaults	6	\$838.34	\$850.92	\$863.67	\$886.11	\$134.62
4.6.3.3	Child	Burials	0	\$303.42	\$307.97	\$312.61	\$320.75	
4.6.3.4	Child with Vault (8 years old or under)	Vaults	1	\$329.88	\$334.83	\$339.86	\$348.70	\$8.84
4.6.3.5	Extra Depth (10 Feet)	Extra Depth	0	\$834.34	\$846.86	\$863.67	\$886.11	
4.6.3.6	Saturday - No Holiday Burials							
	* Above Rates Plus	Saturday	4	\$509.65	\$517.29	\$525.04	\$538.67	\$54.52
	Sunday/Holiday - Above Rates Plus							

Fees and Services Charges - all applicable taxes included unless otherwise expressed

Spreadsheet No. 1 - Updated November 13, 2018 - Parks & Cemeteries 2019 Proposed Fees - January 1st, 2019								Revenue	
Fees and Services Charges - all applicable taxes included unless otherwise expressed								Increase	
			Units	#Units	2016 2015+1.2%	2017 2016+1.5%	2018 2017+1.5%	2019 2018+2.6%	2019 2018+2.6%
4.6.3.7	Cremated Remains (Cremains) * At a Size No Larger Than Twelve Inches (12") in diameter	Burials	42	\$276.96	\$281.11	\$285.31	\$292.74	\$312.06	
4.6.3.8	Cremated Remains (Cremains) * At a Size of Thirteen Inches (13") to Twenty-Four Inches (24") in Diameter - Maximum Allowable Size								
4.6.3.9	Saturday Cremains At a Size No Larger Than Twelve Inches (12") in diameter		2	\$276.96	\$281.11	\$285.31	\$292.74	\$14.86	
4.6.3.10	Saturday Cremains At a Size of Thirteen Inches (13") to Twenty-Four Inches (24") in Diameter - Maximum Allowable Size			\$435.83	\$442.37	\$448.98	\$460.66		
4.6.3.11	Cremains - Place into Monument Base			\$87.08	\$88.39	\$89.74	\$92.08		
4.6.3.12	Cremains at same time as casket interment * with no disinterment of cremains			\$54.64	\$55.46	\$56.28	\$57.74		
4.6.3.13	Non-residents	Above Rates Plus 40% - plus GST							
4.6.3.14	Disinterment	Above Rates plus 150% extra plus Interment Price - plus GST							
4.6.3.15	Funeral reaching cemetery outside of the hours of 9:00 a.m. and 3:00 p.m.			\$123.68	\$125.54	\$127.44	\$130.76		
4.6.3.16	Cremated Remains placed in monument with niche			\$68.74	\$69.77	\$70.80	\$72.66		

4.6.3 November 1st to April 30 Interment Rates

4.6.3.1	Adult		9	\$912.45	\$926.14	\$940.00	\$964.42	\$219.82
4.6.3.2		Adult with Vault	7	\$997.16	\$1,012.12	\$1,027.30	\$1,054.03	\$187.11
4.6.3.3	Child			\$435.83	\$442.37	\$448.98	\$460.66	
4.6.3.4		Child with Vault		\$520.55	\$528.36	\$536.29	\$550.22	
4.6.3.5	Extra Depth (10 Feet)		1	\$1,086.38	\$1,102.68	\$1,119.20	\$1,148.32	\$29.12
4.6.3.6	Saturday - No Holiday Burials * Above Rates Plus Sunday/Holiday - Above Rates Plus		2	\$509.65	\$517.29	\$525.04	\$538.67	\$27.26
4.6.3.7	Cremated Remains (Cremains) * At a Size No Larger Than Twelve Inches (12") in diameter							
4.6.3.8	Cremated Remains (Cremains) * At a Size of Thirteen Inches (13") to Twenty-Four Inches (24") in Diameter - Maximum Allowable Size							
4.6.3.9	Saturday Cremains At a Size No Larger Than Twelve Inches (12") in diameter							
4.6.3.10	Saturday Cremains At a Size of Thirteen Inches (13") to Twenty-Four Inches (24") in Diameter - Maximum Allowable Size							

Fees and Services Charges - all applicable taxes included unless otherwise expressed

Spreadsheet No. 1 - Updated November 13, 2018 - Parks & Cemeteries 2019 Proposed Fees - January 1st, 2019								Revenue		
Fees and Services Charges - all applicable taxes included unless otherwise expressed								Increase		
				Units	#Units	2016 2015+1.2%	2017 2016+1.5%	2018 2017+1.5%	2019 2018+2.6%	2019 2018+2.6%
4.6.3.11	Cremains - Place into Monument Base									
4.6.3.12	Cremains at same time as casket interment									
	* with no disinterment of cremains									
4.6.3.13	Non-residents			Above Rates Plus 40% - plus applicable taxes						
4.6.3.14	Disinterment			Above Rates plus 150% extra plus Interment Price - plus applicable taxes						
4.6.3.15	Funeral reaching cemetery outside of the hours of 9:00 a.m. and 3:00 p.m.					\$123.66	\$125.52	\$127.40	\$130.76	
4.6.3.16	Cremated Remains placed in monument with niche					\$68.72	\$69.75	\$70.80	\$72.66	
4.6.4	SPECIAL CARE - Plus applicable taxes									
4.6.4.1	Single			singles	20	\$2,647.98	\$2,687.70	\$2,728.02	\$2,798.95	\$1,418.57
4.6.4.2	Double			doubles	3	\$5,295.94	\$5,375.38	\$5,456.01	\$5,597.88	\$425.60
4.6.4.3	Non-residents			Above Rates Plus 40% - plus applicable taxes		2				
4.6.5	ANNUAL CARE - Plus applicable taxes									
4.6.5.1	Adult				10	\$211.85	\$215.03	\$218.26	\$223.94	\$56.80
4.6.5.2	Child				6	\$79.43	\$80.62	\$81.83	\$83.94	\$12.63
4.6.5.3	Non-residents			Above Rates Plus 40% - plus applicable taxes						
4.6.5.4	ONTARIO LICENSING FEE - Plus applicable taxes									
4.6.7	UPRIGHT MEMORIALS - Plus applicable taxes									
4.6.6.1	Foundation size per square inch				21	\$0.29	\$0.29	\$0.30	\$0.31	\$0.16
4.6.6.2	Non-Residential fee above rate plus 40%									
4.6.8	FLAT MARKERS - Plus applicable taxes									
4.6.7.1	Foundation size per square inch				27	\$0.27	\$0.27	\$0.28	\$0.29	\$0.20
4.6.7.2	Non-Residential fee above rate plus 40%									
FOUNDATION ORDERS WILL ONLY BE ACCEPTED FROM 15TH JUNE TO 15 SEPTEMBER EACH YEAR.										
4.6.9	CARE AND MAINTENANCE FUND CONTRIBUTION - Plus applicable taxes									
4.6.9.1	Flat Markers measuring less than 173 sq. inches								\$0.00	
4.6.9.2	Flat Markers measuring at least 173 sq. inches								\$50.00	
4.6.9.3	Upright Monuments measuring 4 feet or less in height & length								\$100.00	
4.6.9.4	Upright Monuments measuring more than 4 feet in height or length including base								\$200.00	

Fees and Services Charges - all applicable taxes included unless otherwise expressed

							Revenue
							Increase
	Units	#Units	2016 2015+1.2%	2017 2016+1.5%	2018 2017+1.5%	2019 2018+2.6%	2019 2018+2.6%

4.7 PARKS

Non-residential labour, equipment, vehicles rate

Labour Cost not included in the following:

4.7.1.1	Mower, Riding	Hours	14	\$15.61	\$15.85	\$16.09	\$16.50	\$5.80
4.7.1.2	Portable Generator			\$7.49	\$7.61	\$7.72	\$7.90	
4.7.1.3	Power Saw			\$7.49	\$7.61	\$7.72	\$7.90	
4.7.1.4	Trailer - Large			\$12.49	\$12.68	\$12.87	\$13.20	
4.7.1.5	Cement Mixer			\$12.49	\$12.68	\$12.87	\$13.20	

Labour Cost are included in the following:

4.7.2	4.7.2.1	Backhoe	Hours	0	\$74.95	\$76.07	\$77.21	\$79.20	
	4.7.2.2	4200 Tractor & Sweeper			\$52.46	\$53.25	\$54.05	\$55.45	
	4.7.2.3	Stumper (Chipper)		8	\$82.44	\$83.68	\$84.93	\$87.15	\$17.73
	4.7.2.4	Snowplow - Dodge			\$47.47	\$48.18	\$48.90	\$50.15	

4.7.3	Point Park Camping Rates - Plus Applicable Taxes -				Adjust for HST				2019 Rate + HST	2019 rate increase
	Full Hook-up - Water, Hydro									
4.7.3.1	& Sewage Dump Station	night	670	\$30.09	\$30.53	\$30.97	\$31.64	\$447.00	\$35.75	2.15%
4.7.3.2		7 days per week	16	\$150.45	\$152.71	\$154.87	\$158.85	\$63.67	\$179.50	2.57%
4.7.3.3		4 week	5	\$578.54	\$587.22	\$596.46	\$612.39	\$79.65	\$692.00	2.67%
4.7.3.4	Tenting Sites	night	52	\$15.04	\$15.49	\$15.93	\$16.37	\$22.97	\$18.50	2.77%
4.7.3.5		7 days per week	0	\$80.61	\$81.81	\$83.19	\$85.40		\$96.50	2.65%
4.7.3.6		4 week	0	\$313.46	\$318.15	\$323.01	\$331.42		\$374.50	2.60%
	Partial Hook-up - Hydro & Sewage Dump Station, but									
4.7.3.7	no Water service	night		\$24.18	\$24.34	\$24.78	\$25.44		\$28.75	2.67%
4.7.3.8		7 days per week		\$121.79	\$123.60	\$125.66	\$128.98		\$145.75	2.64%
4.7.3.9		4 week		\$469.28	\$476.30	\$483.19	\$496.02		\$560.50	2.65%
4.7.3.10	Cost for Utilities per day- 4 Native Band Members			\$7.16	\$7.27	\$7.08	\$7.26		\$8.20	2.54%

Total Parks & Cemeteries \$6,707.79

Total Point Park \$590.32

Total Parks \$636.82

Total Parks & Cemeteries (less Point) \$6,070.97

Fees and Service Charges -
As of January 1st, 2019

Fee

Office/square meter- Plus applicable taxes
Counter/square meter- Plus applicable taxes
Rental of Heated Garage Bay

Aviation Fuels - Plus applicable taxes

100LL
Jet-A

Aviation Oils

Aircraft Landing Fees for Domestic Flights - No applicable taxes

Piston Aircraft
Medivac & All Government Aircrafts
Turbine Aircraft Minimum Fee
 <21,000 kgs. - Gross Weight X
 21,000 - 45,000 kgs. - Gross Weight X

Aircraft Landing Fees for International Flights - No applicable taxes

Piston Aircraft
Turbine Aircraft Minimum Fee
 <21,000 kgs. - Gross Weight X
 21,000 - 45,000 kgs. - Gross Weight X

Airport Parking Fees

<4,999 kgs/day
<4,999 kgs/month
5 - 9,999 kgs/day
5 - 9,999 kgs/month
10,000-29000 kgs/day
10,000-29000 kgs/month

Plug-ins

Ground Power Starts

Ground Power Starts Bearskin
Ground Power Starts other Aircrafts

Aircraft De-icing

Bearskin Airlines
Other Aircraft *Plus Cost of Fluid

General Terminal Fees

0 - 9 seats
10 - 15 seats
16 - 25 seats

Unit	# Of Units	2016 Proposed 2015 + 1.2%	2017 Proposed 2016+1.5%	2018 Proposed 2017 + 1.5%	2019 Proposed 2018 + 2.6%	Increase Revenue 2018-2019 2018 + 2.6%
	31.8	\$371.92	\$377.50	\$383.15	\$393.10	\$316.41
		\$371.92	\$377.50	\$383.15	\$393.10	
day		\$101.81	\$103.33	\$104.90	\$107.65	
	25,000	adjusted quarterly	adjusted quarterly	adjusted quarterly	adjusted quarterly	
	14,000	adjusted quarterly	adjusted quarterly	adjusted quarterly	adjusted quarterly	
		Cost + 45%	Cost + 45%	Cost + 45	Cost + 45	
	500	\$13.50	\$13.70	\$13.90	\$14.25	\$175.00
	500	\$209.74	\$212.89	\$216.10	\$221.70	\$2,800.00
	200	\$13.50	\$13.70	\$13.90	\$14.25	\$70.00
	1200	\$3.91	\$3.97	\$4.05	\$4.15	\$120.00
		\$3.91	\$3.97	\$4.05	\$4.15	
	127	\$34.26	\$34.78	\$35.30	\$36.20	\$114.31
	262	\$34.26	\$34.78	\$35.30	\$36.20	\$235.82
		\$8.39	\$8.52	\$8.65	\$8.85	
		\$8.39	\$8.52	\$8.65	\$8.85	
Days	170	\$11.42	\$11.59	\$11.75	\$12.05	\$51.00
		\$86.62	\$87.92	\$89.25	\$91.55	
		\$18.11	\$18.38	\$18.65	\$19.15	
		\$349.75	\$355.00	\$360.30	\$369.65	
		\$32.48	\$32.96	\$33.45	\$34.30	
		\$649.54	\$659.28	\$669.15	\$686.55	
Day/Heater		\$6.25	\$6.34	\$6.45	\$6.60	
Starts	1100	\$45.02	\$45.70	\$46.40	\$47.60	\$1,320.00
Start		\$56.21	\$57.05	\$57.90	\$59.40	
Aircraft		\$43.72	\$44.37	\$45.05	\$46.20	
Aircraft		\$62.46	\$63.39	\$64.35	\$66.00	
		\$17.49	\$17.75	\$18.00	\$18.45	
Flights	0	\$19.99	\$20.29	\$20.60	\$21.15	
Flights	1050	\$31.23	\$31.70	\$32.15	\$33.00	\$892.50

Passenger Facility Charge - Plus applicable taxes

Per Person Embarking

Airport Improvement Fee - levied to outbound charters per passenger embarking

Call-outs- plus applicable taxes

Overtime labour Rate

Double time labour rate

Loader plus labour

Snow Blower or Sweeper attachment plus labour

Sander/Plow truck plus labour

Winter Control Sand

Aviation Charts- plus applicable taxes

Car Parking Fees/day- plus applicable taxes

Yearly Parking Stall

Daily Parking

Monthly parking stall

Land Lease Rates - Unserved- plus applicable taxes

Private - per square meter- plus applicable taxes

Commercial - per square meter

Advertising Signs- plus applicable taxes

Small signs per year

Large signs per year

Commercial Character Ramp Fee per Aircraft

total net increase

Passengers	1700	\$10.87	\$11.03	\$11.20	\$11.50	\$510.00
	640	\$10.87	\$11.03	\$11.20	\$11.50	\$192.93
		\$157.36	\$159.72	\$162.10	\$166.30	
		\$62.96	\$63.90	\$64.86	\$66.55	
		\$83.94	\$85.19	\$86.47	\$88.70	
		\$52.37	\$53.16	\$97.90	\$100.45	
		\$35.24	\$35.77	\$36.30	\$37.25	
		\$49.05	\$49.79	\$93.80	\$96.25	
cu. yd		\$25.45	\$25.83	\$26.20	\$26.90	
		cost + 40%	Cost + 40	Cost + 40	Cost + 40	
Year		\$1,142.14	\$1,159.28	\$1,176.66	\$1,207.25	\$0.00
Days	335	\$7.79	\$7.90	\$8.02	\$8.25	\$76.14
		\$103.83	\$105.39	\$106.97	\$109.75	\$0.00
		\$1.76	\$1.79	\$1.82	\$1.85	\$0.00
		\$2.64	\$2.68	\$2.72	\$2.80	\$0.00
		\$110.22	\$111.87	\$113.55	\$116.50	\$0.00
		\$122.46	\$124.30	\$126.16	\$129.45	\$0.00
		\$13.92	\$14.12	\$14.34	\$14.70	\$0.00
						\$6,874.11

**TOWN OF FORT FRANCES
SCHEDULE OF FEES
SCHEDULE "E"**

CEMETERY OPERATOR: TOWN OF FORT FRANCES

CURRENT PRICE LIST OF CEMETERY SUPPLIES & SERVICES - EFFECTIVE DATE January 1st, 2019

FOR TWO CEMETERIES: FORT FRANCES CEMETERY- 401 King's Hwy.

RIVERVIEW CEMETERY - 1319 COLONIZATION ROAD WEST

Contact telephone number 274-9893 Monday to Friday from 8:00 am to 4:00 pm- 900 Wright Avenue

Day to Day Operation contact: Doug Brown Operations and Facilities Manager 274-9893 - 900 Wright Avenue

A. PRICE LIST PER LOT

A.1 Adult Single Lot

lot Size: 5' x 10' or 50 Square feet

Two (2) Full Burials Allowed - One (1) MUST be at extra depth (10')

And up to six (6) cremations (depending on size of urn)

Markers to be installed in accordance with the cemetery by-law

	2018	Proposed 2019 Fees
Lot	\$272.83	\$279.91
Care & Maintenance	\$250.00	\$250.00
Sub-Total	\$522.83	\$529.91
HST	\$67.97	\$68.89
TOTAL	\$590.80	\$598.80

A.2 Adult Double Lot

lot Size: 10' x 10' or 100 Square feet

Four (4) Full Burials Allowed - Two (2) MUST be at extra depth (10')

And up to Twelve (12) cremations (depending on size of urn)

Markers to be installed in accordance with the cemetery by-law

Lot	\$542.92	\$557.04
Care & Maintenance	\$250.00	\$250.00
Sub-Total	\$792.92	\$807.04
HST	\$103.08	\$104.91
TOTAL	\$896.00	\$911.95

A.3 Child (8 years old or under)

lot Size: 3' x 2' or 6 Square feet

One (1) Full Burial Allowed plus two (2) cremations (depending on urn size)

side by side at foot only or One (1) cremation centred at head and up to

two (2) cremations (depending on urn size) side by side at foot only

Markers to be installed in accordance with the cemetery by-law

Lot	\$109.12	\$111.96
Care & Maintenance	\$150.00	\$150.00
Sub-Total	\$259.12	\$261.96
HST	\$33.69	\$34.05
TOTAL	\$292.81	\$296.01

A.4 Cremation lot

lot Size: 2' x 2' or 4 square feet

Up to Two (2) cremations (depending on size of urn)

Flat Markers only allowed on Cremation lots & No Flower Beds allowed due to size

Lot	\$81.81	\$83.94
Care & Maintenance	\$150.00	\$150.00
Sub-Total	\$231.81	\$233.94
HST	\$30.14	\$30.41
TOTAL	\$261.95	\$264.35

A.5 Veteran lot

lot Size: 5' x 10' or 50 square feet

Two (2) Full Burials Allowed - One (1) MUST be at extra depth (10')

or Two (2) cremations (depending on size of urn) MAXIMUM 2 INTERMENTS

VETERAN AND SPOUSE ONLY

No charge for Veteran - Interment of Spouse will be the responsibility of the family

B. UNIT PRICE PER INTERMENT

B.1 SUMMER - May 1 to October 31

B.1.1 Adult Interment	\$776.33	\$796.50
HST	\$100.92	\$103.55
TOTAL	\$877.25	\$900.05

B.1.2 Adult with Vault	\$863.67	\$886.11
HST	\$112.28	\$115.19
TOTAL	\$975.95	\$1,001.30

B.1.3 Child (8 years old or under)	\$312.61	\$320.75
HST	\$40.64	\$41.70
TOTAL	\$353.25	\$362.45

B.1.4 Child (8 years old or under) with Vault	\$339.86	\$348.70
HST	\$44.18	\$45.33
TOTAL	\$354.80	\$354.80

B.1.5 Extra Depth 10 ft.	\$863.67	\$886.11
HST	\$112.28	\$115.19
TOTAL	\$975.95	\$1,001.30

B.1.6 Saturday (above rates +)	\$525.04	\$538.67
HST	\$68.26	\$70.03
TOTAL	\$593.30	\$608.70

B.1.7 Disinterment - above rates plus 150% and all applicable taxes

NOTE: All interments include the use of artificial grass and lowering devices

B. UNIT PRICE PER INTERMENT

B.2 WINTER - November 1st - April 30th

B.2.1 Adult Interment	\$940.00	\$964.42
HST	\$122.20	\$125.38
TOTAL	\$1,062.20	\$1,089.80

B.2.2 Adult with Vault	\$1,027.30	\$1,054.03
HST	\$133.55	\$137.02
TOTAL	\$1,160.85	\$1,191.05

B.2.3 Child (8 years old or under)	\$448.98	\$460.66
HST	\$58.37	\$59.89
TOTAL	\$507.35	\$520.55

B.2.4 Child (8 years old or under) with Vault	\$536.29	\$550.22
HST	\$69.72	\$71.53
TOTAL	\$606.01	\$621.75

B.2.5 Extra Depth 10 ft.	\$1,119.20	\$1,148.32
HST	\$145.50	\$149.28
TOTAL	\$1,264.70	\$1,297.60

B.2.6 Saturday (above rates +)	\$525.04	\$538.67
HST	\$68.26	\$70.03
TOTAL	\$593.30	\$608.70

B.2.7 Disinterment - above rates plus 150% and all applicable taxes

NOTE: All interments include the use of artificial grass and lowering devices

B.3 UNIT PRICE PER INTERMENT FOR CREMATED REMAINS

May 1 to October 31- Only

B.3.1 Cremation < 12" in diameter to Max. 24 inches	\$285.31	\$292.74
HST	\$37.09	\$38.06
TOTAL	\$322.40	\$330.80

B.3.2. Saturday Cremains < 12" diameter to Max. 24 " in diameter	\$448.98	\$460.66
HST	\$58.37	\$59.89
TOTAL	\$507.35	\$520.55

B.3.3 Cremains Placed in Private Marker/Monument Base	\$89.74	\$92.08
HST	\$11.67	\$11.97
TOTAL	\$83.68	\$104.05

B.3.4 Cremains placed in the ground at the same time as full burial interment	\$56.28	\$57.74
HST	\$7.32	\$7.51
TOTAL	\$63.60	\$65.25

B.3.5 Cremains placed in Monument Niche	\$70.80	\$72.66
HST	\$9.20	\$9.45
TOTAL	\$80.00	\$82.11

B.3.6 Disinterment - above rates plus 150% and all applicable taxes

NOTE: All interments include the use of artificial grass and lowering equipment

C UNIT PRICE FOR A COLUMBARIUM NICHE

C.1 Top Two Rows	\$1,215.78	\$1,247.40	Purchase Price of Columbarium Niche includes
Care & Maintenance	\$182.37	\$187.11	Purchase of Double Niche
Sub-Total	\$1,398.15	\$1,434.51	Bronze Plaque and installation
HST	\$181.76	\$186.49	One Urn Placement or interment
TOTAL	\$1,499.76	\$1,621.00	
C.2 Middle Four Rows	\$1,498.85	\$1,537.82	Interior shelf space of a niche is 13" wide
Care & Maintenance	\$224.83	\$230.67	x 10" deep x 8" high, therefore urns to be
Sub-Total	\$1,723.68	\$1,768.49	placed in the columbarium can be no bigger
HST	\$224.08	\$229.90	than 6.5" wide x 10" deep x 8" high.
TOTAL	\$1,947.76	\$1,998.40	
C.3 Bottom Two Rows	\$1,003.43	\$1,029.51	
Care & Maintenance	\$150.51	\$154.43	
Sub-Total	\$1,153.94	\$1,183.94	
HST	\$150.01	\$153.91	
TOTAL	\$1,303.96	\$1,337.85	
C.4 2nd Urn Placement in Niche	\$154.08	\$158.11	
HST	\$20.02	\$20.54	
TOTAL	\$174.10	\$178.65	

D. UNIT PRICE FOR FLOWER CARE PER LOT

D.1 Special Care Single - Flowers	\$2,728.02	\$2,798.95	Single Special Care: The flower bed is
HST	\$354.63	\$363.85	centred to the monument 3 rows of 6 flowers
TOTAL	\$3,082.65	\$3,162.80	- 18 flowers
D.2 Special Care Double - Flowers	\$5,456.02	\$5,597.88	Double Special Care: is two (2) singles
HST	\$709.28	\$727.72	2 single beds are planted 3 rows x 6 = 18
TOTAL	\$6,165.30	\$6,325.60	flowers - 2 x 18 = 36 flowers
D.3 Annual Care - Adult -Flowers	\$218.27	\$223.94	Single Pillow: Exact same size as single but
HST	\$28.38	\$29.11	turned in such a way that the bed is wider
TOTAL	\$236.54	\$253.05	across the base 3 rows x 6 = 18 flowers
D.4 Annual Care - Child - Flowers	\$81.81	\$83.94	Double Pillow: Is positioned along the base
HST	\$10.64	\$10.91	the same as a single pillow but is larger in
TOTAL	\$92.45	\$94.85	in 4 rows x 6 = 24 flowers
			Annual Care paid for and planted each year
			Special Care is paid for once and is planted
			every year

E. UNIT PRICE FOR A FOUNDATION FOR A UPRIGHT MONUMENT (MARKER)

For the Supply, Installation and Inspection of Concrete Foundations for Upright Markers or Monuments	\$ 0.30 per square inch plus HST	Based on the exact size of the foundation. Where the square inches are calculated by adding 6 inches to both the width and length of the base of the Marker or Monument. The Town will only accepted foundation orders from June 15th to September 15th of each year.
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F. UNIT PRICE FOR A FOUNDATION FOR A FLAT MARKER

For the Supply, Installation and Inspection of Concrete Foundations for Flat Markers	\$ 0.28 per square inch plus HST	Based on the exact size of the foundation. Where the square inches are calculated by adding 6 inches to both the width and length of the base of the flat Marker . The Town will only accepted foundation orders from June 15th to September 15th of each year.
--	----------------------------------	---

G. CARE & MAINTENANCE FOR A FLAT MARKER OR UPRIGHT MONUMENT (MARKER)

G.1 Flat Markers that measure less than 1116.13 square centimetres or 173 sq. inches	\$0.00
G.2 Flat Markers that measure at Least 1,116.13 square centimetres or 173 sq. inches	\$50.00

G.3 Upright Monument that measure less than 1.22 meters or 4 feet in height and/or length including the base

\$100.00

G.4 Upright Monument measuring more than 1.22 meters or 4 feet in height and/or length including the base

\$200.00

H. MISCELLANEOUS CEMETERIES FEES

H.1 For non-residents customers the above list rates plus 40% mark-up and all applicable taxes

Note the only exception to applying the 40% increase for non-residents is care and maintenance fees for markers and lots, these rates are established under *the Funeral, Burial and Cremation Services Act, 2002* and regulations, as amended from time to time

H.2 Funeral Arriving before 9 am and after 3:00 pm	\$127.44	\$130.76
HST	\$16.56	\$16.99
TOTAL	\$144.00	\$147.75

H.3 Issue of new Interment Rights Certificate as a result of revisions to intended occupant(s) or ownership change	\$109.12	\$111.96 per change
HST	\$14.18	\$14.54
TOTAL	\$123.30	\$126.50

H.4 Rental of Artifical Grass for off-site interments	\$10.93	\$11.19 per off-site interment
HST	\$1.42	\$1.46
TOTAL	\$12.35	\$12.65

H.5 Hourly labour per cemetery worker	\$43.27	\$44.38
HST	\$5.63	\$5.77
TOTAL	\$48.90	\$50.15

General Notes:

1) Payment is due at the time of purchase - no financing

2) For any additional information or clarification , please feel free to contact the cemetery operator as per the contact information outlined at the top of each page of the current price list

November 21, 2018

Report To: Mayor and Council

From: Travis Rob, Manager of Operations and Facilities

RE: Sanitary Capacity Study of the Scott Street Sanitary Sewer Main and White Pine Lift Station

In 2017 the Town undertook a study of the Minnie Avenue Sanitary catchment area in concert with a development at the corner of Front Street and Minnie Avenue to look into a potential capacity issue in this catchment area. That study found that there were some hydraulic problems with the current infrastructure and some remedial works could be completed to improve the flows in that area, those recommendations were completed in 2018. In addition to that there was a recommendation to investigate the drainage shed to the north draining into Scott Street and the Scott Street sanitary main from Minnie Avenue to the White Pine Lift Station as this was identified as contributing to flow issues in 2014.

In July 2018 the Town sent out requests for quotations to undertake this study and subsequently engaged KGS out of Winnipeg, who had completed an infiltration and inflow study for the Town back in 2012. KGS took a look at all off the available reports on the Town's sanitary system as well as CCTV video inspection of the mains as well as visited the site and completed inspections of all manholes and properties speaking to as many property owners as available to determine areas of inflow to target. In addition, KGS utilized the model that they created during the I&I study to complete some theoretical investigations around a development at the Shevlin Wood Yard to determine impacts to downstream systems.

Attached to this report you will find a copy of the KGS report. The 37 Manhole inspection reports included as Appendix A were left out of this package, however they can be seen upon request.

The report recommendations are as follows:

1. A drawdown test needs to be completed at the White Pine Lift Station as there is a discrepancy between the rated pump rates and the apparent pump rates.
2. The Sanitary Main needs to be upsized along Scott Street from 300mm to 375mm in diameter
3. The pumps at the White Pine Lift Station should be upgraded to 65L/s Variable Frequency Drive pumps to match MOE Guidelines
4. Upgrade the existing wet well at the White Pine Lift Station to meet MOE specifications to add capacity and address a substandard screen system at the same time.
5. Separate known sump pump and evestrough connections
6. Repair or replace defective manholes in the catchment to reduce the amount of infiltration into the sanitary sewer.

It is the recommendation of the Operations and Facilities Executive Committee that:

1. The Wastewater Treatment Operators complete a drawdown test at the White Pine Lift Station to determine actual pump rates.
2. That the design for the Scott Street road reconstruction be changed to reflect a larger pipe to handle development in the Shevlin Wood Yard.
3. That money be brought forward in the 2019 capital budget to complete detailed design of Lift Station Upgrades including new pumps, wet well and screen.

4. Work with known property owners in the catchment area to disconnect sump pumps and eavestrough connections from the sanitary sewer system in the spring of 2019
5. The current Manhole Rehabilitation program continue to address manhole deficiencies through out town, particularly those in this area.

Respectfully Submitted



Travis Rob, P.Eng

Council approval of this report will agree to the recommendation of the Operations and Facilities Executive Committee that:

- 1. The Waste Water Treatment Operators complete a drawdown test at the White Pine Lift Station to determine actual pump rates.**
- 2. That the design for the Scott Street road reconstruction be changed to reflect a larger pipe to handle development in the Shevlin Wood Yard.**
- 3. That money be brought forward in the 2019 capital budget to complete detailed design of Lift Station Upgrades including new pumps, wet well and screen.**
- 4. Work with known property owners in the catchment area to disconnect sump pumps and eavestrough connections from the sanitary sewer system in the spring of 2019**
- 5. The current Manhole Rehabilitation program continue to address manhole deficiencies through out town, particularly those in this catchment area.**

Manager of Operations and Facilities



TOWN OF FORT FRANCES

2018 SCOTT STREET SEWER CAPACITY STUDY

FINAL – REV 0

KGS Group 18-0048-001
October 2018

PREPARED BY:

Riley Fitzsimmons, B.Sc.(EnvE)
Municipal Engineer-in-Training

REVIEWED BY:

Phillip Pawluk, B.Sc.(CE), C.E.T.,
P.Eng., GSC
Municipal Engineer

APPROVED BY:

Roy Houston, B.Sc.(CE) P.Eng.
Manager, Civil / Municipal Services

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- 2.1 White Pine Catchment Area
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- A. Manhole Inspection Reports
B. Eavestrough and Sump Pump Discharge Survey Data
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1.0 SUMMARY

Kontzamanis Graumann Smith MacMillan Inc. (KGS Group) was retained by the Town of Fort Frances to undertake a study of the sanitary sewer system in the White Pine Catchment Area (WPCA) to determine if upgrades to the sanitary sewer main along Scott Street between Williams Avenue and Reid Avenue are warranted. Using theoretical calculations and hydraulic modelling, we determined that upgrading the Scott Street sewer main from 300 mm diameter to 375 mm diameter will provide sufficient capacity for the area, including potential future development. In conjunction with this, enhancements to the White Pine Pump Station would improve efficiency, reduce maintenance requirements and allow the station to meet the Ontario Ministry of Environment Guidelines.

2.0 INTRODUCTION

2.1 BACKGROUND

Fort Frances is a town on the Canada-United States border in Northwestern Ontario where Rainy Lake narrows to become the Rainy River. The Town's population, as of the 2016 census, is 7739.

The Town of Fort Frances has identified potential capacity issues with the Scott Street sanitary sewer main, resulting from the potential future development of a 9.2 ha parcel of land in the WPCA. Furthermore, in June 2014, the Town experienced a substantial rainfall event which caused flooding in the Church Street Catchment Area which flows into the WPCA. The Town completed modifications to the sanitary sewer infrastructure in the White Pine and Church Street sewer catchments as a result of this event, however, to prepare for the potential development and to minimize the chance of future flooding, upgrade of the Scott Street sewer is planned in conjunction with pending road renewal works.

The WPCA, shown in Figure 2.1, contains approximately 310 properties. There are some multi-family residential (MFR) and commercial properties, though the majority is single-family residential (SFR). The Church Street and Front Street pump stations also discharge to the WPCA into manholes near the south end of Minnie Avenue.



Figure 2.1 - White Pine and Church Street Sanitary Catchment Areas

The Scott Street sewer collects sewage in the WPCA and conveys it to the White Pine Pumping Station (WPPS). The pumping station is outfitted with two Smith and Loveless Model 4B2B centrifugal pumps rated at 47 L/s at 7.8 m total dynamic head (TDH) each equipped with 7.5 hp, 1170 rpm, 600 V, 3-phase motors. Sewage is pumped approximately 40 m to the manhole to the north of the pump station on Gillon Street through a 200 mm diameter PVC force main.

2.2 SCOPE

The scope of work for the Fort Frances Scott Street Sanitary Sewer Capacity Study consists of the following:

- Review the flow and pumping records and reports from the existing pump stations, including the Church Street, White Pine, and Central Avenue stations.
- Review the previous I&I studies and CCTV data to evaluate potential causes of high wet-weather flows.
- Conduct a survey of property owners in the WPCA to determine if properties' eavestrough or sump pump discharge is directed to the sanitary sewer.
- If unable to determine manhole conditions from CCTV videos, perform visual inspections of the manholes in the WPCA.
- Review data obtained during the 2014 flood event including a report authored by Hatch Corporation dated October 2, 2017.
- Conduct flow modelling using the existing sanitary sewer model of the Town of Fort Frances to determine a sufficient size of sewer upgrades on Scott Street and to identify potential impacts on downstream systems.
- Provide recommendations addressing the Scott Street sewer main sizing and potential downstream upgrades.
- Provide a cost estimate for the recommended upgrades.

3.0 FIELD PROGRAM

Historically, the sanitary sewer system in the WPCA has been subject to high inflow¹ and infiltration². To identify and minimize these sources, which reduce the efficiency of treatment and contribute flows which may exceed design capacities, KGS Group conducted an eavestrough and sump pump discharge survey in the WPCA.

During the week ending August 25, 2018, KGS Group field staff completed manhole inspections and an eavestrough and sump pump discharge survey in the WPCA utilizing the Survey123 application for ArcGIS for data collection.

3.1 MANHOLE INSPECTIONS

Manhole inspections were conducted based on the Level 1 inspection as outlined by the National Association of Sewer Service Companies (NASSCO) Manhole Assessment Certification Program® (MACP®) standards. From each inspection, a short report is generated providing a basic summary of the manhole condition. The complete reports can be found in Appendix A – Manhole Inspection Reports.

The inspection identified the manholes listed below exhibiting evidence of infiltration.

- | | | |
|----------|----------|----------|
| • S03002 | • S03013 | • S03028 |
| • S03003 | • S03014 | • S03034 |
| • S03004 | • S03021 | • S03036 |
| • S03012 | • S03022 | |

These manholes were taken into account in the hydraulic model as potential sources of higher than normal infiltration.

¹ Non-sewage contributions from sources like eavestroughs, sump pumps and weeping tile.

² Seepage of groundwater or runoff into the system via compromised piping or manholes.

3.2 EAVESTROUGH AND SUMP PUMP DISCHARGE SURVEY

Residents in the WPCA were asked two questions to assist in identifying potential sources of inflow to the sanitary sewer:

1. Does the property have a sump pump and if so, does the sump pump discharge to the sanitary sewer?
2. Do the building's eavestroughs discharge to the surface or the sanitary sewer?

KGS Group conducted the study over a three day period, primarily in the evenings, with some properties surveyed during the day if the occupants were home. Occupants were available to answer the sump pump question in 162 of the 308 properties visited; eavestroughs on all properties were visually inspected. Raw survey data is provided in Appendix B – Sump Pump and Eavestrough Survey Data.

The survey identified that the following properties may be contributing to increased flow in the sanitary sewer:

- Properties with eavestroughs to the Sanitary Sewer:
 - 1221 First St. E.
 - 1016 Scott St.
- Properties with eavestroughs entering the ground – discharge unknown and occupant not available:
 - 1202 Second St. E.
 - 930 Second St. E.
 - 1214 Third St. E.
 - 1113 Third St. E.
- Properties with sump pumps discharging to the sanitary sewer:
 - 1201 First St. E.
 - 1222 Second St. E.
 - 1229 Third St. E.
 - 1124 Scott St.

- Properties with sump pumps that discharge to the sanitary sewer in winter, but to the surface in summer with a manual switch or valve:
 - 1132 First St. E.
 - 1217 Second St. E.
 - 1200 Scott St.

While only 13 of the 308 properties visited potentially contribute inflow to the sanitary sewer, these inflows may have a significant impact on pump station flow capacity.

For example, assuming a typical house sump pump discharges at a rate of 1 L/s, the properties with sump pumps discharging to the sanitary sewer in the WPCA may contribute up to 7 L/s during wet weather conditions (typically in the spring). This, combined with discharge from eavestroughs, which, in a 1-in-10 year, 30-minute duration storm may contribute a peak flow of 2.5 L/s for a house with 120 m² roof area (similar to 1016 Scott St), totals 22 L/s. Based on the monthly flow records provided by the Town's Public Works Department, a single pump at the White Pine Pump Station pumps at an average of 33.2 L/s.

In wet-weather conditions with both pumps operating, these peak inflows could use up to 33% of the pump station's capacity.

4.0 CAPACITY STUDY

Demand calculations and hydraulic modelling methods were used to determine peak sewer flow to the WPPS. Calculation methods conform to the *Province of Ontario Design Guidelines For Sewage Works*. To account for the future development of the 9.2 ha area south of Scott Street between Minnie Avenue and Reid Avenue (recently acquired by the Town), we made the assumption of one half single-family residences and one half multi-family residences in this area as directed by the Town.

4.1 PEAK WASTEWATER GENERATION

The WPCA has a total area of approximately 47 ha, distributed as follows (including future development):

- 39 ha – Single-family residences.
- 5.0 ha – Multi-family residences.
- 3.0 ha – Commercial.

The City of Winnipeg Wastewater Flow Estimation and Servicing Guidelines provides the following values to estimate the average sewage flow to the WPPS:

- Per capita wastewater generation: 270 L/cap/day.
- Single-family dwellings:
 - 12.29 Dwellings per hectare (Town of Fort Frances average is approximately 11.2).
 - 3.05 people per dwelling.
- Multi-family dwellings:
 - 74.13 Dwellings per hectare.
 - 2.3 people per dwelling.
- Commercial:
 - 16,800 Litres per hectare per day.
 - 28,100 Litres per hectare per day (peak flow).

- Inflow and infiltration:
 - Manholes: 12 Litres per minute per manhole, 1.6 manholes per hectare.
 - Groundwater infiltration: 2,200 Litres per hectare per day.
 - Weeping tile inflow: 4.55 Litres per minute per service connection.

Combined peak flow from single-family, multi-family, and commercial properties, along with inflow and infiltration is estimated to total **61.9 L/s** for the WPCA. Detailed calculations can be found in Appendix C – Sample Calculations.

4.2 HYDRAULIC MODELLING

An existing hydraulic model of the sanitary sewer system in Fort Frances, initially developed by R.J. Burnside & Associates Ltd. and adapted by KGS Group, was used to supplement theoretical calculations to determine the effects that future development might have on the existing infrastructure in the WPCA.

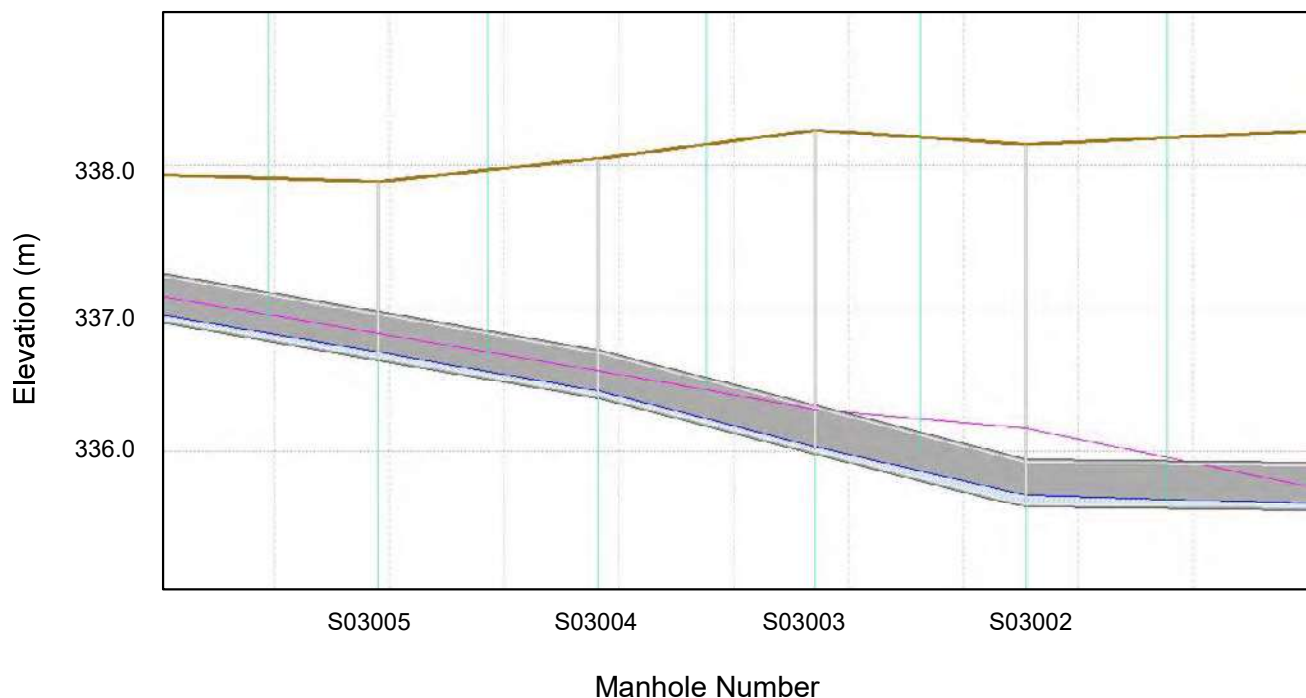
The model was previously constructed to simulate the actual and theoretical flow conditions in Fort Frances for both dry and wet weather scenarios. The wastewater system's physical properties were compiled based primarily on the Town's GIS database records and augmented with record drawings, CCTV inspection videos and reports.

The inflow values for the dry weather flow model were applied on a manhole-by-manhole basis, with individual sub-catchments applied to the manhole that was deemed to service each area. Domestic sewage inflow was computed based on a tabulated person-density per hectare (obtained from ward and poll information) multiplied by an average per capita wastewater generation rate. This wastewater generation was distributed using a typical residential temporal variation (diurnal) pattern that varies the inflow throughout the day and the week based on estimated usage patterns. Industrial, commercial, and institutional (ICI) wastewater inflows are applied as a dry weather flow in the hydraulic mode of the model. These flows were based on historical water usage records from the Town and are applied between the hours of 8 am and 4 pm using a temporal variation pattern.

The Fort Frances DWF XP-SWMM model was updated to include the estimated dry weather, inflow and infiltration flow rates for the future development in the WPCA. The model results show that free flow conditions occur for the majority of the length of sewer along Scott Street, except near MH S03002, which is at the downstream end of the proposed new development. Here, as shown in **Error! Reference source not found.**, the hydraulic grade line elevation (purple) (336.16 m) lies above the crown of the sewer (335.93 m), indicating a surcharged condition and confirming the 300 mm diameter sewer main is undersized when the flow from the future development is considered.

FIGURE 4.1

PLOT OF MODELLED HYDRAULIC GRADE LINE ON SCOTT STREET



5.0 CONCLUSIONS

Through the WPCA field program and capacity study, KGS Group identified several notable findings:

- According to monthly flow records, there is a discrepancy between rated and actual pump flow rates in the WPPS. The average single-pump flow rate is 33.2 L/s, though the pumps are rated at 47 L/s at 7.8 m TDH. This discrepancy could be due to undersized head loss assumptions during design, pump wear, or a restricted (unclean) force main, which may increase the TDH and reduce the flow rate.
- While the pumps in the WPPS are sized sufficiently to convey peak flows with both pumps running, the Ontario Ministry of Environment's (MOE) *Design Guidelines for Sewage Works* recommends that the pumps be sized so one pump is capable of pumping peak flows in the event the other pump is out-of-service. In addition to this, the cross-sectional area of the existing wet well (2.4 m², 1.75m diameter) does not meet the MOE Guideline of a minimum of 4.9 m² (2.5 m diameter).
- There are some sump pump and eavestrough connections to the sanitary sewers in the WPCA which may contribute significant amounts of inflow to the sanitary sewer during wet weather.
- KGS Group observed infiltration evidence in several manholes in the WPCA. These defects, in addition to the presence of sandy soil in the area, could permit a high amount of infiltration flow to the sanitary sewer during wet weather.

6.0 RECOMMENDATIONS

As a result of the findings of the 2018 Scott Street Sewer Capacity Study, KGS Group recommends the following improvements:

- A pump drawdown test should be completed in the WPPS to determine the actual pump flow rates for each pump running individually and the maximum flow rate with both pumps running.
- Upgrade the existing 300 mm diameter sewer main along Scott Street from Minnie Avenue to the WPPS to a new 375 mm diameter PVC sewer main.
- Retrofit the pumps in the WPPS with variable-speed pumps capable of pumping 65 L/s at 7.8 m TDH. This would provide the capacity to meet MOE Guidelines, along with minimum pump cycle times, appropriate fill times and would minimize impacts on downstream infrastructure that non-variable-speed pumps may have. The capacity of the existing force main and receiving sewer is sufficient to accept this recommended flow rate.
- Upgrade the existing wet well to a minimum 2.5 m diameter well, or install a new minimum 1.8 m diameter manhole upstream of the existing wet well to act as an addition to the wet well to meet the minimum cross-sectional area requirement of 4.9 m². A mechanical bar screen can be installed in this new manhole to improve safety by decreasing the need for maintenance personnel to enter the well.
- Separate any existing sump pump or eavestrough connections to the sanitary sewer to significantly reduce the loading to the sewer during wet weather.
- Repair or replace defective manholes in the WPCA to reduce the amount of infiltration into the sanitary sewer.

7.0 OPINION OF PROBABLE COSTS

Table 7.1 provides KGS Group's opinion of probable costs of upgrading the sanitary sewer along Scott Street from Minnie Avenue to the WPPS. Upgrades would include:

- Replacing the existing 300 mm diameter sewer main with 375 mm diameter PVC sewer main (approximately 575 m).
- Replacement of five manholes (excluding the recently replaced one at Scott Street and Minnie Avenue).
- Retrofitting the pumps in the WPPS with variable-speed pumps capable of pumping 65 L/s at 7.8 m TDH.
- Installing a new manhole with mechanical bar screen to act as an expansion of the existing wet well.

These estimates do not include the cost of road renewals.

TABLE 7.1
OPINION OF PROBABLE COSTS

ITEM	OPINION OF PROBABLE COST
Upgrade of Scott Street Sewer	\$300,000
Upgrade of WPPS Pumps	\$60,000
Expansion of WPPS Wet Well (new MH and mechanical bar screen)	\$150,000

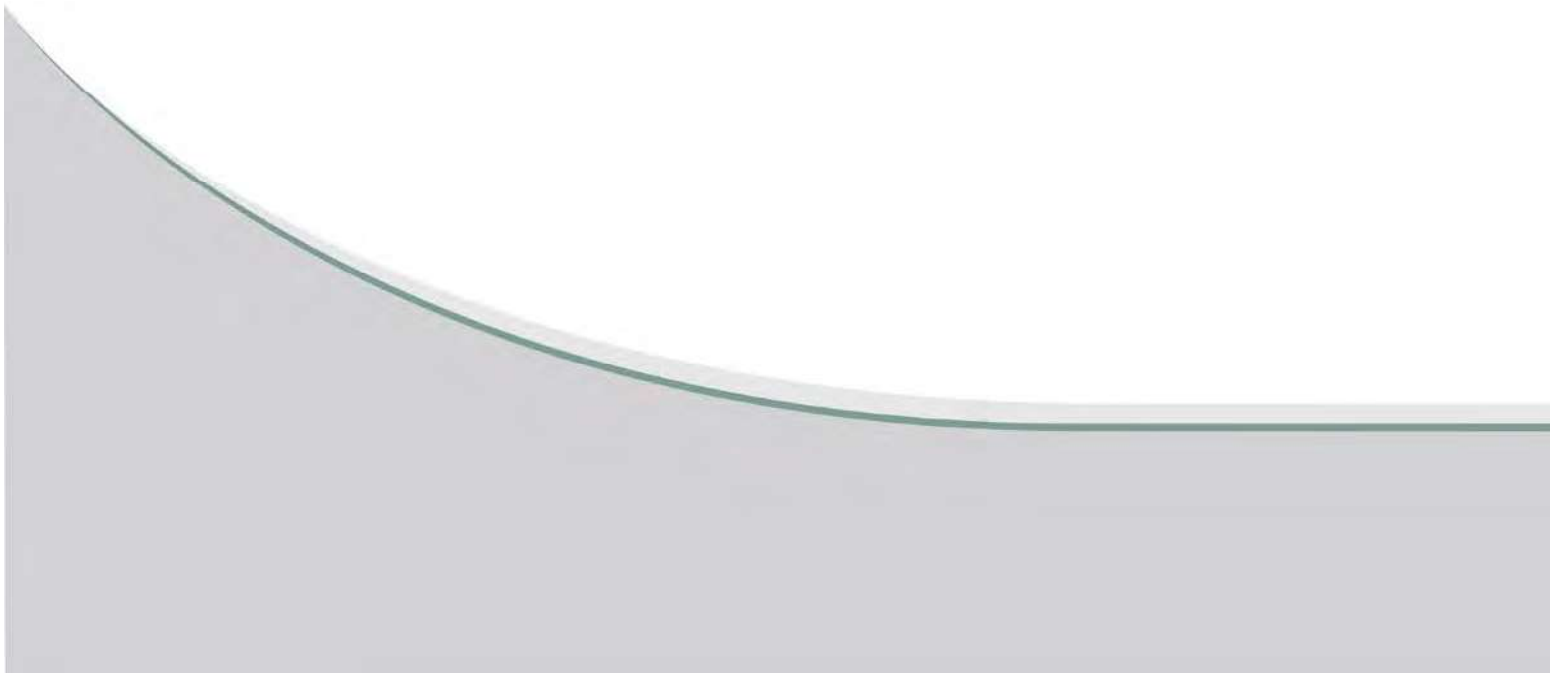
8.0 STATEMENT OF LIMITATIONS

8.1 CAPITAL COST ESTIMATE STATEMENT OF LIMITATIONS

The cost estimates included with this report have been prepared by KGS Group using its professional judgment and exercising due care consistent with the level of detail required for the stage of the project for which the estimate has been developed. These estimates represent KGS Group's opinion of the probable costs and are based on factors over which KGS has no control. These factors include, without limitation, site conditions, availability of qualified labour and materials, the present workload of the Bidders at the time of tendering and overall market conditions. KGS does not assume any responsibility to the Client, in contract, tort or otherwise in connection with such estimates and shall not be liable to the Client if such estimates prove to be inaccurate or incorrect.

APPENDIX B

EAVESTROUGH AND SUMP PUMP DISCHARGE SURVEY DATA



2018 Fort Frances Eavestrough and Sump Pump Discharge Survey

Street	House Number	Other Type of			Sump Pump			Northing	Easting
		Eaves Discharge	Eaves Discharge	Surveyed	Sump Pump	Discharge	Other Type of Sump Pump		
Butler Ave	400	Yard/Surface		Yes	No			5384063.359	471872.0479
Butler Ave	402	Yard/Surface		No				5384078.144	471890.6592
Butler Ave	404	Other	No eaves	No				5384096.859	471892.115
Butler Ave	407	Yard/Surface		Yes	No			5384097.564	471870.3494
Butler Ave	408	Yard/Surface		No				5384120.272	471895.9488
Butler Ave	411	Yard/Surface		Yes	No			5384108.906	471879.6662
Colonization Rd E	523	Yard/Surface		Yes	Yes	Yard/Surface		5384280.611	472695.1299
Colonization Rd E	715	Yard/Surface		Yes	Yes	Yard/Surface		5384458.082	472845.6332
First St E	900	Yard/Surface		No	No		Two pumps, both discharge to surface	5384306.487	472006.1912
First St E	901	Yard/Surface		Yes	Yes	Other		5384260.818	472036.6006
First St E	910	Yard/Surface		No	No			5384295.701	472171.1613
First St E	1000	Yard/Surface		Yes	Yes	Yard/Surface		5384308.494	472204.9999
First St E	1005	Other	No eaves	No				5384272.118	472225.8767
First St E	1007	Yard/Surface		No				5384261.936	472234.3025
First St E	1008	Yard/Surface		Yes	No			5384297.41	472251.905
First St E	1009	Yard/Surface		Yes	Yes	Yard/Surface		5384298.705	472234.2392
First St E	1009	Yard/Surface		Yes	No			5384272.8	472252.5623
First St E	1010	Yard/Surface		No				5384289.836	472268.8819
First St E	1011	Other	No eaves	No				5384262.134	472264.8882
First St E	1016	Yard/Surface		No				5384294.718	472282.9835
First St E	1018	Yard/Surface		Yes	No			5384397.229	472293.6554
First St E	1020	Yard/Surface		No				5384285.203	472296.3482
First St E	1021	Other	No eaves	Yes	No			5384274.225	472297.7142
First St E	1021	Yard/Surface		No				5384374.514	472299.3595
First St E	1022	Yard/Surface		Yes	Yes	Yard/Surface		5384293.356	472333.4762
First St E	1023	Yard/Surface		Yes	Yes	Yard/Surface		5384268.036	472326.6385
First St E	1024	Other	No eaves	Yes	No			5384300.986	472339.7689
First St E	1026	Yard/Surface		Yes	No			5384295.163	472343.2523
First St E	1031	Yard/Surface		No				5384274.213	472349.6196
First St E	1032	Yard/Surface		No				5384302.434	472362.5549
First St E	1033	Other	No eaves	No				5384270.541	472360.9526
First St E	1034	Yard/Surface		No				5384300.887	472371.9381
First St E	1035	Other	No eaves	No				5384268.009	472374.7393
First St E	1036	Yard/Surface		Yes	No			5384299.719	472373.0169
First St E	1037	Yard/Surface		No				5384365.409	472394.8984
First St E	1100	Other	No eaves	Yes	No			5384289.434	472416.7941
First St E	1101	Yard/Surface		No				5384283.794	472395.8223
First St E	1103	Yard/Surface		Yes	Yes	Yard/Surface		5384254.093	472202.8182
First St E	1105	Yard/Surface		No				5384276.597	472419.6868
First St E	1107	Yard/Surface		No				5384277.917	472433.0525
First St E	1108	Other	No eaves	Yes	Yes	Yard/Surface		5384290.033	472453.2758

Street	House Number	Other Type of			Surveyed	Sump Pump	Sump Pump		Other Type of Sump Pump	Northing	Easting
		Eaves Discharge	Eaves Discharge	Discharge			Discharge	Discharge			
First St E	1110	Yard/Surface			Yes	No				5384294.275	472479.5777
First St E	1111	Yard/Surface			Yes	No				5384278.061	472478.9778
First St E	1113	Yard/Surface			No					5384274.269	472472.6725
First St E	1116	Yard/Surface			Yes	No				5384296.256	472493.1046
First St E	1117	Yard/Surface			Yes	No				5384276.904	472484.2195
First St E	1118	Yard/Surface			No					5384310.584	472500.9076
First St E	1119	Yard/Surface			No					5384269.349	472291.5229
First St E	1119	Yard/Surface			No					5384269.989	472511.2189
First St E	1120	Yard/Surface			No					5384303.141	472521.3691
First St E	1121	Yard/Surface			Yes	No				5384266.284	472511.5805
First St E	1123	Yard/Surface			No					5384274.414	472527.259
First St E	1125	Yard/Surface			Yes	Yes	Other	Other	Unknown	5384276.923	472525.8001
First St E	1127	Yard/Surface			No					5384267.952	472548.5871
First St E	1128	Yard/Surface			No					5384293.61	472535.8613
First St E	1129	Yard/Surface			No					5384267.566	472559.6192
First St E	1132	Other	No eaves		Yes	Yes	Other	Other	Summer: yard, winter:San sewer	5384293.346	472564.5205
First St E	1134	Yard/Surface			No					5384297.05	472570.8267
First St E	1139	Yard/Surface			Yes	Yes	Yard/Surface	Yard/Surface		5384272.765	472583.7376
First St E	1140	Yard/Surface			Yes	No				5384309.435	472591.2672
First St E	1200	Yard/Surface			No					5384311.501	472611.9369
First St E	1201	Yard/Surface			Yes	Yes	Sanitary Sewer	Sanitary Sewer		5384262.567	472611.519
First St E	1205	Yard/Surface			Yes	No				5384276.961	472636.7066
First St E	1210	Yard/Surface			No					5384299.106	472651.3038
First St E	1212	Yard/Surface			Yes	No				5384301.409	472668.459
First St E	1216	Yard/Surface			Yes	No				5384292.924	472686.9836
First St E	1217	Yard/Surface			Yes	Yes	Other	Other	To 1221 then to storm sewer	5384284.111	472652.7373
First St E	1221	SS			Yes	Yes	Other	Other	To storm sewer	5384283.14	472687.3767
First St E	1222	Yard/Surface			Yes	Yes	Other	Other	Unknown	5384279.679	472688.6798
First St E	1229	Yard/Surface			Yes	No				5384281.769	472691.8177
First St E	1230	Yard/Surface			No					5384296.547	472704.6131
First St E	1231	Yard/Surface			No					5384275.955	472704.2428
First St E	1232	Yard/Surface			Yes	No				5384290.714	472727.399
First St E	1234	Yard/Surface			Yes	Yes	Yard/Surface	Yard/Surface		5384308.398	472737.0188
First St E	1244	Yard/Surface			Yes	Yes	Yard/Surface	Yard/Surface		5384305.268	472773.4249
Minnie Ave	302	Yard/Surface			No					5383966.025	472428.4457
Minnie Ave	307	Yard/Surface			Yes	No				5383991.636	472378.1548
Minnie Ave	310	Yard/Surface			No					5383983.062	472406.46
Minnie Ave	311	Yard/Surface			No	Yes	Yard/Surface	Yard/Surface		5383983.012	472383.9008
Minnie Ave	312	Other	No eaves		No					5383988.077	472412.0218
Minnie Ave	315	Yard/Surface			No					5384004.688	472378.9818
Minnie Ave	316	Other	No eaves		Yes	No				5383984.205	472407.626
Minnie Ave	318	Yard/Surface			No					5384014.167	472409.8759
Minnie Ave	319	Yard/Surface			Yes	Yes	Yard/Surface	Yard/Surface		5384027.552	472386.7325
Minnie Ave	320	Yard/Surface			Yes	Yes	Yard/Surface	Yard/Surface		5384020.856	472406.9411

Street	House Number	Other Type of				Sump Pump			Northing	Easting
		Eaves Discharge	Eaves Discharge	Surveyed	Sump Pump	Discharge	Other Type of Sump Pump			
Minnie Ave	323	Yard/Surface		No				5384024.921	472382.1588	
Minnie Ave	324	Yard/Surface		No	Yes	Yard/Surface		5384046.138	472406.5246	
Minnie Ave	327	Yard/Surface		No	Yes	Yard/Surface		5384052.597	472386.3285	
Minnie Ave	331	Yard/Surface		No				5384062.984	472381.7265	
Minnie Ave	400	Yard/Surface		No				5384073.754	472404.6805	
Minnie Ave	405	Other	No eaves	Yes	Yes	Yard/Surface		5384077.543	472390.2561	
Minnie Ave	409	Yard/Surface		Yes	Yes	Other	2 pumps,unknown discharge	5384096.081	472388.1981	
Minnie Ave	411	Yard/Surface		Yes	No			5384107.146	472397.3268	
Scott St	719	Yard/Surface		No				5384167.104	471782.1639	
Scott St	723	Yard/Surface		No				5384169.65	471788.6352	
Scott St	725	Other	No eaves	Yes	No			5384171.077	471806.4408	
Scott St	727	Other	No eaves	Yes	No			5384169.425	471818.1061	
Scott St	729	Yard/Surface		Yes	No			5384167.975	471829.7997	
Scott St	731	Yard/Surface		No				5384163.755	471848.2069	
Scott St	800	Yard/Surface		No				5384185.886	471910.504	
Scott St	801	Yard/Surface		Yes	No			5384164.409	471891.7542	
Scott St	804	Yard/Surface		No				5384183.396	471913.1455	
Scott St	808	Yard/Surface		Yes	Yes	Yard/Surface		5384185.147	471941.2741	
Scott St	809	Yard/Surface		Yes	No			5384158.637	471939.1335	
Scott St	811	Yard/Surface		Yes	No			5384158.995	471944.9355	
Scott St	813	Yard/Surface		No				5384162.512	471964.7071	
Scott St	815	Yard/Surface		No				5384165.197	471965.5426	
Scott St	922	Yard/Surface		Yes	Yes	Yard/Surface		5384196.265	472044.395	
Scott St	990	Yard/Surface		Yes	Yes	Yard/Surface		5384176.995	472175.0429	
Scott St	1002	Yard/Surface		No				5384188.117	472222.7606	
Scott St	1004	Yard/Surface		Yes	No			5384185.015	472218.6112	
Scott St	1006	Yard/Surface		Yes	No			5384180.721	472225.0146	
Scott St	1008	Yard/Surface		Yes	No			5384180.045	472234.5951	
Scott St	1010	Yard/Surface		No				5384181.154	472248.5695	
Scott St	1014	Other	No eaves	Yes	No			5384181.397	472277.5391	
Scott St	1016	SS		Yes	No			5384184.637	472282.6404	
Scott St	1018	Yard/Surface		No				5384189.883	472291.4219	
Scott St	1022	Yard/Surface		No				5384186.175	472304.108	
Scott St	1025	Yard/Surface		Yes	No			5384158.944	472321.2832	
Scott St	1027	Other	No eaves	No				5384168.865	472335.4381	
Scott St	1028	Yard/Surface		No				5384194.968	472324.0142	
Scott St	1030	Yard/Surface		Yes	No			5384175.39	472325.0787	
Scott St	1031	Other	No eaves	No				5384163.821	472358.8442	
Scott St	1033	Yard/Surface		No				5384164.81	472366.8533	
Scott St	1036	Yard/Surface		No				5384187.487	472368.5913	
Scott St	1037	Yard/Surface		Yes	No			5384159.995	472382.7373	
Scott St	1040	Other	No eaves	Yes	No			5384178.567	472367.691	
Scott St	1042	Yard/Surface		No				5384187.299	472380.7929	
Scott St	1100	Yard/Surface		Yes	No			5384200.657	472405.1902	

Street	House Number	Eaves Discharge	Other Type of			Sump Pump		Northing	Easting
			Eaves Discharge	Surveyed	Sump Pump	Discharge	Other Type of Sump Pump		
Scott St	1101	Yard/Surface		No				5384180.941	472423.3888
Scott St	1102	Yard/Surface		No				5384189.293	472430.3306
Scott St	1104	Yard/Surface		No	Yes	Yard/Surface		5384187.43	472445.2028
Scott St	1109	Yard/Surface		No				5384147.266	472453.6229
Scott St	1110	Yard/Surface		Yes	No			5384184.841	472463.7843
Scott St	1113	Yard/Surface		No				5384159.443	472472.9957
Scott St	1114	Other	No eaves	Yes	No			5384182.45	472478.0351
Scott St	1117	Yard/Surface		No	Yes	Yard/Surface		5384164.057	472492.3661
Scott St	1118	Yard/Surface		Yes	Yes	Yard/Surface		5384179.74	472500.0281
Scott St	1119	Yard/Surface		Yes	Yes	Yard/Surface		5384155.061	472512.1932
Scott St	1120	Yard/Surface		No				5384197.914	472516.4772
Scott St	1123	Yard/Surface		No				5384164.831	472520.349
Scott St	1124	Yard/Surface		Yes	Yes	Sanitary Sewer		5384196.11	472534.3041
Scott St	1127	Yard/Surface		Yes	Yes	Yard/Surface		5384168.3	472531.379
Scott St	1128	Yard/Surface		No				5384194.606	472539.1011
Scott St	1132	Other	No eaves	Yes	No			5384183.242	472551.7214
Scott St	1136	Yard/Surface		No				5384195.064	472569.0214
Scott St	1147	Yard/Surface		Yes	Yes	Yard/Surface		5384160.066	472566.601
Scott St	1151	Yard/Surface		No				5384167.07	472583.2037
Scott St	1200	Yard/Surface		Yes	Yes	Other	Yard in summer, sewer in winter	5384178.275	472626.1139
Scott St	1204	Yard/Surface		No				5384190.99	472642.2619
Scott St	1207	Yard/Surface		Yes	No			5384160.775	472639.3165
Scott St	1210	Yard/Surface		Yes	Yes	Yard/Surface		5384194.896	472666.9231
Scott St	1214	Yard/Surface		No				5384196.096	472670.41
Scott St	1215	Yard/Surface		No				5384147.982	472667.0919
Scott St	1217	Yard/Surface		No				5384155.824	472671.764
Scott St	1220	Yard/Surface		No				5384198.051	472697.7791
Scott St	1224	Yard/Surface		Yes	No			5384188.456	472713.0931
Scott St	1225	Yard/Surface		Yes	No			5384161.236	472691.1126
Second St E	926	Yard/Surface		No				5384401.974	472116.4139
Enters ground, unknown exit - possibly beside house									
Second St E	930	Other		No				5384399.776	472141.2465
Second St E	938	Yard/Surface		Yes	Yes	Yard/Surface		5384391.159	472150.5702
Second St E	1004	Other	No eaves	No				5384412.703	472206.8442
Second St E	1005	Yard/Surface		Yes	Yes	Yard/Surface		5384373.776	472218.888
Second St E	1006	Yard/Surface		No				5384408.437	472232.6218
Second St E	1007	Yard/Surface		Yes	No			5384369.865	472229.3825
Second St E	1008	Yard/Surface		Yes	No			5384387.429	472252.9329
Second St E	1011	Yard/Surface		No				5384387.871	472259.3137
Second St E	1012	Yard/Surface		Yes	No			5384411.146	472255.7298
Second St E	1013	Yard/Surface		Yes	Yes	Yard/Surface		5384389.614	472272.0294
Second St E	1014	Other	No eaves	Yes	No			5384402.893	472274.7084

Street	House Number	Other Type of					Sump Pump		Northing	Easting
		Eaves Discharge	Eaves Discharge	Surveyed	Sump Pump	Discharge				
Second St E	1015	Yard/Surface		No				5384373.999	472271.3499	
Second St E	1017	Yard/Surface		Yes	Yes	Yard/Surface		5384386.401	472287.225	
Second St E	1019	Yard/Surface		Yes	No			5384383.63	472302.5425	
Second St E	1020	Yard/Surface		No				5384399.594	472305.4763	
			No eaves, installing soon to go to yard							
Second St E	1022	Other		Yes	No			5384400.041	472314.7034	
Second St E	1023	Other	No eaves	Yes	No			5384374.733	472318.4775	
Second St E	1024	Yard/Surface		Yes	No			5384391.584	472315.988	
Second St E	1025	Yard/Surface		Yes	Yes	Yard/Surface		5384386.033	472313.0853	
Second St E	1026	Yard/Surface		Yes	No			5384396.259	472334.8322	
Second St E	1027	Yard/Surface		Yes	Yes	Yard/Surface		5384374.493	472331.4806	
Second St E	1028	Other	No eaves	No				5384402.513	472341.5181	
Second St E	1029	Yard/Surface		No				5384375.65	472348.8677	
Second St E	1030	Yard/Surface		Yes	No			5384391.564	472348.7693	
Second St E	1032	Other	No eaves	No				5384399.484	472365.2031	
Second St E	1033	Yard/Surface		Yes	No			5384377.472	472365.4214	
Second St E	1034	Other	No eaves	No				5384404.594	472375.1362	
Second St E	1035	Other	No eaves	No				5384379.021	472375.7406	
Second St E	1038	Other	No eaves	No				5384396.44	472385.4584	
Second St E	1103	Yard/Surface		No			Unknown	5384411.687	472422.5165	
Second St E	1104	Yard/Surface		Yes	Yes	Other		5384391.956	472435.3757	
Second St E	1107	Yard/Surface		Yes	Yes	Yard/Surface		5384360.65	472439.8582	
Second St E	1108	Yard/Surface		Yes	Yes	Yard/Surface		5384393.282	472452.7619	
Second St E	1110	Yard/Surface		No				5384391.681	472460.3384	
Second St E	1111	Other	No eaves	No				5384376.327	472465.5958	
Second St E	1112	Yard/Surface		No				5384397.801	472477.5929	
Second St E	1113	Other	No eaves	No				5384374.665	472480.3476	
Second St E	1114	Other	No eaves	No				5384396.294	472482.8457	
Second St E	1115	Yard/Surface		Yes	No			5384356.462	472495.6485	
Second St E	1116	Other	No eaves	No				5384395.545	472491.6802	
Second St E	1118	Yard/Surface		Yes	No			5384375.172	472481.6791	
Second St E	1119	Other	No eaves	No				5384376.797	472505.8298	
Second St E	1120	Yard/Surface		Yes	No			5384392.083	472514.3048	
Second St E	1121	Yard/Surface		No				5384372.721	472519.8061	
Second St E	1122	Other	No eaves	Yes	No			5384391.398	472527.6094	
Second St E	1123	Yard/Surface		Yes	No			5384374.758	472526.0869	
Second St E	1124	Yard/Surface		No				5384389.232	472531.6184	
Second St E	1125	Yard/Surface		Yes	Yes	Yard/Surface		5384378.141	472543.5489	
Second St E	1126	Other	No eaves	No				5384398.684	472546.6706	
Second St E	1128	Yard/Surface		No				5384401.5	472554.9763	
Second St E	1130	Yard/Surface		No				5384389.939	472565.5484	
Second St E	1131	Other	No eaves	Yes	No			5384378.56	472568.929	
Second St E	1135	Yard/Surface		Yes	No			5384375.673	472583.9389	

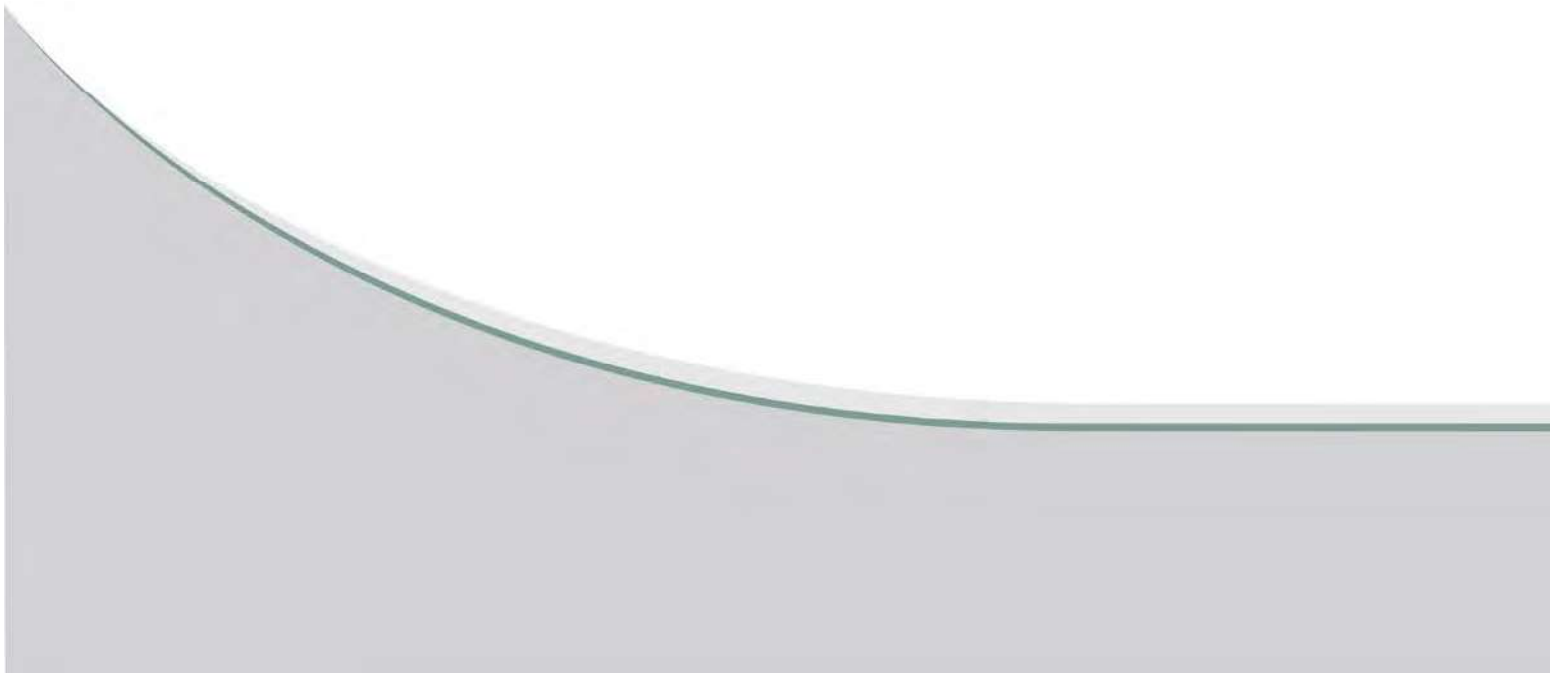
Street	House Number	Other Type of				Sump Pump			
		Eaves Discharge	Eaves Discharge	Surveyed	Sump Pump	Discharge	Other Type of Sump Pump	Northing	Easting
Second St E	1138	Yard/Surface		No				5384394.542	472577.3247
Second St E	1200	Yard/Surface		No				5384411.941	472607.5161
Second St E	1201	Yard/Surface	Lead goes into ground	Yes	No			5384369.46	472622.2053
Second St E	1202	Other		No				5384401.947	472629.9936
Second St E	1204	Yard/Surface		No	Yes	Yard/Surface		5384392.796	472637.7358
Second St E	1205	Yard/Surface		No				5384357.273	472631.1887
Second St E	1206	Yard/Surface		No				5384398.257	472655.342
Second St E	1208	Yard/Surface		No				5384402.897	472664.2564
Second St E	1209	Yard/Surface		No				5384368.123	472653.4733
Second St E	1210	Yard/Surface		No				5384400.446	472675.8577
Second St E	1212	Yard/Surface		Yes	No			5384390.462	472694.6765
Second St E	1213	Yard/Surface		No				5384374.308	472664.4841
Second St E	1215	Yard/Surface		No	Yes	Yard/Surface		5384366.601	472677.5598
Second St E	1216	Yard/Surface		Yes	Yes	Other	Weeping tile then to storm sewer	5384393.369	472720.8735
Second St E	1217	Yard/Surface		Yes	Yes	Other	SS in winter, yard in spring/summer	5384375.425	472697.891
Second St E	1218	Yard/Surface		Yes	Yes	Other	Unknown	5384399.535	472723.3616
Second St E	1219	Yard/Surface		No				5384371.718	472714.846
Second St E	1220	Yard/Surface		No				5384402.181	472743.9761
Second St E	1221	Yard/Surface		No			Currently to SS, installing outdoor pipe soon	5384369.662	472729.4499
Second St E	1222	Yard/Surface		Yes	Yes	Other		5384389.979	472746.6339
Second St E	1224	Yard/Surface		Yes	No			5384396.838	472763.5611
Second St E	1225	Yard/Surface		No				5384362.426	472758.3016
Second St E	1226	Yard/Surface		No				5384398.6	472773.5387
Second St E	1228	Yard/Surface		No				5384396.112	472788.6222
Second St E	1237	Yard/Surface		Yes	Yes	Yard/Surface		5384373.241	472778.0563
Third St E	1004	Yard/Surface		No				5384519.803	472215.2277
Third St E	1005	Yard/Surface		No				5384470.91	472225.123
Third St E	1007	Yard/Surface		No				5384470.944	472245.4821
Third St E	1010	Yard/Surface		No				5384502.058	472242.3091
Third St E	1011	Other	No eaves	Yes	No			5384475.202	472256.0749
Third St E	1014	Yard/Surface		Yes	No			5384494.494	472268.3066
Third St E	1015	Yard/Surface		No				5384464.231	472272.4915
Third St E	1016	Other	No eaves	Yes	No			5384495.903	472271.84
Third St E	1017	Other	No eaves	Yes	No			5384476.636	472289.698
Third St E	1018	Yard/Surface		No				5384495.312	472293.3001
Third St E	1019	Other	No eaves	No				5384472.035	472287.8371
Third St E	1021	Yard/Surface		Yes	No			5384474.038	472306.518
Third St E	1024	Other	No eaves	No				5384494.106	472313.0834
Third St E	1025	Yard/Surface		Yes	Yes	Yard/Surface		5384476.181	472315.6776
Third St E	1026	Yard/Surface		No				5384497.112	472328.2574

Street	House Number	Other Type of				Surveyed	Sump Pump			Other Type of Sump Pump	Northing	Easting
		Eaves Discharge	Eaves Discharge	Eaves Discharge	Sump Pump		Discharge					
Third St E	1027	Yard/Surface		No		No				5384474.908	472340.5603	
Third St E	1028	Yard/Surface		No		No				5384496.635	472336.7523	
Third St E	1030	Yard/Surface		No		No				5384496.326	472347.5763	
Third St E	1031	Yard/Surface		Yes	No	Yes	No			5384472.693	472365.7633	
Third St E	1032	Yard/Surface		No		No				5384499.231	472359.5642	
Third St E	1034	Yard/Surface		Yes	No	Yes	No			5384501.102	472368.295	
Third St E	1035	Other	No eaves	No		No				5384473.422	472381.5383	
Third St E	1036	Yard/Surface		No		No				5384499.772	472379.5959	
Third St E	1037	Yard/Surface		No		No				5384472.567	472394.4986	
Third St E	1038	Other	No eaves	No		No				5384494.299	472389.6127	
Third St E	1100	Other	No eaves	Yes	No	Yes	No			5384501.588	472408.1562	
Third St E	1101	Yard/Surface		Yes	No	Yes	No			5384467.195	472420.1541	
Third St E	1104	Yard/Surface		Yes	Yes	Yes	Yes	Yard/Surface		5384500.312	472442.129	
Third St E	1107	Other	No eaves	No		No				5384477.818	472448.9818	
Third St E	1108	Yard/Surface		Yes	No	Yes	No			5384498.645	472458.881	
Third St E	1109	Yard/Surface		Yes	No	Yes	No			5384463.7	472457.4431	
Third St E	1112	Yard/Surface	Potentially to weeping tile	No		No				5384503.612	472474.8278	
Third St E	1113	Other	No eaves	No		No				5384476.828	472480.5166	
Third St E	1114	Other	No eaves	No		No				5384514.947	472485.7884	
Third St E	1116	Yard/Surface		Yes	No	Yes	No			5384485.344	472495.8385	
Third St E	1117	Yard/Surface		No		No				5384480.744	472491.7999	
Third St E	1119	Yard/Surface		No		No				5384469.737	472506.9417	
Third St E	1120	Yard/Surface		Yes	No	Yes	No			5384503.4	472513.4689	
Third St E	1122	Yard/Surface		Yes	No	Yes	No			5384499.16	472532.186	
Third St E	1123	Other	No eaves	Yes	No	Yes	No			5384473.972	472535.8102	
Third St E	1125	Yard/Surface		No		No				5384471.42	472551.4156	
Third St E	1128	Yard/Surface		Yes	Yes	Yes	Yes	Yard/Surface		5384498.789	472569.1539	
Third St E	1131	Yard/Surface		Yes	No	Yes	No			5384459.922	472559.625	
Third St E	1133	Yard/Surface		No		No	Yes	Yard/Surface		5384473.139	472583.4617	
Third St E	1134	Yard/Surface		Yes	No	Yes	No			5384495.217	472580.0309	
Third St E	1135	Yard/Surface		Yes	No	Yes	No			5384473.077	472587.1289	
Third St E	1200			No		No	Yes	Yard/Surface		5384499.641	472612.7587	
Third St E	1202	Other	No eaves	Yes	No	Yes	No			5384495.901	472636.4312	
Third St E	1204	Yard/Surface		Yes	No	Yes	No			5384497.436	472642.1419	
Third St E	1205	Yard/Surface		No		No				5384490.62	472654.5855	
Third St E	1206	Yard/Surface		No		No				5384503.215	472660.0858	
Third St E	1207	Yard/Surface		Yes	No	Yes	No			5384478.093	472655.0523	
Third St E	1209	Yard/Surface		No		No				5384466.697	472665.7496	
Third St E	1210	Yard/Surface		No		No				5384499.925	472681.0306	
Third St E	1211	Other	No eaves	No		No				5384476.662	472675.1035	
Third St E	1212	Yard/Surface	Rear:yard, front:possibly SS	Yes	No	Yes	No			5384494.177	472685.985	
Third St E	1214	Other		Yes	No	Yes	No			5384495.621	472696.4281	

Street	House Number	Other Type of			Surveyed	Sump Pump	Sump Pump		Other Type of Sump Pump	Northing	Easting
		Eaves Discharge	Eaves Discharge	Eaves Discharge			Discharge	Discharge			
Third St E	1215	Yard/Surface			No					5384470.219	472706.4238
Third St E	1216	Yard/Surface			Yes	No				5384492.854	472711.4135
Third St E	1217	Yard/Surface			Yes	Yes	Yard/Surface			5384473.028	472716.324
Third St E	1218	Yard/Surface			No					5384503.146	472728.9864
Third St E	1219	Other	No eaves		No					5384471.729	472734.5895
Third St E	1221	Yard/Surface			Yes	No				5384471.925	472737.4712
Third St E	1222	Yard/Surface			Yes	No				5384499.934	472751.3921
Third St E	1223	Yard/Surface			Yes	No				5384471.736	472751.7615
Third St E	1224	Yard/Surface			No					5384504.938	472764.2674
Third St E	1225	Yard/Surface			Yes	Yes	Yard/Surface			5384486.672	472759.7695
Third St E	1226	Yard/Surface			Yes	No				5384498.187	472777.8573
Third St E	1227	Yard/Surface			Yes	No				5384479.481	472773.9916
Third St E	1228	Yard/Surface			Yes	Yes	Yard/Surface			5384491.816	472785.29
Third St E	1229	Yard/Surface			Yes	Yes	Sanitary Sewer			5384475.345	472785.9381

APPENDIX C

SAMPLE CALCULATIONS



FUTURE DEVELOPMENT PEAK FLOW CALCULATION

Demand and population density values obtained from City of Winnipeg Wastewater Flow Estimation and Servicing Guidelines, as noted in Section 3.1.

Future development area: 9.2 ha

- 4.6 ha Single-family residential (SF)
- 4.6 ha Multi-family residential (MF)

SF Average Demand:

$$Q_{SF} = (4.6 \text{ ha}) \left(12.29 \frac{\text{dw}}{\text{ha}} \right) \left(3.05 \frac{\text{c}}{\text{dw}} \right) \left(270 \frac{\text{L}}{\text{c/d}} \right) = 46556 \text{ L/d} = 0.54 \text{ L/s}$$

MF Average Demand:

$$Q_{MF} = (4.6 \text{ ha}) \left(74.13 \frac{\text{dw}}{\text{ha}} \right) \left(2.3 \frac{\text{c}}{\text{dw}} \right) \left(270 \frac{\text{L}}{\text{c/d}} \right) = 211760 \text{ L/d} = 2.45 \text{ L/s}$$

Harmon Peaking Factor:

$$PF = 1 + \frac{14}{4 + \sqrt{P/1000}}$$

$$P = (4.6 \text{ ha}) \left(12.29 \frac{\text{dw}}{\text{ha}} \right) \left(3.05 \frac{\text{c}}{\text{dw}} \right) + (4.6 \text{ ha}) \left(74.13 \frac{\text{dw}}{\text{ha}} \right) \left(2.3 \frac{\text{c}}{\text{dw}} \right) = 957$$

$$PF = 1 + \frac{14}{4 + \sqrt{957/1000}} = 3.81$$

Future development peak demand:

$$Q_{peak} = PF \times (Q_{SF} + Q_{MF}) = 3.81 \times (0.54 \text{ L/s} + 2.45 \text{ L/s}) = \mathbf{11.4 \text{ L/s}}$$

Future development inflow and infiltration:

- Groundwater infiltration:

$$Q_{GW} = (9.2 \text{ ha}) \left(2200 \frac{\text{L}}{\text{ha/d}} \right) = 20240 \text{ L/d} = 0.23 \text{ L/s}$$

- Manhole infiltration:

$$Q_{MH} = (9.2 \text{ ha}) \left(1.6 \frac{\text{MH}}{\text{ha}} \right) \left(12 \frac{\text{L}}{\text{min/MH}} \right) = 177 \frac{\text{L}}{\text{min}} = 2.94 \frac{\text{L}}{\text{s}}$$

Total future development flow:

$$Q_{Total} = Q_{peak} + Q_{GW} + Q_{MH} = 11.4 \frac{\text{L}}{\text{s}} + 0.23 \frac{\text{L}}{\text{s}} + 2.94 \frac{\text{L}}{\text{s}}$$

$$\mathbf{Q_{Total} = 14.6 \frac{L}{s}}$$



November 15, 2018

Report To: Mayor & Council

From: Travis Rob, Manager of Operations & Facilities

SUBJECT: October 2018 Drinking Water Systems Monthly Summary Report

Please find attached the October 2018 Summary Report on the drinking water systems, prepared by Randy White, Senior WTP Operator.

Your Administration recommends that Operations & Facilities Executive Committee accept the October 2018 report as presented.

Respectfully submitted,
Operations & Facilities Division

Travis Rob, P. Eng.
Manager of Operations & Facilities

Council approval of this report will accept the October 2018 report prior to it being made available to the general public.
--

c.c. – Craig Miller, Environmental & Facilities Supt.
Randy White, Senior WTP Operator

03CouncilwaterreportMarch 2015

October 2018

Monthly Summary Report
Water Systems

Prepared by: Randy White, ORO
Senior Water Treatment Plant Operator

Dated: November 16, 2018

1) **Introduction:**

This report contains the major maintenance activities and operational events that occurred during the month of August 2018 at the Water Treatment Plant - Water Works # 220000978 and the Airport Groundwater Well Water Works No. 849N7DGE0 (Precedes Airport Groundwater Well Water Works No. 26002736). This information report has been prepared for Council to better understand how the water systems they own and operate are maintained on a monthly basis. Also, this report will assist Council as Directors of the Corporation in exercising its obligation to meet a reasonable Standard of Care as outlined in Section 19 of the Safe Drinking Water Act.

A NEW drinking water system at the Airport was put into service August 01, 2017. The system is classified as a Small Drinking Water System, System No. 849N7DGE0 which falls under the requirements of Ontario Regulation 319/08 – Small Drinking Water Systems. The old drinking water system, Airport Groundwater Well Water Works # 26002736 has been decommissioned.

2) **Flow Data:**

Water Treatment Plant: See attached spreadsheet.

Airport Groundwater Well :

Estimated Daily Usage 0.198 m3

Estimated August Usage 6.1 m3

3) **Microbiological (Health Related) Water Analysis - Main Water System No. 220000978:**

Water Treatment Plant (treated): 4 samples taken no adverse results

Water Treatment Plant (raw): 4 samples taken no adverse results

Water Distribution System: 16 samples taken where 25% of samples were tested for heterotrophic plate count (HPC) - no adverse results.

We take microbiological samples on a weekly basis, which includes 1 raw sample, 1 treated sample and 4 distribution samples. The 4 distribution samples are taken at different locations throughout the distribution system.

Water distribution samples taken at the following locations:

1. 1111 First St. E.	2. 1104 Church St	3. 901 Wright Ave.	4. W. Tower
5. 740 Scott St.	6. 1036 Victoria Ave.	7. 901 Wright Ave.	8. W. Tower
9. 740 Scott St.	10. 320 Portage Ave.	11. 901 Wright Ave.	12. W. Tower
13. 1111 First St. E.	14. 1104 Church St.	15. 740 Scott St.	16. W. Tower

4) Microbiological (Health Related) Water Analysis - Airport Groundwater Well No. 849N7DGE0:

New drinking water system put on line August 01, 2017. No treatment required as the Airport groundwater tested negative for bacteria.

The Airport drinking water system is to be sampled and tested for bacteria once every three (3) months in accordance with Section 25 – Microbiological Sampling and Testing of the Small Drinking Water Systems Regulation, O. Reg. 319/08.

Water distribution sample taken April 10, 2018 – no adverse results.

5) Free Available Chlorine Residual (FAC) - Main Water System No. 220000978:

FAC residuals are taken at a minimum daily at both the Water Treatment Plant and within the Water Distribution System.

6) Free Available Chlorine Residual (FAC) - Airport Groundwater Well System No. 849N7DGE0:

New drinking water system put on line August 01, 2017. No treatment required as the Airport groundwater well tested negative for bacteria.

7) Maintenance Activities at the WTP:

- Oct 4th cleaned top and bottom tanks on poly unit
 Cleaned all 4 check valves on the poly unit
- Oct 11th worked on filter #3 turbidity meter
- Oct 15th calibrated distribution chlorine analyzer
- Oct 16th tightened the drive chain on clarifier No. 2
 Flushed the poly lines
 Greased clarifier chains, gears and bearings
- Oct 17th we changed the mixer motor on clarifier No. 2
- Oct 25th took grab samples off the filters
 Calibrated the distribution chlorine analyzer
- Oct 29th calibrated chlorine and fluoride analyzer
- Oct 30th ran the standby generator

Oct 31st greased gears, chains and bearings on clarifier 1

8) **Water Complaints:**

- Poor Pressure – 0 complaints.
- Water quality – 0 complaints.

9) **Other Miscellaneous Information:**

Oct 1 st	routine micro samples collection Lead samples taken in distribution
Oct 2 nd	lead samples taken in distribution
Oct 3 rd	temporary main samples – Mill Road – 1 st set
Oct 9 th	routine micro sample collection Temporary main samples – Mill Road – 2 nd set
Oct 11 th	took micro sample at the Airport Service repair samples – 1035 Cornwall Avenue
Oct 15 th	routine micro sample collection
Oct 18 th	received a load of aluminum sulphate
Oct 19 th	received a shipment of chlorine New main samples – Lake Road – 1 st set
Oct 20 th	new main samples – Lake Road – 2 nd set
Oct 22 nd	routine micro sample collection
Oct 25 th	new main tie in samples – Mill Rd and Lake Rd – 1 st set
Oct 29 th	new main tie in samples – Mill Rd and Lake Rd – 2 nd set Routine micro sample collection
Oct 30 th	took DWSP samples

10) In order to acknowledge that all levels of responsibility within the Corporation of the Town of Fort Frances have received and reviewed this monthly report, it is necessary to sign-off in the appropriate location below:

- Randy White, ORO, Senior WTP Operator: _____
- Craig Miller, Environmental Superintendent: _____
- Travis Rob, Manager of Operations & Facilities: _____
- Doug Brown, CAO: _____
- Paul Ryan, Chair O& F Exec Committee: _____
- Roy Avis, Mayor: _____
- June Caul, Councillor: _____
- John Albanese, Councillor: _____
- Wendy Brunetta, Councillor: _____
- Doug Kitowski, Councillor: _____
- Ken Perry, Councillor: _____

Note: Once all signatures have been obtained, the report will be distributed and made available to the public. If you have any questions, please feel free to contact myself or Randy White, Senior WTP Operator at 274-2325.

Town of Fort Frances - Water treatment Plant - Water Works # 220000978
Monitoring Record
October 2018

Operating Data	Units	*MAC	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	Average	
		or Range																																		
Flow rates																																				
Raw Water	10^3 M^3	17	5.55	5.63	5.62	5.46	5.70	5.72	5.62	5.61	5.41	5.56	5.52	5.70	5.52	5.51	5.62	5.53	5.55	5.22	5.17	5.29	5.18	5.03	5.19	5.07	5.23	5.24	5.03	5.46	5.01	5.09	5.01	167.05	5.39	
Peak Instantaneous - Raw Water	L/s	n/a	65.54	65.56	65.57	65.46	65.44		65.34	65.36	65.31	65.26	65.35	65.22	65.06	65.03	64.97	64.94	64.90	64.60	64.43	60.51	60.54	60.44	60.36	60.76	60.78	60.71	60.74	60.64	60.37	60.19	60.22	1899.60	63.32	
Treated Water	10^3 M^3	17	3.27	3.70	3.35	2.93	3.52	3.52	2.97	4.45	3.20	3.21	3.44	3.48	3.01	3.16	3.79	3.17	3.53	3.57	3.14	3.10	3.66	2.99	3.34	3.48	3.26	3.04	3.48	3.46	3.05	3.34	3.17	103.78	3.35	
Peak Instantaneous - Treated Water	L/s	n/a	82.93	81.08	79.64	83.83	82.94		84.57	83.35	81.24	81.62	82.56	80.01	80.79	77.72	81.21	80.73	81.35	80.62	81.41	81.44	79.77	79.49	81.64	80.39	84.56	79.09	79.58	83.29	79.66	80.00	79.46		81.20	
BackWash Water	10^3 M^3	n/a	0.208	0.268	0.246	0.284	0.267	0.249	0.254	0.260	0.247	0.205	0.264	0.000	0.202	0.000	0.268	0.000	0.241	0.000	0.166	0.269	0.235	0.287	0.000	0.124	0.000	0.220	0.286	0.272	0.237	0.284	0.274	6.117	0.197	
Fluoride Information																																				
Fluoride Residual - Treated Water	mg/l	0.5 to 0.8	0.64	0.64	0.64	0.66	0.64	0.62	0.64	0.66	0.65	0.65	0.67	0.68	0.67	0.67	0.67	0.73	0.74	0.71	0.72	0.74	0.72	0.74	0.75	0.74	0.74	0.75	0.74	0.77	0.75	0.76	0.76	21.66	0.70	
Turbidity Information																																				
Raw Water	NTU	n/a	1.77	1.83	1.82	1.82	1.80	1.88	1.81	1.88	1.78	1.75	1.64	1.68	1.71	1.65	1.66	1.73	1.60	1.84	1.76	1.81	1.88	1.86	1.76	1.69	1.72	1.78	1.66	1.77	1.81	1.71	1.68	54.54	1.76	
Settled Water	NTU	n/a	0.11	0.11	0.11	0.10	0.12	0.14	0.11	0.12	0.11	0.11	0.11	0.12	0.12	0.11	0.10	0.10	0.11	0.10	0.11	0.12	0.11	0.10	0.11	0.12	0.11	0.10	0.10	0.11	0.12	0.11	0.11	3.44	0.11	
Treated Water	NTU	1	0.05	0.06	0.06	0.04	0.03	0.08	0.09	0.07	0.06	0.05	0.06	0.07	0.07	0.06	0.07	0.06	0.06	0.05	0.04	0.07	0.09	0.06	0.07	0.06	0.04	0.04	0.05	0.06	0.09	0.07	0.07	1.90	0.06	
Other Operating Parameters																																				
pH - Treated Water	no units	6.5 to 8.5	6.90	7.01	7.03	7.12	7.15	7.07	7.10	7.12	6.98	7.02	6.94	6.98	7.08	7.06	7.13	7.15	7.11	7.16	7.11	7.21	7.17	7.04	7.11	7.04	7.10	7.16	7.12	7.15	7.11	7.14	7.16	219.73	7.09	
pH - Settled water	no units	n/a	6.10	6.09	6.11	6.06	6.10	6.00	6.07	6.01	6.07	6.04	6.09	6.13	6.07	6.04	6.06	6.10	6.08	6.11	6.06	6.17	6.07	6.11	6.11	6.04	6.00	6.06	6.01	6.10	6.12	5.97	6.05	188.20	6.07	
pH - Raw Water	no units	n/a	7.11	7.18	7.20	7.16	7.21	7.09	7.00	7.04	7.21	7.14	7.22	7.06	7.16	7.16	7.17	7.17	7.15	7.09	7.11	7.09	7.01	7.89	7.16	7.06	7.09	7.11	7.06	7.12	7.07	7.12	7.03	221.44	7.14	
FAC - Treated Water	mg/l	0.2 to 4	2.34	2.40	2.36	2.10	2.03	2.08	1.96	1.95	1.99	1.90	1.96	2.01	2.04	1.93	2.15	2.20	2.17	2.24	2.24	2.20	2.21	2.26	2.26	2.24	2.20	2.18	2.20	2.21	2.26	2.24	2.28	66.79	2.15	
Total Chlorine Residual Treated	mg/l	0.3 to 7	2.66	2.66	2.64	2.32	2.20	2.22	2.18	2.15	2.28	2.20	2.34	2.30	2.46	2.44	2.48	2.50	2.60	2.48	2.46	2.38	2.24	2.48	2.58	2.66	2.46	2.38	2.36	2.42	2.48	2.58	2.52	75.11	2.42	
Temperature	C	15	13.0	12.0	13.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0	8.0	9.0	8.0	8.0	8.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	268.0	8.6		
Fluoride used (Total Daily Consumption)	kg	n/a	19.0	19.0	19.0	21.0	22.0	23.0	22.0	22.0	21.0	21.0	21.0	20.0	21.0	20.0	21.0	20.0	20.0	20.0	20.0	20.0	19.0	19.0	19.0	19.0	19.0	18.0	19.0	18.0	17.0	18.0	617.0	19.9		
Chlorine used (Total Daily Consumption)	kg	n/a	25.0	26.0	24.0	23.0	23.0	21.0	22.0	23.0	21.0	22.0	22.0	23.0	22.0	23.0	23.0	22.0	23.0	23.0	22.0	24.0	22.0	23.0	23.0	22.0	24.0	23.0	22.0	24.0	22.0	23.0	22.0	707.0	22.8	
Soda ash (Total Daily Consumption)	kg	n/a	194.3	197.1	196.7	191.1	199.5	200.2	196.7	196.4	189.4	194.6	193.2	199.5	193.2	192.9	196.7	193.6	194.3	182.7	181.0	185.2	181.3	176.1	181.7	177.5	183.1	183.4	176.1	191.1	175.4	178.2	175.4	5846.8	188.6	
Soda Ash - Dosage	mg/l	n/a	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	1085.0	35.0	
Alum residual - (Total Daily Consumption)	kg	n/a	194.3	197.1	196.7	191.1	199.5	200.2	196.7	196.4	189.4	194.6	193.2	199.5	193.2	192.9	196.7	193.6	194.3	182.7	181.0	185.2	181.3	176.1	181.7	177.5	183.1	183.4	176.1	191.1	175.4	178.2	175.4	5846.8	188.6	
Alum residual - Dosage	mg/l	n/a	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	1085.0	35.0	
Alum residual - Treated Water	mg/l	0.1	0.02	0.01	0.02	0.04	0.02	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.03	0.05	0.01	0.02	0.01	0.02	0.02	0.01	0.01	0.01	0.04	0.04	0.02	0.02	0.58	0.02
Poly bags added (25 kg bags)	kg					0.5						0.5		0.5					0.5							0.5		0.5						75.0		

* The Canadian Average is 450 Litres (0.45 m³) per day.
* Population is 7986
* Number of Households is 3783

TOWN OF FORT FRANCES
Operations and Facilities Division - Environmental Area - Operations Statistics
(October 2018)

STAFFING:

See Operations Statistics (October) 2018 prepared by M. Strachan, Superintendent of Transportation

OVERTIME HOURS - Equivalent Straight Time Hours

See Operations Statistics (October) 2018 prepared by M. Strachan, Superintendent of Transportation

WATER DISTRIBUTION & WASTE WATER COLLECTION:

See Monthly Summary (Attached)

Winterized Sunny Cover, Tourist Information Centre, Sorting Gap Marina, Rainy Lake Square
Wiedenhoeft, Bruyere, Miller attended NWOWWC in Thunder Bay

WATER TREATMENT PLANT:

October, 2018 - In receipt of the Water Treatment Plant Monthly Report
Webb, Lesmesurier attended NWOWWC in Thunder Bay

WASTE-WATER TREATMENT FACILITY:

October, 2018 - In receipt of the Wastewater Treatment Facility Monthly Report.

WASTE MANAGEMENT:

Garbage Collection:

- Number of complaints regarding garbage collection:
 - Town - 0 complaints, Asselin's - 0 complaints

Sanitary Landfill (Waste Disposal Site):

Landfill Scales functioning during this period.

- Amount of residential waste delivered to the landfill:
 - 246,103 kgs (246.10 tonnes)
- Amount of ICI waste delivered to the landfill:
 - 587,770 kgs (587.77 tonnes)

Recycling:

- Number of complaints regarding recycled materials:
 - Town - 0 complaints, Asselin's - 0 complaint
- Amount of recycled waste diverted from the landfill:
 - (No data) Emterra

Prepared By: Craig Miller  Environmental Superintendent

Date: 11/19/18

Monthly Summary for October 2018

Location	Date	Main System	Subcategory	Remarks	Billable	Done By
Thompson St. - 726	1-Oct-18	Water	Main Flushing	Flushing due to complaint of brown / odorous water	No	B. Patterson, J. Nicolay
Minnie Ave - 201	1-Oct-18	Water	Curb Stop Box Adjustments	Cut down box and replace top of curb stop to straighten	No	J. Nicolay
Thompson St. - 726	1-Oct-18	Water	Curb Stop Box Adjustments	Replaced 105" of service line and moved c/s to property line. Used 3/4" copper to lead coupling and 3/4" compression c/s.	No	B. Patterson, J. Nicolay, J. Bruyere, G. Wiedenhoef, Paul L., Darwin W.
Butler Ave - 301	1-Oct-18	Sewer	Manhole Repairs	Replaced / lowered manhole riser ring	No	B. Patterson, J. Nicolay
Frenette Ave - 1029	2-Oct-18	Water	Curb Stop Box Adjustments	Replaced box and rod for c/s. C/S runs from keating ave through 730 Thompson back yard.	No	B. Patterson, J. Nicolay
Scott St. - 360 (SE corner of building)	2-Oct-18	Water	Curb Stop Box Adjustments	Lower c/s to grade	No	B. Patterson, J. Nicolay
Scott St. - 360 (just east of entrance)	2-Oct-18	Water	Curb Stop Box Adjustments	Removed box and rod. c/s still attached to main and buried.	No	B. Patterson, J. Nicolay
Scott St. - 360	2-Oct-18	Water	Curb Stop Box Adjustments	New c/s box top and raised to grade	No	B. Patterson, J. Nicolay
Scott St. - 396	3-Oct-18	Water	Curb Stop Box Adjustments	Removed box and rod. c/s still attached to main and buried.	No	B. Patterson, J. Nicolay
Scott St. - 398	3-Oct-18	Water	Curb Stop Box Adjustments	Removed box and rod. c/s still attached to main and buried.	No	B. Patterson, J. Nicolay
Butler Ave - 301	4-Oct-18	Sewer	Miscellaneous Works	Straighten clean out and cut to level of new bricks. Used new ferro to attach cap.	No	B. Patterson, J. Nicolay
Sixth St. W - 328	5-Oct-18	Water	Water Turn Off/On	Water turn on	Yes	G. Wiedenhoef, J. Nicolay
Church St. - 620	9-Oct-18	Water	Water Turn Off/On	Turn water off at RLS. Remove backflow and water meter.	No	B. Patterson, J. Nicolay
Banta Blvd - 949	10-Oct-18	Water	Water Turn Off/On	Removed bottle filling station.	No	J. Bruyere
Conwall Ave - 1035	10-Oct-18	Water	Water Turn Off/On	Turn off at c/s for season (except for campground)	No	G. Wiedenhoef, J. Bruyere
Sportsfields, Legion park, Lions Park, The Point	11-Oct-18	Water	Water Turn Off/On	Water turn off.	Yes	B. Patterson, J. Nicolay
Colonization Rd. W - 1724	12-Oct-18	Water	Water Turn Off/On	Water turn on.	Yes	G. Wiedenhoef
Third St. W - 613	13-Oct-18	Water	Water Turn Off/On	Water turn off / on	Yes	G. Wiedenhoef, J. Bruyere
First St. W - 610	14-Oct-18	Water	Water Turn Off/On	Water turn off / on	Yes	G. Wiedenhoef, J. Bruyere
Mosher Ave - 411	15-Oct-18	Water	Water Turn Off/On	Water turn off / on	Yes	G. Wiedenhoef
Elizabeth St. E - 1205	17-Oct-18	Water	Water Turn Off/On	Tried to turn off c/s but could not. Leak on town side. Replaced / repaired service line on town side.	No	G. Wiedenhoef, J. Bruyere
Reid Ave - 601 (Library)	17-Oct-18	Water	Water Turn Off/On	Water turn off	Yes	B. Patterson, J. Nicolay
Colonization Rd. W - 1643	18-Oct-18	Water	Water Turn Off/On	Water turn off	Yes	G. Wiedenhoef, J. Nicolay
Scott St - 200	18-Oct-18	Sewer	Plugged Sewers	Blockage let go at 80'. Nothing on knife. On town side.	Yes	B. Patterson, J. Nicolay
Wright Ave - 812	20-Oct-18	Sewer	Plugged Sewers	Blockage let go at 52'. Roots on knife. On town side.	Yes	B. Patterson, J. Nicolay
Scott St - 235	22-Oct-18	Sewer	Plugged Sewers	Blockage let go at 60'. Roots on knife. On town side.	Yes	G. Wiedenhoef, J. Nicolay
Huffman Court - 837	23-Oct-18	Sewer	Plugged Sewers	Couldn't get to back up.	Yes	G. Wiedenhoef, J. Bruyere
Wright Ave - 819	24-Oct-18	Sewer	Plugged Sewers	Blockage let go at 25'. Roots on knife. On town side.	Yes	G. Wiedenhoef, D. Martin
Mowat @ Church	25-Oct-18	Sewer	Plugged Sewers	Blockage let go at 23'. Tampons on knife.	Yes	B. Patterson, J. Nicolay
Victoria Ave - 306	26-Oct-18	Sewer	Plugged Sewers	Plugged internally - no work done	Yes	B. Patterson, J. Nicolay
Crowe Ave - 313	26-Oct-18	Sewer	Plugged Sewers	Blockage let go at 60'. Roots on knife. On town side.	No	B. Patterson, J. Nicolay
Gizhac Health Access Centre	26-Oct-18	Sewer	Plugged Sewers	Would not back up. Ran rooster thru. Roots @ 34'. Private side.	Yes	G. Wiedenhoef, J. Bruyere
Huffman Court - 821	29-Oct-18	Sewer	Plugged Sewers	Ran rooster out 70'. Blockage let go. Roots on knife.	Yes	G. Wiedenhoef, J. Nicolay
Third St. W - 713	29-Oct-18	Sewer	Plugged Sewers	Blockage let go @ 37'. Lots of roots. CCTV to follow.	Yes	G. Wiedenhoef, J. Nicolay, J. Bruyere
Church St. - 620	29-Oct-18	Sewer	New Sewer Service Installations	Connection inspection for sewer	Yes	G. Wiedenhoef, J. Nicolay
Smith Ave - 918	29-Oct-18	Water	New Water Service Installations	Connection inspection for water	Yes	J. Bruyere
Williams Ave - 826	30-Oct-18	Other	Private Work	CCTV inspection of sewer from men's bathroom c/o	Yes	B. Patterson, J. Nicolay
Mosher Ave - 401	30-Oct-18	Other	Private Work	Vac truck for Daryl's Landscaping - Private works	Yes	B. Henttonen, E. Onichuk
Huffman Court - 837	31-Oct-18	Other	Private Work	Vac truck for Daryl's Landscaping - Private works	Yes	R. Walton, D. Boileau
Mosher Ave - 401	31-Oct-18	Other	Private Work	CCTV inspection of sewer. Found lots of roots.	Yes	G. Wiedenhoef, J. Nicolay, J. Bruyere