



AGENDA
Regular Council Meeting
4:30 PM – Monday December 6, 2021
Council Chambers & Live Stream on Drumheller Valley YouTube Channel

1. CALL TO ORDER

2. OPENING REMARK

- 2.1 Municipal Affairs Letter – Response from Minister McIver – Petition
Municipal Affairs - Petition Response Letter

3. ADDITIONS TO THE AGENDA

4. ADOPTION OF AGENDA

- 4.1 Agenda for December 6, 2021 Regular Council Meeting

Proposed Motion: That Council adopt the agenda for the December 6, 2021 Regular Council meeting as presented.

5. MINUTES

- 5.1 Minutes for the November 15, 2021 Regular Council Meeting as presented.
Regular Council Meeting – November 15, 2021

Proposed Motion: That Council approve the minutes for the November 15, 2021 as presented

6. ADMINISTRATION REPORTS

6.1 CHIEF ADMINISTRATIVE OFFICER AND DIRECTOR OF CORPORATE SERVICES

- 6.1.1 Request for Decision - 2022 Utility Operating Budget and 3 Year Utility Operating Financial Plan
2022 Utility Operating Budget + 3 Year Utility Operating Financial Plan

Proposed Motion: That Council adopt the 2022 Utility Operating Budget and three (3) year Operating Financial Plan as presented.

6.1.2 Request for Decision - 2022 Utility Rate Bylaw 23.21 – First Reading
2022 Utility Rate Bylaw 23.21

Proposed Motion: That Council give first reading to the 2022 Utility Rate Bylaw 23.21 as presented.

6.2. DIRECTOR OF CORPORATE SERVICES

6.2.1 Request for Direction - 2022 Service Fee Schedule – First Draft Presentation
2022 Service Fee Schedule + Service Fee Schedule - Draft

6.3 DIRECTOR OF INFRASTRUCTURE

6.3.1 Request for Decision – 2022 Community Clean Up + Presentation
Community Clean Up + Presentation

Proposed Motion: Moves that the Town of Drumheller implement the 2022 Community Clean Up, by continuation of the voucher program, the “Kick-It-To-The-Curb” event on the weekend following Labour Day, followed by a two-week Community Clean Up carried out in the period of September 12, 2022, to September 23, 2022.

6.3.2 Request for Decision – Capital Budget Allocation – Upgrade of the Drumheller Penitentiary Booster Station and Alberta Municipal Water Wastewater Partnership (AMWWP) Grant Application
Penitentiary Boost Station + AMWWP

Proposed Motion: Moves to reserve a 2022 Capital Budget allocation of \$ 713,220.00 in support of the Town’s cost share requirement for the upgrade of the Penitentiary Booster Station. The Town’s cost share commitment is contingent on the approval of the Alberta Municipal Water Wastewater Partnership (AMWWP) grant application with a total project cost estimate of \$1,141,700.

6.4 MANAGER OF RECREATION, ARTS AND CULTURE

6.4.1 Request for Decision – Aquaplex and Badlands Community Facility Membership Model
Aquaplex + BCF Membership Model

Proposed Motion: That Council approves the implementation of the Continuous Monthly Pass model for the recreation memberships and adjust membership fees as presented effective January 1, 2022.

6.5 RESILIENCY AND FLOOD MITIGATION PROJECT MANAGER

6.5.1 Flood Activities Update

7. CLOSED MEETING

7.1 Flood Department Activities – Advice and Recommendations- FOIP 24 – Advice from Officials

Proposed Motion: That Council close the meeting to discuss flood department activities as per FOIP 24 – Advice from Officials.

8. ADJOURNMENT

Proposed Motion: That Council adjourn the meeting.

ALBERTA
MUNICIPAL AFFAIRS

*Office of the Minister
MLA, Calgary-Hays*

AR105850

November 12, 2021

Her Worship Heather Colberg
Mayor
Town of Drumheller
224 Centre Street
Drumheller AB T0J 0Y4

Dear Mayor Colberg and Council:

Thank you for your participation and cooperation in the preliminary review conducted by my ministry in response to a petition requesting an inspection into the Town of Drumheller. The purpose of the preliminary review was to identify the concerns and issues that led to the petition.

Municipal inspections are extraordinary measures and are not undertaken lightly. While the review noted some inconsistencies with respect to communication and transparency of the town's flood mitigation project, the remaining concerns are not of sufficient severity to warrant an inspection. I noted that the town took steps to improve communication and management of the flood mitigation project.

In recognition of council's actions to date, as well as acknowledging the results of the October 2021 general election, I will not be ordering an inspection at this time. In the meantime, Municipal Affairs will continue to offer ongoing support to the town in addressing residents' concerns through advisory services and training opportunities at the request of council or your administration.

Sincerely,

A handwritten signature in blue ink that reads 'Ric McIver'.

Ric McIver
Minister

cc: Honourable Nate Horner, MLA, Drumheller-Stettler



MINUTES

Regular Council Meeting

4:30 PM – Monday November 15, 2021

Council Chambers & Live Stream on Drumheller Valley YouTube Channel

Live Stream Link:

[Town of Drumheller - Regular Town Council Meeting, November 15th, 2021 - YouTube](#)

IN ATTENDANCE

Mayor Colberg
Councillor Patrick Kolafa
Councillor Tony Lacher
Councillor Stephanie Price
Councillor Crystal Sereda
Councillor Tom Zariski

Chief Administrative Officer (CAO): Darryl Drohomerski
Fire Chief: Bruce Wade
Manager of Recreation, Arts and Culture: Darren Goldthorpe
Manager of Economic Development: Reg Johnston
Community Coordinator: Heather Carlson
Communication Officer: Erica Crocker
Legislative Assistant: Denise Lines
Reality Bytes IT: Riddel Wiebe

Regrets
Councillor Hansen-Zacharuk

1. CALL TO ORDER

The Mayor called the meeting to order at 4:30pm

2. OPENING REMARK

Power Outage – The outage today is from Carbon to Dorothy and being addressed. The live stream will begin as soon as it is restored.

Festival Of Lights - Saturday November 20, 2021

Nacmine Pancake Breakfast – Sunday November 21, 2021

Midland Community Engagement Town Hall – Thursday November 18th – 12:00pm on Zoom and 6:00pm in person at the BCF.

3. ADDITIONS TO THE AGENDA

4. ADOPTION OF AGENDA

4.1 Agenda for November 15, 2021 Regular Council Meeting

M2021.249 Moved by Councillor Lacher, Councillor Price; that Council adopt the agenda for the November 15, 2021 Regular Council meeting as presented.

Carried unanimously

5. MINUTES

5.1 Minutes for the October 4, 2021 Regular Council Meeting and November 1, 2021 Organizational Meeting

M2021.250 Moved by Councillor Zariski, Councillor Lacher; that Council rescind motion M2021.247 and approve the minutes for October 4, 2021 Regular Council Meeting as amended.

A request was made to add more detail to the minutes, especially if there are topics addressed by Council. Time stamping presentations would also be a helpful resource for the public

Carried unanimously

M2021.251 Moved by Councillor Kolafa, Councillor Price; that Council approve the minutes for the November 1, 2021 Organizational Meeting as amended.

Carried unanimously

5.2 Minutes for the November 8, 2021 Regular Council Meeting

M2021.252 Moved by Councillor Sereda, Councillor Kolafa; that Council approve the minutes for November 8, 2021 Council Meeting as presented.

Carried unanimously

YouTube Stream 4:41pm – Power restored, stream live

6. DEPARTMENT OVERVIEW INTRODUCTIONS

To see the entire discussion: <https://youtu.be/DhZh9o-fqwc?t=55>

- 6.1. Fire Chief – Bruce Wade
Manager of Recreation, Arts and Culture – Darren Goldthorpe
Manager of Economic Development – Reg Johnston
Community Development and Social Planning Department - Heather Carlson –
Community Development Coordinator on behalf of the Manager

Each of the presenters gave an overview of their department including day to day operational information, statistics, staffing numbers, and programs for the community; they also answered questions from Council.

7. ADMINISTRATION REPORTS – Live Stream Time Stamp: <https://youtu.be/DhZh9o-fqwc?t=3400>

7.1 CHIEF ADMINISTRATIVE OFFICER

7.1.1 Meetings in Town of Drumheller Facilities – Restrictions Exemption Program (REP)

M2021.253 Moved by Councillor Zariski, Councillor Lacher; be it resolved that all visitors attending in-person meetings in designated meeting spaces within Town of Drumheller facilities shall provide valid proof of vaccination, medical exemption or a provincially accepted negative covid test, effective immediately.

FOR: Councillors Zariski, Lacher, Kolafa; Mayor Colberg
AGAINST: Councillors Price, Sereda

Carried

7.1.2 Request for Decision – Revised Boards and Committee Appointment

M2021.254 Moved by Councillor Kolafa, Councillor Price; that Council adopt the 2021 Board and Committee Appointments as revised and presented.

It was pointed out that there were Boards and Committees that were missed off the list at the previous meeting.

Carried unanimously

7.1.3 Board Application – Drumheller Public Library – S. Haddon; C. Brown; J. Scott

M2021.255 Moved by Councillor Lacher, Councillor Price, that Council approve the appointment of Jade Scott to the Drumheller Public Library Board for a term of three (3) years starting December 2021 and ending December 2024 and; that Council approve the appointments of Samantha Haddon and Caleb Brown to the Drumheller Public Library Board for a term of three (3) years ending December 2024.

Carried unanimously

7.1.4 Board Application – Economic Development Advisory Committee – E. Agianaku

M2021.256 Moved by Councillor Kolafa, Councillor Sereda, that Council approve the appointment of Esther Agianaku to the Economic Development Advisory Committee for a term of three (3) years starting December 2021 and ending December 2024.

Carried unanimously

8. CLOSED MEETING

8.1.1 Flood Department Activities – Advice and Recommendations- FOIP 24 – Advice from Officials

M2021.257 Moved by Councillor Zariski, Councillor Lacher; that Council close the meeting to discuss flood department activities as per FOIP 24 – Advice from Officials.
Time 5:55pm

Carried unanimously

M2021.258 Moved by Councillor Zariski, Councillor Lacher; that Council open the meeting.
Time 7:55pm

Carried unanimously

9. ADJOURNMENT

M2021.259 Moved by Councillor Lacher, Councillor Price; that Council adjourn the meeting.
Time 7:56pm

MAYOR

CHIEF ADMINISTRATIVE OFFICER

REQUEST FOR DECISION

TITLE:	2022 Utility Operating Budget and 3 Year Utility Operating Financial Plan
DATE:	December 6, 2021
PRESENTED BY:	Mauricio Reyes, CPA, CMA, CAMP, Chief Financial Officer
ATTACHMENT:	<ul style="list-style-type: none"> ▪ Appendix 1 - 2022 Water Operating Budget ▪ Appendix 2 – 3-Year Water Financial Plan ▪ Appendix 3 –Historical and Projected Water Rates ▪ Appendix 4 - 2022 Wastewater Operating Budget ▪ Appendix 5 – 3-year Wastewater Financial Plan

SUMMARY:

Administration recommends that Council adopt the 2022 Utility Operating Budget as presented. As per section 242 of the Municipal Government Act, “each council must adopt an operating budget for each calendar year”.

In addition to the 2022 Utility Operating budget, the 3 Year Utility Financial Plan has been included as information. This Plan provides the basis for annual Operating Budgets for the next 3 years and aligns with the provincial and federal requirements for multi-year financial planning. The Plan is not an authorization to proceed with operations in future years – only adoption of the annual Operating Budget can authorize annual operations.

RECOMMENDATION:

Administration recommends that Council adopt the 2022 Utility Operating Budget and 3 Year Operating Financial Plan as presented.

DISCUSSION:

Water Budget

Revenues

In the prior year, water revenues were lowered by approximately \$287,000 equivalent to the estimated Covid-19 impact in 2021. In 2022, these adjustments have been removed as Administration estimates Covid-19 impacts to be minimal in 2022. Consequently, total budgeted water revenues are expected to increase by 16% when compared to 2021 budget. More discussion on the rate can be found in the 2022 rate section of this report. Non-water revenues, on the other hand, are expected to remain stable in 2022. Details on water revenues can be found on appendix 1.

Expenses

Overall, water expenses are expected to increase by 0.8%. In the fall of 2021, Administration conducted a thorough review of expenditure lines and adjusted each line to reflect fair budget assumptions. Consequently, some expenses have increased while others have decreased.

The largest increases are in salaries and benefits, and franchise fees/administration overhead. Increases in salaries and benefits are mostly a result of increases in personnel costs, which have been seen globally. Franchise fee/administration overhead consists of transfers to the tax-based budget that relate to the use of the Town's assets by the Utility division, and an allocation of costs incurred that have not been allocated to the Utility departments. The increase in franchise fee/administration overhead is long overdue, as these have been maintained at the same levels for many years.

The largest decreases in operating expenses are in repairs and maintenance, and in interest in long-term debt. The repairs maintenance budget has been lowered based on management's estimate of anticipated needs in 2022. Interest on long-term debt decreases each year as the Town makes principal payments towards its debt.

Details on water expenses can be found on appendix 1.

2022 Rates

Based on the Town's utility rate model, the proposed 2022 water rate increase is 5 percent. Under this proposal, the water rate will increase by 10 cents from \$2.07 to \$2.17 per cubic meter. Similarly, the monthly meter charges will see an increase of 5 percent with an average water residential user (group 1) seeing increase of 81 cents from \$16.25 to \$17.06 per month.

In 2022, Administration intends to conduct a review of the water rate model which will determine water rates in future years.

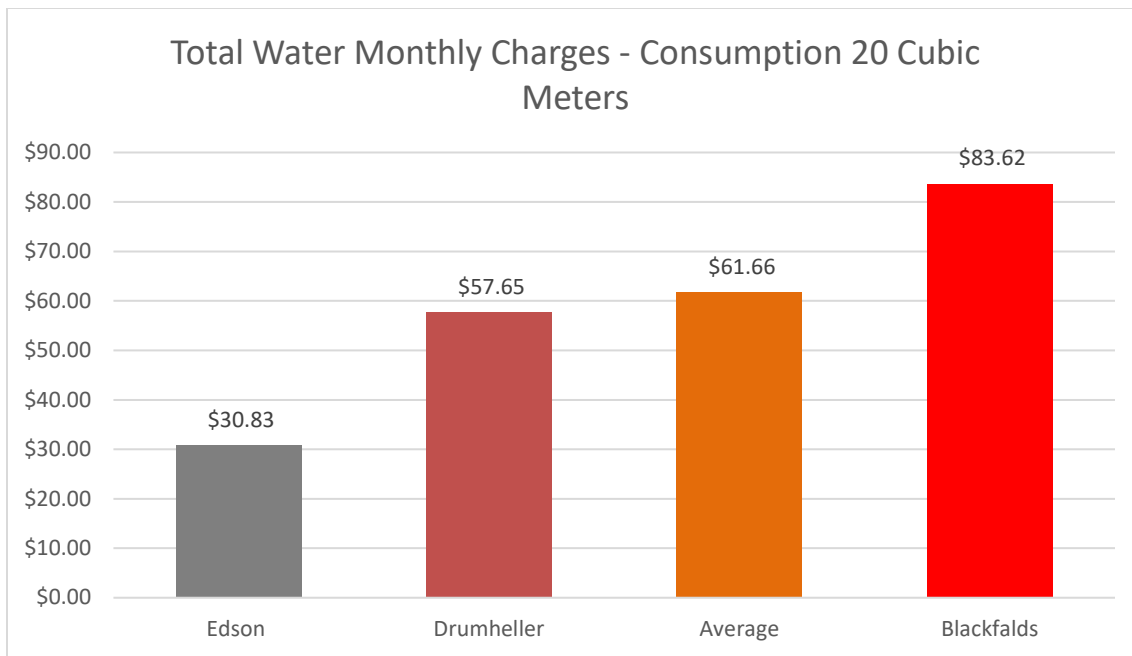
Historical water rates and projected water rate for 2022 can be seen in appendix 3.

Debt Servicing

The Town's total long-term debt at the end of 2021 will be approximately \$7.1 million, of which approximately \$1.7 million was borrowed to construct water infrastructure. Annual loan payments relating to water department loans total \$291,894 of which approximately \$74,000 is included in the 2022 Operating Budget as interest on long-term debt.

Water Rates - Comparable Municipalities

In 2021, Administration compared the Town's water rates to rates in comparable municipalities and based on the findings concluded that the Town's water rates are slightly below average. The Town's monthly water charges of a household consuming 20 cubic meters in 2021 is \$57.65 vs. average charges of \$61.66 among comparable municipalities. This represents a 6.5% lower cost than municipalities of the same population size, as shown in the graph below.



Wastewater Budget

Revenues

Wastewater revenues are based on 80% of water volumes to those customers who receive the wastewater service.

In the prior year, wastewater revenues were lowered by approximately \$120,000 equivalent to the estimated Covid-19 impact in 2021. In 2022, these adjustments have been removed as Administration estimates Covid-19 impacts to be minimal in 2022.

On August 23, 2021, Council passed Bylaw 15.21 which amends Water and Wastewater Bylaw 02.17, to authorize certain commercial or industrial water users to not incur wastewater charges as they do not return water to the wastewater system. This resulted in an adjustment to the 2022 budget of approximately \$63,000.

Once the above adjustments and minor volume adjustments have been factored, wastewater revenues are expected to rise by approximately 1 percent. Non-wastewater revenues are expected to remain stable in 2022. Details on wastewater revenues can be found on appendix 4.

Expenses

Overall, wastewater expenses are expected to increase by 4.1%. In the fall of 2021, Administration conducted a thorough review of expenditure lines and adjusted each line to reflect fair budget assumptions. Consequently, some expenses have increased while others have decreased.

The largest increases are in salaries and benefits, and repairs and maintenance costs. The increase in salaries and benefits is due to cost of living allowance increases and a revision of salary allocations for work performed by staff in other departments. The increase in repairs and maintenance is due to aging infrastructure the need to maintain current service levels.

The largest decreases in operating expenses are in professional fees and in interest in long-term debt. Interest on long-term debt decreases each year as the Town makes principal payments towards its debt.

Details on operating expenses can be found on appendix 4.

2022 Rates

Based on the Town's utility rate model, the proposed 2022 wastewater rate increase is 2 percent. Under this proposal, the wastewater rate will increase by approximately 5 cents from \$2.23 to \$2.28 per cubic meter. Similarly, the monthly meter charges will see an increase of 5 percent with an average wastewater residential user (group 1) seeing increase of 28 cents from \$13.88 to \$14.16 per month.

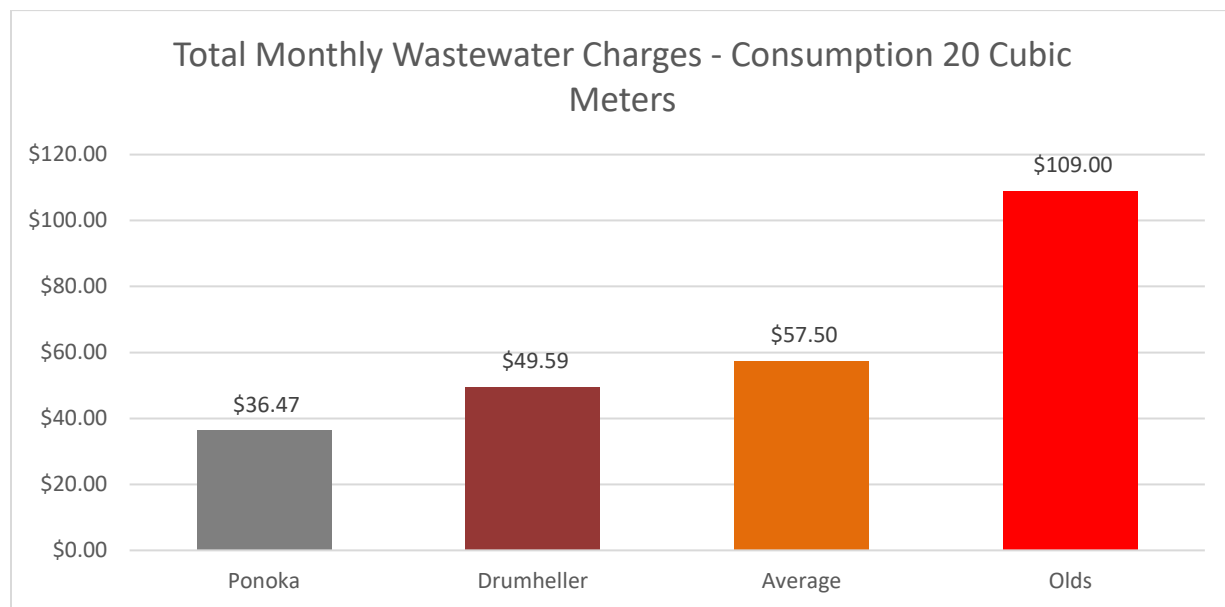
In 2022, Administration intends to conduct a review of the water rate model which will determine water rates in future years.

Debt Servicing

The Town's total long-term debt at the end of 2021 will be approximately \$7.1 million of which approximately \$2.2 million was borrowed to construct wastewater infrastructure. Total annual loan payments relating to the wastewater department loans are \$289,347.

Wastewater Rates - Comparable Municipalities

In 2021, Administration compared the Town's wastewater rates to rates in comparable municipalities and based on the findings concluded that the Town's wastewater rates are slightly below average. The Town's monthly wastewater charges of a household consuming 20 cubic meters in 2021 is \$49.59 compared to the average of \$57.50 among comparable municipalities. This represents a 13.8% lower cost than comparable municipalities of the same population size as seen in the graph below.



3-Year Financial Plans

As required by the Province of Alberta, 3-year financial plans have been prepared for both water and Wastewater. The plans are based on several assumptions and will be updated annual as new

relevant information becomes available. The 3-year financial plans can be found in appendix 2 and 5.

FINANCIAL IMPACT:

The 2022 proposed utility budgets will provide funds required to provide services to the Town of Drumheller residents. Specific financial impacts can be seen in appendix 1 and 4.

STRATEGIC POLICY ALIGNMENT:

Adopting the 2022 utilities operating budget will ensure fiscal accountability and provides Administration with the legal authority to carry out the day to day transactions necessary to operate municipal business efficiently and effectively.

COMMUNICATION STRATEGY:

Upon approval of the Utility Operating Budget, a media release will be circulated to local stakeholders and published in traditional and digital media.

MOTION:

That Council adopt the 2022 Utility Operating Budget and 3 Year Operating Financial Plan as presented.

SECONDED:

Mauricio Reyes

Prepared by:
Mauricio Reyes
Director of Corporate Services/Chief Financial Officer



Approved by:
Darryl Drohomerski, C.E.T.
Chief Administrative Officer

APPENDIX 1
 Town of Drumheller
 2022 Water Operating Budget

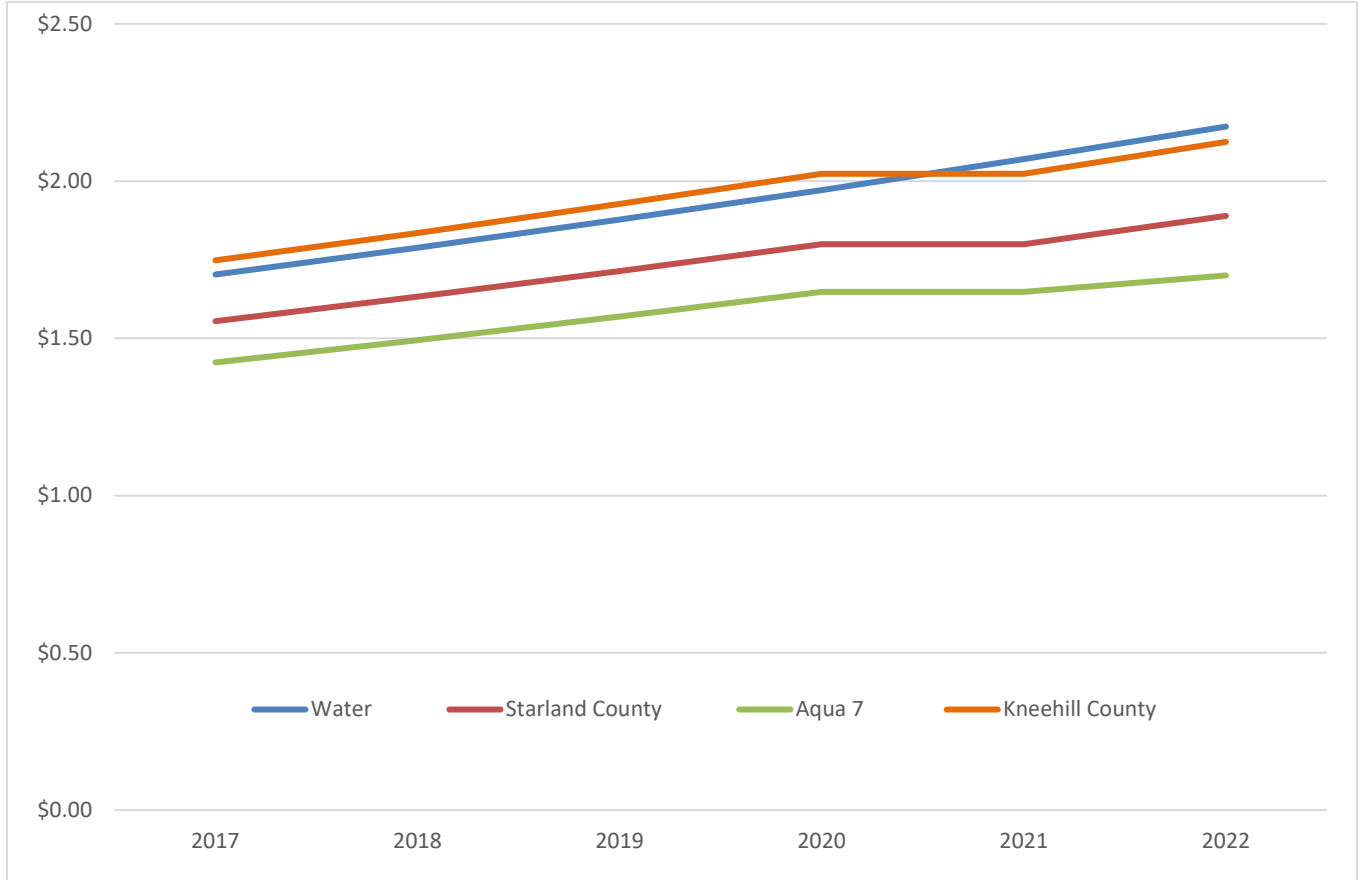
	2021 Budget	2022 Proposed Budget	Change	
			Increase / (Decrease)	Percentage
REVENUES				
Water Fees - Drumheller	\$ 2,350,000	\$ 2,752,927	\$ 402,927	17.1%
Water Sales - Other Communities	\$ 980,000	\$ 1,135,260	\$ 155,260	15.8%
Contributions from Other Local Governments	\$ 80,520	\$ 80,520	\$ -	0.0%
Local Improvement Recoveries	\$ 56,000	\$ 56,000	\$ -	0.0%
Penalties	\$ 12,650	\$ 13,000	\$ 350	2.8%
Other Income	\$ 11,000	\$ 10,000	\$ (1,000)	-9.1%
	\$ 3,490,170	\$ 4,047,707	\$ 557,537	16.0%
EXPENSES				
Salaries	\$ 736,670	\$ 767,411	\$ 30,741	4.2%
Employee Benefits	\$ 161,390	\$ 165,107	\$ 3,717	2.3%
Internet & Communications	\$ 11,120	\$ 15,275	\$ 4,155	37.4%
Education, Conventions & Memberships	\$ 8,850	\$ 8,850	\$ -	0.0%
Postage	\$ 10,500	\$ 12,000	\$ 1,500	14.3%
Office	\$ 8,550	\$ 6,550	\$ (2,000)	-57.1%
Travel	\$ 4,000	\$ 4,000	\$ -	0.0%
Advertising and Promotion	\$ 2,050	\$ 2,050	\$ -	0.0%
Collection Expenses & Bad Debts	\$ 4,600	\$ 4,000	\$ (600)	-13.0%
Professional Fees	\$ 16,050	\$ 17,050	\$ 1,000	6.2%
Janitorial	\$ 4,875	\$ 4,875	\$ -	0.0%
Repairs & Maintenance	\$ 332,295	\$ 295,180	\$ (37,115)	-11.2%
Insurance	\$ 61,660	\$ 58,890	\$ (2,770)	-4.5%
Safety Materials & Supplies	\$ 5,100	\$ 5,100	\$ -	0.0%
Fuel	\$ 20,800	\$ 21,840	\$ 1,040	5.0%
Water Treatment Supplies	\$ 184,000	\$ 189,250	\$ 5,250	2.9%
Other Supplies	\$ 7,500	\$ 7,500	\$ -	0.0%
Electricity	\$ 173,820	\$ 179,740	\$ 5,920	3.4%
Gas	\$ 42,955	\$ 44,090	\$ 1,135	2.6%
Water and Sewer	\$ 41,250	\$ 42,015	\$ 765	1.9%
Interest	\$ 83,780	\$ 73,955	\$ (9,825)	-11.7%
Amortization	\$ 1,310,000	\$ 1,310,000	\$ -	0.0%
Admin Overhead & Franchise Fees	\$ 297,950	\$ 324,833	\$ 26,883	9.0%
Total Expenses	\$ 3,529,765	\$ 3,559,561	\$ 29,796	0.8%
Excess revenue over expenses	\$ (39,595)	\$ 488,146	\$ 527,741	
Transfer to Reserves	\$ -	\$ (488,146)		
Grand Total	(39,595)	\$ -		

APPENDIX 2
 Town of Drumheller
 3 Year Financial Plan - Water

	2022 Proposed Budget	2023 Financial	2024 Financial	2025 Financial
REVENUES				
Water Fees - Drumheller	\$ 2,752,927	\$ 2,821,750	\$ 2,892,294	\$ 2,964,601
Water Sales - Other Communities	\$ 1,135,260	\$ 1,163,642	\$ 1,192,733	\$ 1,222,551
Contributions from Other Local Governments	\$ 80,520	\$ 80,520	\$ 80,520	\$ 80,520
Local Improvement Recoveries	\$ 56,000	\$ 56,000	\$ 56,000	\$ 56,000
Penalties	\$ 13,000	\$ 13,000	\$ 13,000	\$ 13,000
Other Income	\$ 10,000	\$ 11,000	\$ 11,500	\$ 11,500
	\$ 4,047,707	\$ 4,145,912	\$ 4,246,046	\$ 4,348,172
EXPENSES				
Salaries	\$ 767,411	\$ 786,596	\$ 806,261	\$ 826,418
Employee Benefits	\$ 165,107	\$ 169,135	\$ 173,265	\$ 177,498
Internet & Communications	\$ 15,275	\$ 19,445	\$ 18,620	\$ 18,800
Education, Conventions & Memberships	\$ 8,850	\$ 8,850	\$ 8,850	\$ 8,850
Postage	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Office	\$ 6,550	\$ 6,550	\$ 6,550	\$ 6,550
Travel	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Advertising and Promotion	\$ 2,050	\$ 2,050	\$ 2,050	\$ 2,050
Collection Expenses & Bad Debts	\$ 4,000	\$ 4,200	\$ 4,200	\$ 4,200
Professional Fees	\$ 17,050	\$ 12,300	\$ 9,800	\$ 9,800
Janitorial	\$ 4,875	\$ 4,875	\$ 4,875	\$ 4,875
Repairs & Maintenance	\$ 295,180	\$ 293,359	\$ 296,544	\$ 298,511
Insurance	\$ 58,890	\$ 60,070	\$ 61,270	\$ 62,490
Safety Materials & Supplies	\$ 5,100	\$ 5,100	\$ 5,100	\$ 5,100
Fuel	\$ 21,840	\$ 22,930	\$ 24,070	\$ 24,070
Water Treatment Supplies	\$ 189,250	\$ 194,500	\$ 199,750	\$ 199,750
Other Supplies	\$ 7,500	\$ 7,500	\$ 7,500	\$ 7,500
Electricity	\$ 179,740	\$ 183,055	\$ 197,760	\$ 210,900
Gas	\$ 44,090	\$ 50,720	\$ 55,550	\$ 60,850
Water and Sewer	\$ 42,015	\$ 43,245	\$ 44,516	\$ 45,828
Interest on Long-Term Debt	\$ 73,955	\$ 63,665	\$ 52,880	\$ 41,576
Amortization	\$ 1,310,000	\$ 1,310,000	\$ 1,310,000	\$ 1,310,000
Admin Overhead & Franchise Fees	\$ 324,833	\$ 324,833	\$ 324,833	\$ 324,833
Total Expenses	\$ 3,559,561	\$ 3,588,979	\$ 3,630,244	\$ 3,666,448
Excess revenue over expenses	\$ 488,146	\$ 556,933	\$ 615,802	\$ 681,724
Transfer to Water Reserve	\$ (488,146)	\$ (556,933)	\$ (615,802)	\$ (681,724)
Grand Total	\$ -	\$ -	\$ -	\$ -

APPENDIX 3

Historical Water and Projected Water



APPENDIX 4
Town of Drumheller
2022 Wastewater Operating Budget

	2021 Budget	2022 Proposed Budget	Change Amount	Change Percentage
REVENUES				
Wastewater Fees - Drumheller	\$ 2,079,260	\$ 2,100,787	\$ 21,527	1.0%
Other Income	\$ 6,000	\$ 6,000	\$ -	0.0%
Penalties	\$ 8,000	\$ 8,500	\$ 500	6.3%
	\$ 2,093,260	\$ 2,115,287	\$ 22,027	1.1%
EXPENSES				
Salaries	\$ 564,375	\$ 629,529	\$ 65,154	11.5%
Employee Benefits	\$ 120,910	\$ 135,464	\$ 14,554	12.0%
Internet and Communications	\$ 10,790	\$ 14,250	\$ 3,460	32.1%
Education, Conventions & Memberships	\$ 3,900	\$ 3,900	\$ -	0.0%
Office	\$ 1,200	\$ 3,200	\$ 2,000	166.7%
Postage	\$ 11,000	\$ 12,000	\$ 1,000	9.1%
Travel and Subsistence	\$ 2,050	\$ 2,050	\$ -	0.0%
Advertising and Promotion	\$ 1,500	\$ 1,500	\$ -	0.0%
Collection Expenses & Bad Debts	\$ 2,000	\$ 2,000	\$ -	0.0%
Professional Fees	\$ 24,050	\$ 28,050	\$ 4,000	16.6%
Repairs and Maintenance	\$ 338,550	\$ 360,790	\$ 22,240	6.6%
Insurance	\$ 49,220	\$ 50,100	\$ 880	1.8%
Safety Materials & Supplies	\$ 3,000	\$ 3,000	\$ -	0.0%
Janitorial	\$ 1,500	\$ 1,500	\$ -	0.0%
Fuel	\$ 20,000	\$ 21,000	\$ 1,000	5.0%
Other Supplies	\$ 2,300	\$ 2,325	\$ 25	1.1%
Wastewater Treatment Supplies	\$ 84,000	\$ 85,425	\$ 1,425	1.7%
Electricity	\$ 228,145	\$ 233,930	\$ 5,785	2.5%
Natural Gas	\$ 51,485	\$ 54,720	\$ 3,235	6.3%
Interest on Long-term Debt	\$ 110,440	\$ 101,728	\$ (8,712)	-7.9%
Amortization	\$ 855,000	\$ 855,000	\$ -	0.0%
Admin Overhead & Franchise Fees	\$ 132,550	\$ 132,550	\$ -	0.0%
Total Expenses	\$ 2,617,965	\$ 2,734,011	\$ 116,046	4.4%
Excess revenue over expenses	\$ (524,705)	\$ (618,724)		
Transfer from Reserves	\$ -	\$ 618,724		
Grand Total	\$ (524,705)	\$ -		

APPENDIX 5
 Town of Drumheller
 3 Year Financial Plan-Wastewater

	2022 Proposed Budget	2023 Financial Forecast	2024 Financial Forecast	2025 Financial Forecast
<u>REVENUES</u>				
Wastewater Fees - Drumheller	\$ 2,100,787	\$ 2,205,826	\$ 2,316,118	\$ 2,431,924
Other Income	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
Penalties	\$ 8,500	\$ 8,500	\$ 8,500	\$ 8,500
	\$ 2,115,287	\$ 2,220,326	\$ 2,330,618	\$ 2,446,424
<u>EXPENSES</u>				
Salaries	\$ 629,529	\$ 644,267	\$ 661,399	\$ 677,934
Employee Benefits	\$ 135,464	\$ 138,411	\$ 141,799	\$ 145,271
Internet and Communications	\$ 14,250	\$ 14,355	\$ 13,465	\$ 14,580
Education, Conventions & Memberships	\$ 3,900	\$ 3,900	\$ 3,900	\$ 3,900
Office	\$ 3,200	\$ 3,200	\$ 3,200	\$ 3,200
Postage	\$ 12,000	\$ 12,000	\$ 12,000	\$ 12,000
Travel and Subsistence	\$ 2,050	\$ 2,050	\$ 2,050	\$ 2,050
Advertising and Promotion	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Collection Expenses & Bad Debts	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
Professional Fees	\$ 28,050	\$ 25,300	\$ 22,800	\$ 22,800
Repairs and Maintenance	\$ 360,790	\$ 351,918	\$ 354,562	\$ 356,846
Insurance	\$ 50,100	\$ 51,100	\$ 52,120	\$ 53,160
Safety Materials & Supplies	\$ 3,000	\$ 3,000	\$ 3,000	\$ 3,000
Janitorial	\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
Fuel	\$ 21,000	\$ 22,050	\$ 23,150	\$ 23,150
Other Supplies	\$ 2,325	\$ 2,325	\$ 2,325	\$ 2,325
Wastewater Treatment Supplies	\$ 85,425	\$ 86,849	\$ 87,777	\$ 88,011
Electricity	\$ 233,930	\$ 238,005	\$ 259,960	\$ 277,310
Natural Gas	\$ 54,720	\$ 61,640	\$ 67,020	\$ 73,170
Interest on Long-term Debt	\$ 101,728	\$ 92,787	\$ 84,107	\$ 75,055
Amortization	\$ 855,000	\$ 855,000	\$ 855,000	\$ 855,000
Admin Overhead & Franchise Fees	\$ 132,550	\$ 132,550	\$ 132,550	\$ 132,550
Total Expenses	\$ 2,734,011	\$ 2,746,707	\$ 2,787,184	\$ 2,826,312
Excess revenue over expenses	\$ (618,724)	\$ (526,381)	\$ (456,567)	\$ (379,888)
Transfer from Wastewater Reserve	\$ 618,724	\$ 526,381	\$ 456,567	\$ 379,888
Grand Total	\$ -	\$ -	\$ -	\$ -

REQUEST FOR DECISION

TITLE:	2022 Utility Rate Bylaw 23.21
DATE:	December 3, 2021
PRESENTED BY:	Darryl Drohomerski, C.E.T., CAO
ATTACHMENT:	2022 Utility Bylaw 23.21 – First Reading

SUMMARY:

Municipal Affairs directs that municipal utility services of water and wastewater be self-sustaining. The province discourages municipalities from having other sources of revenue, such as property taxes, support the utility operations. Council is required to pass a Bylaw whenever the rates of these services change.

RECOMMENDATION:

That Council give first reading to the Utility Rate Bylaw 23.21 as presented.

DISCUSSION:

The rates in the proposed Bylaw 23.21 are in accordance with the water rate model that Council adopted in 2017, which recommended rate increases of 5% for water and 2% for wastewater annually, for a five-year period ending in 2022. As noted in the Utility Budget report, a new water rate study is required in 2022 to determine the long-range plans and rates for the utility system.

FINANCIAL IMPACT:

Passing the bylaw will allow the utility to continue to move towards financial sustainability.

STRATEGIC POLICY ALIGNMENT:

Good governance and financial sustainability are key requirements of operating the Drumheller water and wastewater utility.

COMMUNICATION STRATEGY:

Upon approval of the Bylaw, a media release will be circulated to local stakeholders and published in traditional and digital media.

MOTION:

That Council give first reading to the 2022 Utility Rate Bylaw 23.21 as presented.

SECONDED:

Prepared By:
Darryl Drohomerski, C.E.T.
Chief Administrative Officer



Approved By:
Darryl Drohomerski, C.E.T.
Chief Administrative Officer

**TOWN OF DRUMHELLER
BYLAW NUMBER 23.21**

Repeals Bylaw 23.20

A BYLAW TO PROVIDE FOR THE LEVYING AND COLLECTING OF CHARGES AND RATES FOR WATER SERVICE, SEWER SERVICE AND RECYCLING SERVICE.

WHEREAS, the *Municipal Government Act, R.S.A. 2000, c. M-26* hereinafter referred to as the M.G.A provides for Council to pass bylaw, and;

WHEREAS, the Municipal Council of the Town of Drumheller deems it necessary to raise such funds as required in order to finance these services;

NOW THEREFORE, the Council of the Town of Drumheller, duly assembled, enacts as follows:

1. SHORT NAME

This Bylaw shall be cited as the "2022 Utility Rate Bylaw".

2. DEFINITIONS

2.1 For the purposes of the Bylaw, the following definitions shall apply:

- a) "Commercial Premises" or "Industrial Premises" for the purpose of this bylaw shall mean one or more spaces useable for business purposes and having its own sanitary facilities connected to a single meter.
- b) "Dwelling Unit" shall mean a complete building or self-contained portion of a building containing a room or suite of rooms operated as a single housekeeping unit, intended to be used as a permanent or semi-permanent domicile by one or more persons and usually containing cooking, eating, living, sleeping, and sanitary facilities, and including serviced lots in a manufactured home park, and not necessarily connected to an individual meter, excluding institutional premises.
- c) "Rate Group" shall mean "Group 1" includes connections with meters 1" and under "Group 2" includes connections with meters from 1 ¼" to 2" "Group 3" includes connections with meters from 3" to 4" "Group 4" includes connections with meters from 6" to 8"
- d) "Institutional Premises" shall mean a complete building that operates as a school, hospital, nursing home, or seniors lodge.
- e) "Unit" shall mean a Dwelling Unit, Commercial Premises, Industrial Premises, or Institutional Premises

3. CHARGES AND FEES

3.1 Monthly Meter Charges - zero (0) consumption included

Rate Group	Water	Wastewater
Group 1	\$17.06	\$14.16
Group 2	\$58.63	\$79.20
Group 3	\$379.25	\$314.58
Group 4	\$1092.36	\$905.98

3.2 Water Rate

Per cubic meter	\$2.1734
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3.3 Waste Water Rate

Per cubic meter	\$2.2765
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Sewage volume is calculated at 80% of water consumption as a means to account for summer water usage that may not enter the sanitary sewer system **or**;

Properties with only a sewer connection pay \$41.22 monthly

3.4 Bulk Water

Per cubic meter	\$6.9624
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3.5 Recycling

Fee per Unit per month	\$3.00
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4. PENALTIES

All accounts are subject to a penalty of 2% per month compounded monthly (effective rate of 26.82% per annum) if unpaid within thirty (30) days from the date the account is rendered.

5. DISCONNECTION / RECONNECTION FEES

Disconnection Notice Service	\$25.00
Reconnection / Disconnection During Business Hours	\$50.00
Reconnection / Disconnection During Non-Business Hours	\$150.00

5.2 If the water supply has been disconnected for non-payment of accounts, all fees and costs must be paid prior to reconnection.

6. TRANSITIONAL

- 6.1 Bylaw 23.20 is hereby repealed.
- 6.2 This Bylaw comes into effect on January 1, 2022.

READ A FIRST TIME THIS __ DAY OF DECEMBER, 2021

READ A SECOND TIME THIS __ DAY OF DECEMBER, 2021

READ A THIRD AND FINAL TIME THIS __ DAY OF DECEMBER, 2021

MAYOR

CHIEF ADMINISTRATIVE OFFICER

REQUEST FOR DIRECTION

TITLE:	Service Fee Schedule 2022
DATE:	December 6, 2021
PRESENTED BY:	Mauricio Reyes, CPA, CMA, CAMP Director of Corporate Services/ Chief Financial Officer
ATTACHMENTS:	2022 Proposed Service Fee Schedule

SUMMARY:

The proposed Service Fee Schedule for 2022 is presented to Council for review and discussion. The final draft schedule will be brought back to Council for approval at the December 13, 2021, Regular Council Meeting.

RECOMMENDATION:

Council reviews the 2022 Service Fee Schedule.

DISCUSSION:

Each year Administration conducts a review of the service fees for all departments. Based on this review, Administration provides recommendations to Council on proposed changes to service fees.

In the prior year, due to impacts of Covid-19, Administration recommended no changes to the 2021 service fees. This fall Administration performed a review and analysis of service fee changes over the last five (5) years and concluded that, while some fees have remained unchanged, others have increased at an annual growth rate varying from 1% to 1.6%. With this in mind, Administration recommends changes to specific areas of the service fees, and no change to others.

Although Covid-19 is still a factor, it is Administration's view that increases to some of the fees are needed for the following reasons:

- No increases occurred in 2021;
- Services input costs have continued to increase;
- The current inflation rate is significantly higher than in previous years.

Consequently, Administration is recommending a 3% increase to some fees. Other fees are either being kept at current levels or the recommended increase is higher than 3%. More details are provided under each of the following sections:

Administration

It is Administration's opinion that these fees are fair and recommends no changes.

Airport

The airport is currently managed by a volunteer from the Airport Commission. When his term concludes on December 31, 2021, the Airport Manager will provide recommendations to change the way the Town charges for airport hangar lots. He has indicated that fees should be charged according to lot size, which are varied, and that categories should be created to do so. Once the Airport Manager's recommendations are provided, Administration will review them and recommend changes to the fees.

Administration recommends no changes to the airport fees at this time. Changes will be recommended sometime in 2022.

Animal Licensing

Administration recommends a 3% increase in 2022.

Cemetery

Administration recommends a 15% increase to the following non-resident fees:

- Full plot – increase from \$1,095 to \$1,260;
- Cremains plot – increase from \$495 to \$570;
- Niche top two (2) rows – increase from \$1,230 to \$1,415;
- Niche lower two (2) rows – increase from \$1,170 to \$1,345.

For all other cemetery fees, Administration recommends a 3% increase.

Development Permits

Administration is recommending a 3% increase to all development fees.

Safety Codes Permits

Currently, a Quality Management Plan (QMP) is underway. This document needs to be in place before Administration can post a Request for Proposal for safety code services. In 2022, once new contracts for safety code services are in place, Administration will be reviewing and recommending changes to the fees.

Administration recommends no changes to the safety codes permit fees at this point. Changes will be recommended sometime in 2022.

Recreation

Administration recommends a 3% increase to all recreational fees with the exception of memberships.

At the December 6, 2021 Regular Council meeting, Administration will be recommending a change to the membership model. Should Council approve the recommended membership model, this change will be reflected in the 2022 proposed Service Fee Schedule to be presented to Council on December 13, 2021.

Miscellaneous

It is Administration's opinion that these fees are fair and recommends no changes.

FINANCIAL IMPACT:

In 2022, service fee revenue is expected to increase by 3% on those areas where increases are recommended. All other revenue is expected to remain stable.

STRATEGIC POLICY ALIGNMENT:

Good governance, fiscal responsibility, strong economic development practices and quality of life for all residents.

COMMUNICATION STRATEGY:

Once approved by Council, the approved 2022 Service Fee Schedule will be posted on the Town website and distributed to all Town departments.

Mauricio Reyes

Prepared by:
Mauricio Reyes
Director of Corporate Services/Chief Financial Officer



Approved by:
Darryl Drohomerski, C.E.T.
Chief Administrative Officer



Town of Drumheller

2022 Service Fee Schedule Proposed

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ADMINISTRATION

Account Management

Payment Transfers (credit balance transfer from utilities to taxes, taxes to utilities)	\$ 25.00
Balance Transfers (utilities to tax roll) (balance transfer from utilities to tax roll)	\$ 50.00

Assessment Appeal

Local Assessment Review Board (LARB - residential)	\$ 200.00
Commercial Assessment Review Board (CARB - multi residential and commercial)	\$ 650.00

Assessment Information Request by Third Party

Information regarding legal description, latest assessment and historical assessments	\$ 36.75
Fax per transmission (local or long distance)	\$ 5.50

FOIP Requests

Freedom of Information and Protection of Privacy Regulation, AR200/95 Per request submission Additional costs may be determined after review of request	\$ 25.00
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NSF charges	\$ 35.00
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Photocopying

Black and white per page	\$ 0.30
Colour per page	\$ 1.00

Copies of information other than photocopies

Reprint fee for invoice, account history or receipt	\$ 25.75
Per tax certificate	\$ 38.75

AIRPORT

Lot for own hanger

Per year (site improvements not included)

\$ 275.00

ANIMAL LICENSING

Note:

Proof from a veterinarian of alteration (spaying or neutering) and/or proof of microchip or tattooing is required in order to apply for those rates.

ANNUAL ANIMAL LICENSE	DOGS		CATS	
	2021	2022	2021	2022
Altered with microchip or tattoo	\$ 16.00	\$ 16.50	\$ 10.75	\$ 11.00
Altered without microchip or tattoo	\$ 32.00	\$ 33.00	\$ 32.00	\$ 33.00
Unaltered with microchip or tattoo	\$ 37.50	\$ 38.75	\$ 37.50	\$ 38.75
Unaltered without microchip or tattoo	\$ 53.50	\$ 55.25	\$ 53.50	\$ 55.25

CEMETERY

Note: A burial permit is required for all burials.

Type of Service	Fees			
	Resident		Non-Resident	
	2021	2022	2021	2022
Plots				
Full Plot	\$ 895.00	\$ 922.00	\$ 1,095.00	\$ 1,260.00
Open/Close – weekday	\$ 445.00	\$ 459.00	\$ 445.00	\$ 459.00
Open/Close – weekend, holiday	\$ 575.00	\$ 593.00	\$ 575.00	\$ 593.00
Winter fee – (Nov 01 to Mar 31)	\$ 230.00	\$ 237.00	\$ 230.00	\$ 237.00
Cremaains				
Cremaains plot (maximum 2 cremaains)	\$ 450.00	\$ 464.00	\$ 495.00	\$ 570.00
Open/Close – weekday	\$ 145.00	\$ 150.00	\$ 145.00	\$ 150.00
Open/Close – weekend, holiday	\$ 170.00	\$ 175.00	\$ 170.00	\$ 175.00
Winter fee – (Nov 01 – Mar 31)	\$ 80.00	\$ 83.00	\$ 80.00	\$ 83.00
Niche				
Top 2 rows – each cremaains – max 2	\$1,230.00	\$ 1,267.00	\$ 1,230.00	\$ 1,415.00
Lower 2 rows – each cremaains – max 2	\$ 1,170.00	\$ 1,205.00	\$ 1,170.00	\$ 1,345.00
Open/Close – weekday	\$ 215.00	\$ 222.00	\$ 215.00	\$ 222.00
Open/close – weekend, holiday	\$ 285.00	\$ 264.00	\$ 285.00	\$ 264.00
Engraving	\$ 540.00	\$ 556.00	\$ 540.00	\$ 556.00
Memorial Wall				
Plaque engraving for memorial wall	\$ 230.00	\$ 237.00	\$ 230.00	\$ 237.00
Scatter Garden				
Permit to scatter cremaains in Scatter Garden – no memorial plaque	\$ 95.00	\$ 98.00	\$ 95.00	\$ 98.00
Permit to scatter cremaains in Scatter Garden with memorial plaque	\$ 230.00	\$ 237.00	\$ 230.00	\$ 237.00

DEVELOPMENT PERMITS

Photocopying

Base maps (black and white - 8 1/2 x 11)	\$ 11.00	\$ 11.50
Land Use Bylaw (colour)	\$ 14.29	\$ 14.75
Municipal Development Plan (colour)	\$ 16.19	\$ 16.75

Development Permits

Range in Construction Value	Fees	
	2021	2022
Under \$ 10,000	\$ 65.00	\$ 67.00
\$ 10,001 - \$ 50,000	\$ 85.00	\$ 87.50
\$ 50,001 - \$ 100,000	\$ 115.00	\$118.50
\$ 100,001 - \$ 150,000	\$ 175.00	\$ 180.25
\$ 150,001 - \$ 200,000	\$ 265.00	\$ 273.00
\$ 200,001 and over	\$ 325.00	\$ 334.75

Development Appeal Fee \$ 250.00 \$ 257.50

Compliance Certificates

Residential (each) \$ 85.00 \$ 87.50
 Non-Residential (each) \$ 150.00 \$ 154.50

Encroachment Agreement

Includes title search and registration \$ 300.00 \$ 309.00

File Review

Application Rate \$ 26.50 \$ 27.30
30-day response: Application Rate plus \$ 9.25 per ¼ hr \$ 9.25 \$ 9.50
7-day rush response: Application Rate plus \$ 13.85 per ¼ hr \$ 13.85 \$ 14.50

SAFETY CODE PERMITS

Note:

Safety Code Council Levy

Pursuant to the Alberta Safety Codes Act Section 23(1), a mandatory additional 4% will be added to the cost of all Building, Electrical, Gas and Plumbing permits, with a minimum \$4.50 charge

Building Permit Fees

Manufactured Home

Placement (on blocking or piles) \$ 115.00

Modular Home

Move-on Relocation (on crawlspace or basement)

Minimum Fee \$ 115.00

Based on square footage of main floor \$ 0.30

New Residential Single Family Dwelling

Minimum Fee \$ 115.00

Based on price per \$1,000.00 of construction value \$ 8.00

Residential Addition/Renovation/Garage/Multi-Housing

Residential and Non-Residential

Minimum Fee \$ 115.00

Based on price per \$1,000.00 of construction value \$ 8.00

Demolition

Minimum Fee \$ 115.00

Based on price per \$1,000.00 of construction value \$ 2.50

Oil and Gas

Minimum Fee \$ 450.00

Based on price per \$1,000.00 of construction value \$ 8.00

Electrical Permit Fees

New Residential Single-Family Dwelling

Based on square footage

Square Feet	Fees
0 to 1,200 square feet	\$ 140.00
1,201 to 1,500 square feet	\$ 160.00
1,501 to 2,000 square feet	\$ 180.00
2,001 to 2,500 square feet	\$ 200.00
2,500 to 3,000 square feet	\$ 225.00
3,001 to 4,000 square feet	\$ 245.00
4,001 to 5,000 square feet	\$ 265.00
5,001 square feet and over	\$ 315.00
Additional homeowner permit	\$ 75.00

Miscellaneous

Permanent and Temporary Service Connection	\$ 95.00
Manufactured Home on blocking or piles	\$ 95.00

Residential and Non-Residential – Addition/Renovation/Garage etc.

Based on contract values

Contract values over \$30,000.00 may require a plan review

Contract Value	Fees
\$0.00 to \$1,000.00	\$100.00
\$1,000.01 to \$3,000.00	\$120.00
\$3,000.01 to \$3,500.00	\$160.00
\$3,500.01 to \$4,000.00	\$185.00
\$4,000.01 to \$4,500.00	\$230.00
\$4,500.01 to \$6,500.00	\$280.00
\$6,500.01 to \$8,500.00	\$335.00
\$8,500.01 to \$10,000.00	\$380.00
\$10,000.01 to \$14,000.00	\$430.00

2022 Service Fee Schedule - Proposed

\$14,000.01 to \$18,000.00	\$490.00
\$18,000.01 to \$22,000.00	\$538.00
\$22,000.01 to \$26,000.00	\$576.00
\$26,000.01 to \$30,000.00	\$646.00
\$30,000.01 to \$34,000.00	\$694.00
\$34,000.01 to \$38,000.00	\$754.00
\$38,000.01 to \$42,000.00	\$802.00
\$42,000.01 to \$46,000.00	\$862.00
\$46,000.01 to \$50,000.00	\$905.00
\$50,000.01 to \$60,000.00	\$1,013.00
\$60,000.01 to \$70,000.00	\$1,109.00
\$70,000.01 to \$80,000.00	\$1,169.00
\$80,000.01 to \$90,000.00	\$2,127.00
\$90,000.01 to \$100,000.00	\$1,325.00
\$100,000.01 to \$110,000.00	\$1,433.00
\$110,000.01 to \$120,000.00	\$1,541.00
\$120,000.01 to \$130,000.00	\$1,589.00
\$130,000.01 to \$140,000.00	\$1,649.00
\$140,000.01 to \$150,000.00	\$1,692.00
\$150,000.01 to \$160,000.00	\$1,740.00
\$160,000.01 to \$170,000.00	\$1,800.00
\$170,000.01 to \$180,000.00	\$1,848.00
\$180,000.01 to \$190,000.00	\$1,908.00
\$190,000.01 to \$200,000.00	\$1,956.00
\$200,000.01 to \$210,000.00	\$2,004.00
\$210,000.01 to \$220,000.00	\$2,064.00
\$220,000.01 to \$230,000.00	\$2,112.00
\$230,000.01 to \$240,000.00	\$2,160.00
\$240,000.01 to \$250,000.00	\$2,220.00
\$250,000.01 to \$300,000.00	\$2,349.00
\$300,000.01 to \$350,000.00	\$2,503.00
\$350,000.01 to \$400,000.00	\$2,657.00
\$400,000.01 to \$450,000.00	\$2,811.00
\$450,000.01 to \$500,000.00	\$2,965.00
\$500,000.01 to \$550,000.00	\$3,170.00
\$550,000.01 to \$600,000.00	\$3,390.00
\$600,000.01 to \$650,000.00	\$3,610.00
\$650,000.01 to \$700,000.00	\$3,830.00
\$700,000.01 to \$750,000.00	\$4,050.00

2022 Service Fee Schedule - Proposed

\$750,000.01 to \$800,000.00	\$4,270.00
\$800,000.01 to \$850,000.00	\$4,490.00
\$850,000.01 to \$900,000.00	\$4,710.00
\$900,000.01 to \$950,000.00	\$4,930.00
\$950,000.01 to \$1,000,000.00	\$5,150.00
\$1,000,001.00 and over	additional \$ 160.00 per each additional \$ 100,000 (or portion of \$ 100,000.00)
Additional homeowner permit	\$ 75.00

Fire Permits

Fire Discipline – Residential and Non-residential

Minimum fee per inspection	\$ 100.00
Occupancy Load – Time and Materials minimum fee	\$ 100.00
Fire Investigation – Time and Materials minimum fee	\$ 100.00
Fire Inspection – Time and Materials minimum fee	\$ 100.00

Gas Permits

Residential

Number of Outlets	Fees
1	\$ 90.00
2	\$ 100.00
3	\$ 110.00
4	\$ 120.00
5	\$ 130.00
6	\$ 140.00
7	\$ 150.00
8	\$ 160.00
9	\$ 175.00
10	\$ 185.00
For each outlet over 10	\$10.00

Miscellaneous

Secondary Gas Line (Gas Co-op)	\$ 90.00
Propane Tank Installation	\$ 90.00

Non-Residential

Type of Installation	BTU Input	Fees
	0 – 50,000	\$ 95.00
	50,001 – 100,000	\$ 100.00
New Installations	100,001 – 150,000	\$ 105.00
	150,001 – 200,000	\$ 130.00
Temporary Heat	200,001 – 250,000	\$ 150.00
	250,001 – 300,000	\$ 155.00
Replacement Appliances	300,001 – 350,000	\$ 160.00
	350,001 – 400,000	\$ 165.00
	400,000 – 450,000	\$ 175.00
	450,001 – 500,000	\$ 180.00
	500,001 – 550,000	\$ 185.00
	550,001 – 600,000	\$ 190.00
	600,001 – 650,000	\$ 195.00
	650,001 – 700,000	\$ 200.00
	700,001 – 750,000	\$ 205.00
	750,001 – 800,000	\$ 210.00
	800,001 – 850,000	\$ 215.00
	850,001 – 900,000	\$ 220.00
	900,001 – 950,000	\$ 225.00
	950,001 – 1,000,000	\$ 235.00
	1,000,001 or more - each additional portion of 100,000 BTU	\$ 10.00

Propane

Propane Tank Set	\$ 90.00
Propane Refill Center – 1 inspection	\$ 90.00

Plumbing Permits

Residential and Non-Residential

Number of Fixtures	Fees
1	\$ 90.00
2	\$ 95.00
3	\$ 100.00
4	\$ 105.00
5	\$ 115.00
6	\$ 120.00
7	\$ 125.00
8	\$ 135.00
9	\$ 145.00
10	\$ 155.00
11	\$ 160.00
12	\$ 165.00
13	\$ 175.00
14	\$ 180.00
15	\$ 190.00
16	\$ 195.00
17	\$ 200.00
18	\$ 210.00
19	\$ 215.00
20	\$ 225.00
21	\$ 230.00
22	\$ 235.00
23	\$ 245.00
24	\$ 250.00
25	\$ 260.00
Each Fixture over 25	\$ 10.00
Additional Homeowner Permit	\$ 75.00

Private Sewage

Holding Tank, Open Discharge	\$ 180.00
Field, Mound, Sand filter, Treatment Tank, etc.	\$ 260.00

RECREATION FACILITIES

Aquaplex

	2021	2022
Rentals		
Swim Suits (deposit required)	\$ 3.75	\$ 4.00
Towel	\$ 2.50	\$ 2.75
Shower/use of change-room facilities (no pool access)	\$ 2.50	\$ 2.75
 Pool Rentals		
Swim Club – per hour	\$ 68.00	\$ 70.00
Swim Club – per hour – per lane	\$ 12.00	\$ 12.50
Royal Tyrell Museum Edu-tour/camp-ins per person April 1-March 31	\$ 3.50	\$ 3.75

Other Group Pool Rentals

Number in Group for Pool Rentals	Local Groups		Non-Local Groups	
	2021	2022	2021	2022
1 to 25	\$ 79.50	\$ 82.00	\$ 119.50	\$ 123.00
26 to 35	\$ 113.75	\$ 117.25	\$ 154.00	\$ 158.75
36 to 45	\$ 148.00	\$ 152.50	\$ 187.75	\$ 193.50
46+	\$ 182.50	\$ 188.00	\$ 220.00	\$ 226.75

Swimming Lessons

Note: Swimming lessons for children 14 and under are GST exempt.

Swimming Lesson Type	Fees	
	2021	2022
Pre-school/Stroke Proficiency (30 minutes)	\$ 38.00	\$ 39.25
Swim Kids – 1 to 4 (45 minutes)	\$ 48.25	\$ 49.75
Swim Kids – 5 to 7 / Junior Lifeguard Club (60 minutes)	\$ 60.25	\$ 62.00
Swim Kids – 8 to 10 (90 minutes)	\$ 83.75	\$ 86.25
Private Lessons – 1 child (30 minutes)	\$ 16.50	\$ 17.00
Additional child (30 minutes)	\$ 5.75	\$ 6.00
School Lessons (August – June each year)	\$ 30.50	\$ 31.50
Adult Lesson – drop in	\$ 17.75	\$ 18.25
Adult Session	\$ 51.50	\$ 53.00

Aquaplex Admissions (per swim)

Admission Type	Regular Admission		10 Pack Ticket	
	2021	2022	2021	2022
5 & under (with someone 16+)	Free	Free	Free	Free
Youth – 6-17	\$ 6.00	\$ 6.25	\$ 52.75	\$ 54.25
Adult – 18-59	\$ 8.50	\$ 8.75	\$ 75.75	\$ 78.00
Senior – 60 +	\$ 6.00	\$ 6.25	\$ 52.75	\$ 54.25
Family	\$ 19.25	\$ 19.75	\$ 174.50	\$ 179.75
Daily Rate – add for single admission	\$ 2.50	\$ 2.50	N/A	N/A
Daily Rate – add for family admission	\$ 5.25	\$ 5.50	N/A	N/A

Memorial Arena

Memorial Arena Rate Time Period	
ICE Rentals	
Prime Time:	
Weekdays	4:00 pm – 11:30 pm
Weekends	7:00 am – 9:45 pm
Holidays	7:00 am – 11:30 pm
Non - Prime Time:	
Weekdays	6:00 am – 4:00 pm
NO ICE Rentals	
Summer Rates	April 1 – July 31

Memorial Arena Rates

User Group	NO ICE Rental Fees per Hour		ICE Rental Fees per Hour					
	Summer		Prime Time		Non-Prime Time		Junior "A"	
	2021	2022	2021	2022	2021	2022	2021	2022
Youth Groups	\$ 71.50	\$ 73.75	\$ 89.75	\$ 92.50	\$ 66.50	\$ 68.50	-	-
Local Adult Hockey	\$ 71.50	\$ 73.75	\$ 182.00	\$ 187.50	\$ 133.50	\$ 137.50	-	-
Out of town users	\$ 71.50	\$ 73.75	\$ 198.50	\$ 204.50	\$ 150.50	\$ 155.00	-	-
Jr "A" Practice	-	-	-	-	-	-	\$ 117.50	\$ 121.00
Jr "A" Games	-	-	-	-	-	-	\$ 163.75	\$ 168.75

Ball Diamonds

User Group	Per GAME Each Diamond (2-3 hour duration)		Per DAY Each Diamond	
	2021	2022	2021	2022
	Youth	\$ 24.50	\$ 25.25	\$ 86.75
Adult	\$ 33.50	\$ 34.50	\$ 115.50	\$ 119.00

Badlands Community Facility

Banquet Hall Room Rentals

Banquet Hall	Weekend		Daily		Hourly	
	2021	2022	2021	2022	2021	2022
Full Hall						
450 people seated at tables or 600 seated theatre style						
Private	\$ 2,274.50	\$ 2,342.75	\$ 1,023.50	\$ 1,054.25	\$ 170.50	\$ 175.75
Local	\$ 1,968.50	\$ 2,027.50	\$ 870.00	\$ 896.00	\$ 145.00	\$ 149.50
Non-Profit	\$ 1,856.00	\$ 1,911.75	\$ 818.25	\$ 843.00	\$ 136.50	\$ 140.75
2/3 Hall						
330 people seated at tables or 460 seated theatre style						
Private	\$ 1,547.00	\$ 1,593.50	\$ 682.50	\$ 703.00	\$ 113.50	\$ 117.00
Local	\$ 1,287.00	\$ 1,325.75	\$ 568.75	\$ 586.00	\$ 94.50	\$ 97.50
Non-Profit	\$ 1,237.00	\$ 1,274.00	\$ 545.50	\$ 562.00	\$ 91.00	\$ 93.75
1/3 Hall						
150 people seated at tables or 230 seated theatre style						
Private	\$ 810.00	\$ 834.25	\$ 358.25	\$ 369.00	\$ 59.00	\$ 60.75
Local	\$ 682.75	\$ 703.25	\$ 301.50	\$ 310.50	\$ 50.00	\$ 51.50
Non-profit	\$ 641.50	\$ 660.75	\$ 284.00	\$ 292.50	\$ 46.75	\$ 48.25
Terrace						
60 people seated at tables or 100 seated theatre style						
Private	\$ 695.50	\$ 716.50	\$ 306.50	\$ 315.75	\$ 51.50	\$ 53.00
Local	\$ 633.25	\$ 652.25	\$ 278.50	\$ 287.00	\$ 47.00	\$ 48.50
Non-profit	\$ 557.50	\$ 574.25	\$ 245.75	\$ 253.00	\$ 41.50	\$ 42.75
Kitchen						
2021			2022			
per person per meal \$ 1.25			per person per meal \$ 1.30			
minimum fee of \$ 85.25 to a max. fee of \$ 398.00			minimum fee of \$ 87.80 to a max. fee of \$ 410.00			

**Badlands Community Facility
Meeting Room Rentals**

Meeting Space	Weekend		Daily		Hourly	
	2021	2022	2021	2022	2021	2022
Large Multi-Purpose Room						
40 people seated at tables or 60 seated theatre style						
Private	-	-	\$ 199.00	\$ 205.00	\$ 34.50	\$ 35.50
Local	-	-	\$ 170.00	\$ 175.00	\$ 28.25	\$ 29.00
Non-profit	Town Sponsored					
Small Multi-Purpose Room						
15 people seated at tables or 25 seated theatre style						
Private	-	-	\$ 99.75	\$ 102.75	\$ 199.00	\$ 18.00
Local	-	-	\$ 84.75	\$ 87.25	\$ 170.00	\$ 14.00
Non-profit	Town Sponsored					
Gallery						
30 people seated at tables or 50 seated theatre style						
Private	-	-	\$ 199.00	\$ 205.00	\$ 34.50	\$ 35.50
Local	-	-	\$ 170.00	\$ 175.00	\$ 28.25	\$ 29.00
Non-profit	-	-	\$ 68.50	\$ 70.50	\$ 17.50	\$ 18.00

**Badlands Community Facility
Recreation Rentals**

Recreation Space	Daily		Full/hr		2/3/hr		1/3/hr	
	2021	2022	2021	2022	2021	2022	2021	2022
Field House								
Private	\$ 1,137.50	\$ 1,171.75	\$ 172.50	\$ 177.75	\$ 136.50	\$ 140.75	\$ 68.50	\$ 70.75
Local	\$ 910.00	\$ 937.50	\$ 113.75	\$ 117.25	\$ 91.00	\$ 93.75	\$ 45.50	\$ 47.00
Adult non-profit	\$ 887.50	\$ 914.25	\$ 85.50	\$ 88.00	\$ 68.50	\$ 70.75	\$ 34.50	\$ 35.50
Youth non-profit	\$ 853.25	\$ 879.00	\$ 69.00	\$ 71.00	\$ 45.50	\$ 47.00	\$ 23.00	\$ 23.75
Fitness Studio								
Private	\$ 568.40	\$ 585.50	\$ 57.00	\$ 58.75	-	-	-	-
Local	\$ 452.50	\$ 466.00	\$ 45.50	\$ 47.00	-	-	-	-
Adult non-profit	\$ 284.00	\$ 292.50	\$ 34.50	\$ 35.50	-	-	-	-
Youth non-profit	\$ 171.00	\$ 176.25	\$ 23.00	\$ 23.75	-	-	-	-
Play Space-drop in								
per child	\$ 2.50	\$ 2.50						

Memberships
Badlands Community Facility and Recreation Facilities

Note: GST is included in prices listed.

	Daily	10-pass (BCF/Multi)	1 month	3 month	6 month	Annual	Corporate
Single Facility							
Youth (6-17 yrs)	\$ 7.75	\$ 69.75	\$ 48.00	\$ 123.75	\$ 206.25	\$ 343.25	-
Adult (18-59 yrs)	\$ 9.75	\$ 87.75	\$ 64.75	\$ 166.50	\$ 277.50	\$ 518.50	-
Senior (60+ yrs)	\$ 7.75	\$ 69.75	\$ 48.00	\$ 123.75	\$ 206.25	\$ 343.25	-
Family	\$ 19.25	\$ 173.25	\$ 136.25	\$ 348.50	\$ 582.50	\$ 970.50	-
Multi Facility							
Youth (6-17 yrs)	\$ 9.50	\$ 85.50	\$ 62.75	\$ 160.75	\$ 268.00	\$ 446.25	\$ 357.00
Adult (18-59 yrs)	\$ 12.25	\$ 110.25	\$ 84.25	\$ 216.50	\$ 361.50	\$ 673.75	\$ 539.00
Senior (60+ yrs)	\$ 9.50	\$ 85.50	\$ 62.75	\$ 160.75	\$ 268.00	\$ 446.25	\$ 357.00
Family	\$25.00	\$ 225.00	\$ 177.00	\$ 454.50	\$ 757.00	\$ 1,194.00	\$ 955.25

MISCELLANEOUS

Custom Work - Public Works

Per employee hour plus actual costs for materials, supplies and equipment, additional labour over roadbuilders:

Monday through Friday 8:00am – 4:30pm	\$ 55.00
Any times outside of Monday through Friday 8:00am – 4:30pm	\$ 80.00

Electronic Information

Computer drafting and programming	
Per hour plus actual costs for materials and supplies	\$ 67.25
Information extraction	
Per hour to extract data from electronic databases	\$ 67.25
Search and Retrieval	
Per hour plus actual costs for materials and supplies	\$ 33.65
Per 1/4 hour	\$ 7.85

REQUEST FOR DECISION

TITLE:	2022 Community Clean Up
DATE:	November 22, 2021
PRESENTED BY:	Dave Brett, P. Eng, PMP, Director of Infrastructure Services
ATTACHMENT:	PowerPoint Presentation

SUMMARY:

The 2021 Community Clean Up was carried out in three components.

- Disposal Vouchers
- “Kick-It-To-The-Curb” public exchange, weekend of 2021 Sept 10, 11 and 12.
- Two-week Community Clean Up by Town staff 2021 September 13 to 24

The purpose of the Community Clean Up is to collect residential non-hazardous waste, excluding building/demolition material, at no direct cost to residents. Traditionally this program was held for two weeks in the spring with a corresponding amnesty at the Drumheller & District Landfill. Based on Administration’s recommendation and Council’s decision from January 2020, the program was altered to a voucher system in place of the amnesty, and the Community Clean Up was rescheduled for the fall; in addition, a “Kick It To The Curb” public exchange is in place.

During 2021 the voucher system worked generally well, though there were some issues found with it:

1. Vouchers for Free Load for loads that would normally be free
 - DDSWMA found that a significant number of users attempted to use their vouchers for free loads at the landfill. This happened when a load that is not charged by the DDSWMA is brought to the landfill and the resident believes they have to pay and tries to use a voucher. In these situations, the DDSWMA does not take the voucher
2. Unacceptable materials within vouchered load:
 - DDSWMA has found this to be an issue with the amnesty and voucher system and Town staff have encountered in the Community Clean Up. The Town and DDSWMA will work on improving communication to and education of the public regarding this and will be modifying the information presented on the voucher to improve clarity. Voucher loads are for the acceptable material only and not for disposal of demolition materials, commercial waste, or other unacceptable materials.
3. Below maximum weight of voucher
 - DDSWMA had several incidents where a resident brought in a load weighing less than the maximum indicated on the voucher (375kg) and the resident requested the DDSWMA allow them to bring additional loads to “make up” the weight maximum. These were not allowed as the voucher is a single load, up to the established maximum, as indicated on the back of the voucher.

4. Resident (renter) vs Property Owner:
 - In 2021 based on the guidance provided by Council, vouchers were provided to the resident of a property. Several landlords expressed objection to this, indicating that they believed they should be getting the vouchers for their properties to use them clean properties out should renters leave or to haul material on behalf of the renters. This was handled by indicating to the property owner that the community clean up program and vouchers are for the residents of Drumheller. Should a resident need assistance hauling to the landfill the resident can collect the voucher from Town hall and give to the person doing the hauling, when going to the landfill. Vouchers will be limited to two per residence per calendar year.
5. Apartments and Seniors Group Facilities:
 - As the people living here are residents of Drumheller, the residents will be eligible for two vouchers upon proof of residence, such as government issued identification. In order to track this correctly, the Town will need to determine the number of units at each of the locations. Vouchers will be limited to two per residence per calendar year.

ALTERNATIVES:

The options available in regard to the Community Clean Up are:

- A) Continue with the planned 2022 activities:
 - a. This is the voucher system along with a two-week Town staff collection period in the fall.
- B) Modify Community Clean Up work process
 - a. Consolidate some communities into a single day. There by reducing the length of the Community Clean up from 10 working days to 7 or 8 working days.
- C) Return to pre-2020 activities:
 - a. This is an amnesty period with a two-week Town staff collection period in the spring.
- D) Voucher System with spring collection:
 - a. This would be no amnesty with a year-long voucher system and a spring collection period.
- E) Voucher System with collection points:
 - a. Use the voucher system and a “collection point” organization. To reduce financial impact to the Town, rental GFL Environmental bins can be provided for the period of the Community Clean Up. These are placed in a convenient location for each of the scheduled day or days for an area. A Town staff member will be present to monitor the contents, and collect the Freon appliances, with the bins being removed at the end of each day. The public would be able to bring the waste and other materials to the bin locations. Town staff would not carry out collection at properties. This would reduce the Town resource commitment to the Community Clean Up and the associated costs but requires a more active participation by the public.
- F) Continue with just a Voucher System:

- a. The voucher system would be continued, but there would be no collection by Town staff. This would encourage and support local entrepreneurs to provide hauling services to the landfill, for those residents that are unable to do so themselves.

G) Staggered Implementation:

- a. Implement one or more of the above scenarios on a staggered system of alternate years. i.e., Full Town pick up Community Clean Up on odd years with bin system even years

H) Discontinue Community Clean Up:

- a. Discontinue program.

RECOMMENDATION:

Administration recommends the implementation of Alternative B for the 2022 Community Clean Up. This is composed of the following three components:

- Continue with the voucher system.
 - The voucher system would continue, however, vouchers will only be issued on providing proof of residence, such as Government Issue id, to ensure that all residents of Drumheller can access the program.
- Continue with a fall Clean Up for the period of September 12 to 23.
 - As the 2022 year had several unique aspects to it, to get a correct assessment of the impact of a fall Clean Up, maintaining it in the fall would allow the Town to develop a baseline for participation and a basis for comparison.
- Schedule a “Kick-It-To-The-Curb” event for the weekend of September following Labour Day.

The basis of this is that the voucher system replaced the amnesty in the 2020 calendar year, however due to COVID-19 pandemic and associated lockdowns, that year was unique. As such while there are trends showing in 2020 and 2021, the validity of those trends is questionable due to external circumstances. Continuing with the Alternative B will allow for further development of support data.

FINANCIAL IMPACT:

The costs of the Community Clean Up are allocated in the annual Operations Budget.

STRATEGIC POLICY ALIGNMENT:

Ensure that the Town of Drumheller is clean, along with fiscal and environmental responsibility.

COMMUNICATION STRATEGY:

Immediate media release of the results of this RFD. Additionally, there should be:

- A) An ongoing media campaign regarding the voucher system, acceptable and unacceptable material criteria.

- B) Media blitz in the spring proceeding the traditional “Spring Clean Up” period that the Community Clean Up has been rescheduled and that there is no amnesty.
- C) Media blitz in the August and September that the Community Clean Up is upcoming.
- D) Make the “Kick-It-To-The-Curb” tags clearly differentiated from the vouchers and clearly as not for free Landfill disposal.

MOTION:

Councillor: _____ moves that the Town of Drumheller implement the 2022 Community Clean Up, by continuation of the voucher program, the “Kick-It-To-The-Curb” event on the weekend following Labour Day, followed by a two-week Community Clean Up carried out in the period of September 12, 2022, to September 23, 2022.

SECONDED: _____

_____*Dave Brett*_____

Prepared By:
Dave Brett
Director of Infrastructure Services



Approved By:
Darryl Drohomerski
Chief Administrative Officer



**DRUMHELLER
VALLEY**

2021 Community Clean Up Results

D. Brett – Director of Infrastructure Services, ToD
– Executive Director of Operations, DDSWMA

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2021 Community Clean Up

- Program Components
- 2021 Results
- Expenditures & Resources
- Safety
- Lessons Learned
- Summary
- Request For Decision



2

Program Components

- In 2021 there were three Planned Components
 - Voucher system – year long
 - Kick it to the Curb
 - Scheduled pick up by Town staff
- No Un-Planned Components in 2021



3

Planned Components Kick-It-To-The-Curb

- Community re-use program that occurred the weekend prior to the Community Clean Up
- Occurred on Sept 10, 11 & 12
- Public appears to be participating actively in this program, but it is difficult to monitor



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Planned Components Voucher System

- A voucher system of two vouchers per residential address was provided, with vouchers being valid in the 2021 Calendar year
- Each voucher is valid for one, non-demolition load of up to 375kg
 - National Average is that 720kg/capita of waste is generated by an Urban resident annually;
 - Provincial Average is that 1002kg/capita of waste is generated by an Urban resident annually;
 - Therefore the voucher system plus the weekly garbage cart allows Drumheller residents to potentially double the National Average
- Vouchers; Collected vs Used as of 2021 November 18
 - Collected from Town Hall = 648
 - Used at Landfill =136



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Planned Components Pick up By Town

- Clean up was carried out Monday Sept 13 to Friday Sept 24
- Crews indicated that there appeared to be less material, and completed assigned daily sections early each day
- There was a mistake on the original brochure in regards to the scheduled dates that was not identified early enough to address correctly, revised media release made but lesson has been learned



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Planned Components What is Picked up?

- Compost and Household;
 - Equivalent to material collected normal weekly garbage cart pick up
- Metal
- Batteries, Computers, Microwaves, Paint Cans, Propane tanks, Televisions, Tires
 - Can be dropped off at Landfill by Drumheller residents any business day of the year free of charge
- Freon Appliances
 - Can be dropped off at Landfill by Drumheller residents any business day of the year for \$15
 - During Community Clean up if \$15 fee is paid, the appliance is collected



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Planned Components What is Picked Up

		Regular Cost to Resident		Community Clean Up Cost To Resident	
	UNITS				
COMMUNITY CLEAN UP					
Compost & Household (NOT DEMOLITION)	metric ton (mt)	Free with Voucher Compost is Free \$5.00 <251kgs \$62.50/mt >251kg		Free	
Metal Only	metric ton (mt)	Free with Voucher \$62.50/mt		Free	
Batteries	Each	Free		Free	
Computers	Each	Free		Free	
Freon Appliances	Each	\$	15.00	\$	15.00
Microwaves	Each	Free		Free	
Paint Cans	Each	Free		Free	
Propane Tanks	Each	Free		Free	
Public - Amnesty/ Voucher	metric ton (mt)	Free		Free	
Public - COVID Amnesty	metric ton (mt)	Free		Free	
Televisions	Each	Free		Free	
Tires	Each	Free		Free	



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Planned Components What is NOT Picked up?

- Demolition material is NOT picked up and has not been allowed in the past
- During Community Clean up collection from a single residence location will NOT exceed, 1 standard half ton pick up truck bed load



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2021 Results

		Annual Average	2017	2018	2019	Voucher Kick it 2020	Voucher Kick it 2021
UNITS							
COMMUNITY CLEAN UP							
Compost & Household (NOT DEMOLITION)	metric ton (mt)	214.62	186.02	207.1	156.92	54.91	53.9
Metal Only	metric ton (mt)	40.61	36.05	34.59	28.05	19.08	16.7
Batteries	Each	89	18	31	17	31	13
Computers	Each	126	105	189	87	162	23
Freon Appliances	Each	60	54	64	46	77	18
Microwaves	Each	63	45	80	72	27	27
Paint Cans	Each	1,200	1313	1139	974	494	407
Propane Tanks	Each	141	183	165	122	124	67
Public - Amnesty/ Voucher	metric ton (mt)	23.33	16	19	21	14.17	20.95
Public - COVID Amnesty	metric ton (mt)	140.07				140.07	
Televisions	Each	175	153	173	120	102	77
Tires	Each	360	282	367	390	196	162
Total	metric ton (mt)	284.71	238.07	260.69	205.97	228.23	91.55



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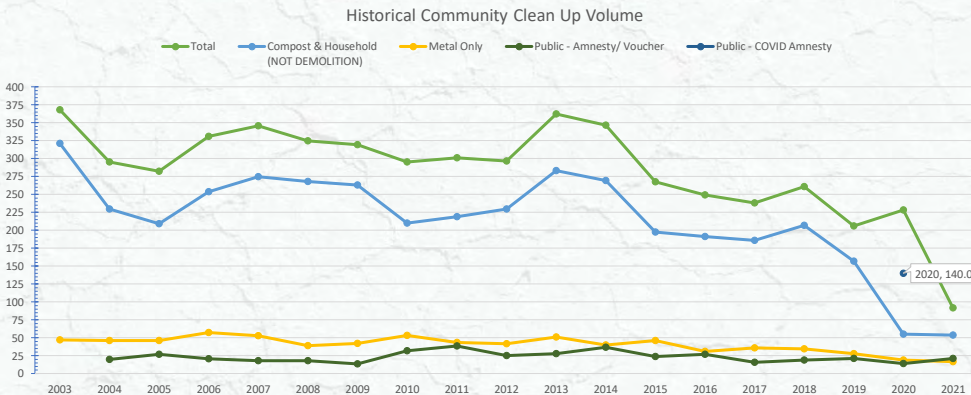
2021 Results

		Regular Cost to Resident	Community Clean Up Cost To Resident	Annual Average	2017	2018	2019	Voucher Kick it 2020	Voucher Kick it 2021
VOUCHERS	UNITS								
Townhall	Each	Free Limit of 2-375kg/load No Demolition	Free Limit of 2-375kg/load No Demolition	625				602	648
DDSWMA	Each	Free Limit of 2-375kg/load No Demolition	Free Limit of 2-375kg/load No Demolition	147				136	157



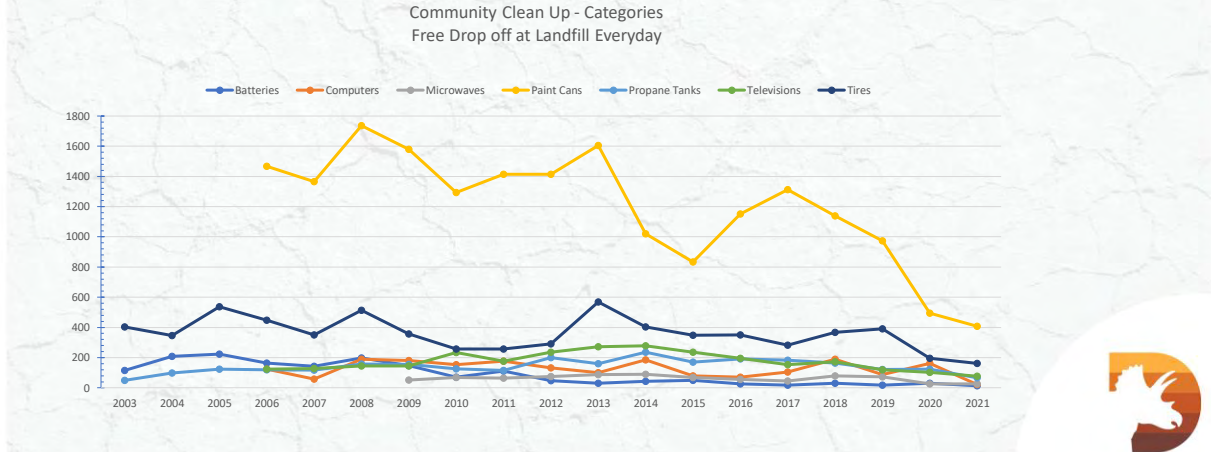
11

2021 Results Historical - Volumes



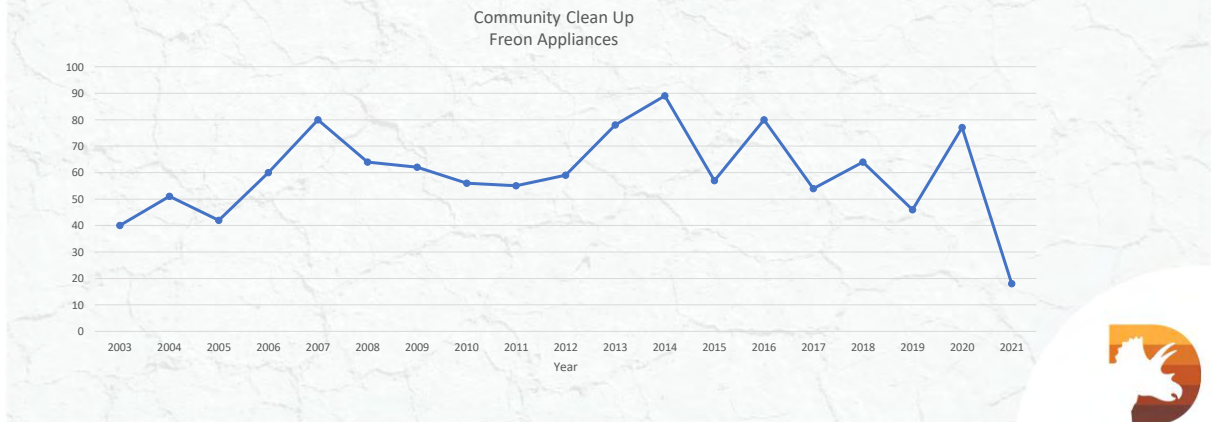
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2021 Results Historical - Quantities



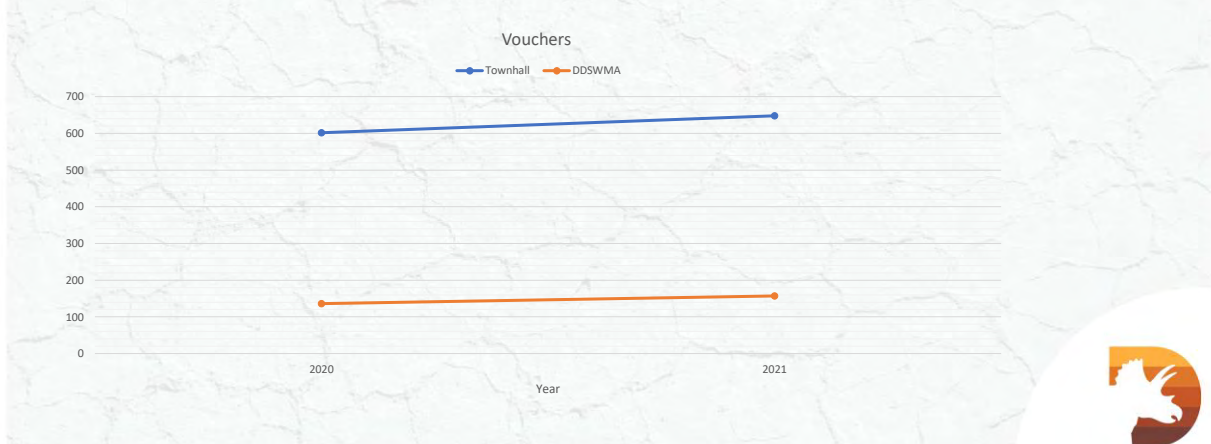
13

2021 Results Historical - Freon Appliances



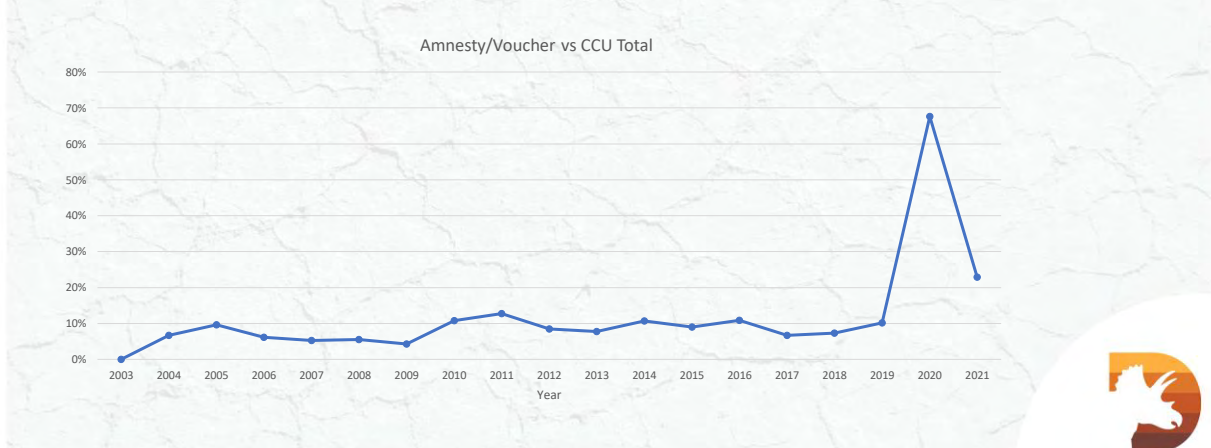
14

2021 Results Historical - Vouchers



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2021 Results Amnesty/Voucher vs Total



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2021 Results Key Points

- 1) The material collected during the Community Clean Up (pick up and voucher) represents ~ 2% of the waste generated by Drumheller
- 2) Since 2018 there has been a significant drop in volume of waste collected, driven by a drop in the Compost & Household
- 3) The metal collection has remained constant except for 2021 when it reduced to 41% of the average
- 4) The amnesty/voucher material dropped off has remained constant averaging about 23.3 metric tons
- 5) The other materials collected have remained constant over time with exception of paint cans and tires, these have declined significantly since 2017



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Expenditures and Resources

- Town expenditures on this task are shown on the next slide, along with a table converting this to cost per tonne of collected material; also provided is the GFL value for residential collection for comparison
- Town expenditures would not be eliminated by changes to program but would result in these expenditures and associated resources being re-allocated to other activities



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Expenditures Data

Category	Item	Description	Cost	Total
Total				\$101,232.20
Communication	Brochures	2550 Brochures	\$850.00	\$3,525.00
	Radio	in addition to 2 mins on the Town	\$1,875.00	
	Newspaper	Newspaper Advertisement	\$800.00	
Execution	Vouchers		\$200.00	\$200.00
Contractors	GFL Invoice	Bin Rentals	\$6,247.20	\$6,247.20
Town	Direct Labour and Equipment Costs		\$91,260.00	\$91,260.00

2021 Community Clean Up	\$97,507.20
Volume of material collected	70.6 tonne
Cost per tonne Collected	\$1,381.12 per tonne
2020 Cost of Residential Pick Up	\$203,325.00
2020 GFL Residential Garbage Pickup	2345.54 tonne
Amount of Residential	\$86.69 per tonne



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Resources

Staff	Normal Work Force (Field Staff)	Allocation to CCU	Allocation
Total PW	22	13	59%
Operations			
Mechanic	1	0	0%
Parks	1	1	100%
Surface Crew	3	3	100%
Facilities			
Arena	6	2	33%
Utility Men	2	2	100%
Utility			
U/G Crew	3	3	100%
Plant Operators	6	2	33%

Equipment	Unit #	Description	Days	Equipment Hours
	159	1-ton	10	70
	309	1-ton	10	70
	311	1-ton	10	70
	152	1-ton	10	70
	153	1-ton	10	70
	328	Tandem	10	70
	329	Tandem	10	70
	330	Tandem	10	70
	451	V-Loader	10	70
		Cat-Backhoe	10	70
		JD-Backhoe	10	70
		1/2 ton	10	70
		1/2 ton	10	70



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Safety Incidents

- 1 safety incident during the Community Clean up
- Vehicle accident involving the Town's front end loader and a resident's car
 - No injuries
 - No damage to front end loader
 - Resident's car heavily damage



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Lessons Learned

- Improve Communications to public
 - Due to error on the brochure, communication with the public regarding Community Clean Up was not clear. Additional quality control on this is needed.
- Free Disposal services at DDSWMA
 - Public does not seem to be aware of what material DDSWMA accepts without charge as either waste or recycling.



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Summary

- 1) Voucher system working well and performing equivalent to the amnesty
- 2) Reduction in volume of material being picked up since 2018
- 3) Residents do not seem to have a clear understanding of what material is free for drop off at the DDSWMA through out year.
- 4) As 2020 was the first year of the vouchers, but was very unique due to COVID, it is hard to make judgements and trends with the 2020/2021 data, a third year is needed to confirm any forming trends.



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Request For Decision 2022 Community Clean Up

- Key Points
 - Continue with Voucher
 - Continue with the Community Clean Up collection by Town staff in the fall – September 12 to 23, 2022
 - Continue with the Kick-It-To-The-Curb program the weekend proceeding the Community Clean Up – September 9,10 & 11, 2022
 - Work with DDSWMA to educate and inform residents of the services provided by DDSWMA Landfill



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		Regular Cost to Resident	Community Clean Up Cost To Resident	Annual Average	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Voucher Kick it 2020	Voucher Kick it 2021
	UNITS																						
COMMUNITY CLEAN UP																							
Compost & Household (NOT DEMOLITION)	metric ton (mt)	Free with Voucher Compost is Free \$5.00 <251kgs \$62.50/mt >251kg	Free	214.62	321.07	229.64	208.95	253.56	274.55	267.96	263.27	210	219.11	229.57	283.37	269.47	197.39	191.05	186.02	207.1	156.92	54.91	53.9
Metal Only	metric ton (mt)	Free with Voucher \$62.50/mt	Free	40.61	47.17	45.99	46.26	57.12	52.87	38.84	42.33	53.2	43.41	41.86	51	40	46.01	31.06	36.05	34.59	28.05	19.08	16.7
Batteries	Each	Free	Free	89	116	209	223	164	142	197	146	71	111	48	30	43	50	26	18	31	17	31	13
Computers	Each	Free	Free	126				123	58	190	180	154	177	132	100	185	80	71	105	189	87	162	23
Freon Appliances	Each	\$ 15.00	\$ 15.00	60	40	51	42	60	80	64	62	56	55	59	78	89	57	80	54	64	46	77	18
Microwaves	Each	Free	Free	63							52	69	65	76	88	90	69	56	45	80	72	27	27
Paint Cans	Each	Free	Free	1,200				1467	1365	1735	1579	1294	1413	1413	1604	1020	834	1152	1313	1139	974	494	407
Propane Tanks	Each	Free	Free	141	50	98	123	119	117	158	156	126	115	201	159	237	171	192	183	165	122	124	67
Public - Amnesty/Voucher	metric ton (mt)	Free	Free	23.33		19.68	27.13	20.5	18.23	18.07	13.76	31.91	38.44	25.12	28	37	24	27.02	16	19	21	14.17	20.95
Public - COVID Amnesty	metric ton (mt)	Free	Free	140.07																		140.07	
Televisions	Each	Free	Free	175				123	127	144	144	233	177	236	273	279	237	195	153	173	120	102	77
Tires	Each	Free	Free	360	403	347	537	447	351	513	357	257	257	292	569	404	349	351	282	367	390	196	162
Total	metric ton (mt)			284.71	368.24	295.31	282.34	331.18	345.65	324.87	319.36	295.11	300.96	296.55	362.37	346.47	267.4	249.13	238.07	260.69	205.97	228.23	91.55
VOUCHERS																							
Townhall	Each	Free Limit of 2- 375kg/load No Demolition	Free Limit of 2- 375kg/load No Demolition	625																		602	648
DDSWMA	Each	Free Limit of 2- 375kg/load No Demolition	Free Limit of 2- 375kg/load No Demolition	147																		136	157

REQUEST FOR DECISION

TITLE:	Grant Funding Application – Penitentiary Booster Upgrades
DATE:	November 26, 2021
PRESENTED BY:	Dave Brett, P. Eng, PMP, Director of Infrastructure Services
ATTACHMENT:	AMWWP grant application – Penitentiary Booster Upgrades

SUMMARY:

The existing Penitentiary Booster station and transmission main were constructed in 1963 to service the Drumheller Penitentiary and the Churchill Co-op water system. The booster station does not have direct communication with the Water Treatment Plant, and only communicates with the Penitentiary Reservoir via telephone line. The booster station’s pumps and related equipment are contained within an underground concrete vault.

The booster station’s capacity is being stressed due to age and condition, and is undersized to satisfy current demand requirements. It is critical to address this issue, as this booster station is the only water conveyance source for the Drumheller Penitentiary and Churchill Co-op Reservoir. It was determined that the upgraded booster station project has now reached a critical point to proceed to ensure a reliable, continuous, and safe water supply, and to support emergency fire service delivery in these areas.

The Drumheller Penitentiary Booster upgrade has been under review and consideration for more than seventeen (17) years. In 2004, MPE Engineering Ltd. completed the Drumheller Penitentiary Booster Station Engineering Review Report which reviewed options for improving the long-term capacity of the booster station. The primary objective behind the booster upgrades project is to provide the Drumheller Penitentiary and the Churchill Co-op Reservoirs with a reliable water service delivery and capacity to meet fire service response requirements. The current booster system is undersized (increasing header piping from 200 mm to 400 mm diameter) to meet current usage and fire flow demand, and to accommodate future growth and development.

On behalf of the Town, MPE Engineering has submitted a grant application to the Alberta Municipal Water Wastewater Partnership (AMWWP). MPE Engineering has estimated the total project cost at \$ 1,141,700.00. Per the AMWWP grant funding model, the maximum municipal portion of this project cost would be \$ 713,220.00 (62.47%). Subject to a grant funding decision, the project will be tendered on April 1, 2022 to allow for construction to commence in Summer 2022. The estimated duration of construction is up to one (1) year.

RECOMMENDATION:

That Council move to reserve a 2022 Capital Budget allocation of \$ 713,220.00 in support of the Town’s cost share requirement for the upgrade of the Penitentiary Booster Station. The Town’s cost share commitment is contingent on the approval of the Alberta Municipal Water Wastewater Partnership (AMWWP) grant application with a total project cost estimate of \$ 1,141,700.

FINANCIAL IMPACT:

MPE Engineering has estimated the total project cost at \$ 1,141,700.00. The maximum municipal portion of this project cost would be \$ 713,220.00, which would need to be allocated in the 2022 Capital Budget.

STRATEGIC POLICY ALIGNMENT:

This project aligns with the Town's responsibility to provide safe and reliable critical water and wastewater infrastructure, and demonstrates fiscal responsibility through cost sharing.

COMMUNICATION STRATEGY:

Upon Council's approval, a copy of the motion would be submitted to Alberta Transportation and the AMWWP grants technologist.

MOTION:

Councillor _____

Moves to reserve a 2022 Capital Budget allocation of \$ 713,220.00 in support of the Town's cost share requirement for the upgrade of the Penitentiary Booster Station. The Town's cost share commitment is contingent on the approval of the Alberta Municipal Water Wastewater Partnership (AMWWP) grant application with a total project cost estimate of \$1,141,700.

SECONDED:

Councillor _____

Libby Vant

Prepared by:
Libby Vant, BA
Senior Administrative Assistant

Dave Brett

Reviewed by:
Dave Brett
Director of Infrastructure Services



Approved by:
Darryl Drohomerski, C.E.T.
Chief Administrative Officer

November 24, 2021

Denette Leask
Infrastructure Technologist
Alberta Transportation
4th Floor, Provincial Building
4920 – 51 Street
Red Deer, AB, T4N 6K8
denette.leask@gov.ab.ca
VIA EMAIL

Dear Ms. Leask:

RE: Town of Drumheller - Alberta Municipal Water/Wastewater Partnership Application

The Town of Drumheller (the Town) is formally submitting a grant application of \$ 1,141,700 under the Alberta Municipal Water/Wastewater Partnership (AMWWP) program in support of the Penitentiary Booster Station Upgrade project. Based on the 2019 official population of 7,982 we calculate that the eligible project costs would be prorated under a 37.53% grant (\$ 428,480) / 62.47% municipal contribution (\$ 713,220) cost share arrangement.

The following overview and appendices provide details on the project description, scope of work, rationale, implementation plan, and costs.

Project History

The existing booster station and transmission main were constructed in 1963 to service the Drumheller Penitentiary and the Churchill Co-op Reservoir. The booster station does not have direct communication with the Water Treatment Plant and only communicates with the Penitentiary Reservoir via telephone line. The booster station contains two 22 kW (30 hp) centrifugal pumps as well as a 5.6 kW (7.5 hp) pressure sustaining in-line jockey pump. The pumps and related equipment are contained within an underground concrete vault.

The booster station's capacity is being stressed due to age and condition and is undersized to satisfy current demand requirements. It is critical to address this issue, as this booster station is the only water conveyance source for Drumheller Penitentiary and Churchill Co-op Reservoir. It was determined that the upgraded booster station project has now reached a critical point to proceed to ensure a reliable, continuous, and safe water supply, and to support emergency fire service delivery in these areas.

The Drumheller Penitentiary Booster upgrade has been under review and consideration more than seventeen years. In 2004, MPE Engineering Ltd (MPE) completed the Drumheller Penitentiary Booster Station Engineering Review Report which reviewed options for improving the long-term capacity of the booster station given projected future

.../Page 2

demands. The Drumheller Penitentiary Booster Station Engineering Review Report recommended the following booster station upgrades be made:

- Install a variable frequency drive (VFD) on one of the existing 30 hp pumps.
- Install a VFD on the 10 hp jockey pump.

In 2012, MPE completed the Penitentiary Booster Station Preliminary Design Study which completed a water model analysis to determine the impacts of future water demands on the capacity of the existing Penitentiary Booster Station. The study also identified upgrade requirements for the booster station at a conceptual level. The Penitentiary Booster Station Preliminary Design Study recommended the following booster station upgrades:

- Construct an above ground vandal-proof cinder block building as the existing pump station is a below ground facility, which is problematic for maintenance and confined space entry.
- Install two 30 kW (40 hp) duty pumps and one 30 kW (40 hp) standby pump.
- Provide standby power.
- Obtain a power and control panel for the new booster station complete with building mechanical and electrical.
- Install a 10 m communication tower.

In March 2021, the Town hired MPE to develop a detailed analysis for the booster station that includes detailed designs and cost models. MPE developed a Design Basis Memorandum (DBM) for the proposed booster station capital upgrades detailed in the next section of this letter. The full DBM report is attached in **Appendix A**.

Project Description and Scope of Work

The upstream pressure and potable water flow to the penitentiary booster station is maintained by the Town's distribution grid. The Town currently owns and operates the reinforced concrete booster station located inside the bulb at the south end of Juniper Road. The Greentree Reservoir is the closest reservoir to the booster station and influences the booster station inlet pressure.

The scope of work for the proposed penitentiary booster station upgrade project includes:

- Construct an above ground booster station directly above the existing underground booster station.
- Information technology related programming and electronic equipment installation for improved communication between the booster station and the Drumheller Penitentiary and the Churchill Co-op Reservoir.
- Install interconnection piping and valve system as well as pipe stubs for future expansion and increased demand.
- Siteworks and access road upgrades to accommodate the new reservoir construction.

.../Page 3

Project Rationale

The primary objective behind this project is to provide the Drumheller Penitentiary and the Churchill Co op Reservoirs with a reliable water service delivery and capacity to meet fire service response requirements. The current booster system is undersized (increasing header piping from 200 mm to 400 mm diameter) to meet current usage and fire flow demand, and to accommodate future growth and development. The Town has had several meetings in recent months to discuss the urgent need to design and construct an upgraded booster station to ensure an uninterrupted supply of safe water supply for our stakeholders and protection of property through adequate water pressure supply for fire responses.

Existing System

The existing booster station and transmission main were constructed in 1963 to service the Drumheller Penitentiary and Churchill Co-op Reservoirs. The existing booster system contains two 22 kW (30 hp) centrifugal pumps as well as a 5.6 kW (7.5 hp) pressure sustaining in-line jockey pump. The pumps and related equipment are contained within an underground concrete vault. The Town's existing booster system is undersized to meet the Town's current and future water pressure and flow demands.

Preliminary Engineering Drawings

Preliminary drawings prepared by MPE and showing process, structural, and site plan layout for the existing and proposed conditions are attached in **Appendix B**.

Detailed Cost Estimates

A preliminary cost estimate was developed as part of the 2021 Design Basis Memorandum. The detailed cost estimate and project scope is attached in **Appendix C**, in support of the AMWWP grant application. Please note that we are using a 30% contingency to allot for current market volatility and global supply chain issues.

Proposed Implementation Schedule

Subject to a grant funding decision, the project will be tendered on April 1, 2022 to allow for construction to commence in Summer 2022. Estimated duration of construction is up to one (1) year.

Applicant Contribution / Council Resolution Details

The council resolution in support for this project and corresponding budgetary capital commitment (i.e. 62.47% applicant contribution of \$ 713,220) will be addressed at the December 6, 2021 Regular Council meeting. I will follow-up with a confirmation email once the Council resolution is in place.

This project is shovel-ready and we are prepared to proceed upon notification of the funding decision. This project supports provincial objectives in that it would create an estimated 10 - 15 seasonal direct jobs for Albertans in 2022/23, and a stronger workforce

.../Page 4

strengthens the provincial economy. The Town is being proactive to ensure sound and reliable municipal infrastructure is in place, which is vital to ensuring that it is positioned to grow and respond to Alberta's economic recovery.

Thank you for your consideration. If you require any additional information in support of this request, please feel free to contact me at 403-823-1312 or cao@drumheller.ca, or Bill Adams, Utilities Manager, at 403-823-1354 or badams@drumheller.ca.

Yours truly,



Darryl E. Drohomerski, C.E.T.
Chief Administrative Officer

DED/lv

cc: Dave Brett, Director of Infrastructure Services
Bill Adams, Utilities Manager

Attachments:

- Appendix A - 2018 Water Reservoir and Pumping Station Assessment Report
- Appendix B - Preliminary Engineering Drawings
- Appendix C - Detailed Cost Estimate

APPENDIX A

Penitentiary Booster Station Upgrade Final Design Basis Memorandum Report



Engineering Ltd.



**DRUMHELLER
VALLEY**

Final Design Basis Memorandum for:

TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION UPGRADE

Date: March 5, 2021
Project #: 2450-033-01

Suite 320, 6715 - 8 Street NE
Calgary, AB T2E 7H7
Phone: 403-250-1362
1-800-351-0929
Fax: 403-250-1518



Town of Drumheller
224 Centre Street
Drumheller, AB
T0J 0Y4

March 5, 2021
File: 2450\033\01\R01

Attention: Dave Brett
Director of Infrastructure Services

Dear Dave:

Re: Drumheller Penitentiary Booster Station Upgrade Design Basis Memorandum – FINAL

We are pleased to submit the above noted final design basis memorandum. We thank you for the opportunity to be of service and to have prepared this report on your behalf. We look forward to assisting you in implementing your plans for the future.

If you have any inquiries regarding our report or if clarification is required, please contact the undersigned at 403-219-6307 or kschurtz@mpe.ca.

Yours truly,

MPE ENGINEERING LTD.

A handwritten signature in blue ink, appearing to read "K Schurtz", is written over a faint, light blue circular stamp or watermark.

Kim Schurtz, B.A., P.Tech.(Eng.)
Project Manager

KS:ks
Enclosure

CORPORATE AUTHORIZATION

This report has been prepared by MPE Engineering Ltd. (MPE) under authorization of the Town of Drumheller. The material in this report represents the best judgment of MPE given the available information. Any use that a third party makes of this report, or reliance on or decisions made based upon it is the responsibility of the third party. MPE accept no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions taken based upon this report.

Should any questions arise regarding content of this report, please contact the undersigned.

MPE ENGINEERING LTD.



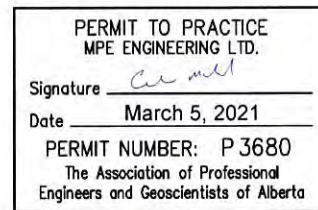
Kim Schurtz, B.A., P.Tech.(Eng.)
Project Manager

Professional Seal



Gerald Papworth, P.Eng.
Project Engineer

Professional Seal



Colin McNab, P.Eng.
Corporate Representative

Permit to Practice



Colin Forsyth, M.Eng., P.Eng.
Project Engineer

Professional Seal

1.0 Introduction

1.1 Project Overview

The Town of Drumheller (Town) has retained MPE Engineering Ltd. (MPE) to complete the design of upgrades for the Penitentiary Booster Station. The project includes the following:

- Development and assessment of design concept alternatives.
- Design concept selection.
- Following concept selection, detailed design and construction to commence.

1.2 Background

The existing booster station was constructed in 1963 to service the Drumheller Penitentiary (also referred to as the Drumheller Institution). The booster station contains two 22 kW (30 hp) centrifugal pumps as well as a 5.6 kW (7.5 hp) pressure sustaining in-line jockey pump. The 22 kW centrifugal pumps are mounted horizontally within 200 mm nominal diameter pipes. The pumps and related equipment are contained within an underground concrete vault. The nominal capacity of this booster station with one 30 hp pump out of service is around 760 L/min.

The upstream pressure and potable water flow to the booster station is maintained by the Town's distribution grid. The Greentree Reservoir is the closest reservoir to the booster station. With that being the case, the Greentree Reservoir has the most influence on the booster station inlet pressure. The operating pressure of the booster station varies from 35 to 45 psig on the inlet to 170 to 250 psig on the outlet.

The transmission main from the booster station to the Penitentiary was also constructed in 1963. This main is a 200 mm nominal diameter pipe with sections made of cast iron (CI) and others made of asbestos cement (AC) and PVC with an operating pressure range of approximately 190 to 220 psig.

The existing booster station does not have communication with the Water Treatment Plant; it communicates only with the Penitentiary Reservoir via telephone line (Telus).

In 2004, MPE completed the *Drumheller Penitentiary Booster Station Engineering Review Report* which reviewed options for improving the long-term capacity of the booster station given projected future demands. The *Drumheller Penitentiary Booster Station Engineering Review Report* recommended the following booster station upgrades be made:

- Install a variable frequency drive (VFD) on one of the existing 30 hp pumps.
- Install a VFD on the 10 hp jockey pump.

In 2012, MPE completed the *Penitentiary Booster Station Preliminary Design Study* which completed a water model analysis to determine the impacts of future water demands on the capacity of the existing Penitentiary Booster Station. The study also identified upgrade requirements for the booster station at a conceptual level. The *Penitentiary Booster Station Preliminary Design Study* recommended the following booster station upgrades:

- The existing pump station is a below ground facility, which is problematic for maintenance and confined space entry. Construct an above ground vandal-proof cinder block building since it will be in an isolated area.

- Acquire additional easements and/or land purchase for the booster station upgrade.
- Two 30 kW (40 hp) duty pumps and one 30 kW (40 hp) standby pump.
- Provide standby power.
- Obtain a power and control panel for the new Booster Station complete with building mechanical and electrical.
- The new Booster Station would also be provided with a new 10 m communication tower.

1.3 Objectives

MPE will review options for the booster station upgrade. All alternative upgrade options will be presented and assessed, complete with capital cost estimates. The detailed design is scheduled to be completed by the end of April 2021 with construction starting June 2021. Commissioning is to be completed by November 2021.

1.4 Location

The Town is situated within the Red Deer River valley in the badlands of east-central Alberta, Canada. It is located 110 km northeast of Calgary and 97 km south of Stettler. The Penitentiary Booster Station is located inside the bulb at the south end of Juniper Road. **Figure 1.4** illustrates the location of the Penitentiary Booster Station.

2.0 Design Considerations

The following outlines the design considerations for the basis of the replacement booster station.

2.1 Review of Available Information

2.1.1 Background Information

The following data, plans, reports and manuals were compiled and reviewed to complete this report:

- Drumheller Penitentiary Booster Station Engineering Review Report, MPE, 2004.
- Town of Drumheller Water Distribution System Analysis, Urban Systems, 2004.
- Penitentiary Booster Station Preliminary Design Study, MPE, 2012.
- Preliminary Communication Path Study, Comtech, 2012.
- Booster Station Record Drawings, UMA, 1963.

2.1.2 2012 Preliminary Design Study

As noted in Section 1.2, MPE completed the *Penitentiary Booster Station Preliminary Design Study* in 2012 which completed a water model analysis to determine the impacts of future water demands on the capacity of the existing Penitentiary Booster Station. The study identified upgrade requirements for the booster station at a conceptual level. The *Penitentiary Booster Station Preliminary Design Study* recommended the following booster station upgrades:

- The existing pump station is a below ground facility, which is problematic for maintenance and confined space entry. Construct an above ground vandal-proof cinder block building since it will be in an isolated area.
- Acquire additional easements and/or land purchase for the booster station upgrade.
- Two 30 kW (40 hp) duty pumps and one 30 kW (40 hp) standby pump.
- Provide standby power.
- Obtain a power and control panel for the new Booster Station complete with building mechanical and electrical.
- The new Booster Station would also be provided with a new 10 m communication tower.

During the start-up meeting for the Penitentiary Booster Station Upgrade Project, the Town indicated that the acquisition of additional easements for the booster station and provision of standby power will not be required. Additionally, the Town requested that the new booster station be located within the existing traffic bulb at the end of Juniper Road.

The 2012 Study also identified additional booster station design criteria as follows:

- Stage 1 Maximum Daily Demand (MDD): 1,828 m³/d
- No. of duty and standby pumps: 2 duty and 1 standby
- Required pump capacity: 635 l/min
- Inlet operating pressures: 240-310 kPa (35-45 psig)
- Outlet operating pressures: 1,170-1,725 kPa (170-250 psig)

Initial review of the existing pump station electrical power indicated that the power supply is 480VAC 3 Phase.

2.1.3 Summary of Design Criteria

The new proposed replacement booster station will include redundancy and will consist of two (2) duty and one (1) potable booster pump configuration. **Table 2.1.1** summarizes the design criteria for the replacement penitentiary booster station project:

Table 2.1.1: Penitentiary Replacement Booster Station Design Criteria

Parameter	Design Criteria
No. of Duty and Standby Potable Water Booster Pumps	2 duty and 1 standby
Stage 1 Maximum Daily Demand (MDD)	1,828 m ³ /d
Required Pump Capacity	635 l/min
Pump Power	30 kW (40 hp)
Electrical	3 Phase, 480V, 60Hz
Inlet Operating Pressures	240-310 kPa (35-45 psig)
Outlet Operating Pressures	1,170-1,725 kPa (170-250 psig)
Required Discharge Pump Head	176 m

2.2 Design Standards and References

All process equipment design shall conform to all applicable local, provincial, and/or federal codes, standards, regulations, and references in effect at time of quote, including:

- Alberta Environment and Parks Regulations.

The design will comply with the requirements of the following organizations, at a minimum:

- CSA, Canadian Standards Association.
- NEC, National Electric Code.
- NEMA, Standards of National Electrical Manufacturers Association.
- ANSI, American National Standards Institute.
- ASTM, American Society for Testing and Materials.
- AISI, American Iron and Steel Institute.
- AGMA, American Gear Manufacturer's Association.
- AISC, American Institute of Steel Construction.
- AWS, American Welding Society.
- ASME, American Society of Mechanical Engineers.
- AWWA – Applicable Standards.
- CSA, Canadian Standards Association.
- CEC, Canadian Electrical Code.
- IEEE, Institute of Electrical and Electronic Engineers.
- EEMAC, Electrical and Electronic Equipment Manufacturers Association of Canada.

3.0 Site Civil

3.1 Booster Station Site

The existing booster station is located inside the terminal bulb and the south end of Juniper Road. A 200 mm diameter asbestos cement water main conveys potable water from the Greentree Reservoir, follows Juniper Road and enters the underground booster station from the northeast. A 200 mm diameter cast iron water main that leaves the southwest end of the underground booster station conveys potable water to the Penitentiary Institution and Churchill Co-op Reservoirs. Gate valves are located adjacent to the underground booster station on the inlet and outlet water main. A site plan of the booster station site can be found on **Figure C1.1**.

The existing booster station is a buried design with soil covering most of the roof except for the access hatch. The thickness of the soil layer on top of the underground booster station is approximately 0.50 to 1.00 m. Two possible booster pump station configurations are being considered and are described as follows:

- Option No. 1: An above ground booster station constructed directly above the existing underground booster station.
- Option No. 2: An above ground booster station constructed adjacent to the existing underground booster station.

Additional details on the two booster station options are described in the following sections.

3.2 Option No. 1

Option No. 1 entails constructing the replacement above ground booster station directly over the existing underground booster station. The soil above and around the existing booster station would be removed and the new booster station would be constructed on top of the existing booster station. The replacement booster station would be structurally supported by the existing booster station. The replacement booster station would be constructed at the existing grade level (699.50 m). The replacement booster station would be surrounded by a fence and gate to restrict access.

No civil piping works or modifications would be required for this option as all tie-ins and interconnecting piping would be installed between the above ground and underground booster station. To facilitate the installation of Option No. 1, the two secondary power polls inside the bulb would need to be removed. Electrical servicing would be brought directly to the new pump station building rather than utilizing the power poll inside the bulb. Bollards would need to be installed directly adjacent to the replacement booster station to ensure that vehicular traffic from the nearby Juniper Road terminal bulb does not drive into the facility. Grading for the booster station would slope away from the facility to the adjacent Juniper Road to ensure positive drainage. The ground around the pump station will be filled with granular material, packed and sloped to 2 meters from the facility. A site plan of the Option No. 1 configuration can be found on **Figure C1.2**.

3.3 Option No. 2

Option No. 2 entails constructing the replacement above ground booster station adjacent to the northwest side of the existing underground booster station. The replacement booster station will overlap

the underground booster station by approximately 1 meter to cover the hatch and facilitate piping tie-ins. The soil above the existing booster station will remain in place except for the overlapping portion. The replacement booster station would have its own foundation independent of the existing booster station. The replacement booster station would be constructed at the existing grade level (699.50 m). The replacement booster station would be surrounded by a fence and gate to restrict access.

No civil piping works or modifications would be required for this option as all tie-ins and interconnecting piping would be installed between the above ground and underground booster station. Bollards would need to be installed directly adjacent to the replacement booster station to ensure that vehicular traffic from the nearby Juniper Road terminal bulb does not drive into the facility. However, locating the replacement booster station to the northwest side of the existing booster station will block the Juniper Road bulb. Juniper Road will no longer have a bulb for vehicular traffic to turn around and will become a dead end.

Grading for the booster station would slope away from the facility to the surrounding area to ensure positive drainage. The ground around the pump station will be filled with granular material, packed and sloped to 2 meters from the facility. A site plan of the Option No. 2 configuration can be found on **Figure C1.3**.

4.0 Process

4.1 Booster Pumps

The replacement Penitentiary Booster Station will require a new set of potable water booster pumps that will replace the existing horizontal centrifugal pumps located in the existing underground booster station. A review of vertical, multi-stage centrifugal booster pumps manufactured by Grundfos supplied by Chamco Industries has been completed and will be discussed in further detail. The pumps are to be arranged in duty/standby configuration with two duty pumps and one standby pump. The booster pumps shall operate as constant speed pumps with an on/off configuration. A description of a typical operation mode and control philosophy is provided in Section 4.3.

The booster pumps will draw potable water from the Greentree Reservoir via the 200 mm diameter AC Greentree feedermain and boost water pressure for delivery to the Drumheller Penitentiary institution and the Churchill Water Co-op. The inlet pressure from the 200 mm diameter AC Greentree feedermain have a pressure range of 240-310 kPa (35-45 psig). The required discharge pressure from the booster pumps shall be in the range of 1,170-1,725 kPa (170-250 psig). A summary of the pump selection is provided in **Table 4.1.1**.

Table 4.1.1: Summary of Pump Selection

Parameter	Pump Criteria
Pump Manufacturer	Grundfos
Pump Type	Vertical, Multi-stage Centrifugal
Pump Tags	BP-101, BP-102, BP-103
Pump Model	CR 32-9-2
Pump Seal	Silicon Carbide Rotating Seal Ring
Capacity (each)	650 l/min @ 183 m
Rated Speed	3,560 rpm
Rated Power per Pump	30 kW (40 hp)
Power	3ph, 480V, 60 Hz
Suction Port Size	64 mm
Discharge Port Size	64 mm

Additional technical information on the Grundfos vertical, multi-stage centrifugal pumps can be found in **Appendix A**.

4.2 Process Piping Configurations

All process piping and related equipment for the replacement penitentiary booster station will be situated in an above ground facility. Two possible booster pump station configurations are being considered and are described as follows:

- Option No. 1: An above ground booster station constructed directly above the existing underground booster station.
- Option No. 2: An above ground booster station constructed adjacent to the existing underground booster station.

The booster station facility header piping shall be sized for 400 mm diameter to accommodate future growth and development at the Drumheller Penitentiary and Churchill Water Co-op. The 400 mm diameter pipe sizing will allow for the future connection to a replacement transmission main from the Greentree Reservoir. 400 mm diameter stubs shall be provided on the booster station inlet and outlet piping to facilitate the connection to the future replacement transmission main.

The booster station facility shall have a pump header complete with three vertical, multi-stage centrifugal pumps, bypass piping, pressure relief piping and flow metering. Each vertical, multi-stage centrifugal pump shall have inlet and outlet fittings sized for 64 mm (2-1/2"). Reducers will be required to connect the 400 mm diameter header piping to the pump inlet and outlets. To accommodate future expansion, higher capacity pumps can be easily retrofitted into the pump station by swapping out the pumps and inlet/outlet reducers. **Figures P1.1, P2.1 and P2.2** are Process and Instrumentation Diagrams (P&ID) illustrating the piping configuration of the existing underground booster station, piping tie-in locations and the proposed replacement booster station.

All process piping within the replacement booster pump station and tie-in piping within the existing underground vault shall be Class 300 Schedule 80 Stainless Steel pipe. **Figures P3.0, 3.1 and P3.2** illustrate the general piping arrangements for booster station Options No. 1 and No. 2, as well as the tie-in locations in the existing underground booster station. Additional discussions regarding the Civil, Structural/Architectural aspects of the two proposed booster station configurations can be found in Sections 3.0 and 5.0, respectively.

4.3 Control Philosophy

The following provides a simplified outline of the control philosophy for the replacement booster station:

- The booster station will be typically operated in Automatic mode which is controlled by the PLC. However, the ability to run equipment manually will be provided. Each pump will run via VFD to allow for the flow output to be modulated. All pumps will be run without VFDs at a constant speed.
 - Pumps can be operated either in Manual or Automatic mode via hard local Hand-Off-Auto (HOA) switches or soft HOA switches on the local or remote HMIs.
- Booster pump speed will be modulated to maintain an operator adjustable setpoint on the discharge header. The discharge header pressure will translate to the required pressures at the delivery points for the Penitentiary Institution Reservoir and the Churchill Co-op Reservoir.
- Typically, during periods of low demand, only one pump will be running at minimum speed to maintain the pressure setpoint. Excess flow will be returned to the pump suction header.
- The booster station will monitor inlet pressure. If inlet pressure falls, pump speed will be ramped down to sustain the upstream distribution and protect the pumps. If inlet pressure continues to fall the pumps will shut down.
- Penitentiary Institution Reservoir or the Churchill Co-op Reservoir fill is based on their level start/stop fill set points as measured by a level transmitter with backup level switches in the event of a transmitter failure.

A list of alarms provides the operator a constant overview of the system as shown in **Table 4.3.1**. A detailed list of alarms will be included with the detailed control philosophy.

Table 4.3.1: Simplified Alarm Layout

Alarm Condition	Equipment Source
Pumps Failure	VFD/PLC
Inlet Pressure Low/High	Inlet Pressure Transmitter
Discharge Pressure Low/High Alarm	Discharge Pressure Transmitter
Flow High Alarm	Flowmeter
Utility Power	Power Monitor
UPS Failure	UPS
Intrusion	Contacts on Doorway
Fire	Smoke Detector
Low/High Building Temperature	Temperature Transmitter
Flood (located in underground vault)	Level Switch
Pressure, Flow Transmitter Failure	Various Transmitters

4.4 Constructability and Construction Sequence

The replacement booster station will be constructed either over top or adjacent to existing booster station. The intent will be to fully construct and commission the replacement booster station before placing it into operation. When the replacement booster station is ready to be placed into service a short shut down will be required to complete the piping tie-ins. When the tie-ins have been completed, the existing underground booster station will be decommissioned and the replacement booster station will be placed into service. Once the existing underground booster station has been decommissioned, all pump station internals (process piping, pumps, electrical and controls equipment) will be dismantled and removed. The existing sump pump shall remain in service.

5.0 Structural

5.1 Existing Booster Station

The existing booster station is a cast-in-place concrete vault with internal dimensions of 6.25 m (20' 6") long by 3.2 m (10' 6") wide and 2.44 m (8') tall. The top of the vault is covered by approximately 0.9 m (3') of soil. The base slab foundation of the existing booster station appears to be bearing on sandstone. From historic drawing, the walls and base slab of the vault are 300 mm (12") thick and doubly reinforced. The top slab is 200 mm (8") thick designed as a one-way slab with only a single layer of reinforcement. Based on the information on the historic drawings, the existing booster pump station structure and foundation can support the loads of a new pump station building constructed over top of it.

5.2 Option 1 Booster Station Foundation

Option 1 locates the new booster pump building overtop the existing vault. The existing vault structure will be utilized as the foundation for the new building with concrete grade beams extending out to support the buildings floor slab (see **Figures S1.1, S2.1, S2.2**). The soil on the roof slab of the existing vault will be excavated and removed from site.

5.3 Option 2 Booster Station Foundation

Option 2 locates the new booster pump building adjacent to the existing vault with a portion of it overlapping. The new building will primarily be supported on spread footing. Where the building overlaps the vault a grade beam will be used support the floor slab (see **Figures S1.2, S2.3, S2.4**). The depth and width of the spread footings will be based on the recommendations from the geotechnical report. With the partial overlapping of the vault, a mix of foundations is required to be used which could result in deferential settlement.

5.4 Booster Station Building

The same building is proposed for both Option 1 and Option 2. The proposed building is to be of traditional wood framing with pre-engineered wood trusses. The building will be designed to meet the National Building Code 2019 Alberta Edition requirements and the envelope will comply with the National Energy Code 2017 using the simple trade off method.

5.5 Access to Underground Vault

Currently, a hatch is used to gain access to the underground vault. Once the replacement booster station is constructed the hatch access to the underground vault will be replaced with a grated cover to allow for visual inspection of the underground vault.

6.0 Geotechnical

No geotechnical information is available for the existing pump station site. Option No. 1 plans on utilizing the existing underground booster station as a structural support. A structural evaluation of the existing underground booster station determined that this facility is suitable to be used as foundation support for the replacement booster station. Refer to Section 5.0 for additional details. With this being the case, no geotechnical investigation would be required.

However, should Option No. 2, locating the replacement booster station adjacent to the existing booster station, be preferred by the Town, then a geotechnical investigation is recommended to facilitate the foundation design. Determination on whether a geotechnical investigation is required is dependent on which replacement booster station option the Town wishes to proceed with. Should a geotechnical investigation be required, an additional two to four weeks will need to be allotted in the project schedule.

7.0 Building Mechanical

7.1 HVAC

The replacement booster station will be heated with electric heaters. Additional ventilation will be designed to provide air changes for temperature and humidity control. Provision for air-conditioning has not been allowed for in the design. The ventilation system will be connected to the PLC. In the event of a fire, the PLC will automatically stop ventilation fans and close all dampers. Sufficient ventilation shall be provided to ensure reasonable temperatures inside the booster station can be maintained during the summer.

The heater in the existing underground pump station will remain in service to ensure the sump does not freeze and maintains sump pump operation.

7.2 Plumbing

Floor drains will be provided in the replacement booster station and will be collected to a single header and directed to the sump located in the existing underground booster station. An existing sump pump is situated in the sump of the underground booster station. The existing booster station sump pump is operated via a level control bulb located in the sump. Currently, the sump discharge piping is routed to ground level where it discharges near Juniper Road. The construction of the replacement booster station will require the rerouting of the sump discharge piping to an alternate location. Rerouting of the sump pump discharge piping will be determined during detailed design.

8.0 ELECTRICAL AND CONTROLS

8.1 Electrical

The existing utility service is 480VAC 3 Phase. 480VAC will be utilized in the station upgrade. Going with 600VAC would allow cable sizes to be reduced slightly; however, all cable runs are relatively short so there would not be significant cost savings. Staying with the 480VAC would allow for a simple least cost transition from the existing equipment to the new equipment.

A manual transfer switch and receptacle will be provided to allow for convenient connection of a portable generator.

A 480V to 208/120V step down transformer will provide power for the station auxiliaries.

An Uninterruptible Power Supply (UPS) will provide power for controls and instrumentation. The UPS will be online rather than line interactive to ensure the best power quality for the control and communication equipment.

The 480VAC distribution equipment including pump VFDs and feeder breakers will be housed in a Motor Control Centre (MCC).

Lighting will be LED. Exterior light will be controlled with a photocell and a switch for overriding photocell.

8.2 Communication

The Booster Station will be incorporated into the Town Utility SCADA system. Communications will be via radio to the Low Lift Pump Station which is an access point in the Town's 900 MHz radio network. A suitable tower will be installed at the Booster Station to allow for robust communications. Initial analysis shows that an 18-meter (60 foot) will be required at the Booster Station to communicate with the 46 meter (150 foot) tower at the Low Lift Pump Station.

8.3 Controls and Instrumentation

Local control will be a Rockwell CompactLogix PLC. Local Human Machine Interface (HMI) will be a Rockwell PanelView.

The 24VDC power supply required for the controls will be redundant. 24VDC distribution will be through circuit breakers rather than fuses.

The PLC will have HART capability on the analog inputs. This will allow the flow totalizer to be read directly from the flowmeter to ensure no discrepancies between the flowmeter and HMIs.

The station would be added to the utility SCADA system for remote monitoring and control. The SCADA system is Rockwell FactoryTalk. The local HMI is also FactoryTalk. As the development software for the local and remote HMIs is identical, the development cost can be minimized.

Alarm callout will be through the WTP Alarm Reporting Unit (ARU). This will allow the Town to eliminate the monthly fees for a telephone landline. The only risk in using the WTP for alarm reporting is the

dependence on the radio communications. With robust radio communications, this risk is minimal. The WTP will alarm if communication is lost to the Booster Station. The existing Sensaphone ARU and telephone landline will be reused as means of backup alarm reporting.

8.4 Security

Security will be implemented in the local controls and SCADA system.

9.0 Permitting

Construction and occupancy permitting of the replacement Penitentiary Booster Station falls under the Town's building inspections department. The department governs construction within the Town to ensure that design and construction meets or exceeds the Alberta Building Code and other regulations. Typical buildings similar to the replacement booster station are anticipated to require the following permits:

- Building Permit
- Utilities:
 - Electrical
 - Plumbing
 - HVAC
 - Occupancy

The building permitting application process will begin with the submission of the design drawings in the detailed design stage. The plan review process will continue for the remainder of the design process. The building permit will be applied for after the tendering process and a contractor is selected.

Utility permits will be obtained by the Prime Contractor and/or their sub-contractors upon commencement of construction. The contractor will be responsible for calling for the necessary inspections in accordance with the Town inspection checklist. Inspections are typically called for:

- Site services prior to backfilling.
- Foundation.
- Framing, HVAC, electrical, plumbing and gas. Typically referred to as the "rough-in" inspection.
- Insulation and vapour barrier (if required).
- Final building, HVAC, plumbing, electrical, and fire.

The Prime Contractor will arrange for a final inspection in accordance with the occupancy checklist prior to occupation of the building. After all final inspections are completed, it is expected that occupancy will be granted.

10.0 Capital Cost Comparison

10.1 General

The replacement booster station alternatives were evaluated based on capital costs. Order-of-magnitude estimates for the construction of the alternative booster station options were prepared.

10.2 Capital Costs

A Class 3 cost estimate (-10% to + 20%) was developed utilizing the following cost assumptions:

- Includes cost for demolition and removal of existing equipment.
- Includes piping from replacement booster station to piping tie-in in existing underground vault.
- Includes 11% for contractor mobilization/demobilization/bonding/insurance/profit.
- Includes 20% contingency.
- Includes 15% engineering.

Table 11.2.1 presents the capital cost for each of the two options. A breakdown of each cost estimate is provided in **Appendix B**.

Table 11.2.1: Capital Cost

Parameter	Option No. 1	Option No. 2
Capital Cost	\$1,063,000	\$1,077,000

In terms of capital cost, the replacement Option No. 1 had the lowest capital cost at \$1,063,000. The most expensive capital cost was Option No. 2 at \$1,077,000, which is approximately \$14,000 more than the capital cost of Option No. 1. Option No. 1 also compares favorably to the Replacement Booster Station Engineering proposal conceptual cost estimate prepared by MPE in 2020 at \$1,024,500.

11.0 Conclusion and Recommendation

The Town is looking to construct a new Penitentiary Booster Station to replace the existing underground booster station. In 2012, MPE completed the *Penitentiary Booster Station Preliminary Design Study* which completed a water model analysis to determine the impacts of future water demands on the capacity of the existing Penitentiary Booster Station. The study also identified upgrade requirements for the booster station at a conceptual level. The study recommended the existing booster station be replaced with an above ground facility complete with three 30 kW booster pumps sized to accommodate Stage 1 Maximum Daily Demand of 1,828 m³/d.

MPE had also investigated alternate building configurations to ensure the best possible utilization of limited available space available on site. MPE investigated two building configurations to identify the most cost effective and efficient design. The two building options are as follows:

- **Option No. 1:** An above ground booster station constructed directly above the existing underground booster station.
- **Option No. 2:** An above ground booster station constructed adjacent to the existing underground booster station.

Both of the above building configurations can be considered viable options to replace the existing underground booster station. However, Option No. 1 makes the best use of the available space by placing the new booster station directly over the existing underground vault. Additionally, by placing the replacement booster station directly over the existing booster station the access road around the facility can still be maintained. Option No. 2 configuration has the replacement booster station located to the west and slightly over the existing underground vault. Unfortunately, this configuration blocks off the access road that currently goes around the existing booster station.

Both options incorporate access to the underground vault into their design. Inlet and outlet potable water piping will be routed directly from the replacement booster station to the existing underground vault where the tie-in will be made. This arrangement has the added benefit of eliminating the need to route the inlet and outlet piping connections outside the building requiring underground tie-ins and connections.

An additional advantage of the Option No. 1 configuration is that the existing underground vault will structurally support the replacement booster station. An evaluation of the existing underground booster station structural design determined that this is feasible. Using the existing underground vault as structural support has the added advantage of reducing excavation and incorporating existing infrastructure into the new facility.

Option No. 2 will require its own independent foundations to facilitate the construction of the replacement booster station. This will require a geotechnical investigation which will introduce an approximately two to four weeks delay in the detailed design process.

In terms of capital cost, the replacement Option No. 1 had the lowest capital cost at **\$1,063,000**. The most expensive capital cost was Option No. 2 at **\$1,077,000**, which is approximately \$14,000 more than the capital cost of Option No. 1.

Considering that Option No. 1 has the lowest capital cost, makes best use of the limited available space, uses the existing underground vault for a simplified structural design that would be easier to construct as well as shorter timeline to design and construct, MPE recommends that the Town replace the existing underground booster station with Option No. 1

APPENDIX A

Pump Technical Information

Count	Description
-------	-------------

1 CR 32-9-2 A-G-A-E-HQQE



Product No.: On request

Vertical, multistage centrifugal pump with inlet and outlet ports on same the level (inline). The pump head and base are in cast iron – all other wetted parts are in stainless steel. A cartridge shaft seal ensures high reliability, safe handling, and easy access and service. Power transmission is via a rigid split coupling. Pipe connection is via ANSI flanges.

The pump is fitted with a 3-phase, fan-cooled asynchronous motor.

Further product details

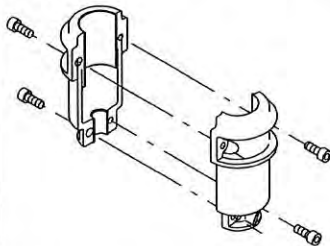
Steel, cast iron and aluminium components have an epoxy-based coating made in a cathodic electro-deposition (CED) process. CED is a high-quality dip-painting process where an electrical field around the products ensures deposition of paint particles as a thin, well-controlled layer on the surface. An integral part of the process is a pretreatment. The entire process consists of these elements:

- 1) Alkaline-based cleaning.
- 2) Zinc phosphating.
- 3) Cathodic electro-deposition.
- 4) Curing to a dry film thickness 18-22 my m.

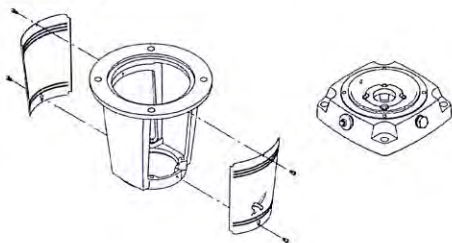
The colour code for the finished product is NCS 9000/RAL 9005.

Pump

A long split coupling connects the pump and motor shaft. It is enclosed in the motor stool by means of two coupling guards. The long coupling makes it possible to replace the shaft seal without removing the motor from the pump.



The motor stool connects the pump head and motor. The pump head has a combined 1/2" priming plug and vent screw.



Count	Description
-------	-------------

The pump is fitted with a balanced O-ring seal unit with a rigid torque-transmission system. This seal type is assembled in a cartridge unit which makes replacement safe and easy. Due to the balancing, this seal type is suitable for high-pressure applications. The cartridge construction also protects the pump shaft from possible wear from a dynamic O-ring between pump shaft and shaft seal.

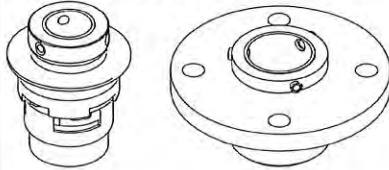
Primary seal:

- Rotating seal ring material: silicon carbide (SiC)
- Stationary seat material: silicon carbide (SiC)

This material pairing is used where higher corrosion resistance is required. The high hardness of this material pairing offers good resistance against abrasive particles.

Secondary seal material: EPDM (ethylene-propylene rubber)

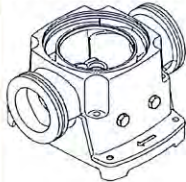
EPDM has excellent resistance to hot water. EPDM is not suitable for mineral oils.



The shaft seal is retained in the pump head by a cover and screws. It can be replaced without removing the motor.

The chambers and impellers are made of stainless-steel sheet. The chambers are provided with a PTFE neck ring offering improved sealing and high efficiency. The impellers have smooth surfaces, and the shape of the blades ensure a high efficiency.

The base is made of cast iron. Both the inlet and the outlet side of the base have two pressure gauge tappings. The pump is secured to the foundation by four bolts through the base plate. The flanges are fastened to the base by means of locking rings.



Motor

The motor is a totally enclosed, fan-cooled motor with principal dimensions to IEC and DIN standards. The motor is flange-mounted with free-hole flange (FF).

Motor-mounting designation in accordance with IEC 60034-7: IM B 5 (Code I) / IM 3001 (Code II).

Electrical tolerances comply with IEC 60034.

The motor efficiency is classified as premium efficiency in accordance with EISA2007.

The motor does not incorporate motor protection and must be connected to a motor-protective circuit breaker which can be manually reset. The motor-protective circuit breaker must be set according to the rated current of the motor (I1/1).

The motor can be connected to a variable speed drive for adjustment of pump performance to any duty point. Grundfos CUE offers a range of variable speed drives. Please find more information in Grundfos Product Center.

Technical data

Liquid:
 Pumped liquid: Water
 Liquid temperature range: -22 .. 248 °F
 Selected liquid temperature: 68 °F
 Density: 62.29 lb/ft³
 Kinematic viscosity: 1 cSt

Technical:
 Rated pump speed: 3525 rpm



Company name:

Created by:

Phone:

Date: 1/27/2021

Count	Description
	Actual calculated flow: 649.9 l/min
	Resulting head of the pump: 259.6 psi
	Actual impeller diameter: 4.66 in
	Pump orientation: Vertical
	Shaft seal arrangement: Single
	Code for shaft seal: HQQE
	Approvals on nameplate: CURUS,NSF61
	Curve tolerance: ISO9906:2012 3B
	Materials:
	Base: Cast iron
	EN 1563 EN-GJS-500-7
	ASTM A536 80-55-06
	Impeller: Stainless steel
	EN 1.4301
	AISI 304
	Bearing: SIC
	Support bearing: Graflon
	Bearing: SIC
	Installation:
	Maximum ambient temperature: 104 °F
	Maximum operating pressure: 435.11 psi
	Max pressure at stated temperature: 435 psi / 250 °F
	435 psi / -22 °F
	Type of connection: ANSI
	Size of suction port: 2 1/2 inch
	Size of outlet port: 2 1/2 inch
	Pressure rating for connection: PN 40
	Flange rating inlet: 300 lb
	Flange size for motor: 324TC
	Electrical data:
	Motor standard: NEMA
	Motor type: WEG
	IE Efficiency class: IE3 / NEMA Premium
	Rated power - P2: 40 HP
	Power (P2) required by pump: 40 HP
	Main frequency: 60 Hz
	Rated voltage: 3 x 575 V
	Service factor: 1.25
	Rated current: 101-92,6/46,3 A
	Starting current: 630-630 %
	Cos phi - power factor: 0.88
	Rated speed: 3560 rpm
	IE efficiency: IE3 92,4%
	Motor efficiency at full load: 92.4 %
	Motor efficiency at 3/4 load: 92.4 %
	Motor efficiency at 1/2 load: 91.7 %
	Number of poles: 2
	Enclosure class (IEC 34-5): IP55
	Insulation class (IEC 85): F
	Motor Number: 99883251
	Controls:
	Frequency converter: NONE
	Others:
	DOE Pump Energy Index CL: 0.87



Company name:

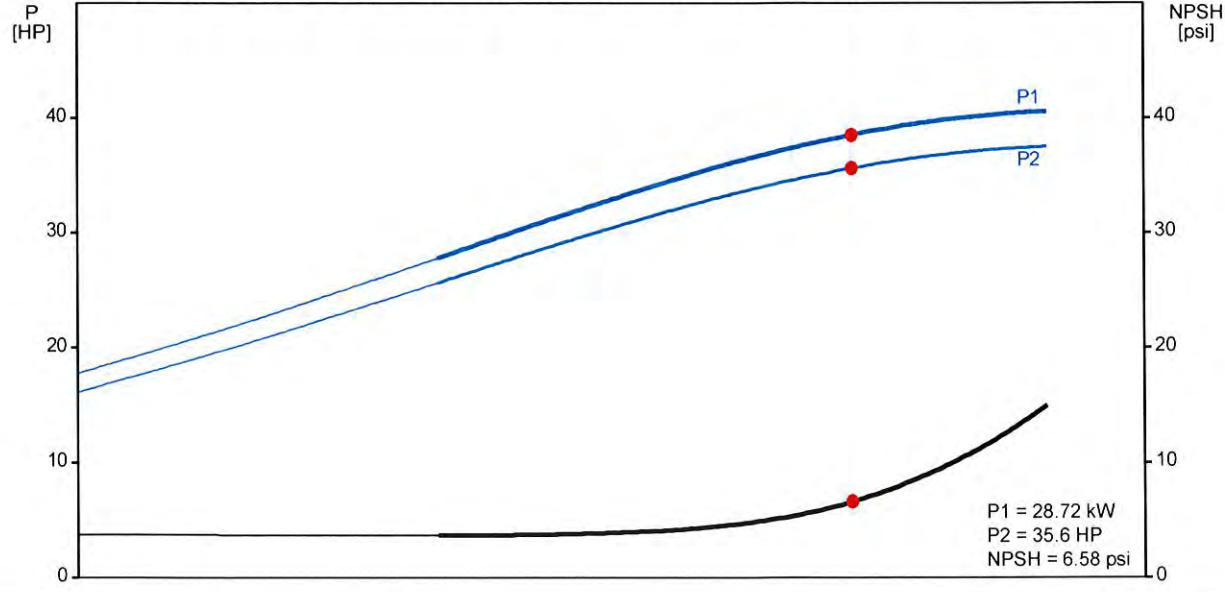
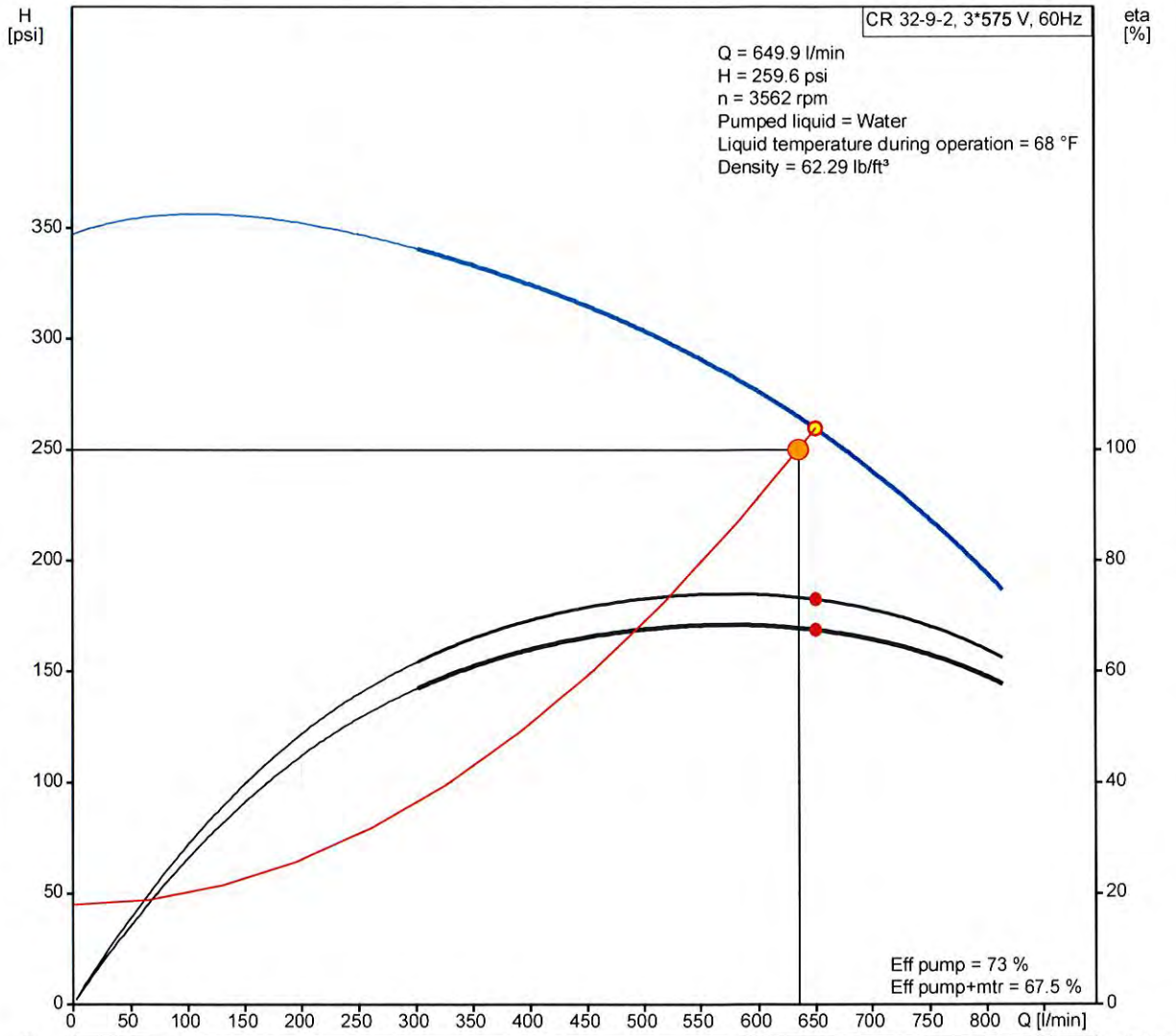
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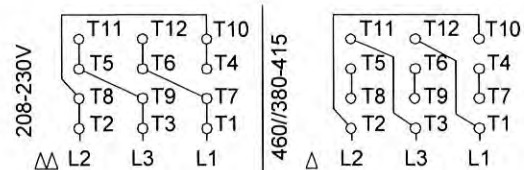
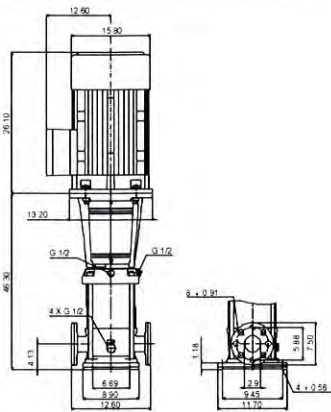
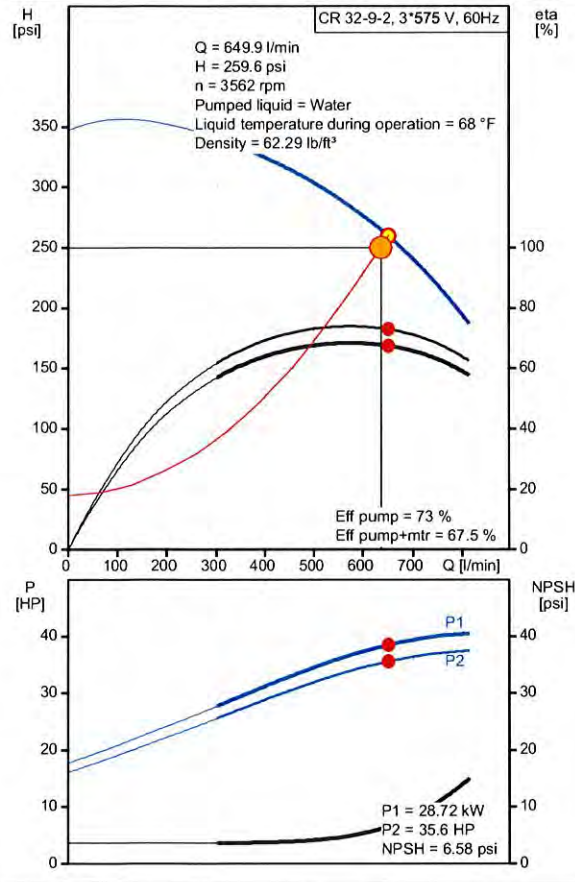
Date: 1/27/2021

Count	Description
	Net weight: 752 lb Gross weight: 770 lb Shipping volume: 39.9 ft ³

On request CR 32-9-2 A-G-A-E-HQQE 60 Hz



Description	Value
General information:	
Product name:	CR 32-9-2 A-G-A-E-HQQE
Product No.:	On request
EAN:	On request
Price:	
Technical:	
Rated pump speed:	3525 rpm
Actual calculated flow:	649.9 l/min
Resulting head of the pump:	259.6 psi
Maximum head:	344.7 psi
Actual impeller diameter:	4.66 in
Stages:	9
Impellers:	9
Number of reduced-diameter impellers:	2
Low NPSH:	
Low NPSH:	N
Pump orientation:	Vertical
Shaft seal arrangement:	Single
Code for shaft seal:	HQQE
Approvals on nameplate:	CURUS,NSF61
Curve tolerance:	ISO9906:2012 3B
Pump version:	A
Model:	B
Cooling:	IC 411
Materials:	
Base:	Cast iron
Base:	EN 1563 EN-GJS-500-7
Base:	ASTM A536 80-55-06
Impeller:	Stainless steel
Impeller:	EN 1.4301
Impeller:	AISI 304
Material code:	A
Code for rubber:	E
Bearing:	SIC
Support bearing:	Graflon
Bearing:	SIC
Installation:	
Maximum ambient temperature:	104 °F
Maximum operating pressure:	435.11 psi
Max pressure at stated temperature:	435 psi / 250 °F
Max pressure at stated temperature:	435 psi / -22 °F
Type of connection:	ANSI
Size of suction port:	2 1/2 inch
Size of outlet port:	2 1/2 inch
Pressure rating for connection:	PN 40
Flange rating inlet:	300 lb
Flange size for motor:	324TC
Connect code:	G </td
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	-22 .. 248 °F
Selected liquid temperature:	68 °F
Density:	62.29 lb/ft³
Kinematic viscosity:	1 cSt
Electrical data:	
Motor standard:	NEMA
Motor type:	WEG
IE Efficiency class:	IE3 / NEMA Premium





Company name:

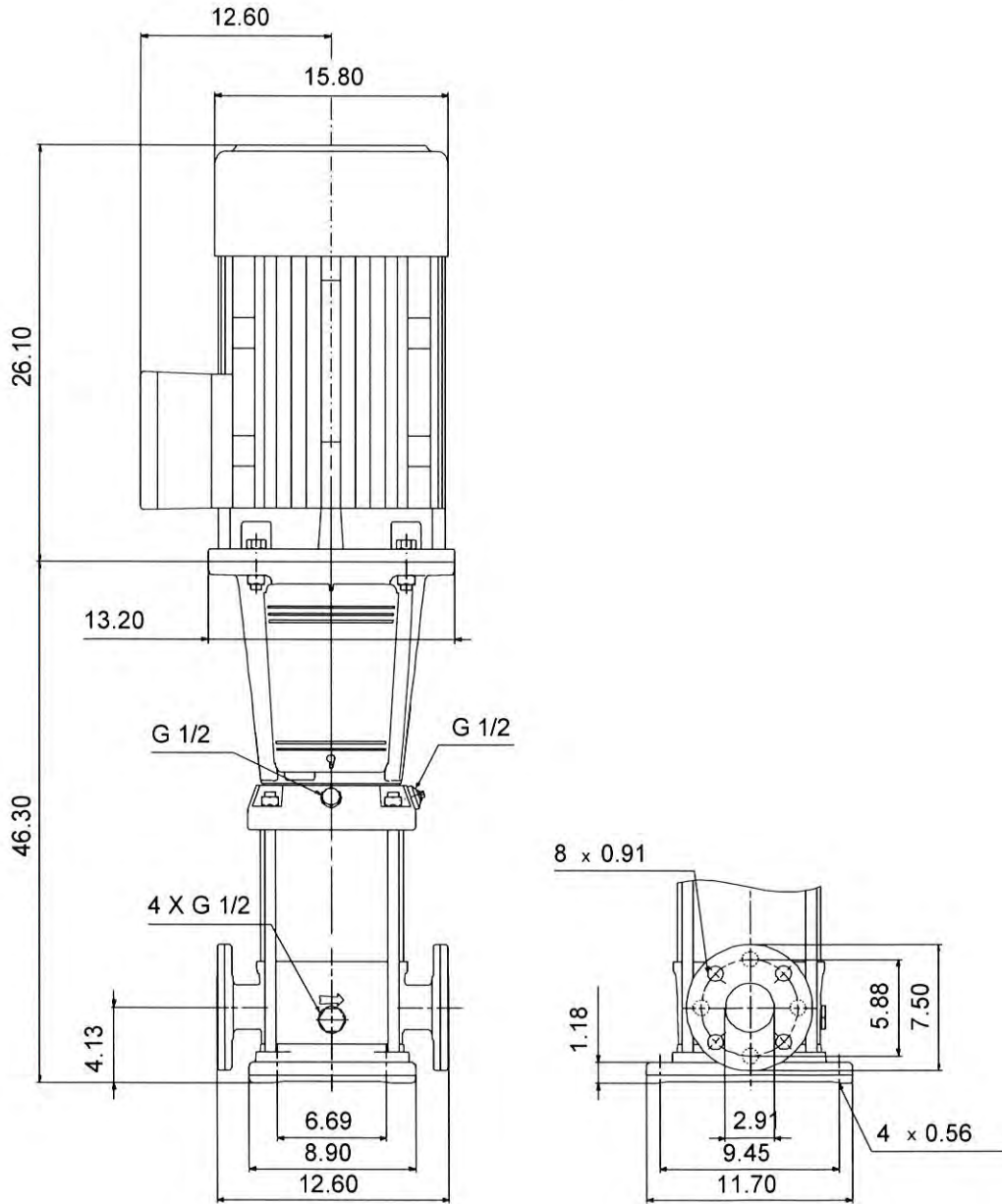
Created by:

Phone:

Date: 1/27/2021

Description	Value
Rated power - P2:	40 HP
Power (P2) required by pump:	40 HP
Main frequency:	60 Hz
Rated voltage:	3 x 575 V
Service factor:	1.25
Rated current:	101-92,6/46,3 A
Starting current:	630-630 %
Load current:	116/57.9 A
Cos phi - power factor:	0,88
Rated speed:	3560 rpm
IE efficiency:	IE3 92,4%
Motor efficiency at full load:	92.4 %
Motor efficiency at 3/4 load:	92.4 %
Motor efficiency at 1/2 load:	91.7 %
Number of poles:	2
Enclosure class (IEC 34-5):	IP55
Insulation class (IEC 85):	F
Motor protection:	NONE
Motor Number:	99883251
Controls:	
Frequency converter:	NONE
Others:	
DOE Pump Energy Index CL:	0.87
Net weight:	752 lb
Gross weight:	770 lb
Shipping volume:	39.9 ft ³

On request CR 32-9-2 A-G-A-E-HQQE 60 Hz



Note! All units are in [in] unless otherwise stated.
 Disclaimer: This simplified dimensional drawing does not show all details.

APPENDIX B


PRELIMINARY ENGINEERING DRAWINGS

Penitentiary Booster Station – Process

Penitentiary Booster Station – Structural

Penitentiary Booster Station – Site Plan

PUMPS	BLOWERS	VALVE ACTUATORS	RELIEF VALVES	FLIKERS	FLUX ELEMENTS	VEHICLES / TANKS	NOTES:
<p>VERTICAL TURBINE PUMP</p> <p>OPEN SHAFT</p> <p>CLOSED SHAFT</p> <p>CENTRIFUGAL MULTISTAGE PUMP</p> <p>RECIPROCATING PUMP</p> <p>VACUUM PUMP</p> <p>ROTARY PUMP</p> <p>PERISTALTIC PUMP</p> <p>METERING PUMP</p> <p>DUPLEX METERING PUMP</p> <p>AIR OPERATED DIAPHRAGM PUMP</p> <p>SCREW PUMP</p> <p>SUBMERSIBLE EFFLUENT PUMP</p> <p>SUMP PUMP</p> <p>SUBMERSIBLE TURBINE PUMP</p> <p>SUBMERSIBLE MULTISTAGE PUMP</p> <p>JET MIXER EXTRACTOR/EXTRACTOR</p> <p>DRUM PUMP</p> <p>COMPRESSORS</p> <p>CENTRIFUGAL COMPRESSOR</p> <p>ROTARY LOBE OR CLAW COMPRESSOR</p> <p>RECIPROCATING AIR COMPRESSOR</p> <p>SCREW AIR COMPRESSOR</p> <p>REFRIGERATED AIR DRYER</p> <p>DESICCANT DRYER</p>	<p>CENTRIFUGAL FAN OR BLOWER</p> <p>POSITIVE DISPLACEMENT BLOWER</p> <p>FAN</p> <p>VALVES</p> <p>GATE</p> <p>GLOBE</p> <p>BUTTERFLY</p> <p>BALL</p> <p>PLUG</p> <p>NEEDLE</p> <p>DIAPHRAGM</p> <p>DIAPHRAGM AND BLEED</p> <p>FLAP GATE</p> <p>SLIDE GATE</p> <p>SLUICE GATE</p> <p>FNCH</p> <p>WEDGE GATE</p> <p>ROV</p> <p>POST INDICATOR</p> <p>UNKNOWN</p> <p>FLOAT OPERATED</p> <p>SOLENOID</p> <p>SOLENOID 3-WAY</p> <p>SOLENOID 4-WAY</p> <p>NORMALLY OPEN</p> <p>NORMALLY CLOSED</p> <p>LOCK OPEN</p> <p>LOCK CLOSED</p> <p>CAR SEAL OPEN</p> <p>CAR SEAL CLOSED</p>	<p>MOTORIZED VALVE</p> <p>MOTORIZED VALVE (F.A.L. OPEN)</p> <p>MOTORIZED VALVE (F.A.L. CLOSED)</p> <p>MOTORIZED VALVE (F.A.L. LAST)</p> <p>HYDRAULIC CONTROL VALVE ACTUATORS</p> <p>DIAPHRAGM ACTUATED VALVE</p> <p>FLOW CONTROL VALVE</p> <p>DIAPHRAGM ACTUATED PRESSURE CONTROL VALVE (F.A.S. IN DIRECTION OF CONTROLLED PRESSURE)</p> <p>DIRECT ACTING PRESSURE CONTROL VALVE (F.A.S. IN DIRECTION OF CONTROLLED PRESSURE)</p> <p>DIAPHRAGM ACTUATED PRESSURE CONTROL VALVE (F.A.S. SOLENOID AND MICRO SWITCH)</p> <p>PNEUMATIC CONTROL VALVE ACTUATORS</p> <p>CYLINDER OPERATED CONTROL VALVE</p> <p>SINGLE ACTING ACTUATOR (AIR TO OPEN)</p> <p>DOUBLE ACTING ACTUATOR</p> <p>SOLENOID ON ACTUATOR</p> <p>POSITIONER AND CYLINDER (AIR TO CLOSE) SINGLE ACTING</p> <p>POSITIONER AND CYLINDER (AIR TO OPEN) SINGLE ACTING</p> <p>POSITIONER AND CYLINDER (AIR TO OPEN) DOUBLE ACTING</p> <p>ELECTRO-HYDRAULIC CONTROL VALVE</p> <p>THERMOSTATICALLY CONTROLLED VALVE</p>	<p>AIR VACUUM (ANTI-SIPHON)</p> <p>AIR RELEASE/VACUUM</p> <p>AIR RELEASE</p> <p>RUPTURE DISC</p> <p>DIRECT ACTING SAFETY RELIEF VALVE (AMBLE BODY)</p> <p>DIRECT ACTING SAFETY RELIEF VALVE (SOLENOID BODY)</p> <p>OPEN DRAIN TO SEWER OR FLOOR DRAIN</p> <p>MASHROOM VENT</p> <p>GOOSENECK VENT (PIPE)</p> <p>MF/UF/RO</p> <p>FOUR PORT HOUSING</p> <p>TWO PORT HOUSING</p> <p>END PORT HOUSING</p> <p>MEMBRANE MODULE</p> <p>HEATING</p> <p>HEAT EXCHANGER</p> <p>TANK HEATER</p> <p>IN-LINE HEATER</p> <p>PLATE AND FRAME HEAT EXCHANGER</p> <p>DESUPERHEATER</p> <p>RADIATOR</p> <p>MIXING DEVICES</p> <p>VERTICAL MIXER</p> <p>IN-LINE MIXER</p> <p>TANK MIXER</p> <p>FLOCCULATOR MIXER</p>	<p>STRAINER "Y" TYPE</p> <p>STRAINER BASKET TYPE</p> <p>STRAINER BASKET TYPE (SLOPE)</p> <p>FIXED SCREEN</p> <p>TRAVELING WATER SCREEN</p> <p>LINE FILTER</p> <p>PRE-FILTER</p> <p>PRE-FILTER C/W REGULATOR</p> <p>COMBINATION LINE FILTER C/W REGULATOR AND LUBRICATOR</p> <p>CENTRIFUGE</p> <p>LINE IDENTIFICATION</p> <p>PRIMARY FLOW LINE</p> <p>SECONDARY FLOW LINE</p> <p>FUTURE LINE</p> <p>EXISTING LINE</p> <p>CHANNEL</p> <p>CONNECTING LINES</p> <p>GROSS OVER LINES (BREAK ALL VERTICAL LINES)</p> <p>DIRECTION OF FLOW</p> <p>DIRECTION OF SLOPE</p> <p>IS BLOCK</p> <p>INSULATION COLD OR PERSONAL PROTECTION</p> <p>INSULATION TRACE - ELECTRIC</p> <p>INSULATION TRACE - STEAM OR GLYCOL</p> <p>LINE SPECIFICATION CHANGE</p> <p>SPECTACLE BLIND</p> <p>LINE CONNECTOR TO ANOTHER DRAWING</p> <p>LINE CONNECTOR FROM ANOTHER DRAWING</p>	<p>FLUME</p> <p>WEIR</p> <p>TURBINE OR PROPELLER TYPE PRIMARY ELEMENT</p> <p>ROTAMETER TYPE FLOW INDICATOR</p> <p>PILOT TUBE OR PILOT VENTURI TUBE</p> <p>ORIFICE PLATE TYPE FLOW INDICATOR</p> <p>RO - RESTRICTION ORIFICE</p> <p>FLOW SIGHT GLASS</p> <p>FLOW STRAIGHTENING VANES</p> <p>VENTURI TUBE</p> <p>POSITIVE DISPLACEMENT TYPE FLOW TOTALIZING INDICATOR</p> <p>VORTEX SENSOR</p> <p>MAGNETIC FLOW METER</p> <p>ULTRASONIC FLOW METER</p> <p>TURBINE FLOW METER</p> <p>BACK FLOW PREVENTER</p> <p>ROTATING EQUIPMENT</p> <p>COMBULATOR</p> <p>BARMATOR</p> <p>BELT CONVEYOR</p> <p>SCREW CONVEYOR</p> <p>NATURAL GAS ENGINE</p> <p>DIESEL ENGINE</p> <p>VARIABLE SPEED GEAR BOX (MECHANICAL)</p> <p>GEAR DRIVE</p> <p>SYMBOLS</p> <p>ELECTRIC MOTOR</p> <p>PNEUMATIC MOTOR</p> <p>SOLENOID</p> <p>UP CONVERTOR</p> <p>SPECIALTY ITEM</p>	<p>PRESSURE TANK</p> <p>HOPPER TANK</p> <p>DOME TANK</p> <p>OPEN TANK</p> <p>CLOSED TANK</p> <p>WASH DOWN BOWL</p> <p>MISCELLANEOUS</p> <p>FIRE EXTINGUISHER</p> <p>DIAPHRAGM SEAL/GRADE GUARD</p> <p>PULSATION DAMPENER</p> <p>SPRAY NOZZLE</p> <p>COARSE BUBBLE DIFFUSER</p> <p>FINE BUBBLE DIFFUSER</p> <p>LAUNDRY DRYER/COLLECTOR</p> <p>CALIBRATION COLUMN</p> <p>SACRIFICIAL ANODE</p> <p>ULTRAVIOLET REACTOR</p> <p>SLENDER MUFFLER</p> <p>IMPACTOR</p> <p>LEVEL SWITCH</p> <p>ULTRASONIC OR RADAR LEVEL INSTRUMENT</p> <p>REACTION BELL (CHEMICAL REACTION NOZZLE)</p> <p>HOSE CONNECTION BRIM</p> <p>SAFETY SHOWER</p> <p>CAMLOCK CONNECTION</p> <p>EYE WASH</p> <p>SAMPLE POINT</p> <p>DRAIN POINT</p> <p>MANUAL VENT/PURGE POINT</p> <p>PIG LAUNCHER</p> <p>PIG RECEIVER</p>	<p>1. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.</p> <p>2. ALL ITEMS SHOWN AS BOLD INDICATE WORK TO BE DONE AND ALL ITEMS SHOWN AS LIGHT INDICATE EXISTING CONDITIONS.</p> <p>THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 @) ARE BASED ON 11"x17" FORMAT DRAWINGS</p> <p>1 21-XX-XX FOR APPROVAL</p> <p>ISSUE YY-NN-00 REVISION</p> <p>MPE Engineering Ltd.</p> <p>TOWN OF DRUMHELLER</p> <p>PENITENTIARY BOOSTER STATION PROCESS</p> <p>EQUIPMENT LEGEND</p> <p>DESIGNED K.S. JOB 2450-033-01</p> <p>DRAWN W.F.S. SCALE NTS</p> <p>DATE JANUARY 2021 DRAWING PO.1</p>

PIPE CONNECTIONS			PIPE FITTINGS		LINE LABELLING		NOTES:																																																																																																																																																																																																																																																																																																																																																									
DESCRIPTION WELD NECK FLANGE CONNECTION SLIP-ON FLANGE CONNECTION VICIALLIC FLANGE CONNECTION UNION INSULATING FLANGE WELDED CONNECTION (RANDOM LENGTH PIPE) SCREWED CONNECTION (RANDOM LENGTH PIPE) BELL AND SPOUT, FRO TIGHT, MECHANICAL JOINT CONNECTION BLIND FLANGE COMPRESSION COUPLING FLANGED COUPLING VICIALLIC JOINT CONNECTION COUPLER (PVC)	DOUBLE LINE SINGLE LINE	DOUBLE LINE SINGLE LINE	DESCRIPTION CROSS CROSS BRANCH UP 45° ELBOW 45° ELBOW DOWN LATERAL 90° ELBOW 90° ELBOW UP 90° ELBOW DOWN 45° ELBOW (SHORT RADII) 90° ELBOW (SHORT RADII) BASE ELBOW SIDE OUTLET ELBOW UP SIDE OUTLET ELBOW DOWN TEE TEE BRANCH UP TEE BRANCH DOWN SIDE OUTLET TEE UP CAP CONCENTRIC REDUCER ECCENTRIC REDUCER EXPANSION JOINT FLEXIBLE CONNECTION	DOUBLE LINE SINGLE LINE	DOUBLE LINE SINGLE LINE	LINE IDENTIFICATION (YYYY) LINE CODE FLANGE PATING SCH OR THICKNESS BASIC MATERIAL SPECIAL NOTES	<p>1. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.</p> <p>2. ALL ITEMS SHOWN AS BOLD INDICATE WORK TO BE DONE AND ALL ITEMS SHOWN AS LIGHT INDICATE EXISTING CONDITIONS.</p>																																																																																																																																																																																																																																																																																																																																																									
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IDENTIFICATION LETTERS		SUCCEEDING LETTERS	
MEASURED OR INITIATING VARIABLE	WOOFER	READOUT OR PASSIVE FUNCTION	INPUT/OUTPUT FUNCTION
A ANALYSIS		ALARM	AUTO
B BURNER, COMBUSTION		USER'S CHOICE	USER'S CHOICE
C COMMUNICATION			CONTROL
D USER'S CHOICE	DIFFERENTIAL		CLOSE
E VOLTAGE		SENSOR (PRIMARY ELEMENT)	
F FLOW RATE	RATIO (FRACTION)		FAULT
G USER'S CHOICE		GLASS VIEWING DEVICE	
H HAND			HIGH
I CURRENT (ELECTRICAL)		INDICATE	
J POWER	SCAN		
K TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION
L LEVEL		LIGHT	LOW
M MOTOR	MOMENTARY		MIDDLE INTERMEDIATE
N SECURITY		USER'S CHOICE	USER'S CHOICE
O USER'S CHOICE		OFFICE, RESTRICTION	OPEN
P PRESSURE, VACUUM		POINT (TEST) CONNECTION	
Q QUANTITY OR EVENT	INTERGRATE, TOTALIZE		
R RADIATION		RECORD	RUN/REMOTE
S SPEED, FREQUENCY	SAFETY		SWITCH/STATUS
T TEMPERATURE		TRANSMIT	STOP
U MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION
V VIBRATION, MECHANICAL ANALYSIS		VALVE, DAMPER, LOUVER	
W WEIGHT, FORCE		WELL	
X UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED
Y EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT
Z POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT

EQUIPMENT TAG	
	LOCALLY MOUNTED INSTRUMENT
	PANEL MOUNTED INSTRUMENT
	BACK OF PANEL MOUNTED INSTRUMENT
PRESSURE CONTROL VALVE LEGEND (XX)	
	PRESSURE CONTROL VALVE
BU	BUSTANING
RD	REDUCING
RL	RELIEFING
BA	BARRE ANTOPRATING
VR	VACUUM RELAY
ANALYZING ELEMENT/ALARM LEGEND (YY)	
	PROCESS ANALYZER
CL	CHLORINE
TURB	TURBIDITY
PH	PH
DO	DISSOLVED OXYGEN
CON	CONDUCTIVITY
TEMP	TEMPERATURE
PC	PARTICLE COUNT
BUILDING ANALYZING ELEMENT/ALARM LEGEND	
	BUILDING ANALYZER
H	HIGH
L	LOW
F	FAULT
SMK	SMOKE
ME	MELT
CH	METHANE
CO	CARBON MONOXIDE
FUNCTION BLOCK	
	SINGLE SIGNAL
	MULTIPLE SIGNAL
	HAB
AN	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
HART	HART
DEV	DEVICE NET
C	CONTROL NET
M	MODBUS
P	PROFIBUS
E	ETHERNET
PLC	PLC CENTER

INTERLOCK	
	INTERLOCK NUMBER IF APPLICABLE
	INTERLOCK SYSTEM (PLC, DCS, MCC, VFD, ETC.)
	PACKAGE CONTROL INTERFACE
	CONTROL SYSTEM TYPE
	FIRE SYSTEM
	SECURITY MONITORING SYSTEM
POWER SUPPLY AND PURGE FLUIDS LEGEND	
AS	AIR SUPPLY
IS	INSTRUMENT AIR SUPPLY
PS	PLANT AIR SUPPLY
ES	ELECTRICAL SUPPLY
GS	GAS SUPPLY
HS	HYDRAULIC SUPPLY
NS	NITROGEN SUPPLY
SS	STEAM SUPPLY
WS	WATER SUPPLY
LINE TYPES	
	PNEUMATIC SIGNAL
	ELECTRICAL SIGNAL
	HYDRAULIC SIGNAL
	CAPILLARY TUBING FILLED SYSTEM
	ELECTRO MAGNETIC OR SONIC SIGNAL ISOLATED
	ELECTRO MAGNETIC OR SONIC SIGNAL NOT ISOLATED
	INTERNAL SYSTEM LINK (SOFTWARE OR DATA LINK)
	MECHANICAL LINK
FUNCTION SYMBOLS	
	PROPORTIONAL
	SQUARE ROOT EXTRACTOR
	HIGH SELECTOR
	LOW SELECTOR
	DIVIDE
	MULTIPLY
	SUMMATION
	DIFFERENCE
	BIAS
	EXPONENTIAL
	HIGH LIMITING
	INTEGRAL
	DERIVATIVE
	CURRENT TO PNEUMATIC CONVERTER
	PNEUMATIC TO CURRENT TRANSDUCER
	ANALOG TO DIGITAL
	VOLT TO PNEUMATIC TRANSDUCER
	VOLT TO CURRENT TRANSDUCER
	MILLIVOLT TO CURRENT TRANSDUCER
	CURRENT TO CURRENT TRANSDUCER
	NON-LINEAR OR UNSPECIFIED FUNCTION
	FUNCTION OF TIME
	REVERSE
	AUTO MANUAL
	AVERAGE

NOTES:
 1. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL ITEMS SHOWN AS BOLD INDICATE WORK TO BE DONE AND ALL ITEMS SHOWN AS LIGHT INDICATE EXISTING CONDITIONS.

THIS DRAWING MAY HAVE BEEN MODIFIED FROM ITS ORIGINAL SIZE. ALL SCALE NOTATIONS INDICATED (i.e. 1:1000 etc) ARE BASED ON 11"x17" FORMAT DRAWINGS

1	21.XX.XX	FOR APPROVAL
ISSUE	YY-MM-DD	REVISION

MPE Engineering Ltd.

TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION

PROCESS INSTRUMENTATION LEGEND

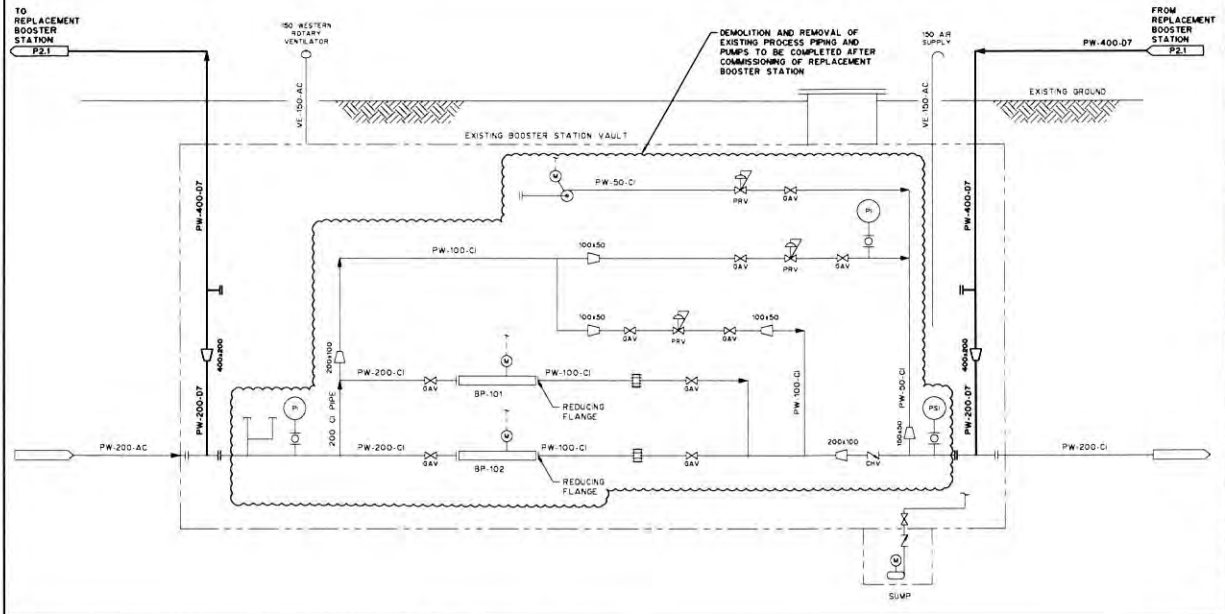
DESIGNED	K.S.	JOB	2450-035-01
DRAWN	Y.F.S.	SCALE	NTS
DATE	JANUARY 2021	DRAWING	PO.3

- NOTES:
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 3. PROCESS DETAILS TO BE CONFIRMED ON SITE.

ELC

CONTROL PANEL

FIELD



BOOSTER PUMP
BP-101
DRIVE POWER: 30 HP
VOLT: 460/380
RPM: 3450/3675

BOOSTER PUMP
BP-102

DESIGN CRITERIA

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1	2LXX.XX	FOR APPROVAL
ISSUE	YY-MM-DD	REVISION



TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
PROCESS
PROCESS & INSTRUMENTATION DIAGRAM
EXISTING BOOSTER STATION

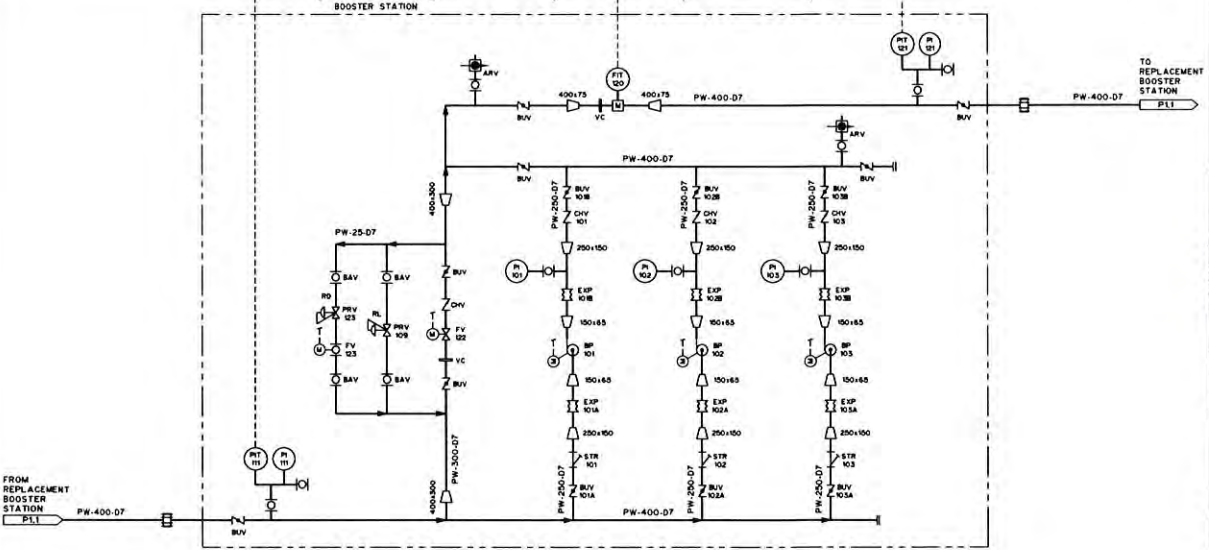
DESIGNED	K.S.	JOB	2450-033-01
DRAWN	V.F.S.	SCALE	NTS
DATE	JANUARY 2021	DRAWING	PI1



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CONTROL PANEL

FIELD



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ISSUE	YY-MM-DD	REVISION

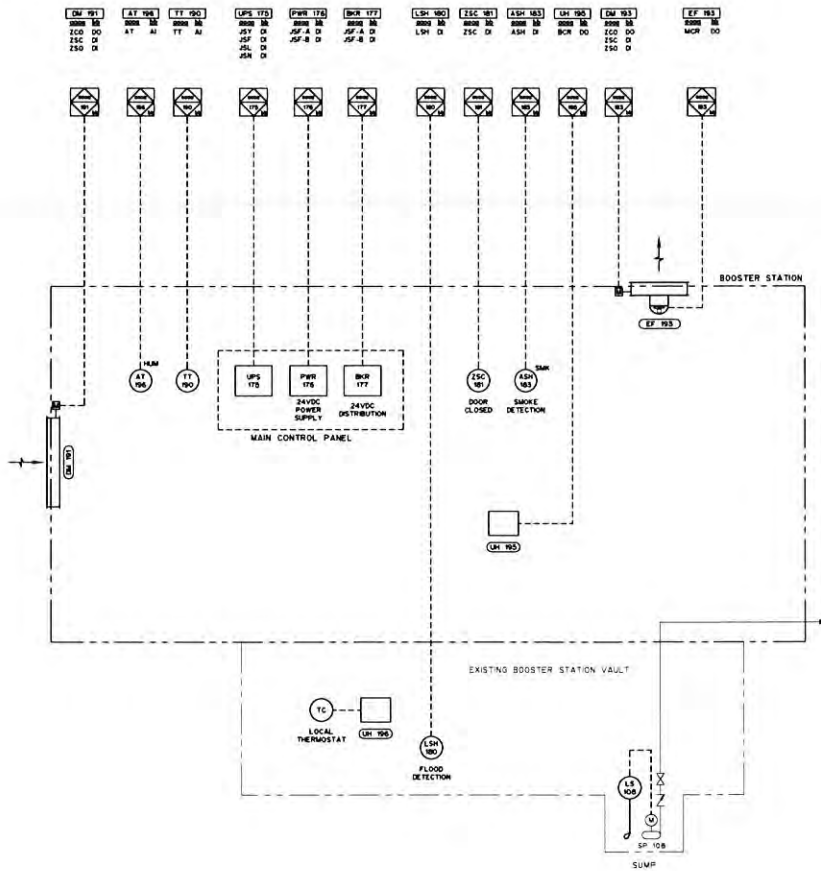


TOWN OF DRUMHELLER
**PENITENTIARY BOOSTER STATION
 PROCESS & INSTRUMENTATION DIAGRAM
 REPLACEMENT BOOSTER STATION**

BOOSTER PUMP DUTY/DUTY/STAND-BY
 BP 001 / BP 002 / BP 003
 TYPE: VERTICAL MULTISTAGE CENTRIFUGAL PUMP
 D = 600 L/D
 H = 95M
 40 HP, 3425 RPM, 480 V,
 3 PH, 60 HZ

DESIGN CRITERIA

DESIGNED	K.S.	JOB	2450-033-01
DRAWN	Y.Z.S.	SCALE	N75
DATE	JANUARY 2021	DRAWING	P2.1



- NOTES:
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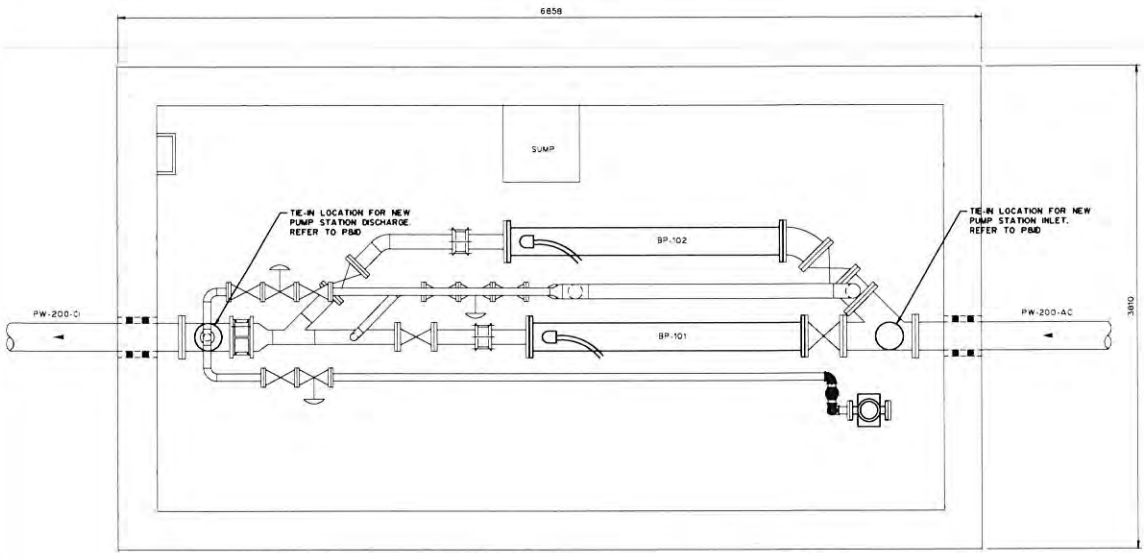
TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
PROCESS & INSTRUMENTATION DIAGRAM
REPLACEMENT BOOSTER STATION
AUXILIARIES

DESIGNED	G.B.P.	JOB	2450-033-01
DRAWN	Y.F.S.	SCALE	N.T.S.
DATE	JANUARY 2021	DRAWING	P.2.2



- NOTES:
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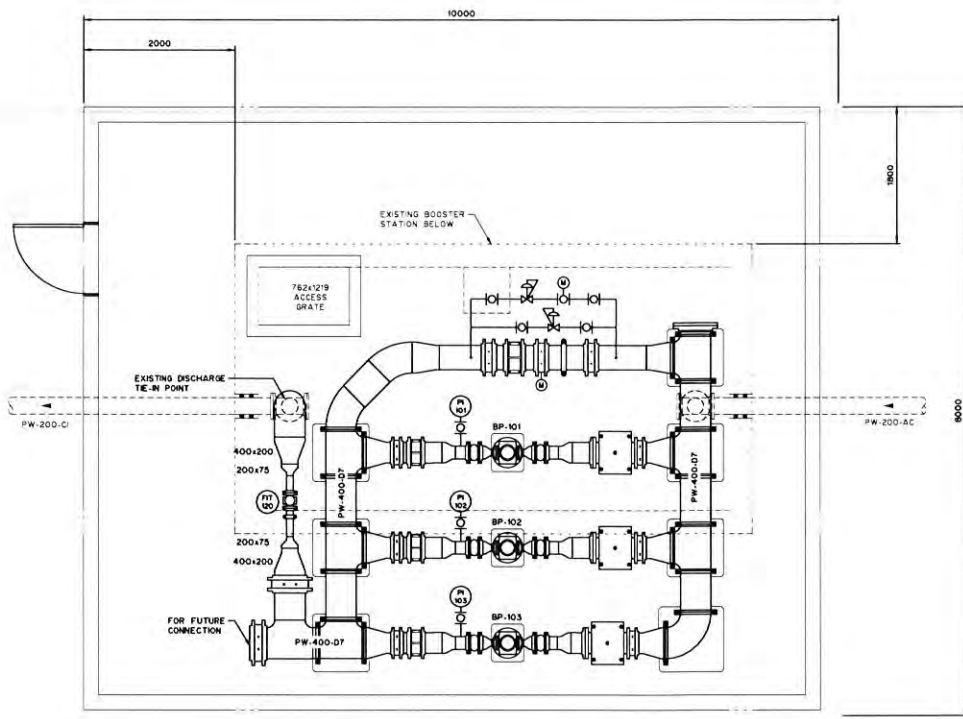
TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
PROCESS
EXISTING BOOSTER STATION
FLOOR PLAN

DESIGNED	R.S.	JOB	2450-033-01
DRAWN	Y.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	P3-D



- NOTES:
1. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
 2. ALL ITEMS SHOWN AS BOLD INDICATE WORK TO BE DONE AND ALL ITEMS SHOWN AS LIGHT INDICATE EXISTING CONDITIONS.



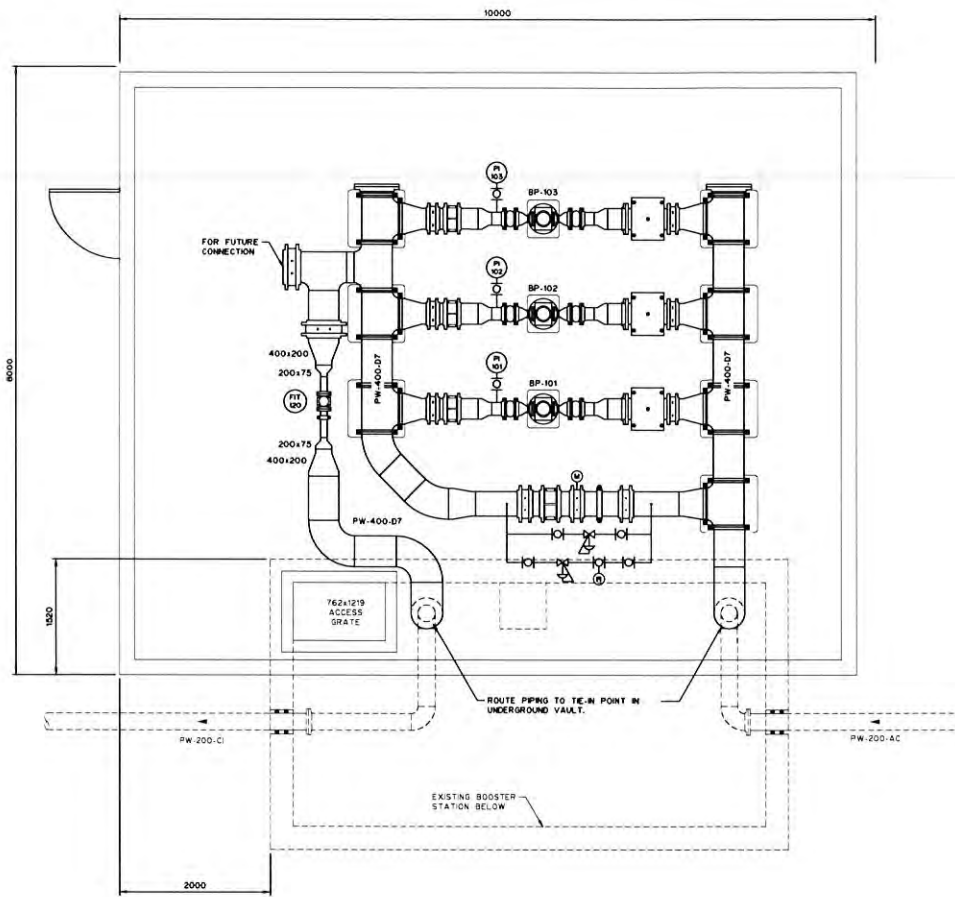
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TOWN OF DRUMHELLER
 PENITENTIARY BOOSTER STATION
 PROCESS
 NEW BOOSTER STATION
 FLOOR PLAN OPTION 1

DESIGNED	K.S.	JOB	2450-035-01
DRAWN	Y.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	P31



- NOTES:
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ISSUE	YY-MM-DD	REVISION

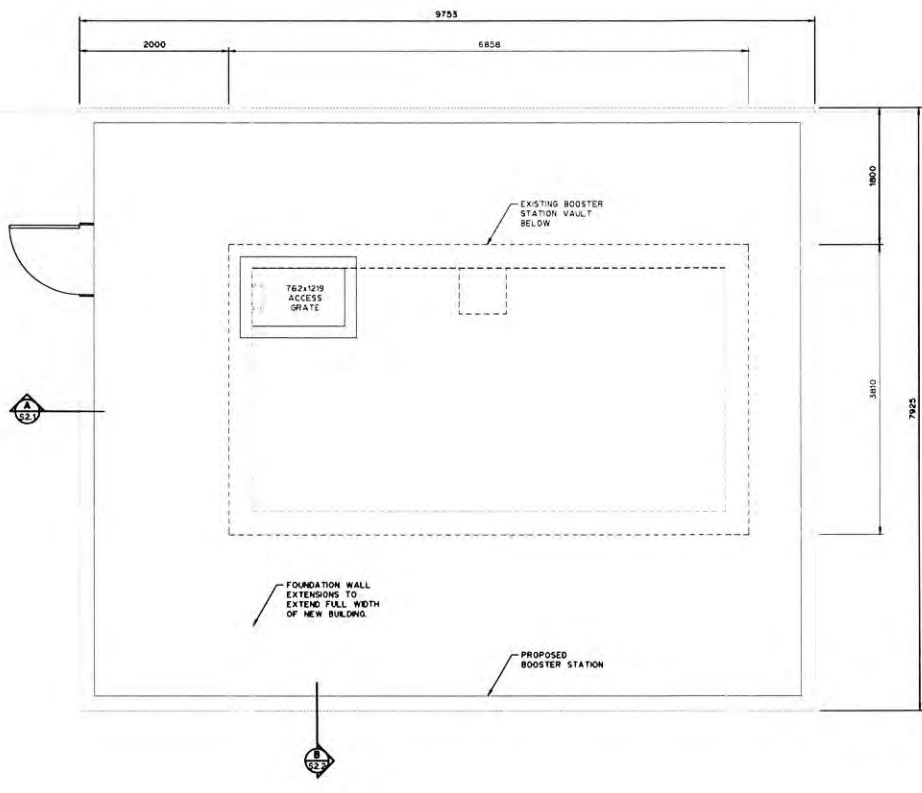


TOWN OF DRUMHELLER
**PENITENTIARY BOOSTER STATION
 PROCESS
 NEW BOOSTER STATION
 FLOOR PLAN OPTION 2**

DESIGNED	K.S.	JOB	2450-035-01
DRAWN	Y.Z.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	P3.2



NOTES:
 1. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
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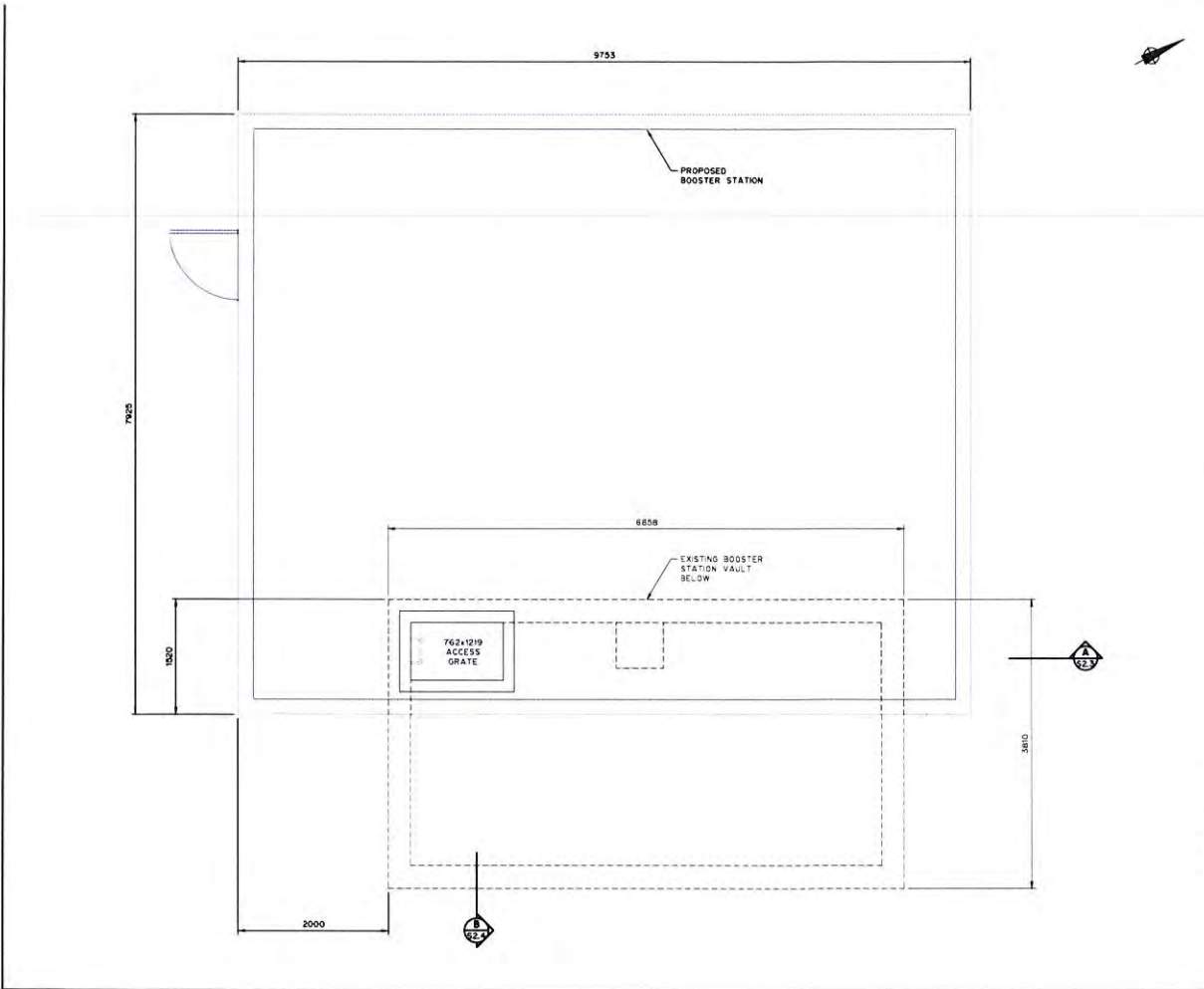
NO.	DATE	DESCRIPTION
1	21-XX-XX	FOR APPROVAL
ISSUE	YY-MM-00	REVISION



TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
STRUCTURAL
 NEW BOOSTER STATION
 FLOOR PLAN OPTION 1

DESIGNED	C.J.P.	JOB	2450-033-01
DRAWN	V.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	SL1



NOTES:
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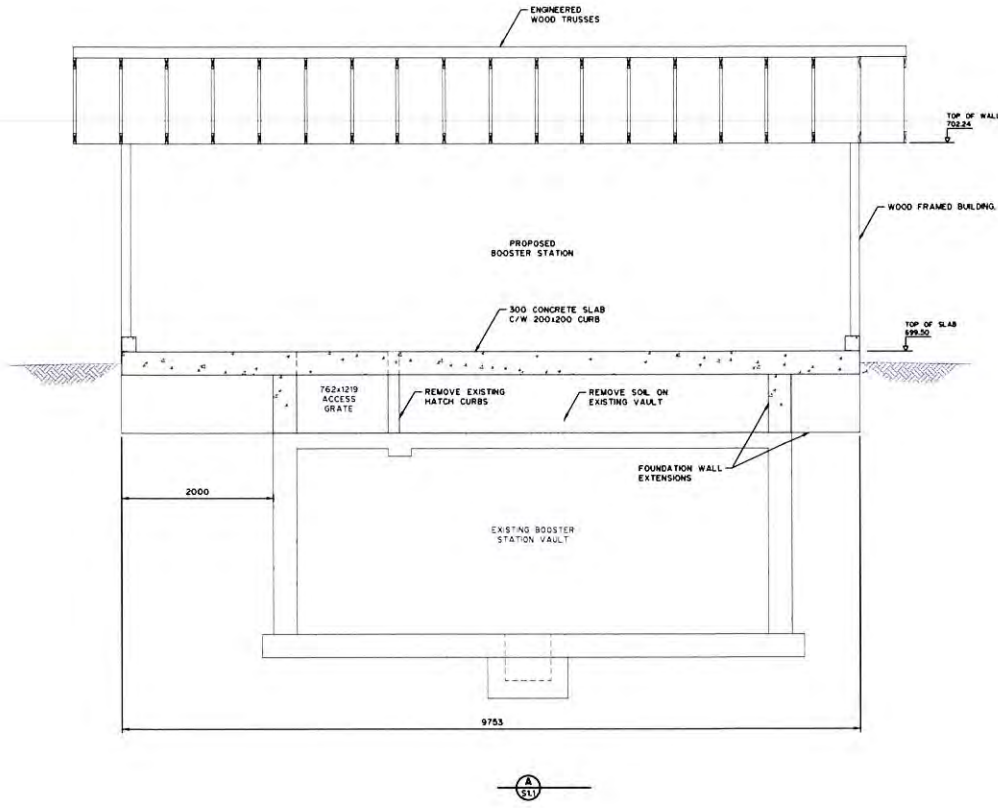
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TOWN OF DRUMHELLER
 PENITENTIARY BOOSTER STATION
 STRUCTURAL
 NEW BOOSTER STATION
 FLOOR PLAN OPTION 2

DESIGNED	C.J.F.	JOB	2450.033-01
DRAWN	Y.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	512



- NOTES:
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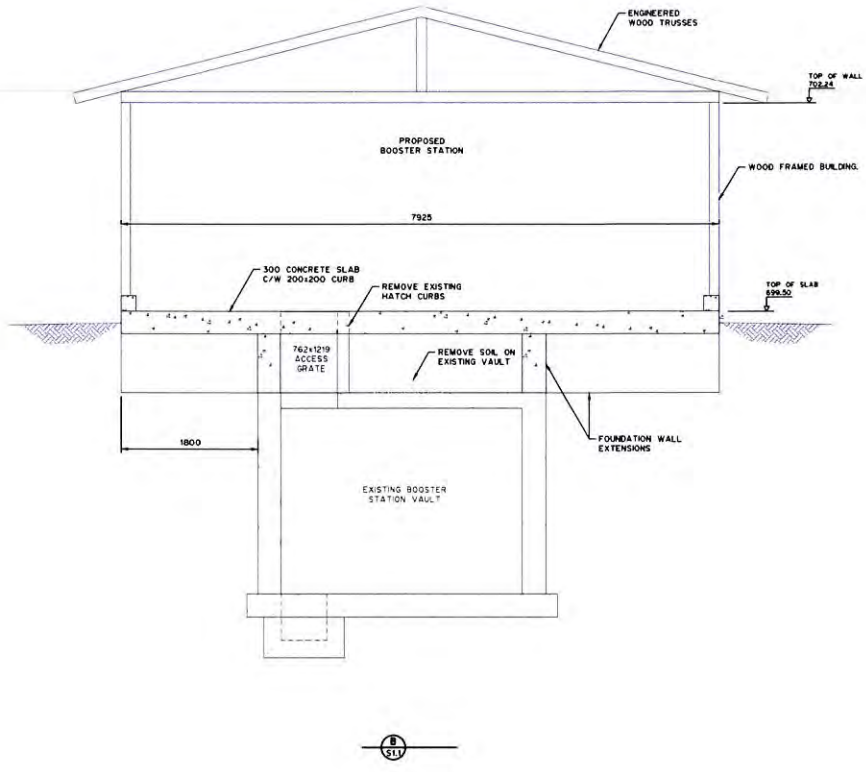


TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
 STRUCTURAL
 NEW BOOSTER STATION
 SECTION OPTION 1

DESIGNED	C.J.P.	JOB	2450-035-01
DRAWN	V.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	521

- NOTES:
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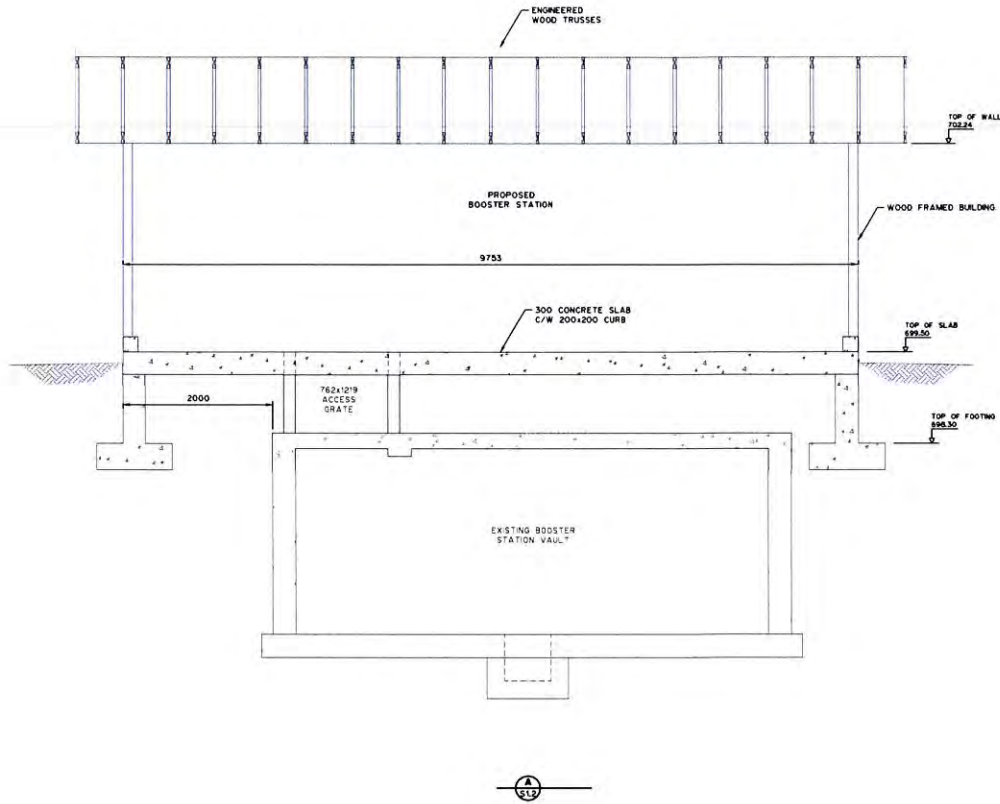
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TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
STRUCTURAL
NEW BOOSTER STATION
SECTION OPTION 1

DESIGNED	C.J.F.	JOB	2450-033-01
DRAWN	Y.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	52.2



NOTES:
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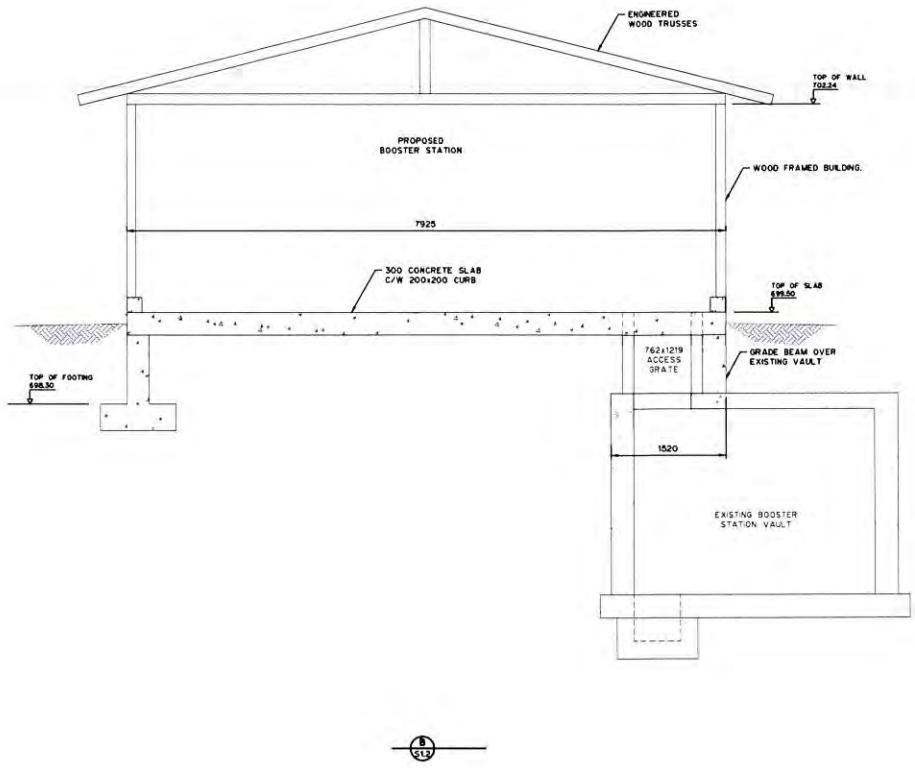
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TOWN OF DRUMHELLER
 PENITENTIARY BOOSTER STATION
 STRUCTURAL
 NEW BOOSTER STATION
 SECTION OPTION 2

DESIGNED	C.J.F.	JOB	2450-035-01
DRAWN	T.J.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	52.3



NOTES:
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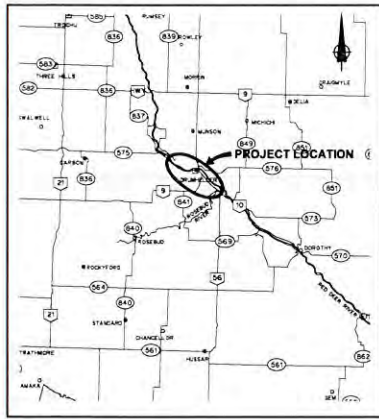
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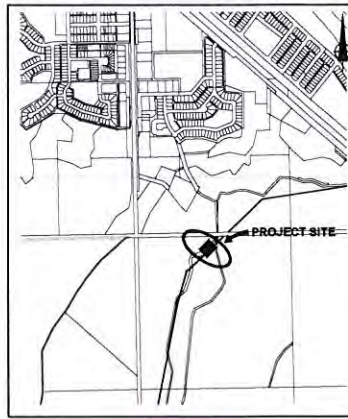
TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
 STRUCTURAL
 NEW BOOSTER STATION
 SECTION OPTION 2

DESIGNED	C.J.F.	JOB	2450-035-01
DRAWN	Y.F.S.	SCALE	1:50
DATE	JANUARY 2021	DRAWING	52.4



LOCATION PLAN



SITE PLAN

LIST OF DRAWINGS:

GENERAL:

- .. TITLE PAGE
- C10 OVERALL SITE PLAN
- C11 BOOSTER STATION SITE PLAN
- C12 BOOSTER STATION SITE PLAN OPTION 1
- C13 BOOSTER STATION SITE PLAN OPTION 2
- PROCESS:
- P0.1 EQUIPMENT LEGEND
- P0.2 PIPING LEGEND
- P0.3 INSTRUMENTATION LEGEND
- PL1 PROCESS & INSTRUMENTATION DIAGRAM EXISTING BOOSTER STATION
- P2.1 PROCESS & INSTRUMENTATION DIAGRAM REPLACEMENT BOOSTER STATION
- P2.2 PROCESS & INSTRUMENTATION DIAGRAM REPLACEMENT BOOSTER STATION AUXILIARIES
- P3.0 EXISTING BOOSTER STATION FLOOR PLAN
- P3.1 NEW BOOSTER STATION FLOOR PLAN OPTION 1
- P3.2 NEW BOOSTER STATION FLOOR PLAN OPTION 2

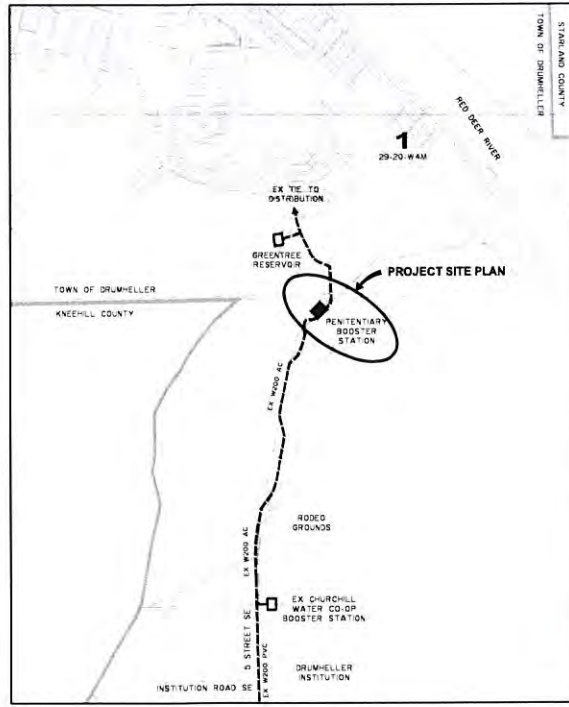


TOWN OF DRUMHELLER
PEN BOOSTER STATION
FOR APPROVAL
2450-033-01





LOCATION PLAN



SITE PLAN

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1 21.XX.XX FOR APPROVAL
 ISSUE YY-MM-DD REVISION



TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
 CIVIL
 OVERALL SITE PLAN

DESIGNED	K.S.	JOB	2450-035-01
DRAWN	T.F.S.	SCALE	NFS
DATE	JANUARY 2021	DRAWING	C/D



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TOWN OF DRUMHELLER

PENTENTIARY BOOSTER STATION
CIVIL
BOOSTER STATION SITE PLAN

DESIGNED	K.S.	JOB	2450-033-01
DRAWN	Y.F.S.	SCALE	1:1000
DATE	JANUARY 2021	DRAWING	CLT



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TOWN OF DRUMHELLER

PENITENTIARY BOOSTER STATION
CIVIL
BOOSTER STATION SITE PLAN
OPTION 1

DESIGNED	K.S.	JOB	2450-035-01
DRAWN	Y.F.S.	SCALE	1:500
DATE	JANUARY 2021	DRAWING	CL2



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TOWN OF DRUMHELLER

POTENTIARY BOOSTER STATION
CIVIL
BOOSTER STATION SITE PLAN
OPTION 2

DESIGNED	K.S.	JOB	2450-035-01
DRAWN	T.F.S.	SCALE	1:200
DATE	JANUARY 2021	DRAWING	CL3

APPENDIX C

DETAILED COST ESTIMATE

COST ESTIMATE

DESCRIPTION	QUANTITY	UNIT	SUPPLY	INSTALL	COST
General Items					
1 Mob/demob/bonding/insurance	1	LS	\$ 78,000.00		\$ 78,000.00
Demolition and Removal					
1 Clearing and Grubbing	125	m ²	\$ 50.00	\$ -	\$ 6,250.00
2 Demolition and removal of secondary power polls adjacent to existing booster station	1	LS	\$ 5,000.00	\$ -	\$ 5,000.00
3 Demolition and removal existing booster station vent pipes. Seal openings	1	LS	\$ 2,500.00	\$ -	\$ 2,500.00
4 Demolition and removal of sump pump discharge piping	1	LS	\$ 1,500.00	\$ -	\$ 1,500.00
5 Demolition and removal of existing booster station mechanical and electrical equipment	1	LS	\$ 20,000.00	\$ -	\$ 20,000.00
	SUBTOTAL				\$ 35,250.00
Site Civil					
1 Gravel pad surrounding booster station	150	m ²	\$ 37.00	\$ -	\$ 5,550.00
2 Fence	140	m	\$ 60.00		\$ 8,400.00
3 Vehicle Gate	1	ea	\$ 1,200.00		\$ 1,200.00
4 Bollards	15	ea	\$ 1,500.00	\$ -	\$ 22,500.00
5 Site Grading	1	LS	\$ 10,000.00		\$ 10,000.00
	SUBTOTAL				\$ 47,650.00
Structural					
1 Wood framed buidling	77	m ²	\$ 200.00	\$ -	\$ 15,460.00
2 200 mm thick Concrete Floor Slab	77	m ²	\$ 275.00	\$ -	\$ 21,175.00
3 Grade Beams	36	Lm	\$ 800.00	\$ -	\$ 28,800.00
4 Incorporate underground vault access hatch into replacement booster station	1	LS	\$ 3,000.00	\$ -	\$ 3,000.00
5 Excavation over vault	35	m ³	\$ 75.00	\$ -	\$ 2,625.00
6 Surplus Soil Disposal	24	m ³	\$ 55.00	\$ -	\$ 1,320.00
	SUBTOTAL				\$ 72,380.00
Process Mechanical					
1 Grundfos Vertical, Multistage Centrifugal Pump CR 32-9-2 A-G-A-E-HQQE	3	ea	\$ 17,000.00	\$ 8,500.00	\$ 76,500.00
2 Concrete Pump Pad	3	ea	\$ 1,250.00	\$ 600.00	\$ 5,550.00
3 400 mm dia stainless steel 304L piping	10	m	\$ 600.00	\$ -	\$ 6,000.00
4 200 mm dia stainless steel 304L piping	3	m	\$ 400.00	\$ -	\$ 1,200.00
5 Pipe Fittings	1	LS	\$ 30,000.00	\$ -	\$ 30,000.00
6 250 mm dia. butterfly valves	6	ea	\$ 850.00	\$ 400.00	\$ 7,500.00
7 300 mm dia. butterfly valves	4	ea	\$ 1,250.00	\$ 600.00	\$ 7,400.00
8 400 mm dia. butterfly valves	4	ea	\$ 1,400.00	\$ 700.00	\$ 8,400.00
9 250 mm dia. strainers	3	ea	\$ 800.00	\$ 400.00	\$ 3,600.00
10 250 mm dia. check valves	3	ea	\$ 1,100.00	\$ 600.00	\$ 5,100.00
11 50 mm dia. Air Release Valve	2	ea	\$ 750.00	\$ 400.00	\$ 2,300.00
12 50 mm dia. Pressure Release Valve	1	ea	\$ 1,500.00	\$ 800.00	\$ 2,300.00
13 Tie in process piping to existing inlet piping in underground vault (includes pipe penetrations)	1	LS	\$ 7,500.00	\$ -	\$ 7,500.00
14 Tie in process piping to existing outlet piping in underground vault (includes pipe penetrations)	1	LS	\$ 7,500.00	\$ -	\$ 7,500.00
15 Pipe Support Allowance	1	LS	\$ 12,500.00	\$ -	\$ 12,500.00
16 General Mechanical	1	LS	\$ 30,000.00	\$ -	\$ 30,000.00
	SUBTOTAL				\$ 213,350.00
Building Mechanical					
1 HVAC Mechanical	1	LS	\$ 15,000.00	\$ -	\$ 15,000.00
2 Floor drain piping to underground sump	1	LS	\$ 5,000.00	\$ 2,500.00	\$ 7,500.00
3 Reroute sump discharge piping to new pump station exterior	1	LS	\$ 3,500.00	\$ 1,800.00	\$ 5,300.00
	SUBTOTAL				\$ 27,800.00
Electrical					
1 Power Service and ground grid	1	LS	\$ 6,000.00	\$ 10,000.00	\$ 16,000.00
2 Power Distribution including VFDs	1	LS	\$ 90,000.00	\$ 30,000.00	\$ 120,000.00
3 Wiring/Lights/Receptacles	1	LS	\$ 12,000.00	\$ 15,000.00	\$ 27,000.00
	SUBTOTAL				\$ 163,000.00
Controls					
1 Control Panel	1	LS	\$ 23,000.00	\$ 14,000.00	\$ 37,000.00
2 Field Instruments	1	LS	\$ 20,000.00	\$ 20,000.00	\$ 40,000.00
3 Radio/Tower	1	LS	\$ 25,000.00	\$ 13,000.00	\$ 38,000.00
4 Controls Programming/Commissioning	1	LS	\$ 35,000.00		\$ 35,000.00
	SUBTOTAL				\$ 150,000.00
	GRAND SUBTOTAL				\$ 787,000.00
Contingency (+/-) 30%					\$ 236,100.00
Engineering (15%)					\$ 118,100.00
	GRAND TOTAL				\$ 1,141,700.00

REQUEST FOR DECISION

TITLE:	Recreation Membership Model – Continuous Monthly Pass
DATE:	December 6, 2021
PRESENTED BY:	Darren Goldthorpe, Manager of Recreation, Arts and Culture
ATTACHMENT:	Aquaplex and BCF Membership Model – proposal and comparison

SUMMARY:

Administration is proposing a new Membership Model for the Recreation Facilities (Aquaplex, Arena and Badlands Community Facility (BCF)). The new model, a Continuous Monthly Pass will bring the membership fees more in line of other facilities while allowing members to have more flexibility to start and stop their memberships. At the same time, it is our intent that this new model will keep members longer and entice more public to sign up to be members.

RECOMMENDATION:

That Council approves the implementation of the Continuous Monthly Pass model for the recreation memberships and adjust membership fees as presented effective January 1, 2022.

Alternative

1. That Council direct administration to keep the existing membership model with no changes to membership fees.
2. That Council direct administration to keep the existing membership model and provide direction on changes to membership fees.

DISCUSSION:

Based on discussions with recreation facility users and our own research, Administration has determined that the current Aquaplex and BCF membership rates are high, discouraging and in some cases, preventing people from utilizing the recreation services and these facilities. If people are not utilizing the facilities and services in which users pay, then the taxpayers of Drumheller are then making up the difference.

Currently we offer many levels of memberships – Daily, 10-pass (10 visits), monthly, 3-month, 6-month and annual which with many options creates uncertainty and often confusion when purchasing. Under the new, Continuous Monthly Pass model, the existing model would be discontinued. The new model would offer a Daily Admission rate, a 10 pass (10 visits) as well as a monthly rate that would be continuous until the member decides to end their membership.

This new model would see the daily admission rate remain as it is, but the monthly rate would be reduced to be more in line with other facilities and would be more enticing for the public to now become members. With a lower monthly fee, we would estimate that our membership and facility usage would increase. There would be an activation fee and this fee would be applicable every time a member chooses to stop their monthly pass and then restart it. If a member wishes to stop or suspend their monthly membership, they will have to provide 30-day written notice, regardless of reason. Currently refunds and membership cancellations are only permitted for medical or employment transfer reasons.

Those that already have an active membership under the existing structure would be permitted to use their existing pass for the duration of their membership and then would be required to switch over to the new model.

In the attached appendix, the current fees are compared to the other municipalities that were used as part of the early cost recovery comparison presented. It also contains the proposed fees using the new Continuous Monthly Pass model.

Recreation facilities and services has faced and adapted to many Covid related challenges over the last 22 months. Facilities were closed for periods of time and then when re-opened, had to follow provincial restrictions. It is going to take some time to rebuild recreation in our community. A new fresh membership model with fees more in line with other facilities will increase our membership base and increase facility usage. It will also give members the flexibility to stop and restart their membership to fit their needs.

FINANCIAL IMPACT:

The net financial impact of the change in membership model is difficult to determine at this point. Too many variables such as number of members moving to the new model, number of new memberships, and number memberships being lost. In addition, Covid-19 continues to represent a challenge and as such it is difficult to determine what the impact will be in 2022.

In 2022, the combined budget revenue for membership is expected to be approximately \$153,050.00 at the Aquaplex and the BCF. The new model would require 213 multi-facility memberships to be active/month or 232 single-facility memberships to be active/month to achieve this.

STRATEGIC POLICY ALIGNMENT:

Once adopted, the new Continuous Monthly Pass model will support fiscal accountability and provides Administration with the legal authority to make changes to the current membership model.

COMMUNICATION STRATEGY:

In collaboration with the Communications Team, a press release will be prepared informing the community of the new membership model.

MOTION:

That Council approves the implementation of the Continuous Monthly Pass model for the recreation memberships and adjust membership fees as presented effective January 1, 2022.

SECONDED:

D Goldthorpe

Prepared By:
Darren Goldthorpe
Manager of Recreation, Arts
and Culture

Mauricio Reyes

Reviewed by:
Mauricio Reyes, CMA, CPA, CAMP
Director of Corporate Services



Approved by
Darryl Drohomerski, C.E.T
Chief Administrative Officer

2021 RATES	Drumheller						Airdrie- Genesis	Cochrane	Blackfalds	Innisfail	Ponoka	Stettler	Three Hills	Everybody's Gym	AVERAGE (excluding Drumheller)
	BCF	BCF NEW	Aquaplex	Aquaplex NEW	Multi	Multi Facility NEW	Multi Continuous Membership	Multi Continuous Membership	Multi Continuous Membership	Pool (Private Gym)	Pool (Private Gym)	Multi	(Multi?)	Gym	
Activation Fee		\$ 30.00		\$ 30.00		\$ 30.00	\$ 20.00	\$ 50.00							
ADULT															
Drop in- Adult	\$ 9.75	\$ 9.75	\$ 8.50	\$ 8.50	\$ 12.00	\$ 12.00	\$ 15.50	\$ 15.00	\$ 9.00	\$ 5.25	\$ 5.50	\$ 5.25	\$ 5.50		\$ 8.71
One Month Adult	\$ 64.75	\$ 55.00	\$ 64.75	\$ 55.00	\$ 85.50	\$ 60.00	\$ 58.25	\$ 49.00	\$ 45.00			\$ 52.50	\$ 45.00	\$ 55.00	\$ 50.79
Three Month Adult	\$ 166.50		\$ 166.50		\$ 212.25					\$ 131.25	\$ 113.00	\$ 126.00	\$ 115.00	\$ 150.00	\$ 127.05
Six Month Adult	\$ 277.50		\$ 277.50		\$ 354.25						\$ 170.00	\$ 218.00	\$ 230.00	\$ 275.00	\$ 223.25
Annual Adult	\$ 518.50		\$ 518.50		\$ 660.50			\$ 559.00	\$ 459.00	\$ 315.00	\$ 260.00	\$ 367.50	\$ 450.00	\$ 480.00	\$ 412.93
YOUTH															
Drop in Youth	\$ 7.75	\$ 7.75	\$ 6.00	\$ 6.00	\$ 9.50	\$ 9.50	\$ 9.25	\$ 10.00	\$ 6.50	\$ 3.50	\$ 4.75	\$ 4.75	\$ 4.50		\$ 6.18
One month youth	\$ 48.00	\$ 35.00	\$ 48.00	\$ 35.00	\$ 62.75	\$ 40.00	\$ 37.75	\$ 39.00	\$ 32.50			\$ 47.50	\$ 35.00		\$ 38.35
Three month youth	\$ 123.75		\$ 123.75		\$ 160.75					\$ 87.50	\$ 96.50	\$ 114.00	\$ 70.00		\$ 92.00
Six Month Youth	\$ 206.25		\$ 206.25		\$ 268.00						\$ 142.00	\$ 197.00	\$ 135.00		\$ 158.00
Annual Youth	\$ 343.25		\$ 343.25		\$ 446.00			\$ 445.00	\$ 331.50	\$ 210.00	\$ 220.00	\$ 332.50	\$ 250.00		\$ 298.17
SENIOR															
Drop in Senior	\$ 7.75	\$ 7.75	\$ 6.00	\$ 6.00	\$ 9.50	\$ 9.50	\$ 9.00	\$ 10.00	\$ 7.00	\$ 4.50	\$ 4.75	\$ 4.75	\$ 4.50		\$ 6.36
One month senior	\$ 48.00	\$ 35.00	\$ 48.00	\$ 35.00	\$ 62.75	\$ 40.00	\$ 41.75	\$ 39.00	\$ 35.00			\$ 114.00	\$ 35.00		\$ 52.95
Three month senior	\$ 123.75		\$ 123.75		\$ 160.75					\$ 112.50	\$ 96.50	\$ 114.00	\$ 70.00		\$ 98.25
Six Month Senior	\$ 206.25		\$ 206.25		\$ 268.00						\$ 142.00	\$ 197.00	\$ 135.00		\$ 158.00
Annual Senior	\$ 336.50		\$ 336.50		\$ 446.00			\$ 445.00	\$ 357.00	\$ 270.00	\$ 220.00	\$ 332.50	\$ 250.00		\$ 312.42
FAMILY															
Drop in Family	\$ 19.25	\$ 19.25	\$ 19.25	\$ 19.25	\$ 25.00	\$ 25.00	\$ 29.00	\$ 25.00	\$ 20.00	\$ 13.50	\$ 14.00	\$ 15.00	\$ 15.00		\$ 18.79
One month family	\$ 173.25	\$ 100.00	\$ 173.25	\$ 100.00	\$ 177.00	\$ 110.00	\$ 110.75	\$ 99.00	\$ 100.00			\$ 150.00	\$ 80.00		\$ 107.95
Three Month Family	\$ 348.50		\$ 348.50		\$ 454.50					\$ 337.50	\$ 170.00	\$ 360.00	\$ 200.00		\$ 266.88
Six Month Family	\$ 582.50		\$ 582.50		\$ 757.00						\$ 285.00	\$ 557.00	\$ 350.00		\$ 397.33
Annual	\$ 951.50		\$ 951.50		\$ 1,194.00			\$ 1,129.00	\$ 1,020.00	\$ 810.00	\$ 400.00	\$ 787.50	\$ 650.00		\$ 799.42
Running Track	\$ 2.00	\$ 2.00						\$ 5.00	\$ 2.00						\$ 3.50
10x Pass Adult	\$ 87.75	\$ 87.75	\$ 76.50	\$ 76.50	\$ 110.25	\$ 108.00	\$ 139.50		\$ 81.00	\$ 47.25	\$ 49.50	\$ 47.25	\$ 77.00		\$ 73.58
10X Pass Senior	\$ 69.75	\$ 69.75	\$ 54.00	\$ 54.00	\$ 85.50	\$ 85.50	\$ 81.00		\$ 63.00	\$ 40.50	\$ 47.25	\$ 42.75	\$ 63.00		\$ 56.25
10x Pass Youth	\$ 69.75	\$ 69.75	\$ 54.00	\$ 54.00	\$ 85.50	\$ 85.50	\$ 83.25		\$ 49.50	\$ 31.50	\$ 42.75	\$ 42.75	\$ 63.00		\$ 52.13
10x Pass Family	\$ 173.25	\$ 173.25	\$ 173.25	\$ 173.25	\$ 225.00	\$ 225.00	\$ 261.00		\$ 180.00	\$ 121.50	\$ 126.00	\$ 135.00	\$ 210.00		\$ 172.25