

City of Kelowna

Regular Council Meeting

AGENDA



Monday, February 20, 2017
1:30 pm
Council Chamber
City Hall, 1435 Water Street

Pages

1. Call to Order

This meeting is open to the public and all representations to Council form part of the public record. A live audio and video feed is being broadcast and recorded by CastaNet and a delayed broadcast is shown on Shaw Cable.

2. Confirmation of Minutes

4 - 11

PM Meeting - February 6, 2017

3. Public in Attendance

3.1 Okanagan College

12 - 24

Presentation on Okanagan College Growth and Development and Strategic Plan by OUC President, Jim Hamilton

4. Development Application Reports & Related Bylaws

4.1 2025 Agassiz Rd, Z16-0052 - Exceling Investments Inc.

25 - 40

To rezone the subject property to facilitate the development of a multi-family townhome complex.

4.2 2025 Agassiz Rd, BL11358 (Z16-0052) - Exceling Investments Inc.

41 - 41

To give Bylaw No. 11358 first reading in order to rezone the subject property to facilitate the development of a multi-family townhome complex.

4.3 403 Viewcrest Rd, Z16-0029 - Richard Mercier and Tracey Gronick

42 - 52

To rezone the subject property to RR2c – Rural Residential 2 with Carriage House zone to facilitate a carriage house.

4.4	403 Viewcrest Rd, BL11359 (Z16-0029) - Richard Mercier and Tracey Gronick	53 - 53
	To give Bylaw No. 11359 first reading in order to rezone the subject property from the RR2c – Rural Residential 2 with Carriage House zone to facilitate a carriage house.	
4.5	3523 Landie Rd, Z16-0085 - Tracy Hansford	54 - 64
	To consider rezoning the subject property from RU1 – Large Lot Housing to RU1c – Large Lot Housing with Carriage House to facilitate the future construction of a carriage house.	
4.6	3523 Landie Rd, BL11360 (Z16-0085) - Tracy Hansford	65 - 65
	To give Bylaw No. 11360 first reading in order to rezone the subject property to facilitate the future construction of a carriage house.	
4.7	1223 Water Street, DP16-0267 - ICR Projects Inc.	66 - 73
	To consider a Development Permit for the form and character of six digital fascia signs at Prospera Place.	
5.	Bylaws for Adoption (Development Related)	
5.1	815 & 885 Mayfair Rd, (BL11308) Z16-0035 - Onkar & Ranjit Dhillon & 8872645 BC Ltf	74 - 74
	To adopt Bylaw No. 11308 in order to rezone the two subject properties to facilitate a three lot subdivision.	
5.2	1893 Ethel St, (BL11320) OCP16-0018 - Michael Ohman	75 - 75
	To adopt Bylaw No. 11320 in order to change the future land use designation to facilitate the operation of a counseling office.	
5.3	Health Services Amendment (BL11321), TA16-0013	76 - 76
	To adopt Bylaw No. 11321 in order to amend the definition of Health Services, Minor in Zoning Bylaw No. 8000.	
5.4	1893 Ethel St, (BL11322) Z16-0059 - Michael Ohman	77 - 77
	To adopt Bylaw No. 11322 in order to rezone the subject property to facilitate the operation of a counseling office.	

6. Non-Development Reports & Related Bylaws

6.1 City of Kelowna Heritage Grants Program

78 - 84

To consider executing a Grant Agreement with the Central Okanagan Heritage Society to administer and adjudicate the 2017 Heritage Grant Program on behalf of the City of Kelowna. To consider increasing the grant amounts for buildings with Heritage Designations and buildings listed on the Kelowna Heritage Register.

6.2 Wastewater Asset Management Plan

85 - 144

This Wastewater Asset Management Plan supports Council's priority and details future cost pressures to operate, maintain, renew and upgrade wastewater system infrastructure. This is balanced against an affordable financial plan for the next 20-years.

7. Bylaws for Adoption (Non-Development Related)

7.1 BL11351 - Amendment No. 8 to Water Regulation Bylaw No. 10480

145 - 150

To adopt Bylaw No. 11351 in order to amend the Water Regulation Bylaw No. 10480.

7.2 BL11352 - Amendment No. 34 to Sewerage System User Bylaw No. 3480

151 - 154

To adopt Bylaw No. 11352 in order to amend Sewerage System User Bylaw No. 3480.

8. Mayor and Councillor Items

9. Termination



City of Kelowna Regular Council Meeting Minutes

Date: Monday, February 6, 2017
 Location: Council Chamber
 City Hall, 1435 Water Street

Members Present: Mayor Colin Basran, Councillors Maxine DeHart, Ryan Donn, Gail Given, Tracy Gray, Brad Sieben, Mohini Singh* and Luke Stack

Members Absent: Councillor Charlie Hodge

Staff Present: City Manager, Ron Mattiussi; City Clerk, Stephen Fleming; Corporate Communications Supervisor, Tom Wilson*; Divisional Director, Community Planning & Real Estate, Doug Gilchrist*; Community Planning Department Manager, Ryan Smith*; Suburban & Rural Planning Manager, Todd Cashin*; Planner, Laura Bentley*; Senior Airport Finance & Corporate Services Manager, Shayne Dyrda*; Cultural Services Manager, Sandra Kochan*; Community Recreation Coordinator, Caroline Ivey*; Deputy Fire Chief, Lou Wilde*; Acting Revenue Manager, Matt Friesen*; Utility Services Manager, Kevin Van Vliet*; Legislative Coordinator (Confidential), Arlene McClelland

(* Denotes partial attendance)

1. Call to Order

Mayor Basran called the meeting to order at 1:31 p.m.

Mayor Basran advised that the meeting is open to the public and all representations to Council form part of the public record. A live audio and video feed is being broadcast and recorded by CastaNet and a delayed broadcast is shown on Shaw Cable.

2. Confirmation of Minutes

Moved By Councillor DeHart/Seconded By Councillor Donn

Ro88/17/02/06 THAT the Minutes of the Regular Meetings of January 30, 2017 be confirmed as circulated.

Carried

3. Reports

3.1 Council Priorities Update

Mayor Basran:

- Displayed a PowerPoint Presentation and provided an update of Council Priorities.
- Advised that changes had been made to include four new priorities, being; Housing Diversity; Homelessness; Public Safety and Preservation of Agricultural Land.
- Advised that the list of Council Priorities can be found on the City's website.

4. Public in Attendance

4.1 Heritage Week Committee

Shannon Jorgenson, Managing Director Central Okanagan Heritage Society and Carol Millar, COHS Director

- Displayed a PowerPoint Presentation summarizing the upcoming Heritage Week events and responded to questions from Council.

4.2 City of Kelowna Heritage Grants Program

Shona Harrison, Heritage Grants Program Committee Member

- Displayed a PowerPoint Presentation summarizing the 2016 Heritage Grants Program and responded to questions from Council.

Moved By Councillor Stack/Seconded By Councillor DeHart

Ro89/17/02/06 THAT Council directs staff to report back on the recommendations contained in the Heritage Grants Program presentation for Council consideration.

Carried

5. Development Application Reports & Related Bylaws

5.1 (E of) Upper Canyon Dr, OCP16-0027 & Z16-0075 - Glenwest Properties Ltd

Staff:

- Displayed a PowerPoint Presentation summarizing the application and responded to questions from Council.

Moved By Councillor Sieben/Seconded By Councillor Singh

Ro90/17/02/06 THAT Official Community Plan Map Amendment Application No. OCP16-0027 to amend Map 4.1 in the Kelowna 2030 – Official Community Plan Bylaw No. 10500 by changing the Future Land Use designation of portions of The South West 1/4 of Section 5 Township 23 ODYD Except Plans KAP83526, KAP88266, EPP9195, EPP24895, EPP24897 and EPP55131, located at Upper Canyon Dr (E of), Kelowna, BC from the S2RESH – Single / Two Unit Residential – Hillside designation to the PARK – Major Park / Open Space (Public) designation, as shown on Map “A” attached to the Report from the Community Planning Department dated February 6, 2017, be considered by Council;

AND THAT the Official Community Plan Map Amending Bylaw be forwarded to a Public Hearing for further consideration;

AND THAT Council considers the Public Hearing to be appropriate consultation for the purpose of Section 475 of the *Local Government Act*;

AND THAT Rezoning Application No. Z16-0075 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of portions of The South West 1/4 of Section 5 Township 23 ODYD Except Plans KAP83526, KAP88266, EPP9195, EPP24895, EPP24897 and EPP55131, located at Upper Canyon Dr (E of), Kelowna, BC from the RU1h – Large Lot Housing

(Hillside Area) zone to the P3 – Parks and Open Space and RU4h – Low Density Cluster Housing (Hillside Area) zones, as shown on Map “B” attached to the Report from the Community Planning Department dated February 6, 2017, be considered by Council;

AND THAT the Rezoning Bylaw be forwarded to a Public Hearing for further consideration;

AND THAT final adoption of the Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule “A” attached to the Report from the Community Planning Department dated February 6, 2017;

AND FURTHER THAT final adoption of the Rezoning Bylaw be considered in conjunction with Council’s consideration of a Development Permit and Development Variance Permit for the subject property.

5.2 (E of) Upper Canyon Dr, BL11355 (OCP16-0027) - Glenwest Properties Ltd

Moved By Councillor Donn/Seconded By Councillor Gray

R091/17/02/06 THAT Bylaw No. 11355 be read a first time.;

AND THAT the bylaw has been considered in conjunction with the City's Financial Plan and Waste Management Plan.

Carried

5.3 (E of) Upper Canyon Dr, BL11357 (Z16-0075) - Glenwest Properties Ltd

Moved By Councillor Donn/Seconded By Councillor Gray

R092/17/02/06 THAT Bylaw No. 11357 be read a first time.

Carried

6. Bylaws for Adoption (Development Related)

6.1 1855 Bennett Rd, 1005 Clifton Rd N & (E of) Paly Rd BL11159 (OCP14-0018) - Lakeside Communities Inc.

Councillor Singh declared a conflict of interest as she resides on Bennett Road and departed the meeting at 2:54 p.m.

Moved By Councillor Donn/Seconded By Councillor Given

R093/17/02/06 THAT Bylaw No. 11159 be adopted.

Carried

6.2 1855 Bennett Rd, 1005 Clifton Rd N & (E of) Paly Rd BL11160 (Z14-0033) Lakeside Communities Inc.

Moved By Councillor Donn/Seconded By Councillor Given

R094/17/02/06 THAT Bylaw No. 11160 be adopted.

Carried

Councillor Singh returned to the meeting at 2:55 p.m.

7. Non-Development Reports & Related Bylaws

7.1 Royal Star Enterprises Inc. – Sublease with respect to the operation of a public car parking facility at Kelowna International Airport

Staff:

- Provided an overview of the Sublease and responded to questions from Council.

Moved By Councillor Sieben/Seconded By Councillor Donn

R095/17/02/06 THAT Council approves the City entering into a new sublease agreement with Royal Star Enterprises Inc. for the operation and maintenance of a public car parking facility at Kelowna International Airport in the form attached to the report of the Senior Airport Finance & Corporate Services Manager dated February 6, 2017;

AND THAT the Mayor and City Clerk be authorized to execute the sublease agreement.

Carried

7.2 Kelowna Glycol Facilities Corporation Sublease of space at Kelowna International Airport

Staff:

- Provided an overview of the Glycol Facility sublease and responded to questions from Council.

Moved By Councillor Donn/Seconded By Councillor Given

R096/17/02/06 THAT Council approves entering into a Sublease with Kelowna Glycol Facilities Corporation over a portion of land at Kelowna International Airport for the operation of a glycol facility, as set out in Appendix A to the Report of the Senior Airport Finance & Corporate Services Manager dated February 6, 2017;

AND THAT the Mayor and City Clerk be authorized to execute the Sublease.

Carried

7.3 2017 Professional Operating Grants

Staff:

- Displayed a PowerPoint presentation summarizing the operating grants and responded to questions from Council.

Moved By Councillor Donn/Seconded By Councillor Given

R097/17/02/06 THAT Council receives, for information, the report dated February 6, 2017 from the Cultural Services Manager;

AND THAT Council approves the 2017 Professional Operating Grants as recommended in the report dated February 6, 2017 from the Cultural Services Manager, for the following organizations:

\$62,000 to the Okanagan Symphony Society;
 \$36,000 to the Kelowna Ballet Society;
 \$26,000 to the Okanagan Artists Alternative Association (operating as Alternator Centre for Contemporary Art); and
 \$16,000 to the Bumbershoot Children's Theatre Society.

Carried

7.4 2017 Cultural General Operating and Project Grants

Staff:

- Displayed a PowerPoint presentation summarizing the Cultural Operating and Project Grants and responded to questions from Council.

Moved By Councillor Stack/Seconded By Councillor Gray

R098/17/02/06 THAT Council receives, for information, the list of 2017 recipients for cultural General Operating and Project Grants as outlined in the report from the Cultural Services Manager dated February 6, 2017.

Carried

7.5 UBCM Grant Application Firesmart

Staff:

- Provided an overview of the UBCM Grant Application.

Moved By Councillor Given/Seconded By Councillor DeHart

R099/17/02/06 THAT Council receives, for information, the Report from the Deputy Fire Chief dated February 6, 2017 to support FireSmart initiatives within our community;

AND THAT Council approves a grant application by staff to the Union of BC Municipalities (UBCM) Strategic Wildfire Prevention Initiatives program;

AND FURTHER THAT upon confirmation of the grant award, the 2017 Financial Plan be amended to include the receipt up to \$10,000 for the FireSmart Partners Home Ignition Zone Assessment Pilot Project.

Carried

7.6 Transit 2016/2017 Amended Annual Operating Agreement

Staff:

- Provided an overview of the amended Transit Operating Agreement and responded to questions from Council.

Moved By Councillor Donn/Seconded By Councillor Singh

R100/17/02/06 THAT Council approve Amendment #1 to the 2016/2017 Annual Operating Agreement for Custom Transit.

Carried

7.7 Water Utility Rates 2017 - 2018

Staff:

- Displayed a PowerPoint Presentation summarizing the 2017-2018 Water Utility rates and responded to questions from Council.

Moved By Councillor DeHart/Seconded By Councillor Sieben

R101/17/02/06 THAT Council receives, for information, the report of the Utility Services Manager dated January 31, 2017, regarding Water Utility Rates;

AND THAT Council approves a two percent increase to water utility user rates and a 2 percent increase to the Water Quality Enhancement Reserve Fund for 2017 and 2018 for the operation,

maintenance, infrastructure renewal and capital improvements to the Utility with the first billing cycle of May of each year;

AND THAT 2017 financial plan be amended to reflect the rate increase;

AND THAT Bylaw No. 11351 being amendment No. 8 to the Water Regulation Bylaw 10480 be forwarded to Council for reading consideration.

Carried

7.8 BL11351 - Amendment No. 8 to Water Regulation Bylaw No. 10480

Moved By Councillor DeHart/Seconded By Councillor Stack

R102/17/02/06 THAT Bylaw No. 11351 be read a first, second and third time.

Carried

7.9 Wastewater Utility Rates 2017-2018

Staff:

- Displayed a PowerPoint Presentation summarizing the 2017-2018 Wastewater Utility rates and responded to questions from Council.

Moved By Councillor Stack/Seconded By Councillor Donn

R103/17/02/06 THAT Council receives, for information, the report of the Utility Services Manager dated January 31, 2017, regarding Wastewater Utility Rates;

AND THAT Council approves a two percent increase per year to Wastewater utility user rates for 2017 and 2018 for the operation, maintenance and capital improvements to the Utility with the first billing cycle of May of each year;

AND THAT the 2017 Financial Plan be amended to reflect the rate increase;

AND THAT Bylaw No. 11352 being amendment No. 32 to the Sewerage System User Bylaw 3480 be forwarded to Council for reading consideration.

Carried

7.10 BL11352 - Amendment No. 34 to Sewerage System User Bylaw No. 3480

Moved By Councillor Stack/Seconded By Councillor DeHart

R104/17/02/06 THAT Bylaw No. 11352 be read a first, second and third time.

Carried

7.11 Proposed Road Closure – Adjacent to 1930 Knox Crescent

Moved By Councillor Singh/Seconded By Councillor Sieben

R105/17/02/06 THAT Council receives, for information, the Report from the Manager, Real Estate Services dated February 6, 2017, recommending that Council adopt the proposed closure of a portion of road adjacent to 1930 Knox Crescent;

AND THAT Bylaw No. 11331, being proposed road closure of a portion of land adjacent to 1930 Knox Crescent, be given reading consideration.

Carried

7.12 BL11331 - Road Closure and Removal of Highway Dedication - Portion of Knox Cres

Moved By Councillor DeHart/Seconded By Councillor Singh

R106/17/02/06 THAT Bylaw No. 11331 be read a first, second and third time.

Carried

8. Bylaws for Adoption (Non-Development Related)

8.1 BL11309 - Amendment No. 17 to Bylaw No. 7900

Moved By Councillor Singh/Seconded By Councillor DeHart

R107/17/02/06 THAT Bylaw No. 11309 be adopted.

Carried

8.2 Gordon Dr (Portion of), BL11327 - Road Closure Bylaw

Mayor Basran invited anyone in the gallery who deems themselves affected by the proposed road closure to come forward.

No one from the gallery came forward.

Moved By Councillor DeHart/Seconded By Councillor Sieben

R108/17/02/06 THAT Bylaw No. 11327 be adopted.

Carried

9. Mayor and Councillor Items

Councillor DeHart:

- Spoke to her attendance at the Knights of Columbus Brotherhood Banquet last week.
- Reminder of the Community Sports Hero Awards on February 8th.
- Encouraged residents to attend the Heritage Week events.

Councillor Singh:

- Spoke to the Lady of the Lake contestants and their civic responsibilities.
- Spoke to large number of residents who attended the memorial at the local Mosque.

Councillor Sieben:

- Spoke to his attendance at the Canadian Culinary Championships Saturday evening.
- Gave a shout out to the Interior Savings Western Canada Basketball Tournament and the KSS Owls.

Councillor Gray:

- Reminder of the Chamber of Commerce State of the City address by the Mayor this week.
- Two residents from the UK reached out to her to see if they could contact the person who helped them while they were visiting Kelowna and it was an off duty Kelowna Firefighter.

Councillor Donn:

- Acknowledged the busy season of events at the Community Theatre.

Councillor Given:

- Spoke to her attendance at the Local Government Leadership Forum and will share materials and resources with Council over the next few weeks in particular "Lead Every time You Speak" presentation.

Mayor Basran:


- Announced that Fire Chief Carlisle will be retiring as of March 3, 2017 after a distinguished 42-year public service career including the past 6 years with the City of Kelowna.

10. Termination

This meeting was declared terminated at 4:06 p.m.

Mayor

/acm



City Clerk

DRAFT

Transforming Lives, Transforming Communities

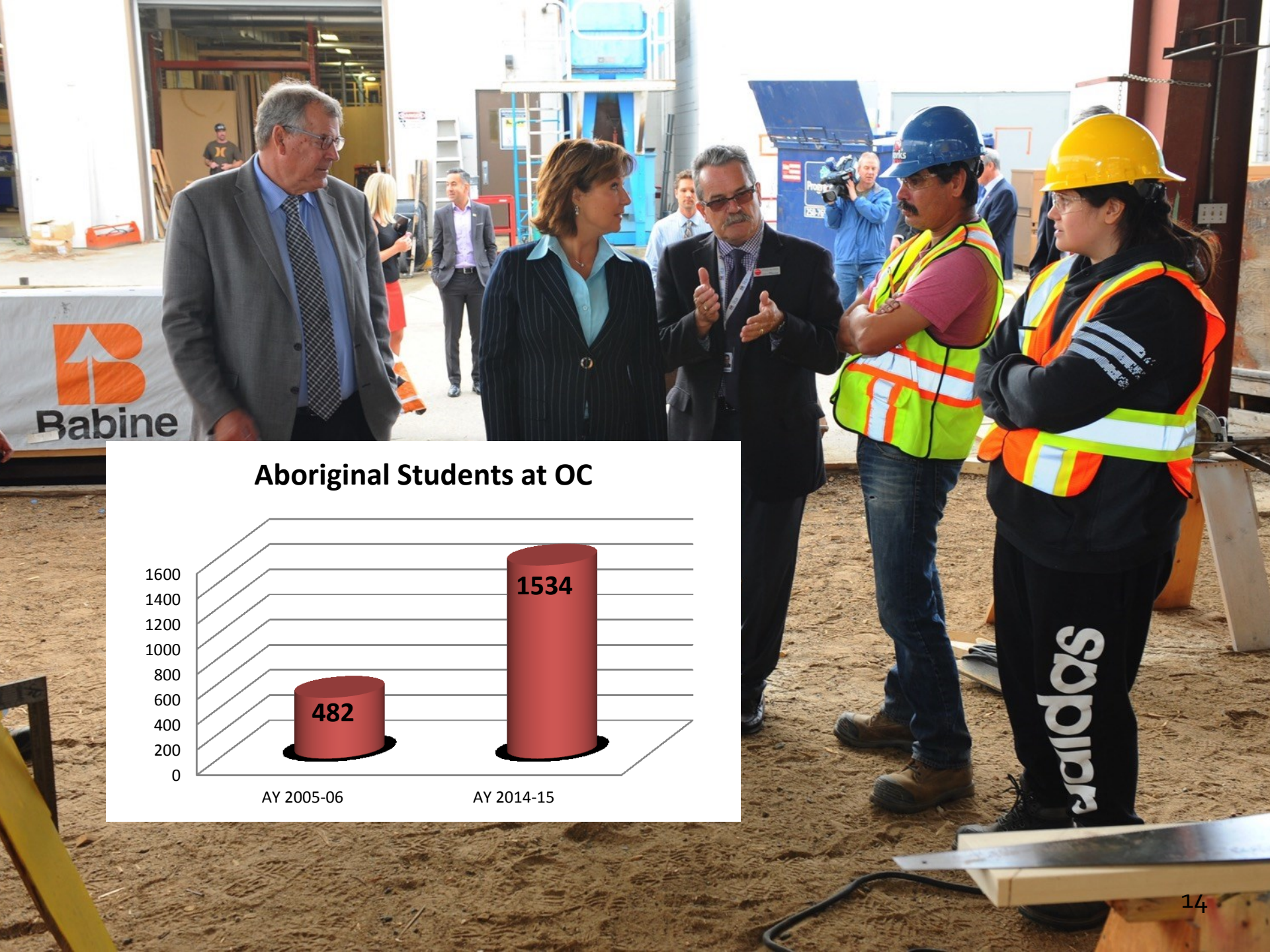


okanagan
college

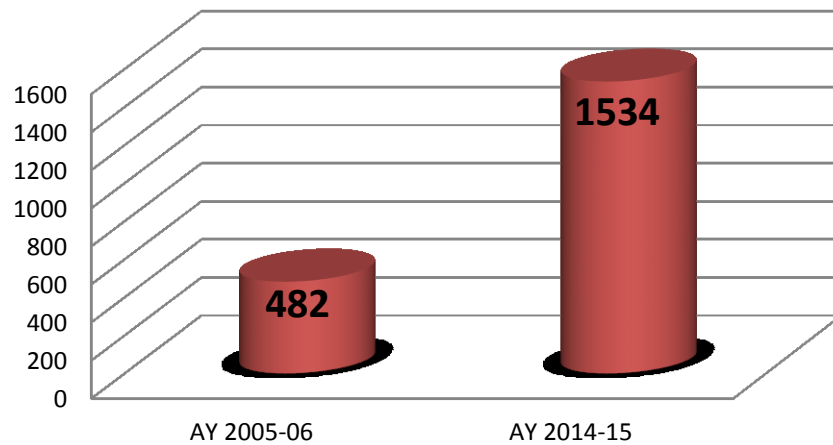
Kelowna campus 2005 – 8,331 students
Kelowna campus 2016 - 11,765 students



2,650 credentials awarded in 2015-16



Aboriginal Students at OC



- New animation diploma program
 - starts September 2017 in the Centre for Innovation
- New post-baccalaureate diplomas in marketing, accounting
- New pastry arts program



'HIRE' EDUCATION



Research at OC

*From Wine to
WTFast...*



Global Connections



Measuring the impact



the region
\$542M

the province
\$931M

\$1 taxpayer investment
= \$15.60 tax revenues and public
sector savings





Shared Programs, Services & Initiatives

okanagan
college

Aboriginal Education Council
Aboriginal Career Fair
Engineering Bridge Programs
Bachelor of Science in Nursing

New, award-winning Trades Complex

Opened 2016

- \$33 million facility
- 2,700 trades students

 Okanagan College


2017
TOMMIE
GOLD WINNER



Meeting the skills needs of the region and province

- Alignment with critical skills needs and opportunities
- Co-op employment
- Practicum placements



Co-operation, Collaboration Community





Thanks for your support

okanagan
college

Questions?

REPORT TO COUNCIL



Date: February 20, 2017

RIM No. 1250-30

To: City Manager

From: Community Planning Department (TB)

Application: Z16-0052

Owner: Exceling Investments Inc. No.
BC1062096

Address: 2025 Agassiz Road

Applicant: Cristian Anca

Subject: Rezoning Application

Existing OCP Designation: MRM – Multiple Unit Residential (Medium Density)

Existing Zone: RU1 – Large Lot Housing

Proposed Zone: RM5 – Medium Density Multiple Housing

1.0 Recommendation

THAT Rezoning Application No. Z16-0052 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 1, District Lot 129, ODYD, Plan EPP68381, located at 2025 Agassiz Road, Kelowna, BC from the RU1 – Large Lot Housing zone to the RM5 – Medium Density Multiple Housing, be considered by Council;

AND THAT the Rezoning Bylaw be forwarded to a Public Hearing for further consideration;

AND THAT final adoption of the Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule "A" attached to the Report from the Community Planning Department dated October 24, 2016;

AND FURTHER THAT final adoption of the Rezoning Bylaw be considered in conjunction with Council's consideration of a Development Permit and Development Variance Permit for the subject property.

2.0 Purpose

To rezone the subject property to facilitate the development of a multi-family townhome complex.

3.0 Community Planning

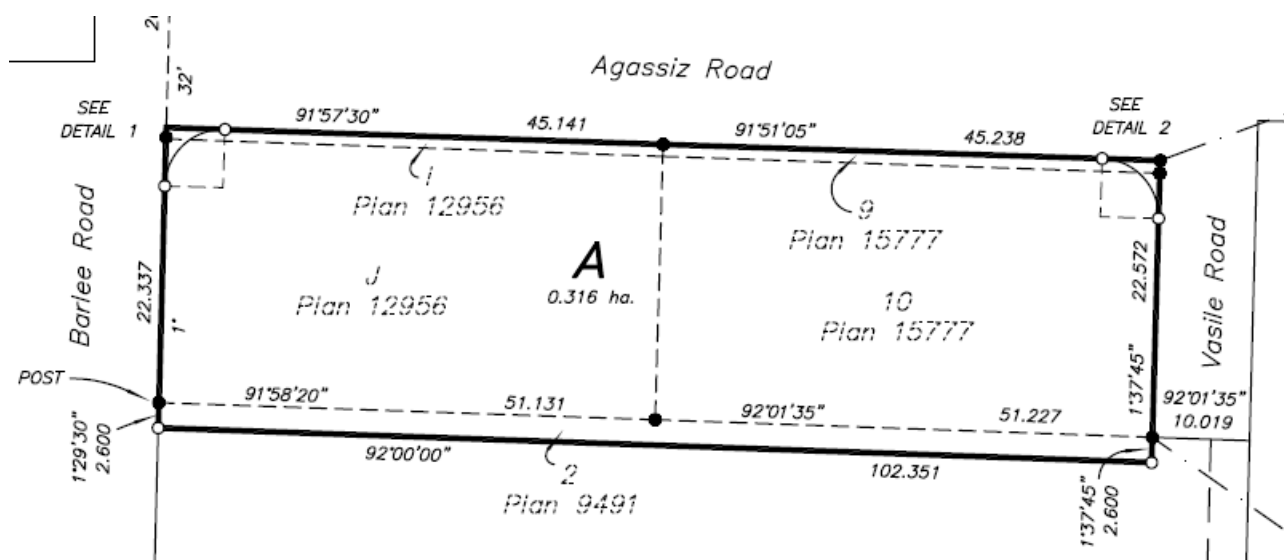
Community Planning Staff are recommending support for the proposed rezoning to facilitate the development of a multi-family townhome complex. The proposal is consistent with the Official Community

Plan (OCP) Future Land Use Designation of Multiple Unit Residential Medium Density (MRM). It is located within the Permanent Growth Boundary and more specifically within the Midtown Urban Centre. It is an appropriate location to increase residential densities as it is well supported by nearby amenities, services and transit. Many of the neighbouring properties have the same zone and developed with similar multi-family densities. The applicant's proposed townhome complex is consistent with the OCP Urban Infill Policies of Compact Urban Form, Sensitive Infill, Family Housing, and Ground Oriented Housing.

4.0 Proposal

4.1 Background

The new lot at 2025 Agassiz Road was achieved through consolidation of 2 residential lots, 2 remnant lots, and some purchased land from the property owner to the south. Through this lot consolidation process, the applicant was able to create a larger parcel to facilitate the development proposal and reduce the initial number of variances proposed.



4.2 Project Description

The applicant has proposed 15 three-bedroom townhomes located in three separate buildings with parking achieved in garages accessed from a common private lane. Each unit has access to a patio at grade, a second floor balcony, and a south-facing roof-top space. The proposal is sensitive to the existing residential character of the neighbourhood and appropriate for the long rectangular configuration of the subject property. The applicant is proposing a building height of three stories rather than the maximum height in the RM5 Zone of four and a half storeys. Articulation along the front façade as well as the patios at grade provide a visually interesting streetscape and integration of public and private space.



Each unit will have main entrances at grade, ample private outdoor space on patios and decks, three bedrooms, and located near schools and amenities.

4.3 Variances Requested

Should Council support the rezoning to RM5 – Medium Density Multiple Housing, Staff will bring forth a Form & Character Development Permit and the associated variances for consideration. Staff have worked extensively with the applicant over the past year to make adjustments to the proposal in order to reduce the number of variances to three. These include a variance on site coverage from 70% maximum allowed to 72% requested; a variance to the east side yard for the third storey portion of the building (access to rooftop patio), and to allow parallel visitor parking in the rear yard setback (see Section 4.5 Zoning Analysis Table for further details).

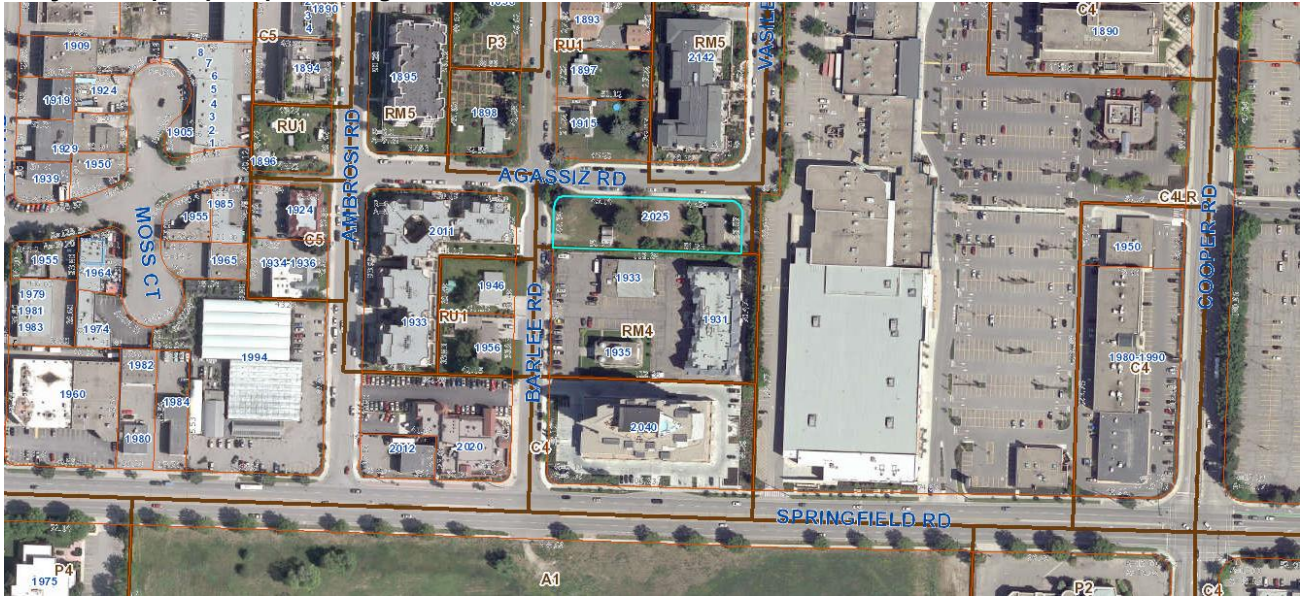
4.4 Site Context

The location falls within the Urban Centre of Midtown, is within the Permanent Growth Boundary and is within walking distance to many amenities including a Community Garden, Mission Creek Park, and Rapid Bus Transit on Highway 97. It fronts onto two streets and a lane, is immediately adjacent to the Ukrainian Greek Orthodox Church, and behind Orchard Plaza Shopping Centre.

There is a mix of other property zones in the area including several Single Family, Multi-Family, Public & Institutional, and Commercial.

Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	RU1 and RM5	Single Family and Multi-Family Residential
East	C4LR	Commercial Shopping Centre
South	RM4	Church and Multi-Family Residential
West	RM5	Multi-Family Residential

Subject Property Map: 2025 Agassiz Road**4.5 Zoning Analysis Table**

Zoning Analysis Table		
CRITERIA	RM5 ZONE REQUIREMENTS	PROPOSAL
Development Regulations		
Floor Area Ratio	1.4	.98
Height	18.0 m or 4 ½ storeys	9.14 m
Front Yard	1.5 m	3.8 m
Side Yard (east 2 nd storey portion)	1.5 m	2.9 m
Side Yard (east 3 rd storey portion)	6.0 m	4.9 m ❶
Side Yard (west 2 nd storey portion)	1.5 m	6.0 m
Side Yard (west 3 rd storey portion)	6.0 m	6.0 m
Rear Yard	9.0 m	10.0 m
Other Regulations		
Minimum Parking Requirements	30 stalls and 3 visitor stalls	30 stalls and 4 visitor stalls
Private Open Space	24 m ² per unit	m ²
Site Coverage (Buildings Only)	50%	47.7
Site Coverage including Driveways and Parking	70%	72% ❷
Visitor Parking Stall Setback on Rear	1.5 m	0.0 m ❸
❶ Indicates a requested variance to the third storey setback from 6.0m required to 4.9m proposed. ❷ Indicates a requested variance to the maximum site coverage including driveways and parking from 70% allowed to 72% proposed. ❸ Indicates a requested variance to the minimum parking setback on the rear yard from 1.5 m required to 0.0m proposed.		

5.0 Current Development Policies

5.1 Kelowna Official Community Plan (OCP)

Chapter 5: Development Process

Permanent Growth Boundary.¹ Establish a Permanent Growth Boundary as identified on Map 4.1 and Map 5.2. The City of Kelowna will support development of property outside the Permanent Growth Boundary for more intensive use only to the extent permitted as per the OCP Future Land Use designations in place as of initial adoption of OCP Bylaw 10500, except for Agri-Business designated sites or as per Council's specific amendment of this policy. The Permanent Growth Boundary may be reviewed as part of the next major OCP update.

Compact Urban Form.² Develop a compact urban form that maximizes the use of existing infrastructure and contributes to energy efficient settlement patterns. This will be done by increasing densities (approximately 75 - 100 people and/or jobs located within a 400 metre walking distance of transit stops is required to support the level of transit service) through development, conversion, and re-development within Urban Centres (see Map 5.3) in particular and existing areas as per the provisions of the Generalized Future Land Use Map 4.1.

Sensitive Infill.³ Encourage new development or redevelopment in existing residential areas to be sensitive to or reflect the character of the neighborhood with respect to building design, height and siting.

Family Housing.⁴ Support housing alternatives for families when single detached housing is too costly, including features that are important to families such as: outdoor space, direct access to grade, workshop space, larger units, safe design, and neighborhood characteristics (e.g.: location and amenities).

Ground-Oriented Housing.⁵ Encourage all multiple-unit residential buildings in neighbourhoods with schools and parks to contain ground-oriented units with 2 or more bedrooms so as to provide a family housing choice within the multi-unit rental or ownership markets.

6.0 Technical Comments

6.1 Building & Permitting Department

- Development Cost Charges (DCC's) are required to be paid prior to issuance of any Building Permit(s)
- Demolition Permit required for any existing structures
- Placement permits are required for any sales or construction trailers that will be on site. The location(s) of these are to be shown at time of development permit application.
- A Building Code analysis is required for the structure at time of building permit applications, but the following items may affect the form and character of the building(s):

¹ City of Kelowna Official Community Plan, Policy 5.2.1 (Development Process Chapter).

² City of Kelowna Official Community Plan, Policy 5.2.3 (Development Process Chapter).

³ City of Kelowna Official Community Plan, Policy 5.22.6 (Development Process Chapter)

⁴ City of Kelowna Official Community Plan, Policy 5.22.13 (Development Process Chapter)

⁵ City of Kelowna Official Community Plan, Policy 5.23.1 (Development Process Chapter)

- Any security system that limits access to exiting needs to be addressed in the code analysis by the architect.
- Access to the roof is required per NFPA and guard rails may be required and should be reflected in the plans if required.
- A Geotechnical report is required to address the sub soil conditions and site drainage at time of building permit application.
- Full Plan check for Building Code related issues will be done at time of Building Permit applications. Please indicate how the requirements of Radon mitigation and NAFS are being applied to this structure.

6.2 Development Engineering Department

- Please see attached Schedule "A" attached to the Report from Community Planning dated October 24, 2016.

6.3 Fire Department

- Construction fire safety plan is required to be submitted and reviewed prior to construction and updated as required.
- Engineered Fire Flow calculations are required to determine Fire Hydrant requirements as per the City of Kelowna Subdivision Bylaw #7900. 150 L/Sec is required
- All buildings shall be addressed off of Agassiz Rd.
- Fire Department access is to be met as per BCBC 3.2.5. -
- All requirements of the City of Kelowna Fire and Life Safety Bylaw 10760 shall be met

6.4 Ministry of Transportation

- Preliminary Approval is granted for the rezoning for one year pursuant to section 52(3)(a) of the Transportation Act. Please forward the bylaw for Ministry signature after 3rd reading.

7.0 Application Chronology

Date of Application Received: May 13, 2016
Date of Revised Plans Received: September 26, 2016
Date Public Consultation Completed: October 12, 2016
Date of Consolidation Registered: January 13, 2017

Prepared by: Trisa Brandt, Planner I

Reviewed by: Terry Barton, Urban Planning Manager

Approved for Inclusion: Ryan Smith, Community Planning Department Manager

Attachments:

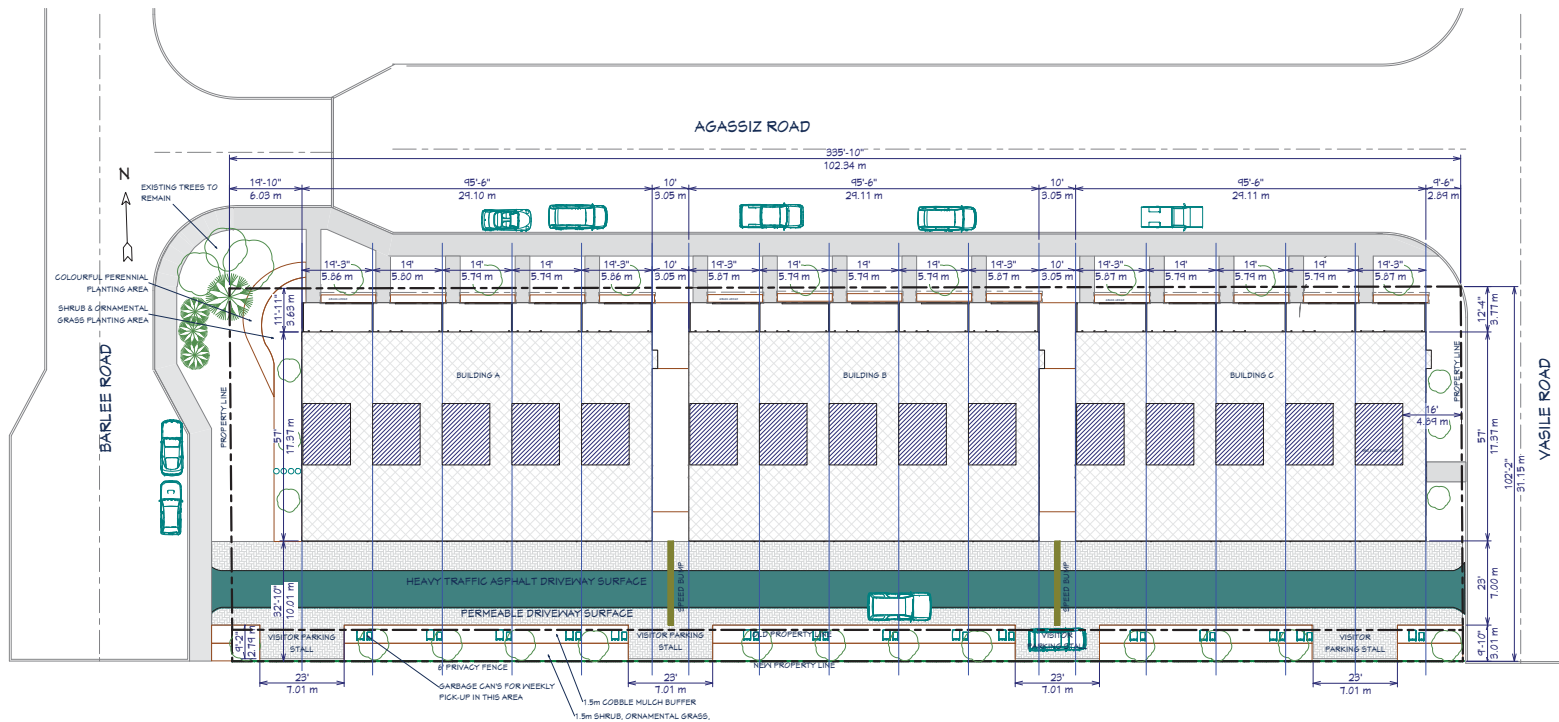
Site Plan
Conceptual Elevations
Landscape Plan
Schedule "A": Memorandum dated October 24, 2016



LEFT ELEVATION FROM VASILE RD.
Scale: 1/8" = 1' 0"



RIGHT ELEVATION FROM BARLEE RD.
Scale: 1/8" = 1' 0"



SITE PLAN
1/16" = 1'-0"

NUMBER	DATE	REVISION BY	DESCRIPTION
A	02/09/2016	MM	DP SET rev.1
B	02/09/2016	MM	DP SET rev.2
C	02/09/2016	MM	DP SET rev.3
D	02/09/2016	MM	DP SET rev.4
E	02/09/2016	MM	DP SET rev.5
F	02/09/2016	MM	DP SET rev.6
G	02/09/2016	MM	DP SET rev.7

Project Name	Barlee Rd.
Project Location	REYNOLDS B.C.
Project Manager	Planning Construction & Design Ltd.
Project Address	Douglas Road North, Kelowna, BC V1Y 3K5
Project Phone	Tel: (250) 765-8498 Fax: (250) 765-8073

Project Name	Barlee Rd.
Project Location	3 x 5-Plot
Project Manager	Planning Construction & Design Ltd.
Project Address	Douglas Road North, Kelowna, BC V1Y 3K5
Project Phone	Tel: (250) 765-8498 Fax: (250) 765-8073



DRAWINGS PROVIDED BY:

DATE:
26/09/2016

SCALE:
AS NOTED

SHEET:
2

NOTES;
LOT SIZE 34,310 sq.ft.

Unit Sizes:
Ground floor: 2 Car Garage- 400 sq.ft.
Living area- 687 sq.ft.
Private Patio- 156 sq.ft.

Second floor: 3 Bedrooms, Living Area- 947 sq.ft.
Deck- 144 sq.ft.

Top Floor : Interior- 214 sq.ft.
Roof Top Patio- 813 sq.ft.

FLOOR AREA RATIO CALCULATION
1st Floor x 15 = 16,305 sq.ft.
2nd Floor x 15 = 14,205 sq.ft.
3rd Floor x 15 = 3,210 sq.ft.
Total = 33,720 sq.ft.
FLOOR AREA RATIO: 0.98 (1.2 allowed)

SITE COVERAGE:
5451 sq.ft. x 3 buildings = 16,353 sq.ft.
COVERAGE = 47.7%
maximum allowed 50%
with driveways; 24,852 sq.ft.
COVERAGE WITH DRIVEWAYS = 72.4%
max allowed 70%

PRIVATE OPEN SPACE REQUIREMENTS
24 sq.m. Required Per Unit
103.4 sq.m. Supplied Per Unit



NUMBER	DATE	REVISION	DESCRIPTION
1	02/09/2016	1/1	DP SET Rev.1
2	02/09/2016	1/1	DP SET Rev.2
3	02/09/2016	1/1	DP SET Rev.3
4	02/09/2016	1/1	DP SET Rev.4
5	02/09/2016	1/1	DP SET Rev.5
6	02/09/2016	1/1	DP SET Rev.6

Project Name:	Barlee Rd.
Project Location:	REYNOLDS B.C.
Project Manager:	Meninger Construction & Design Ltd.
Project Address:	Douglas Road North, Kelowna, BC V1Y 9K5
Project Phone:	Tel: (250) 765-6616 Fax: (250) 765-6073

Project Name:	BARLEE RD.
Project Location:	3 x 5 Plot
Project Manager:	Meninger Construction & Design Ltd.
Project Address:	Douglas Road North, Kelowna, BC V1Y 9K5
Project Phone:	Tel: (250) 765-6616 Fax: (250) 765-6073



DRAWINGS PROVIDED BY:

DATE:
26/09/2016

SCALE:
nts

SHEET:
1



Scale: 3/16" = 1' 0"



Scale: 1/16" = 1' 0"

FRONT ELEVATIONS FROM AGASSIZ RD



Scale: 3/16" = 1' 0"



Scale: 1/16" = 1' 0"

REAR ELEVATIONS



GREY LEDGESTONE VENEER

NUMBER	DATE	REVISION	DESCRIPTION
1	02/09/2016	1	DP SET Rev. 1
2	02/09/2016	1	DP SET Rev. 2
3	02/09/2016	1	DP SET Rev. 3
4	02/09/2016	1	DP SET Rev. 4
5	02/09/2016	1	DP SET Rev. 5
6	02/09/2016	1	DP SET Rev. 6

Project Name	Barlee Rd. Kelowna B.C.
Project Location	Kelowna B.C.
Project Manager	Meringer Construction & Design Ltd.
Project Address	Douglas Road North Kelowna, BC V1Y 9K5
Project Phone	Tel: (250) 765-6416 Fax: (250) 765-6073

Project Name	Barlee Rd. 3 x 5-Plex
Project Location	Kelowna B.C.
Project Manager	Meringer Construction & Design Ltd.
Project Address	Douglas Road North Kelowna, BC V1Y 9K5
Project Phone	Tel: (250) 765-6416 Fax: (250) 765-6073



DRAWINGS PROVIDED BY:

DATE:
26/09/2016

SCALE:
AS NOTED

SHEET:
3



VIEW FROM FRONT



VIEW FROM REAR

NUMBER	DATE	REVISION TABLE	DESCRIPTION
B	02/09/2016	1/1/1	DP SET rev.1
C	02/09/2016	1/1/1	DP SET rev.2
D	22/09/2016	1/1/1	DP SET rev.3
E	26/09/2016	1/1/1	DP SET rev.3 Finalize
F	06/09/2016	1/1/1	DP SET rev.3 Finalize
G	26/09/2016	1/1/1	DP SET FINAL

Project: **Barlee Rd.**
 Location: **REYNOLDS B.C.**
 Designer: **Meininger Construction & Design Ltd.**
 Designer: **Meininger Construction & Design Ltd.**
 Douglas Road North, Kelowna, BC V1Y 3K5
 Tel: (250) 765-6616 Fax: (250) 765-6073

BARLEE RD.
 3 x 5-Plex
STREET VIEWS

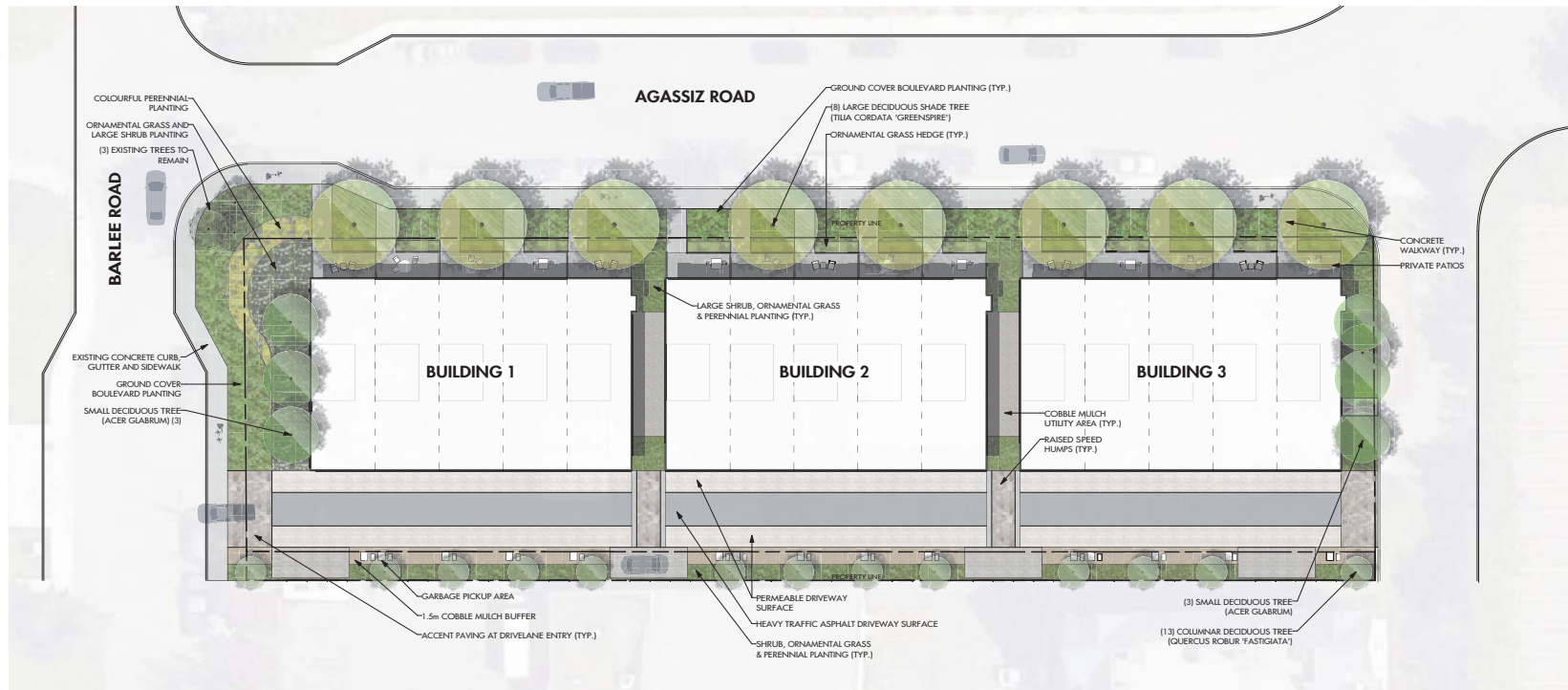


DRAWINGS
 PROVIDED
 BY:

DATE:
 26/09/2016

SCALE:

SHEET:
7



OUTLAND DESIGN
LANDSCAPE ARCHITECTURE

206 - 1889 Spall Road
Kelowna, BC V1Y 4R2
T (250) 868-9270
www.outlanddesign.ca



PROJECT TITLE
**BARLEE ROAD
15 UNIT ROW HOUSING**
Kelowna, BC

DRAWING TITLE
LANDSCAPE PLAN

ISSUED FOR / REVISION
1 10.09.15 Review
2
3
4
5

PROJECT NO	16059
DESIGN BY	FB
DRAWN BY	NS
CHECKED BY	FB
DATE	SEPT. 15, 2016
SCALE	1:200

SEAL



DRAWING NUMBER

L1/2

ISSUED FOR REVIEW ONLY
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Landscape Architecture Limited and shall not be reproduced,
modified, or lent out without permission.

PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE / SPACING & REMARKS
TREES			
ACER GLABRUM	DOUGLAS MAPLE	6	6cm CAL
TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LINDEN	8	6cm CAL
QUERCUS ROBUR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	13	6cm CAL
SHRUBS			
CORNUS STOLONIFERA 'FABROW'	RED OSIER DOGWOOD	129	#01 CONT. / 1.0M O.C. SPACING
PHILADELPHUS 'SNOWBELLE'	SNOWBELLE MOCKORANGE	129	#01 CONT. / 1.0M O.C. SPACING
RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	129	#01 CONT. / 1.0M O.C. SPACING
TAXUS X MEDIA 'HICKSI'	HICK'S YEW	232	#01 CONT. / 0.75M O.C. SPACING
PERENNIALS & GRASSES			
ASTILBE JAPONICA 'PEACH BLOSSOM'	PEACH BLOSSOM ASTILBE	62	#01 CONT. / 0.75M O.C. SPACING
ECHINACEA PURPUREA 'MAGNUS'	MAGNUS CONEFLOWER	62	#01 CONT. / 0.75M O.C. SPACING
ECHINOPS 'ARCTIC GLOW'	ARCTIC GLOW THISTLE	96	#01 CONT. / 0.6M O.C. SPACING
PANICUM VIRGATUM 'HANSE HERAS'	RED SWITCH GRASS	34	#01 CONT. / 1.0M O.C. SPACING
PENNISETUM ORIENTALE 'KARLEY ROSE'	KARLEY ROSE FOUNTAIN GRASS	34	#01 CONT. / 1.0M O.C. SPACING

NOTES

1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED B.C.L.N.A. STANDARDS.
2. ALL SOFT LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC TIMED UNDERGROUND IRRIGATION SYSTEM.
3. TREE AND SHRUB BEDS TO BE DRESSED IN A MINIMUM 50mm WOOD MULCH. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS.
4. TREE AND SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT.
5. TURF AREAS FROM SOD SHALL BE NO. 1 GRADE GROWN FROM CERTIFIED SEED OF IMPROVED CULTIVARS REGISTERED FOR SALE IN B.C. AND SHALL BE TOLERANT OF DROUGHT CONDITIONS. A MINIMUM OF 100mm DEPTH OF GROWING MEDIUM IS REQUIRED BENEATH TURF AREAS. TURF AREAS SHALL MEET EXISTING GRADES AND HARD SURFACES FLUSH.

CITY OF KELOWNA

MEMORANDUM

Date: October 24, 2016
File No.: Z16-0052

To: Community Planning (TB)

From: Development Engineering Manager(SM)

Subject: 1925 Barlee Rd & 2160 Vasile Rd RU1 - RM5

Development Engineering Department have the following comments and requirements associated with this rezoning application. The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Sergio Sartori

1. Domestic Water and Fire Protection

- (a) The existing lots are serviced with small diameter water services (2). The developer's consulting mechanical engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The estimated cost of this construction for bonding purposes is **\$10,000.00**
- (b) The applicant, at his cost, will arrange for the removal of the existing services and the installation of one new larger metered water service.
- (c) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures. The City of Kelowna water meter contractor must salvage existing water meters, prior to building demolition. If water meters are not salvaged, the developer will be invoiced for the meters.

2. Sanitary Sewer

- (a) The existing lots are serviced with 100mm diameter sanitary services (2). The developer's consulting mechanical engineer will determine the requirements of this proposed development and establish the required size and preferred location of the new service. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal of all existing small diameter services and the installation of a new larger service. The estimated cost of this construction for bonding purposes is **\$8,000.00**

3. Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for these sites which meets the requirements of the City Storm Water Management Policy and Design Manual. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage service and recommendations for onsite drainage containment and disposal systems.



- (b) Only one service will be permitted for this development. The applicant, at his cost, will arrange for the installation of one new overflow service. The estimated cost of this construction for bonding purposes is **\$5,000.00**

4. Road Improvements

- (a) Barlee Rd has been upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, sidewalk and drainage system. A landscaped boulevard complete with street trees is required. The estimated cost of this construction for bonding purposes is **\$1,000.00**.
- (b) Agassiz Rd has been upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, sidewalk and drainage system. A landscaped boulevard complete with street trees is required. The estimated cost of this construction for bonding purposes is **\$4,000.00**
- (c) Contribute a sum of \$2,254.39 per equivalent development unit as this development's assessed share for future extension of Agassiz Rd. from Kent Rd. thru to Ambrosi Rd. as required in the Ambrosi Area Plan Policy 235.

6. Subdivision

- (a) Grant Statutory Rights of Way if required for utility services.
- (b) Lot consolidation.
- (c) If any road dedication or closure affects lands encumbered by a Utility right-of-way (such as Hydro, Telus, Gas, etc.) please obtain the approval of the utility. Any works required by the utility as a consequence of the road dedication or closure must be incorporated in the construction drawings submitted to the City's Development Manager.

7. Electric Power and Telecommunication Services

- a) All proposed distribution and service connections are to be installed underground. Existing distribution and service connections, on that portion of a road immediately adjacent to the site, are to be relocated and installed underground as the subject properties are within the "Capri Landmark Urban Centre".
- b) Streetlights must be installed on Agassiz Rd if required.
- c) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.
- d) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).

8. Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the city engineering

department for review and marked "issued for construction" by the city engineer before construction may begin.

9. Design and Construction

- (a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- (b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- (c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- (d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- (e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Works & Utilities Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

10. Servicing Agreements for Works and Services

- (a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- (b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

11. Geotechnical Report

As a requirement of this application the owner must provide a geotechnical report prepared by a Professional Engineer qualified in the field of hydro-geotechnical survey to address the following:

- (a) Area ground water characteristics.
- (b) Site suitability for development, unstable soils, etc.
- (c) Drill and / or excavate test holes on the site and install piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.

- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.

12. Bonding and Levy Summary

(a) Bonding

Water service upgrades	\$ 10,000
Sanitary sewer service upgrades	\$ 8,000
Storm overflow services	\$ 5,000
Bedford Street frontage improvements	\$ 5,000

Total Bonding **\$28,000.00**

NOTE: The bonding amount shown above are comprised of estimated construction costs escalated by 140% to include engineering design and contingency protection and are provided for information purposes only. The owner should engage a consulting civil engineer to provide detailed designs and obtain actual tendered construction costs if he wishes to do so. Bonding for required off-site construction must be provided and may be in the form of cash or an irrevocable letter of credit, in an approved format.

The owner must also enter into a servicing agreement in a form provided by the City.

(b) Levies

Ambrosi Area Plan Policy 235 assessment:

15 unit's x 0.7 = 10.5 EDU @ \$2,254.39 = **\$ 23,671.10**

12. Development Permit and Site Related Issues

Access and Manoeuvrability

- (i) Access to the site will be permitted from Barlee Rd.
- (ii) Indicate on the site, the locations of the garbage and recycle bins.



Steve Muenz, P. Eng
Development Engineering Manager
SS

CITY OF KELOWNA
BYLAW NO. 11358
Z16-0052 – 2025 Agassiz Road

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing the zoning classification of Lot 1, District Lot 129, ODYD, Plan EPP68381 located on Agassiz Road, Kelowna, B.C., from the RU1 – Large Lot Housing Zone to the RM5 – Medium Density Multiple Housing Zone;
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this

Considered at a Public Hearing on the

Read a second and third time by the Municipal Council this

Approved under the Transportation Act this

(Approving Officer – Ministry of Transportation)

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

REPORT TO COUNCIL



Date: February 20, 2017

RIM No. 1250-30

To: City Manager

From: Community Planning Department (TH)

Application: Z16-0029
Owner: Richard Mercier
Tracey Gronick

Address: 403 Viewcrest Road
Applicant: Richard Mercier

Subject: Rezoning Application

Existing OCP Designation: S2RES – Single/Two Unit Residential

Existing Zone: RR2 – Rural Residential 2

Proposed Zone: RR2c – Rural Residential 2 with Carriage House

1.0 Recommendation

THAT Rezoning Application No. Z16-0029 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 16 Plan 18995 Section 23 Township 28, located at 403 Viewcrest Road Kelowna, BC from the RR2 – Rural Residential 2 zone to the RR2c – Rural Residential 2 with Carriage House zone to be considered by Council;

AND THAT the Rezoning Bylaw be forwarded to a Public Hearing for further consideration;

AND THAT final adoption of the Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule "A" attached to the Report from the Community Planning Department dated February 20, 2017.

AND FURTHER THAT final adoption of the Rezoning Bylaw be considered in conjunction with Council's consideration of a Development Variance Permit for the subject property.

2.0 Purpose

To rezone the subject property to RR2c – Rural Residential 2 with Carriage House zone to facilitate a carriage house.

3.0 Community Planning

Community Planning supports the rezoning application to permit a carriage house in an existing accessory building on the subject property. The conversion to a carriage house in this location does not impact

adjacent neighbours as views are not directed to adjacent private open space of neighbouring properties. The streetscape remains unchanged as no proposed renovations are proposed to the exterior of the accessory building.

The parcel is within the Permanent Growth Boundary, has a future land use of S2RES-Single/Two Unit Residential and meets all regulations within the RR2c zone.

City of Kelowna follows the Okanagan Basin Water Board policy which states that no parcel under 1.0 Hectare should be considered for additional dwellings if the parcel is not connected to a municipal sewer service. A condition of this rezoning requires the parcel to connect to the existing City sewer, as such this application aligns with both policies.

4.0 Proposal

4.1 Background

The 0.7-acre property contains one single family dwelling and an outdoor pool constructed in the 1970s. A detached accessory building was constructed in 1996, this building shown on the right on Image 1 below is the building proposed as a carriage house. Vehicle access exists along the fronting road due to topography as the parcel is steeply sloped. A City sanitary main services this neighbourhood which runs along the rear lane of the parcel. This parcel is not connected to this sanitary main as it is being serviced by an on-site septic system which was constructed for the existing single family dwelling.

The City of Kelowna adheres to the Okanagan Basin Water Board policy of not allowing additional dwellings (in the form of single family or carriage house forms) on parcels under 1.0 Ha/2.5 Ac that are not connected to municipal sanitary system. This policy was created for these smaller lots as on-site septic systems have shown failure when the demands of the system are increased by way of additional dwellings.

Image 1: Street View 403 Viewcrest Road



4.2 Project Description

The conversion of the detached accessory building would include retaining the main floor as vehicle parking, and renovating the upper floor to the secondary suite. The exterior of the building, including siting, height and exterior finish of the structure remains unchanged in the proposed conversion.

Parking and private open space for both dwellings is accommodated on the subject parcel.

A requirement of this rezoning application includes connecting both dwellings to the City sanitary service that exist along the rear lane.

Should this rezoning application be supported by Council, two variances would be considered as part of the change of use:

- Carriage house in a front yard: The existing accessory building is located in the front yard, between the front property line and the principle dwelling. This is contrary to Zoning Bylaw No. 8000, Section 9.5b.1.c. Carriage House Regulations which states that the principle dwelling must be located between the front yard and carriage house.
- Front yard setback: The existing accessory structure is sited approx. 4.0 m from the front property line, Zoning Bylaw No. 8000, Section 12.2.6.c Rural Residential 2 Regulations require a 6.0 m setback from the front property line. A survey plan will need to be completed to identify the exact distance.

4.3 Site Context

The subject property is located within the Okanagan Mission Sector of the City on the south side of Viewcrest Road at its intersection with Edgemont Court. The subject parcel and adjacent parcels have a Future Land Use designation of S2RES - Single / Two Unit Residential.

Adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	RR2 – Rural Residential 2	Residential
East	RR2 – Rural Residential 2	Residential
South	A1 – Agriculture 1	Residential
West	RR2 – Rural Residential 2	Residential

Map 1: Neighbourhood Context



Map 2: Subject Property



4.4 Zoning Analysis Table

Zoning Analysis Table		
CRITERIA	RR2c ZONE REQUIREMENTS	PROPOSAL
Existing Lot/Subdivision Regulations		
Lot Area	10,000 m ²	2833 m ² (0.7 ac)
Lot Width	36 m	m
Lot Depth	30 m	m
Development Regulations		
Maximum Site Coverage (Total)	20% / 566.6 m ²	7% / 210 m ²
Carriage House Regulations		
Site coverage for accessory structures	14%	2%
Max. Height (mid-point of roof)	4.8 m	4.5 m
Siting	Principle dwelling is to be located between the front yard and carriage house	Carriage house is located in the front yard ❶
Min. Front Yard Setback (to Viewcrest Road)	6.0 m	3.2 m ❷
Min. Sideyard Setback (to east)	3.0 m	3.01 m
Maximum floor area of carriage house	90 m ² or 75% of the principal building	56.1 m ²
Minimum distance to principal building	3 m	11 m
Other Regulations		
Minimum Parking Requirements	1.0 space for carriage house plus 2.0 spaces per single detached house	
Private Open Space	30 m ² each dwelling	+ 30 m ² each dwelling
❶ Indicates a requested variance to Zoning Bylaw No. 8000, Section 9. 5b.1.c Carriage House Regulations		
❷ Indicates a requested variance to Zoning Bylaw No. 8000, Section 12.2.6.c		

5.0 Current Development Policies

5.1 Kelowna Official Community Plan (OCP)

Development Process

Sensitive Infill.¹ Encourage new development or redevelopment in existing residential areas to be sensitive to or reflect the character of the neighbourhood with respect to building design, height, and siting.

Staff Note: The proposed conversion does not alter the existing streetscape.

Carriage Houses and Accessory Apartments.² Support carriage houses and accessory apartments through appropriate zoning regulations.

Staff Note: There are two variances triggered by the proposed change in use.

¹ City of Kelowna Official Community Plan, Policy 5.22.6 (Development Process Chapter).

² City of Kelowna Official Community Plan, Policy 5.22.12 (Development Process Chapter).

6.0 Technical Comments

6.1 Building & Permitting Department

Development Cost Charges (DCC's) are required to be paid prior to issuance of any Building Permit(s)

Full Plan check for Building Code related issues will be done at time of Building Permit applications.

6.2 Development Engineering Department

Condition of the Rezoning application includes decommissioning existing on-site septic field, and connection to City sanitary main along rear lane.

A 4.5 m Right of Way is to be registered on the subject parcel for an existing municipal storm drainage main located along the south west property line.

Refer to attached memorandum dated June 23, 2016 for detailed information.

7.0 Application Chronology

Date of Application Received:	May 18, 2016
Additional Information Received:	June 7, 2016
Additional Information Received:	November 4, 2016
Date Public Consultation Completed:	January 26, 2016

Report prepared by: Tracey Hillis, Planner

Reviewed by: Todd Cashin, Subdivision, Suburban and Rural Planning Manager

Reviewed by Ryan Smith, Community Planning Department Manager

Approved for Inclusion: Doug Gilchrist, Divisional Director, Community Planning & Real Estate

Attachments:

Schedule "A":	Development Engineering Memorandum
Attachment "A":	Carriage House Plans
Attachment "B":	Carriage House Site Photos

CITY OF KELOWNA

MEMORANDUM

Date: June 23, 2016
File No.: Z16-0029

To: Land Use Management Department (TY)

From: Development Engineering Manager

Subject: 403 Viewcrest Rd Lot 16 Plan 18995 Carriage House RR2C

Development Engineering has the following requirements associated with this application.

1. Domestic Water

This property is currently serviced with a 19mm diameter Municipal Service that will service both the existing dwelling and proposed carriage house

The property is within Water Extended Service Area 14. The applicant shall make payment for one half of an equivalent dwelling unit **\$1,940.00**
(0.5 of \$ 3,880.00 ESA 14 charge) Valid until 2016-09-29

2. Sanitary Sewer

Sanitary sewage is presently handled by an on-site sewage disposal system.
The applicant must connect to the municipal sanitary main that exists within the rear lane.

3. Right-Of-Way

An existing municipal storm drainage main alongside the South West property line has insufficient statutory right-of-way width for the underground utility. A 4.5m wide statutory right-of-way is requested from the current property owner. Please contact Graham Hood City Real Estate Manager at ghood@kelowna.ca

4. Electric Power and Telecommunication Services

It is the applicant's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for service upgrades to these services which would be at the applicant's cost.

Steve Muenz, P. Eng.
Development Engineering Manager
JF/jf

403 VIEWCREST ROAD = SEPTIC FIELD

CT

9

ATTACHMENT A

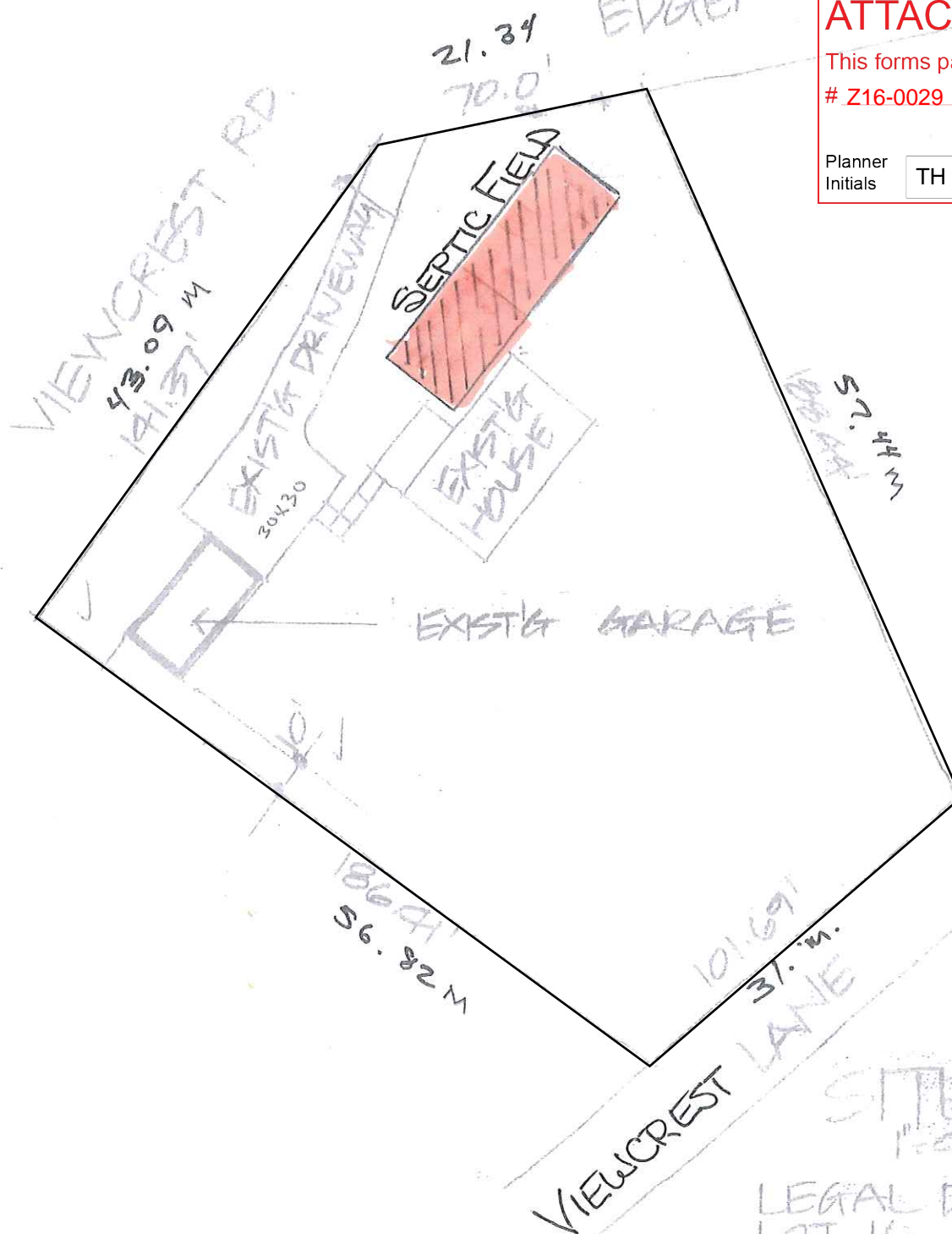
This forms part of application

Z16-0029

Planner
Initials

TH

City of
Kelowna
COMMUNITY PLANNING



SITE PLAN
1"=40'

LEGAL DESCRIPTION
LOT 16 PLAN 189
NE 1/4 SEC 23, TP 2
S 1 D 1 D (REF B.C.L.S)

CIVIC ADDRESS:
403 VIEWCREST E
KELOWNA, B.C.

403 VIEWCREST RD - FLOOR PLANS

Roof Area - 7 x 29.25 = 204
THINER AREAS - 62.6 ft

ATTACHMENT A

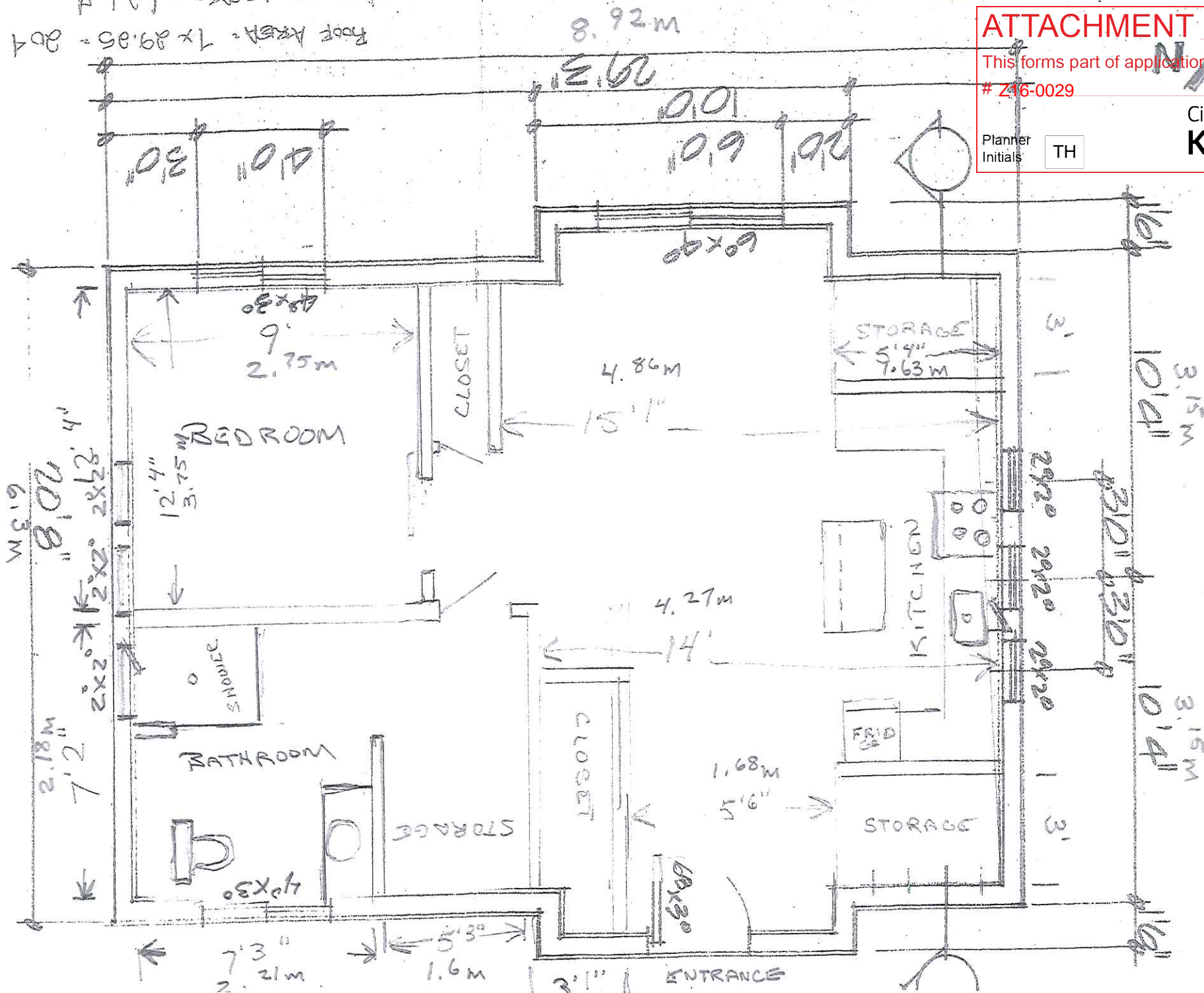
This forms part of application

Z46-0029

Planner
Initials

TH

City of
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ATTACHMENT B

This forms part of application

Z16-0029

Planner
Initials

TH

City of
Kelowna
COMMUNITY PLANNING





ATTACHMENT **B**

This forms part of application

Z16-0029

Planner
Initials

TH

City of
Kelowna
COMMUNITY PLANNING





ATTACHMENT **B**

This forms part of application
Z16-0029

Planner
Initials

TH



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Kelowna
COMMUNITY PLANNING

CITY OF KELOWNA
BYLAW NO. 11359
Z16-0029 – 403 Viewcrest Road

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing Lot16, Section 23, Township 28, Plan 18995, located at Viewcrest Road, Kelowna, BC from the RR2 – Rural Residential 2 zone to the RR2c – Rural Residential 2 with Carriage House zone;
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this

Considered at a Public Hearing on the

Read a second and third time by the Municipal Council this

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

REPORT TO COUNCIL



Date: February 20, 2017

RIM No. 1250-30

To: City Manager

From: Community Planning Department (EW)

Application: Z16-0085

Owner: Tracy Janine Hansford

Address: 3523 Landie Rd

Applicant: West Bay Construction Co. Ltd.

Subject: Rezoning Application

Existing OCP Designation: SRES – Single/ Two Unit Residential

Existing Zone: RU1 – Large Lot Housing

Proposed Zone: RU1c – Large Lot Housing with Carriage House

1.0 Recommendation

THAT Rezoning Application No. 16-0085 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot C District Lot 134 ODYD Plan 29197, located at 3523 Landie Rd, Kelowna, BC from the RU1 – Large Lot Housing zone to the RU1c – Large Lot Housing with Carriage House zone, be considered by Council;

AND THAT the Zone Amending Bylaw be forwarded to a Public Hearing for further consideration;

AND FURTHER THAT final adoption of the Zone Amending Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule 'A' attached to the Report from the Community Planning Department dated February 20, 2017.

2.0 Purpose

To consider rezoning the subject property from RU1 – Large Lot Housing to RU1c – Large Lot Housing with Carriage House to facilitate the future construction of a carriage house.

3.0 Community Planning

Community Planning Staff support the proposed rezoning application to facilitate the future construction of a carriage house on the subject property. The parcel has a Future Land Use designation of S2Res – Single/ Two Unit Residential in the Official Community Plan (OCP) and is currently zoned RU1 – Large Lot Housing. Density of the neighbourhood has been modestly increasing as there are recent examples of RU6 – Two Dwelling Housing and RU2 – Medium Lot Housing properties within the surrounding the area. Rezoning the subject parcel to the RU1c – Large Lot Housing with Carriage House will continue the density

increase trend. The parcel is within the City of Kelowna's Permanent Growth Boundary and the South Pandosy – KLO city sector.

In fulfillment of Council Policy No. 367, the applicant submitted a Neighbour Consultation Summary Form outlining that neighbours within 50 m of the subject property were notified.

4.0 Proposal

4.1 Project Description

Renderings submitted with the rezoning application propose the construction of a single storey carriage house in the northeast corner of the property (Attachment 'A'). The proposal complies with the zoning regulations and is mindful of neighbouring properties by maximizing windows on the interior elevations and minimizing windows on the north elevation.



Figure 1. Elevation of proposed carriage house.

4.2 Site Context

Adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	Ru1 – Large Lot Housing	Residential
East	Ru1 – Large Lot Housing	Residential
South	Ru1 – Large Lot Housing	Residential
West	Ru1 – Large Lot Housing	Residential

Subject Property Map: 3523 Landie Rd



4.3 Zoning Analysis Table

Zoning Analysis Table		
CRITERIA	RU ₁ ZONE REQUIREMENTS	PROPOSAL
Existing Lot/Subdivision Regulations		
Minimum Lot Area	1174 m ²	550 m ²
Minimum Lot Width	28.02 m	16.5 m
Minimum Lot Depth	41.15 m	30.0 m
Development Regulations		
Max. Site Coverage (buildings)	40%	17%
Max. Site Coverage (buildings, driveways, and parking)	50%	22%
Single Storey Carriage House Regulations		
Max. Accessory Site Coverage	14%	7%
Max. Accessory Building Footprint	130 m ²	87 m ²
Max. Net Floor Area	100 m ²	87 m ²
Max. Net Floor Area to Principal Building	75%	43%
Maximum Height (to mid-point)	4.8 m	4.2 m
Maximum Height (to peak)	5.5 m	5.0 m
Minimum Side Yard (north)	2.0 m	2.0 m
Minimum Side Yard (south)	2.0 m	16.2 m

Minimum Rear Yard	2.0 m	2.0 m
Min. Distance to Principal Building	3.0 m	10.9 m
Other Regulations		
Minimum Parking Requirements	3 stalls	3 stalls
Minimum Private Open Space	30 m ²	> 30m ²

5.0 Current Development Policies

5.1 Kelowna Official Community Plan (OCP)

Development Process

Compact Urban Form.¹ Develop a compact urban form that maximizes the use of existing infrastructure and contributes to energy efficient settlement patterns. This will be done by increasing densities (approximately 75 - 100 people and/or jobs located within a 400 metre walking distance of transit stops is required to support the level of transit service) through development, conversion, and re-development within Urban Centres (see Map 5.3) in particular and existing areas as per the provisions of the Generalized Future Land Use Map 4.1.

Sensitive Infill.² Encourage new development or redevelopment in existing residential areas to be sensitive to or reflect the character of the neighborhood with respect to building design, height and siting.

6.0 Technical Comments

6.1 Building & Permitting Department

- Development Cost Charges (DCC's) are required to be paid prior to issuance of any Building Permits.
- Operable bedroom windows required as per the 2012 edition of the British Columbia Building Code (BCBC 12).
- Full Plan check for Building Code related issues will be done at time of Building Permit applications.

6.2 Development Engineering Department

- See Schedule 'A' memorandum dated December 23, 2016.

6.3 FortisBC - Electric

- There are FortisBC Inc (Electric) ("FBC(E)") primary distribution facilities along Landie Road. The applicant is responsible for costs associated with any change to the subject property's existing service, if any, as well as the provision of appropriate land rights where required. Otherwise, FBC(E) has no concerns with this circulation.

6.4 Fire Department

- No issues with zoning

¹ City of Kelowna Official Community Plan, Policy 5.3.2 (Development Process Chapter).

² City of Kelowna Official Community Plan, Policy 5.22.6 (Development Process Chapter).

- Requirements of section 9.10.19 Smoke Alarms and Carbon Monoxide alarms of the BCBC 2012 are to be met.
- It appears that a fence will be constructed between the dwellings. A gate with a clear width of 1100mm is required with no special locking mechanisms
- All units shall have a posted address on Landie Rd. for emergency response - emergency response

7.0 Application Chronology

Date of Application Received: December 2, 2016

Date Public Consultation Completed: January 13, 2017

Report prepared by: Emily Williamson, Planner I

Reviewed by: Terry Barton, Urban Planning Manager

Approved for Inclusion: Ryan Smith, Community Planning Department Manager

Attachments:

Schedule 'A' Development Engineering Memorandum dated December 23, 2016

Attachment 'A' Conceptual Elevations

CITY OF KELOWNA

MEMORANDUM

Date: December 23, 2016
File No.: Z16-0085
To: Community Planning (EW)
From: Development Engineering Manager
Subject: 3523 Landie Rd Carriage House

Development Engineering has the following comments and requirements associated with this application. The utility upgrading requirements outlined in this report will be a requirement of this development.

1. Domestic Water and Fire Protection

Our records indicate that this property is currently serviced with a 19mm-diameter water service which is adequate for this application.

2. Sanitary Sewer

Our records indicate that this property is currently serviced with a 100mm-diameter sanitary sewer service. An inspection chamber (IC) complete with brooks box should be installed on the service at the owner's cost. Service upgrades can be provided by the City at the applicant's cost. **The applicant will be required to sign a Third Party Work Order for the cost of the service upgrade.** For estimate inquiry's please contact Sergio Sartori, by email ssartori@kelowna.ca or phone, 250-469-8589.

3. Development Permit and Site Related Issues

Direct the roof drains onto splash pads.

Driveway access permissible is one (1) per property as per bylaw.

4. Electric Power and Telecommunication Services

It is the applicant's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for service upgrades to these services which would be at the applicant's cost.


Steve Muenz, P. Eng.
Development Engineering Manager

SS

SCHEDULE

A

This forms part of application

Z16-0085

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Initials

EW

City of
Kelowna
COMMUNITY PLANNING



MATERIAL SCHEDULE		
MATERIAL	PRINCIPAL HOUSE	SECONDARY HOUSE
SIDING- BM CC520 FLORENTINE PLASTER		
STUCCO- BM HG85 FAIRVIEW TAUPE		
TRIM- BM CC30 OXFORD WHITE		
ROOF- CERTAIN-TEED LANDMARK SERIES DRIFTWOOD		
DOOR- BM 2014-10 FESTIVE ORANGE		

ATTACHMENT A

This forms part of application

Z16-0085

Planner
Initials EW

City of
Kelowna
COMMUNITY PLANNING



FINISH NOTES:

RENDERINGS ARE NOT TO SCALE; ALL RENDERINGS ARE FOR ARTIE
DEPICTION ONLY. PLAN UPDATES MAY NOT BE REFLECTED IN
RENDERINGS. RENDERINGS SHALL NOT BE USED FOR CONSTRUCTI

BASE BOARDS SHALL BE 6" IN ALL ROOMS, UNO.
FINAL FINISHES SHALL BE CONFIRMED WITH THE HOME OWNER PRI
TO APPLICATION.

THESE DRAWINGS ARE THE PROPRIETARY WORK
PRODUCT AND PROPERTY OF WEST BAY
CONSTRUCTION COMPANY, DEVELOPED FOR THE
EXCLUSIVE USE OF WEST BAY CONSTRUCTION
COMPANY. USE OF THESE DRAWINGS AND
CONCEPTS CONTAINED THEREIN WITHOUT THE
WRITTEN PERMISSION OF WEST BAY
CONSTRUCTION COMPANY IS PROHIBITED AND
MAY SUBJECT YOU TO A CLAIM FOR DAMAGES
FROM WEST BAY CONSTRUCTION COMPANY.

SHEET #

1

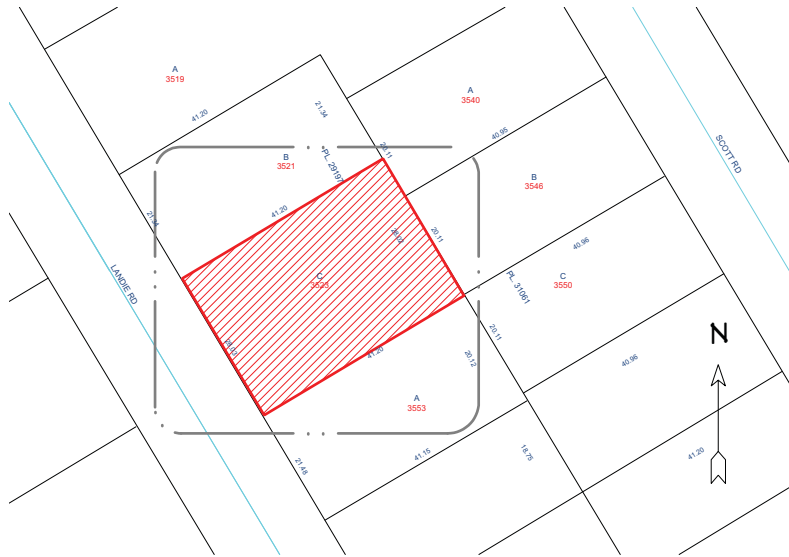
DRAWING SCALE

1/16/2017

Renderings

Tracy Hansford &
Sean Richardson
3523 Landie Road.
Kelowna BC
V1W 3E9

WESTBAY
CONSTRUCTION
1751 Camp Rd. Lake Country BC V4V 1N4



HOME OWNER: Tracy Hansford & Sean Richardson

PROJECT ADDRESS: 3523 Landie Road
Kelowna, BC V1W 3E9

LEGAL ADDRESS: KID# 156479 Plan 29197 Lot C PID 001-724-924

FIRE DISTRICT:

WATER DISTRICT: City of Kelowna

STORM WATER#:

BLDG PERMIT#:

CARRIAGE HOUSE AREA:

FLOOR 1:	936 SQ. FT.
FLOOR 2:	N/A SQ. FT.
FOUNDATION:	936 SQ. FT.
GARAGE:	N/A SQ. FT.
TOTAL:	936 SQ. FT.
DECKS:	N/A SQ. FT.

LIVABLE AREA: 833 SQ. FT.

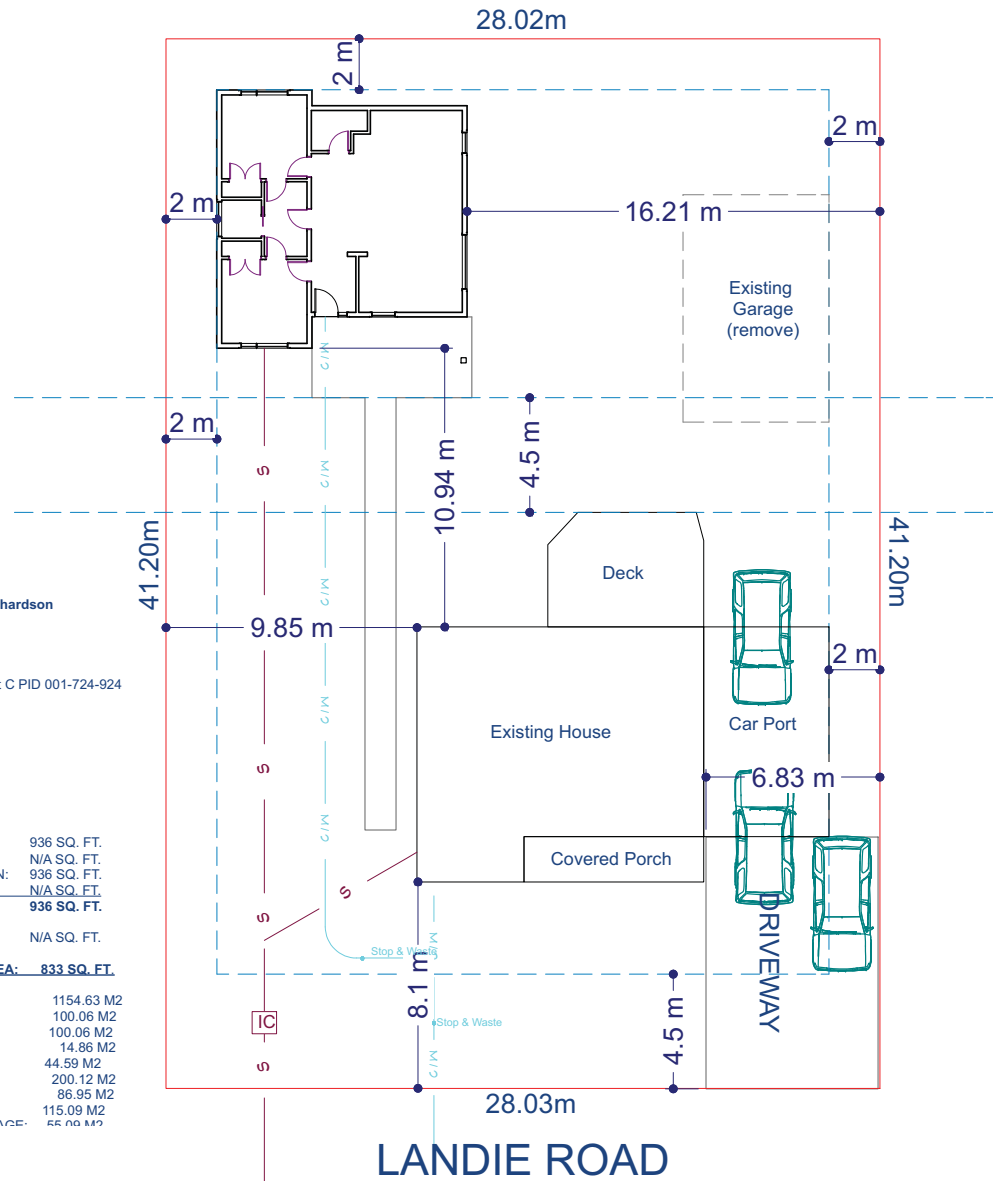
LOT COVERAGE:

LOT AREA:	1154.63 M2
HOUSE FLOOR 1:	100.06 M2
HOUSE BASEMENT:	100.06 M2
CARPORT:	14.86 M2
GARAGE:	44.59 M2
HOUSE TOTAL:	200.12 M2
CARRIAGE HOUSE:	86.95 M2
PERMEABLE COVERAGE:	115.09 M2
NON PERMEABLE COVERAGE:	55.00 M2

ATTACHMENT A

This forms part of application
Z16-0085

Planner
Initials **EW**



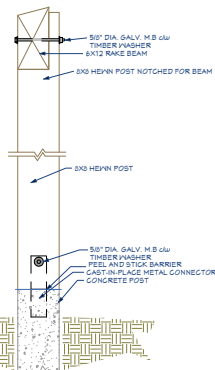
SHEET #
2

DRAWING SCALE
1/16/2017

Plot Plan

Tracy Hansford &
Sean Richardson
3523 Landie Road.
Kelowna BC
V1W 3E9

WESTBAY
CONSTRUCTION
1751 Camp Rd. Lake Country BC V4V 1N4

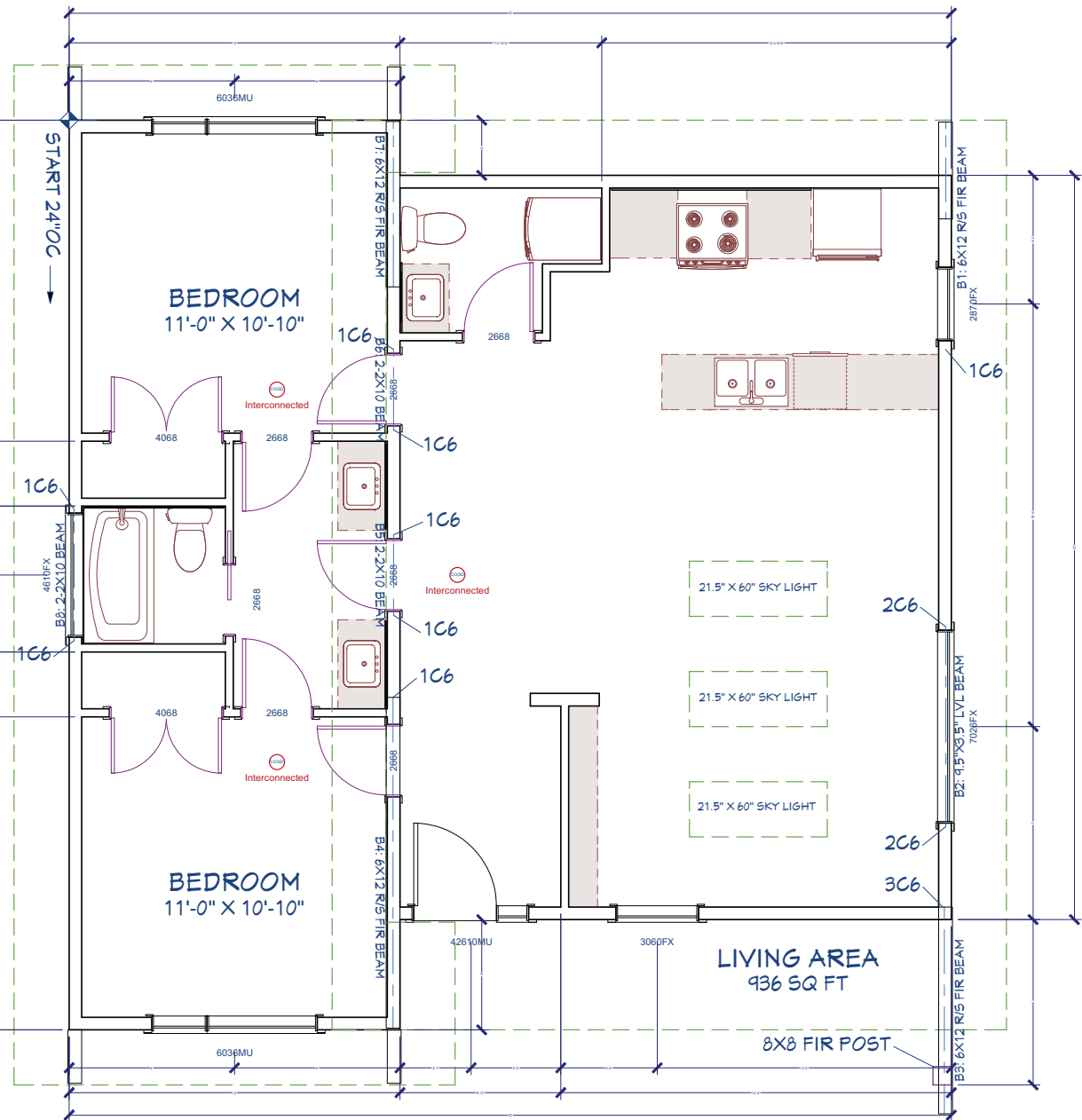


Timber Post Connection

ATTACHMENT A

This forms part of application
Z16-0085

Planner
Initials EW



SHEET #
4

DRAWING SCALE
1/4" = 1'-0"
1/16/2017

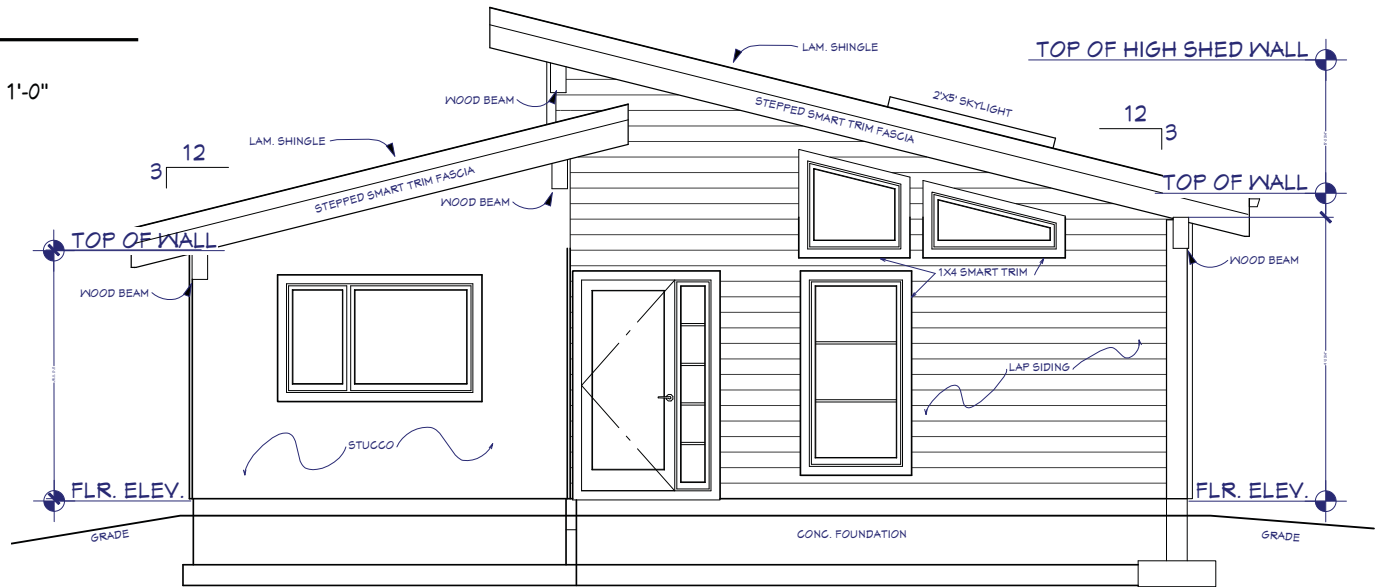
Main Floor

Tracy Hansford &
Sean Richardson
3523 Landie Road.
Kelowna BC
V1W 3E9

WESTBAY
CONSTRUCTION
1751 Camp Rd. Lake Country BC V4V 1N4

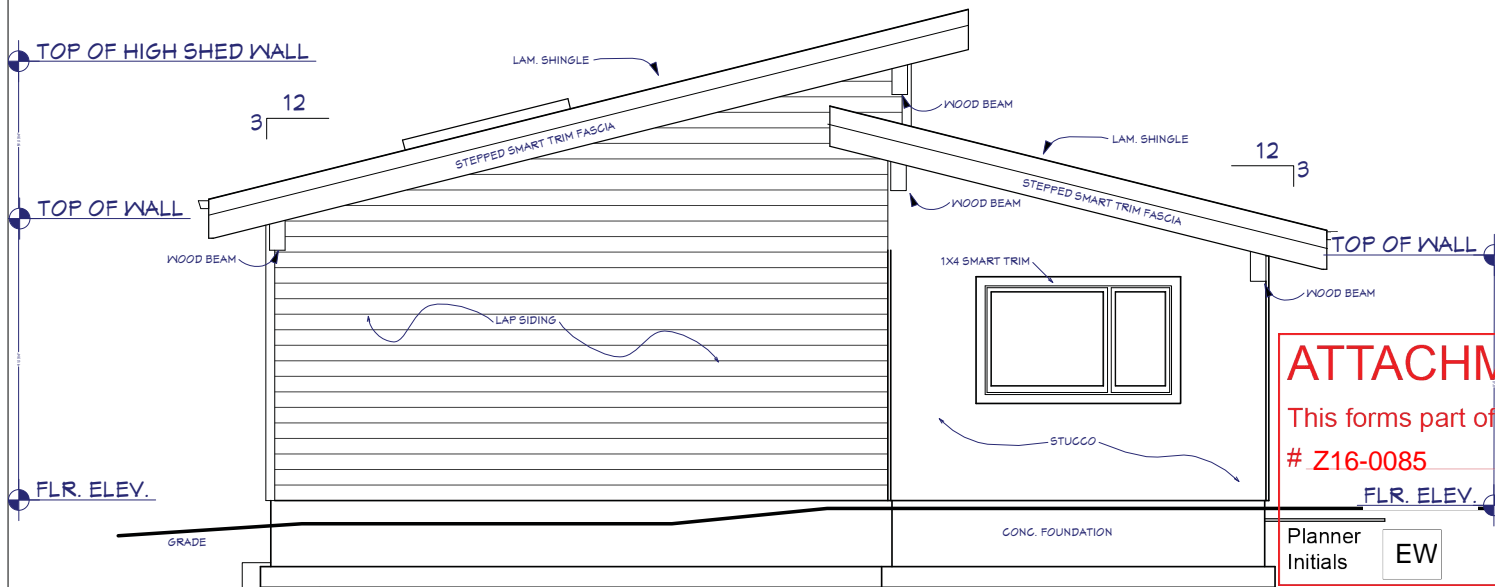
WEST ELEVATION

1/4" = 1'-0"



EAST ELEVATION

1/4" = 1'-0"



ATTACHMENT A

This forms part of application
Z16-0085

Planner
Initials EW

City of
Kelowna
COMMUNITY PLANNING

SHEET #

6

DRAWING SCALE

1/4" = 1'-0"

1/16/2017

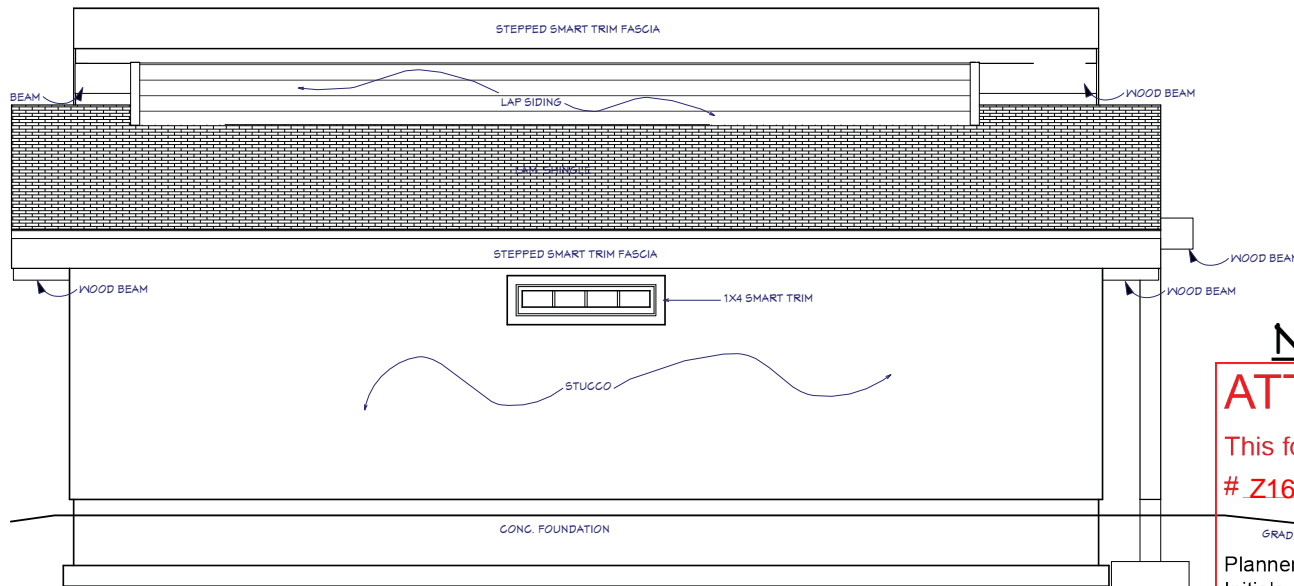
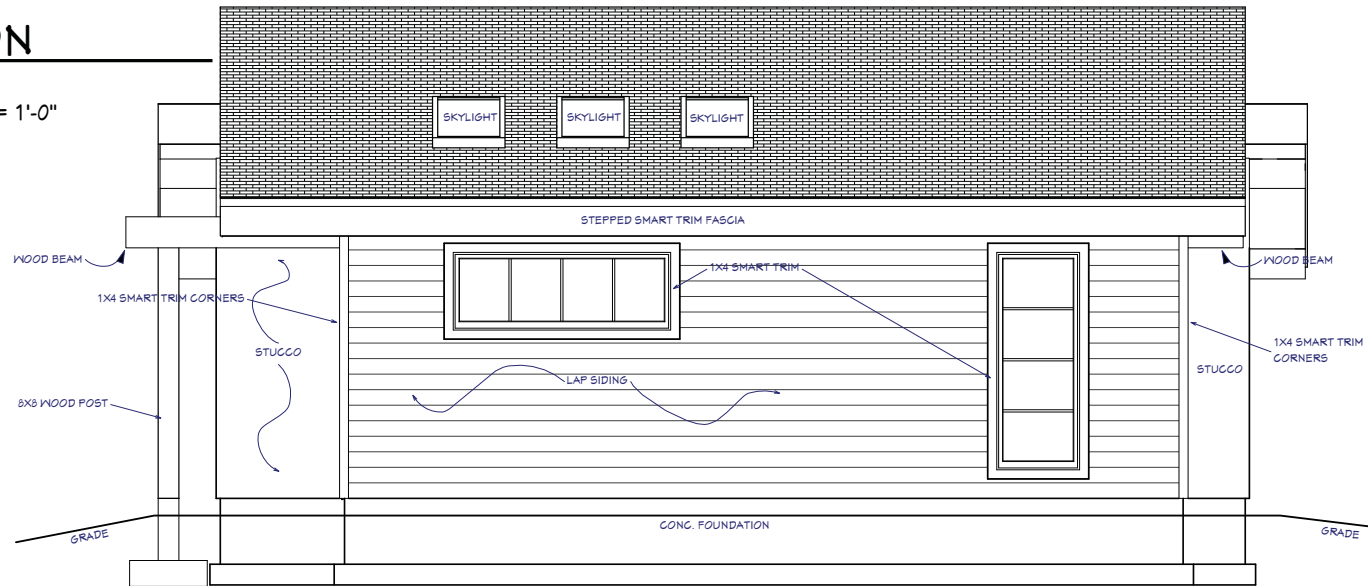
Elevations

Tracy Hansford &
Sean Richardson
3523 Landie Road.
Kelowna BC
V1W 3E9

WESTBAY
CONSTRUCTION
1751 Camp Rd. Lake Country BC V4V 1N4

SOUTH ELEVATION

1/4" = 1'-0"



NORTH ELEVATION

ATTACHMENT A

1/4" = 1'-0"

This forms part of application

Z16-0085

Planner
Initials

EW

City of
Kelowna
COMMUNITY PLANNING



SHEET #

7

DRAWING SCALE

1/4" = 1'-0"

1/16/2017

Elevations

Tracy Hansford &
Sean Richardson
3523 Landie Road.
Kelowna BC
V1W 3E9

WESTBAY
CONSTRUCTION
1751 Camp Rd. Lake Country BC V4V 1N9

CITY OF KELOWNA
BYLAW NO. 11360
Z16-0085 – 3523 Landie Road

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing the zoning classification of Lot C, District Lot 134, ODYD, Plan 29197 located at Landie Road, Kelowna, BC from the RU1 – Large Lot Housing zone and RU1c – Large Lot Housing with Carriage House zone;
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this

Considered at a Public Hearing on the

Read a second and third time by the Municipal Council this

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

REPORT TO COUNCIL



Date: February 20, 2016

RIM No. 0940-00

To: City Manager

From: Community Planning Department (EW)

Application: DP16-0267 **Owner:** RG Arenas (Kelowna) Ltd.,
Inc.No. 512682

Address: 1223 Water St **Applicant:** ICR Projects Inc.

Subject: Development Permit Application

Existing OCP Designation: COMM - Commercial

Existing Zone: CD5lp - Multi-Purpose Facility (Liquor Primary)

1.0 Recommendation

THAT Council authorizes the issuance of Development Permit No. DP16-0267 for Air Space Parcel A District Lot 139 ODYD Air Space Plan KAP60701, located at 1223 Water St, Kelowna, BC subject to the following:

1. The dimensions and siting of the signs and the exterior design and finish of the signs to be constructed on the land be in accordance with Schedule "A";
2. The maximum transition time between each digital copy shall not exceed 0.25 seconds;
3. Copy shall not be shown on the digital display using full motion video or otherwise give the appearance of animation of movement, and the transition between each digital copy shall not be displayed using any visible effects, including but not limited to action, motion, fading in and out, dissolving, blinking, intermittent, or flashing light or the illusion of such effects;
4. Copy shall not be shown in a manner that requires the copy to be viewed or read over a series of sequential copy messages on a single digital display, or sequences on multiple digital displays;
5. No third party commercial advertising shall be permitted;
6. The signs must be equipped with an ambient light sensor;
7. The digital display shall not increase the light levels adjacent to the digital display by more than 3.0 LUX above the ambient light level;
8. While the signs are in operation, the light output for the digital shall be set in accordance with the following maximum luminance levels when measured from the sign face at its maximum brightness:

- a. From sunrise to sunset, 7500 Nits;
 - b. From sunset to sunrise, 300 Nits;
9. If any component on the signs fail or malfunction the signs shall be programmed to automatically turn off.

AND FURTHER THAT this Development Permit is valid for two (2) years from the date of Council approval, with no opportunity to extend.

2.0 Purpose

To consider a Staff recommendation to issue a Development Permit for the form and character of six digital fascia signs at Prospera Place.

3.0 Community Planning

Community Planning Staff supports the Development Permit application for six fascia signs at Prospera Place. The electronic screens are an upgrade to the character of the existing signs.

The proposed digital signs are located on the face of the building rather than a freestanding sign, which reduces the visual impact. They do not face onto a busy intersection and are setback from the street so there should be no safety issue with vehicular traffic. The property is also located in an entertainment/cultural district whereby the use of these types of signs are more appropriate compared to more traditional commercial service areas. Further, the signs support a regional entertainment venue and messaging will include local public service announcements and upcoming events.

Requirements for transition time between digital copy and appearance of animation have been included as conditions in the attached draft development permit.

4.0 Proposal

4.1 Project Description

The applicant proposes removing the existing fascia sign band and installing six digital signs. The six digital signs have a proposed total sign area of 25.80 m², which is a decrease in total sign area.



Figure 1. Existing fascia sign band.

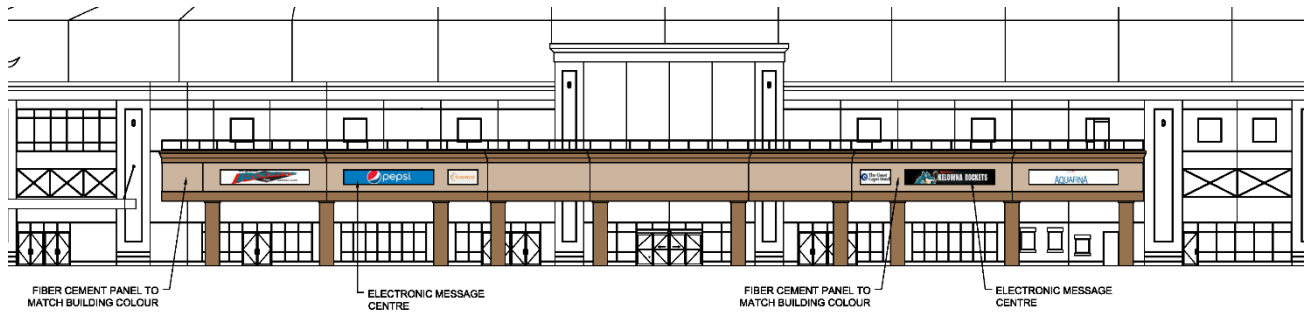


Figure 2. Six proposed electronic message signs.

The signs are considered Changeable Copy Sign - Electronic, as identified in Sign Bylaw No. 8235. These are permitted on fascia signs and must include public service information (time, date or temperature) for a portion of the message. Additional specific regulations are noted in Sections 5.5 and 5.10 of the Sign Bylaw. The applicant has indicated that the messaging will comply with the Sign Bylaw and will not include third party advertising; advertising will be limited to tenants within Prospera Place and public events.

4.2 Site Context

The subject property is Prospera Place, located in the central city sector of and the urban centre area. The surrounding area is characterized by primarily commercial uses.

Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	C4 - Urban Centre Commercial P3 - Parks and Open Space	Vacant Land Park
East	CD5 - Multi-Purpose Facility C10lp - Service Commercial (Liquor Primary)	Parking Retail stores, brewery, food primary establishment, private club
South	C7lp - Central Business Commercial (Liquor Primary)	Community recreation services (Rotary Centre for the Arts)
West	CD5 - Transition Commercial	Parking

Subject Property Map: 1223 Water St



5.0 Current Development Policies

5.1 Kelowna Official Community Plan (OCP)

Revitalization Development Permit Area

Consideration has been given to the following guidelines as identified in Section 14.A. of the City of Kelowna Official Community Plan related to Comprehensive Development Permit Areas:

Revitalization Development Permit Area	Yes	No	N/A
Signs			
Is signage high quality, imaginative, and innovative?	✓		
Does signage consider the size of any individual sign as part of the overall scheme of building signage and appearance of the building's façade?	✓		
Box signs are strongly discouraged.			✓
Does signage incorporate concise messaging and simple graphics? Do corporate and store logos form part of an overall sign design and are suitably scaled to the façade composition?			✓
Does the signage consider those with visual impairment and use light letters on a dark background as opposed to dark lettering on a light background?			✓

Does signage minimize lighting and incorporate indirect front-lit signs?		✓	
Does signage balance illuminated signs with natural materials and appropriate framing?		✓	

6.0 Technical Comments

6.1 Building & Permitting Department

- Full Plan check for Building Code related issues will be done at time of Building Permit applications.

6.2 Development Engineering Department

- Application does not compromise any servicing requirements

6.3 Fire Department

- No concerns with signs.

7.0 Application Chronology

Date of Application Received: November 1, 2016

Report prepared by: Emily Williamson, Planner I

Reviewed by: Terry Barton, Urban Planning Manager

Approved for Inclusion: Ryan Smith, Community Planning Department Manager

Attachments:

Draft DP16-0267
Schedule A

DEVELOPMENT PERMIT



APPROVED ISSUANCE OF DEVELOPMENT PERMIT NO. DP16-0267

Issued To: RG Arenas (Kelowna) Ltd., Inc.No. 512682
Site Address: 1223 Water St
Legal Description: Air Space Parcel A District Lot 139 ODYD Air Space Plan KAP60701
Zoning Classification: CD5lp - Multi-Purpose Facility (Liquor Primary)
Development Permit Area: Revitalization Development Permit Area

SCOPE OF APPROVAL

This Permit applies to and only to those lands within the Municipality as described above, and any and all buildings, structures and other development thereon.

This Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied or supplemented by this Permit, noted in the Terms and Conditions below.

The issuance of a Permit limits the Permit Holder to be in strict compliance with regulations of the Zoning Bylaw and all other Bylaws unless specific Variances have been authorized by the Permit. No implied Variances from bylaw provisions shall be granted by virtue of drawing notations that are inconsistent with bylaw provisions and that may not have been identified as required Variances by the applicant or Municipal staff.

1. TERMS AND CONDITIONS

THAT Development Permit No. DP16-0267 for Air Space Parcel A District Lot 139 ODYD Air Space Plan KAP60701, located at 1223 Water St, Kelowna, BC to allow the six (6) electronic changeable copy signs be approved subject to the following:

- a) The dimensions and siting of the signs and the exterior design and finish of the signs to be constructed on the land be in accordance with Schedule "A";
- b) The maximum transition time between each digital copy shall not exceed 0.25 seconds;
- c) Copy shall not be shown on the digital display using full motion video or otherwise give the appearance of animation of movement, and the transition between each digital copy shall not be displayed using any visible effects, including but not limited to action, motion, fading in and out, dissolving, blinking, intermittent, or flashing light or the illusion of such effects;
- d) Copy shall not be shown in a manner that requires the copy to be viewed or read over a series of sequential copy messages on a single digital display, or sequences on multiple digital displays;
- e) No third party commercial advertising shall be permitted;
- f) The signs must be equipped with an ambient light sensor;

- g) The digital display shall not increase the light levels adjacent to the digital display by more than 3.0 LUX above the ambient light level;
- h) While the signs are in operation, the light output for the digital shall be set in accordance with the following maximum luminance levels when measured from the sign face at its maximum brightness:
 - a. From sunrise to sunset, 7500 Nits;
 - b. From sunset to sunrise, 300 Nits;
- i) If any component on the signs fail or malfunction the signs shall be programmed to automatically turn off.

AND FURTHER THAT this Development Permit is valid for two (2) years from the date of Council approval, with no opportunity to extend.

2. PERFORMANCE SECURITY

None required.

3. DEVELOPMENT

The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit that shall form a part hereof.

If the Permit Holder does not commence the development permitted by this Permit within two years of the date of this Permit, this Permit shall lapse.

This Permit IS NOT a Building Permit.

4. APPROVALS

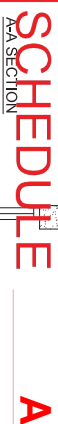
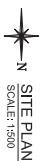
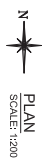
Issued and approved by Council on the _____ day of _____, 2017.

 Ryan Smith, Community Planning Department Manager
 Community Planning & Real Estate

 Date

The PERMIT HOLDER is the CURRENT LAND OWNER.

TOTAL PROPOSED AREA OF
ELECTRONIC MESSAGE CENTRE = 25.80 M²



DP16-0267



City of
Kelowna
COMMUNITY PLANNING



CITY OF KELOWNA

BYLAW NO. 11308

Z16-0035 – Onkar and Ranjit Dhillon and o872645 BC Ltd., Inc. No. BCo872645 875 & 885 Mayfair Road

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing the zoning classification of a portion of Lots 3 & 4, District Lot 143, ODYD, Plan 22026 located on Mayfair Road, Kelowna, B.C., from the RU1 – Large Lot Residential zone to the RU6 – Two Dwelling Housing zone;
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this 14th day of November, 2016.

Considered at a Public Hearing on the 29th day of November, 2016.

Read a second and third time by the Municipal Council this 29th day of November, 2016.

Approved under the Transportation Act this 5th day of December, 2016.

Audrie Henry
(Approving Officer – Ministry of Transportation)

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

CITY OF KELOWNA

BYLAW NO. 11320

Official Community Plan Amendment No. OCP16-0018 – Michael Ohman - 1893 Ethel Street

A bylaw to amend the "*Kelowna 2030* – Official Community Plan Bylaw No. 10500".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT Map 4.1 - **GENERALIZED FUTURE LAND USE** of "*Kelowna 2030* – Official Community Plan Bylaw No. 10500" be amended by changing the Generalized Future Land Use designation of portions of Lot 6, District Lot 138, ODYD, Plan 3189, located on Ethel Street, Kelowna, B.C., from the Single/Two Unit Residential (S2RESH) designation to Education/Major Institutional (EDINST) designation.
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this 21st day of November, 2016.

Considered at a Public Hearing on the 13th day of December, 2016.

Read a second and third time by the Municipal Council this 13th day of December, 2016.

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

CITY OF KELOWNA
BYLAW NO. 11321
TA16-0013 – Health Services Minor Amendment

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT **Section 2 – Interpretation, 2.3 General Definitions** be amended by deleting the definition for **HEALTH SERVICES, MINOR** that reads:

“**HEALTH SERVICES, MINOR** means development used for the provision of child counselling services.”

And replace it with:

“**HEALTH SERVICES, MINOR** means development used for the provision of counselling and therapeutic services.”

2. AND THAT **Section 16.2 P2 – Education and Minor Institutional, 16.2.6 (d) Other Regulations** be deleted that reads:

“(d) For lots less than 1,000 m² in area, a **health services, minor** use shall not generate more than four (4) clients to the site from which the business is being operated at any given time.”

And replace with:

“(d) For lots less than 1,000 m² in area, a **health services, minor** use shall not generate more than six (6) clients to the site from which the business is being operated at any given time.”

3. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this 21st day of November, 2016.

Considered at a Public Hearing on the 13th day of December, 2016.

Read a second and third time by the Municipal Council this 13th day of December, 2016.

Approved under the Transportation Act this 20th day of December, 2016.

Audrie Henry
(Approving Officer-Ministry of Transportation)

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

CITY OF KELOWNA
BYLAW NO. 11322
Z16-0059 – Michael Ohman – 1893 Ethel Street

A bylaw to amend the "City of Kelowna Zoning Bylaw No. 8000".

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts as follows:

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing the zoning classification of Lot 6, District Lot 138, ODYD, Plan 3189 located on Ethel Street, Kelowna, B.C., from the RU6 – Two Dwelling Housing zone to the P2 – Education and Minor Institutional zone.
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this 21st day of November, 2016.

Considered at a Public Hearing on the 13th day of December, 2016.

Read a second and third time by the Municipal Council this 13th day of December, 2016.

Approved under the Transportation Act this

(Approving Officer – Ministry of Transportation)

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

Report to Council



Date: February 20, 2017
File: 0710-20
To: City Manager
From: Lauren Sanbrooks, Planner II, Policy and Planning
Subject: City of Kelowna Heritage Grants Program

Recommendation:

THAT Council authorizes the City to enter into a Grant Administration Agreement for the Heritage Grants Program with the Central Okanagan Heritage Society in the form attached to the Report from the Planner II dated February 20, 2017;

AND THAT Council authorizes the Mayor and City Clerk to execute all documents associated with this Agreement;

AND THAT Council authorizes an increase of \$2,500 to the maximum grant amount for buildings with Heritage Designations, for a maximum of \$12,500 per 3 year period;

AND FURTHER THAT Council authorizes an increase of \$2,500 to the maximum grant amount for buildings listed on the Kelowna Heritage Register, for a maximum of \$7,500 per 3 year period.

Purpose:

To consider executing a Grant Agreement with the Central Okanagan Heritage Society to administer and adjudicate the 2017 Heritage Grant Program on behalf of the City of Kelowna. To consider increasing the grant amounts for buildings with Heritage Designations and buildings listed on the Kelowna Heritage Register.

Background:

The City of Kelowna recognizes the importance of protecting the community's heritage resources. The City is also aware that the cost to maintain and restore heritage properties (both publically and under private ownership) can be significant. In recognition of these costs, the City of Kelowna Heritage Grants Program (CoKHGP) was created in 1991 to support heritage conservation efforts.

The program promotes the conservation of residential, commercial, industrial, institutional and agricultural heritage buildings by assisting owners with grants for a portion of the costs incurred in conservation work. Any property listed on the Kelowna Heritage Register is eligible for this grant program, and residential and Heritage Designated properties are given first priority.

As a change for the 2017 grant year, Staff recommend that an increase of \$2,500 be made to the maximum grant amount, both for buildings with a Heritage Designations as well as buildings listed on the Kelowna Heritage Register. The maximum grant amount has remained the same since the program's predecessor (Kelowna Heritage Foundation) was created in 1991. This recommended change reflects the increased costs of conserving and maintaining heritage properties. Buildings with a Heritage Designation are currently eligible for grants to a maximum of \$10,000 per 3 year period. Staff recommend that this amount be increased to \$12,500. Similarly, buildings listed on the Kelowna Heritage Register are currently eligible for grants to a maximum of \$5,000 per 3 year period. Staff recommend that this amount be increased to \$7,500. It is important to note that staff are not recommending any change to the annual allotment of \$35,000 available for the CoKHGP.

It is important to note that staff are not recommending any change to the annual allotment of \$35,000 available for the CoKHGP. Staff recommend monitoring the uptake in the increased eligible grant amounts for the 2017 granting year, in order to determine if the demand warrants an increase to the allotment for the 2018 granting year.

Since 2008, the CoKHGP has been administered by the Central Okanagan Heritage Society (COHS). The annual funds available for the CoKHGP is \$35,000 and the contract to administer the program is \$9,500.

COHS prepares an annual report summarizing the program activities over the past year. Staff reviewed the City of Kelowna Heritage Grants Program Annual Report 2016 and recommend continuing the partnership with COHS to administer the CoKHGP. The knowledge and skills offered by COHS staff add value to the program administration.

The attached 2017 Grant Administration Agreement itemizes roles and responsibilities of both the COHS and the City of Kelowna to ensure the highest value is delivered back to the community with the grant funding of the CoKHGP. The term of this Agreement is for one year.

A public process may be undertaken to identify a contractor for the 2018 Grant Administration.

Internal Circulation:

Cultural Services Manager

Existing Policy:

Official Community Plan – 2030

Objective 9.2, Policy 3 Financial Support. Continue to support the conservation, rehabilitation, interpretation, operation and maintenance of heritage assets through grants, incentives and other means.

Heritage Strategy 2007, Updated July 2015

Policy 1.3. Continue to develop revenue sources to assist with funding the conservation of heritage resources.

Financial/Budgetary Considerations:

\$ 9,500 for grant administration is within an existing approved budget.

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

Personnel Implications:

External Agency/Public Comments:

Communications Comments:

Alternate Recommendation:

Submitted by:

L. Sanbrooks, Planner II, Policy and Planning

Approved for inclusion:



James Moore, Long Range Policy Planning Manager

Attachments:

Grant Administration Agreement

cc:

Cultural Services Manager

Heritage Grants Program Administration Agreement



This Agreement dated for reference February 20, 2017, is

BETWEEN:

City of Kelowna, a municipality incorporated under the Local Government Act, R.S.B.C. 1979, c. 290 and having its municipal office at 1435 Water Street, Kelowna, British Columbia V1Y 1J4

(the "City")

AND:

Central Okanagan Heritage Society a registered charity, incorporated in 1982 in the Province of British Columbia, and having its offices at 3-537 Bernard Avenue, Kelowna, British Columbia, V1Y 6N9.

(the "COHS")

To adjudicate and administer the:

City of Kelowna 2017 Heritage Grants Program - \$35, 000;

The City of Kelowna (hereafter referred to as the City) will provide financial assistance to non-profit and community organizations to provide programs of benefit to the community in accordance with the City of Kelowna Official Community Plan Objective 9.2 Policy 3 – Financial Support. Continue to support the conservation, rehabilitation, interpretation, operation and maintenance of heritage assets through grants, incentives and other means.

This Agreement will be governed by and will be construed and interpreted in accordance with the laws of the Province of British Columbia.

To ensure the successful administration of the Heritage Grants Program grants, this agreement is hereby established between the City and the Central Okanagan Heritage Society (hereafter referred to as COHS) as follows:

1. The term of this agreement will be for one year, commencing January 1, 2017 and ending December 31, 2017.
2. The mandate for COHS will drive its governance and operations for the administration of the Heritage Grants Program.

We will build awareness of the distinct heritage of the Central Okanagan through conservation, collaboration, advocacy and education for the benefit of current and future generations.

3. The City of Kelowna Heritage Grants Program Committee (hereafter referred to as the Committee) will evaluate requests for heritage grants from property owners with properties listed on the Kelowna Heritage Register. The program will be administered by COHS as per the City of Kelowna's guidelines (Appendix A). In particular, COHS will:
 - a) Be the primary point of contact for inquiries from grant applicants for the Heritage Grants Program.
 - b) Distribute grant application forms to eligible property owners.
 - c) After the grant application deadlines, March 21, 2017, June 6, 2017, October 31, 2017 and November 14, 2017, review submitted grant applications to determine eligibility and comprehensiveness of the application to ensure the Committee can make an informed and responsible decision. If minor gaps are identified, COHS will contact applicant to offer them an opportunity to fill in the gaps / answer questions.

- d) Evaluate requests, advise the Committee and make recommendations. COHS agrees that it will apply the criteria set out in the Terms of Reference (Appendix A) for the approval and distribution of grants.
 - e) Convene and facilitate a meeting of the Committee to review each grant application as a group and to formulate recommendations for grant awards. These meetings are scheduled for April 4, 2017, June 20, 2017, September 19, 2017 and November 14, 2017. Costs and expenses associated with the heritage grants committee meetings are to be paid by the COHS.
 - f) Ensure that comprehensive minutes are recorded by a qualified minute taker / transcriber at the Committee meeting, documenting the discussion and rationale for recommendations. Any costs associated with recording of minutes are to be paid by the COHS.
 - g) Prepare minutes from the Committee for distribution to and approval by the Committee members. Upon approval by the Committee, the minutes will be provided to the City.
 - h) Facilitate payment of grant awards to successful applicants.
 - i) Provide staff with a draft summary report containing the Committee's decisions for awarding grants, with summary information about each of the successful applicants / projects for the year. The report is due in the 4th quarter of 2017.
 - j) Write and present a year-end report to City Council containing the Committee's decisions for awarding grants, with summary information about each of the successful applicants / projects. The Council presentation is tentatively scheduled for February, 2018, during Heritage week, and will be presented by COHS.
 - k) Upon request or if concerns arise, provide the City with all the property owner's information including, but not limited to application forms, supplementary materials, and final reports on the use of grant funds.
4. COHS will write and present an annual report to City Council.
- a) The Council presentation and annual report is tentatively scheduled for February, 2018, during Heritage week, and will be presented by COHS.
 - b) The presentation will be consistent with *'Council Presentations by Community Stakeholders'*.¹
 - c) The presentation and annual report will include the Committees' decisions for awarding grants with an overview of the tool used to determine the successful recipients.
 - d) The presentation and annual report will also include the summary information about each of the successful applicants / projects that were selected for 2017.
 - e) The presentation and annual report will also include the summary information about projects that were rescinded, incomplete or delayed for 2017.
 - f) The annual report will include a breakdown of the administration fees, in addition to the breakdown of the grant money.
 - g) The presentation will include a breakdown of the grant money.
5. The administration costs for COHS will include:
- a) Staffing costs related to administration of the Heritage Grants Program.
 - b) Office supplies and photocopying related to administration of the grant program
 - c) On-going file management of all inquiries to the COHS to the program.
 - d) A portion of overhead.
 - e) Volunteer recognition including refreshments for meetings.

For the sake of clarity, administration costs do NOT include:

- f) Membership with any heritage organization such as Heritage BC or Heritage Canada.
- g) Website costs (the application form will be hosted on the City of Kelowna's website).
- h) A plaque recognition program.
- i) The organization of any workshops or public education programs, except for a Heritage Grants Information Session for heritage building owners.

¹ To be provided by City staff.

6. The City will:
 - a) Pay \$9,500 inclusive of any applicable taxes to COHS for review and administration services, and to adjudicate the 2017 Heritage Grants Program.
 - b) Advertise the City's Heritage Grants Program.
 - c) Print out the mail out letters for the Heritage Grants Program and provide the corresponding envelopes.
 - d) Provide COHS with disbursement of funds for the Heritage Grants Program, upon City Council funding approval.
7. All communication for the City of Kelowna's Heritage Grants Program will recognize that the City provides all of the funding for the program. City recognition requires that all communication be on City of Kelowna letterhead & envelopes, and all 'Thank You' letters will be forwarded to the Policy and Planning Department at the City of Kelowna. Policy and Planning can be contacted for letterhead and envelopes (250.469.8419 or Isanbrooks@kelowna.ca).
8. Communications between the COHS and the City of Kelowna will, in most instances be between Lorri Dauncey, CoKHGP manager, and the Planner II in the Policy and Planning Department. Communications regarding budget and/or administration will in most instance be between Shannon Jorgenson, Managing Director for COHS, and the Planner II in the Policy and Planning Department.
9. No COHS documentation will be attached to any mail outs regarding the program.
10. COHS will:
 - a) Deliver demonstrable public benefit;
 - b) Use sound governance and management practices;
 - c) Maintain financial sustainability;
 - d) Ensure transparency in operations and reporting; and
 - e) Commit to a public service mindset.
11. Upon request, or if concerns arise, provide the City with all the Organization's information with regard to administering the Heritage Grant Program including, but not limited to, final reports on the use of grant funds.
12. Both parties agree that it is their intention to receive, review and adjudicate applications and disburse the Heritage Grants Program and will cooperate to this end.
13. This agreement may be renewed, with amendments as needed, for future years.

IN WITNESS WHEREOF, THE City and COHS have executed this Agreement on the date first above written.

THE CORPORATE SEAL OF
THE CITY OF KELOWNA

Was hereunto affixed in the presence of:

Mayor

City Clerk

THE CORPORATE SEAL OF
THE CENTRAL OKANAGAN HERITAGE SOCIETY

Was affixed in the presence of:

Authorized Signatory

Authorized Signatory

Report to Council



Date: February 20th, 2017
File: 1100-01
To: City Manager
From: Joel Shaw, Infrastructure Engineering Manager
Subject: Wastewater Asset Management Plan

Recommendation:

THAT Council endorse the Wastewater Asset Management Plan as attached to this report by the Infrastructure Engineering Manager dated February 20th, 2017.

Purpose:

Council is committed to balanced infrastructure investments by integrating a long-term financial plan with an asset management strategy. This Wastewater Asset Management Plan supports Council's priority and details future cost pressures to operate, maintain, renew and upgrade wastewater system infrastructure. This is balanced against an affordable financial plan for the next 20-years.

Background:

The Wastewater Asset Management Plan (AMP) has a planning horizon of 20-years (2016-2035) and is consistent with international standards for asset management plans. The last asset management update presented to Council was in September 2012. Since that time the City's asset management program has matured and this latest Wastewater AMP is more comprehensive and looks at lifecycle management of the wastewater system including operation, maintenance, infrastructure renewal and upgrade. The Wastewater AMP provides input to and is integrated with the City's Wastewater Financial Model and the 10-Year Capital Plan.

By using sound asset management practices, Council and the community can be confident that there is an affordable, and sustainable plan to maintain, operate and renew assets and that the City Wastewater Utility customers will continue to receive safe, reliable and environmentally responsible disposal of wastewater long-term.

The reader is directed to the attached for the complete report. In addition to the Wastewater AMP, a two-page Wastewater System Report Card is also attached which summarizes the key points from the AMP.

Existing Policy:

Council Policy 352: Sustainable Municipal Infrastructure Policy

Council Policy 342 - Tangible Capital Asset Policy

Financial/Budgetary Considerations:

The infrastructure required to support the City's wastewater service has a replacement value of \$716 million. Managing this vital infrastructure now and into the future will ensure the City Wastewater Utility customers will continue to receive safe, reliable and environmentally responsible service long-term. The 20-year funding needs for the Wastewater Utility forecast future cost pressures for system operation, maintenance, infrastructure renewal and infrastructure to support growth and improve service levels. These costs are accounted for in the Wastewater Utility financial model and indicate that on average rate increases will need to match inflation (projected at 2% per annum) to support service delivery for the next 10-years. Long-term, as the wastewater system ages, investment in infrastructure renewal will need to increase and may require rate increases in excess of inflation. Regular updates to this AMP will identify these future cost pressures and plan ahead to mitigate the impacts to the Wastewater Utility customers.

Internal Circulation:

Civic Operations Divisional Director

Corporate Communications Supervisor

Financial Services Director

Infrastructure Divisional Director

Utility Planning Manager

Utility Services Manager

Utilities Network Maintenance Supervisor

Wastewater Treatment Supervisor

Water Quality & Pump Stations Supervisor

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

Personnel Implications:

External Agency/Public Comments:

Communications Comments:

Alternate Recommendation:

Submitted by:

J. Shaw, Infrastructure Engineering Manager

Approved for inclusion:



A. Newcombe, Infrastructure Divisional Director

Attachment 1 - Wastewater Asset Management Plan Presentation

Attachment 2 - Wastewater Asset Management Plan

Attachment 3 - Wastewater System Report Card

cc: Civic Operations Divisional Director
Corporate Communications Supervisor
Financial Services Director
Infrastructure Divisional Director
Utility Planning Manager
Utility Services Manager
Utilities Network Maintenance Supervisor
Wastewater Treatment Supervisor
Water Quality & Pump Stations Supervisor

Wastewater Service Asset Management Plan



February 2017

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1. EXECUTIVE SUMMARY

Context

The City of Kelowna provides wastewater service to approximately 95,000 of its 128,000 residents. This asset management plan covers the infrastructure assets that serve the City's wastewater costumers.

Managing our vital infrastructure assets now and into the future will ensure the economic, social and environmental well-being of our City. By using sound asset management practices, Council and the community can be confident that there is an affordable plan to maintain, operate and replace assets and that the community will continue to receive safe, reliable and environmentally responsible disposal of wastewater in the long-term.

The Wastewater Service

Kelowna's wastewater system collects, conveys, treats and disposes of domestic and industrial wastewater from homes and businesses and on a peak day wastewater treatment exceeds 42 million liters per day. Wastewater is conveyed to Kelowna's Wastewater Treatment Facility (WWTF) through a network of 595 km of wastewater mains and 35 lift stations. There is second treatment facility that treats industrial wastewater from Sunrype and Andrew Peller. The City also has a Biosolids Treatment facility located between Kelowna and Vernon where it treats biosolids from Kelowna, Vernon and Lake Country.

The Wastewater service is comprised of both linear and vertical assets which include the following:

- Wastewater mains,
- Wastewater treatment facilities,
- Regional Compost Facilities
- Lift Stations,
- Auxiliary equipment.

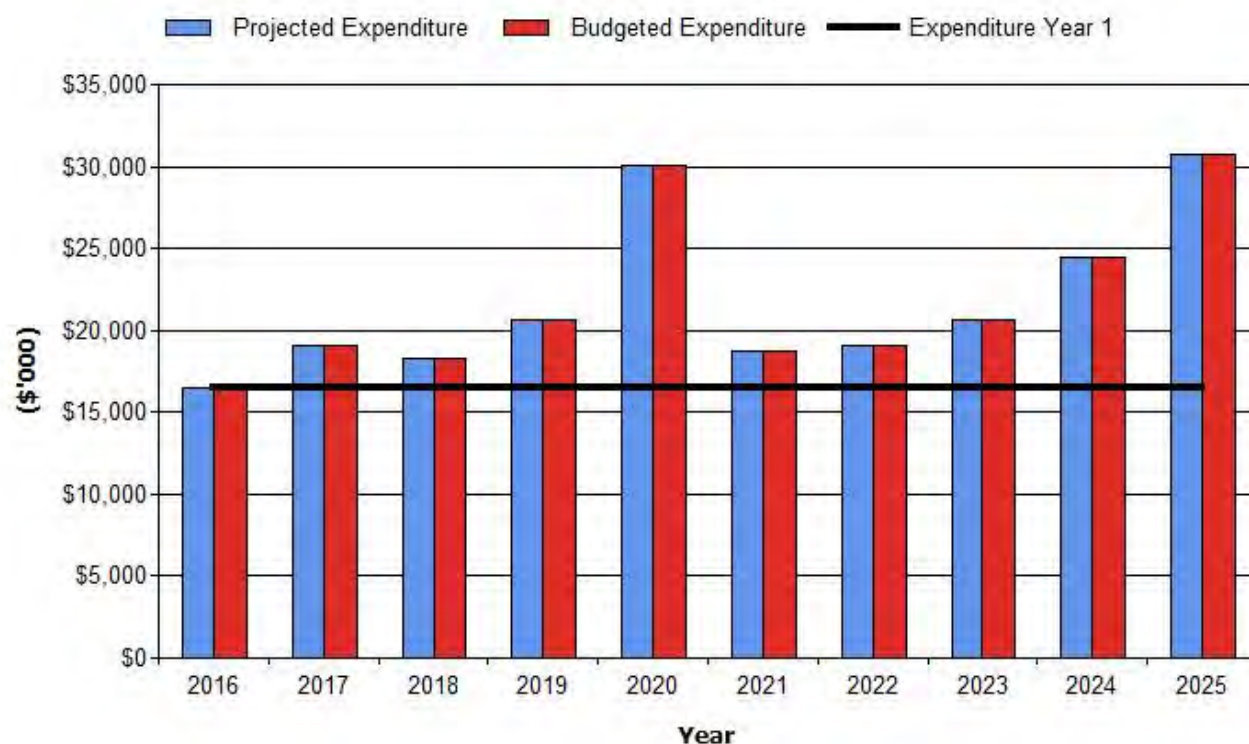
These infrastructure assets have a replacement value of \$761 million.

What does it Cost?

The projected expenditures necessary to provide wastewater service including operations, maintenance, infrastructure renewal and infrastructure to support growth over the next 10 years is \$218 million. Estimated available funding for this period is balanced against projected costs and provides 100% of funding required for service delivery (see figure next page).

The expenditures and budget for providing wastewater service are consistent with the City's Wastewater Financial model which indicates that on average rate increases will need to match inflation (projected at 2% per annum) to support service delivery for the next 10-years. Long-term, as the wastewater system ages, investment in infrastructure renewal will need to increase and may require rate increases in excess of inflation.

Kelowna - Projected and Budget Expenditure for (Waste Water_S2_V3)



The above Figure shows the 10-year budget and expenditures. Projected expenditures are balanced against available budget and the Waterwater Utility is 100% funded for the 10-year planning period.

What we will do?

Over the next 10-years \$37 million will be invested in infrastructure renewal. Beyond 10-years, renewal investment will increase to more sustainable levels. See Appendix B for a list of renewal expenditures.

The next ten years will see wastewater asset stock increase by \$56 million as a result of infrastructure required to service growth and improve service levels (Appendix C). This includes approximately \$20 million in contributed assets through the development of new subdivisions. This increase in asset stock will contribute to an increase in operating and maintenance costs of approximately \$1.7 million within that time frame.

What is not in the AM Plan?

Wastewater assets are depreciating on average at \$10.9 million/yr and the average annual renewal expenditure for the next ten years is \$3.7 million which suggest asset renewal is being under funded in the long-term. By 2035 the projected renewal expenditure is \$6.5 million or 53% of the rate of depreciation. This funding short fall is acceptable in the short-term because the Wastewater system is relatively new. As our system ages, however, asset renewal funding will need to increase.

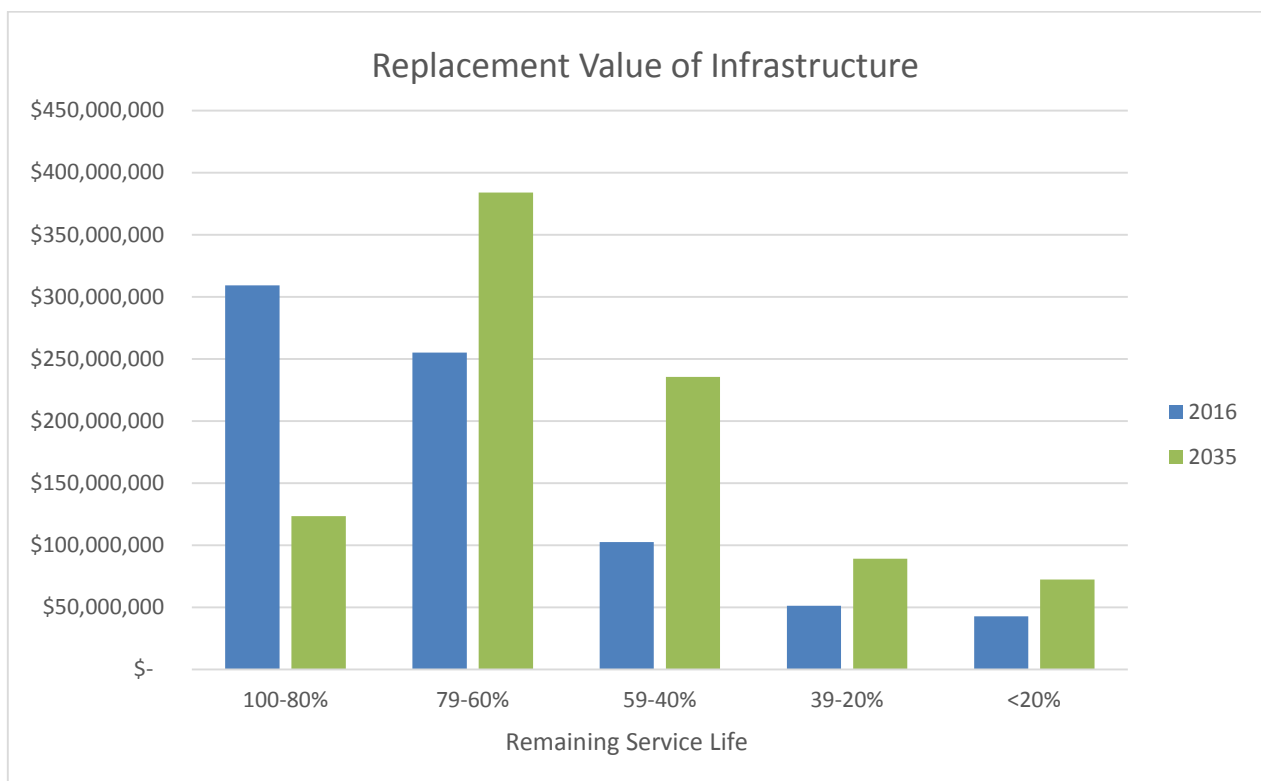
Future updates to this asset management plan will respond to these and other cost pressures so that the City is prepared to invest in infrastructure improvements while maintaining measured and predictable rates to the customer.

System Condition

The City Wastewater Utility is a resilient and robust system that is maintained in a state of good repair. Pumping and treatment facilities have backup equipment to ensure continuous service delivery when equipment breaks down.

The condition of the wastewater infrastructure is fair-to-good depending on the asset component. The wastewater system currently has \$43 million worth of assets with less than 20 percent of their service life remaining (see figure below).

These older assets may be at higher risk of failure and require more maintenance and condition assessment. Over the next 20 years the water system will age and the value of those assets with less than 20% service life remaining will increase to \$72 million or about 8% of the total system value. Projected renewal investment increases with time to achieve more sustainable levels by 2035.



The above Figure shows the replacement value of assets in specific age categories. The chart shows that the system will age over the next 20 years given the projected renewal investment.

Managing the Risks

As the system ages the City will need to manage the associated increased risk of infrastructure failure and service interruption. The City will manage these risks through condition assessment, regular maintenance and inspection of critical assets. The City is investing in a computerized asset management system that will improve efficiency of maintenance, track repair frequency and prioritize high risk assets for replacement.

The Wastewater Utility is fully funded for the next 10-years and well positioned to address longer term asset renewal funding needs. If we don't plan for and manage future cost pressures, however, it is likely that we will have to reduce service levels in some areas, unless new sources of revenue are found. For the Wastewater Utility, the service level reduction may include more frequent service interruptions (i.e. pipe

breaks). The regulated treatment of wastewater and biosolids should not be affected and the City is committed to exceeding regulatory standards.

Future changes in wastewater quality regulations may present a financial risk to the Wastewater Utility. The City will continue to work in with provincial regulators to understand the need and timing of any changes so that the City can plan in advance for the required infrastructure improvements.

The Next Steps

This asset management plan will be updated on a regular basis to reflect future infrastructure costs, the condition of assets and the potential impacts to service levels. Future iterations of this asset management plan will improve as the City's asset management program matures. The City is investing in systems and resources that will improve data quality and the efficiency of maintenance and asset replacement. Through continuous improvement in asset management practice the community can be confident that there is an affordable plan to maintain, operate and replace assets and that they will continue to receive safe, reliable and environmentally responsible disposal of wastewater in the long-term.



2. INTRODUCTION

2.1 Background

This asset management plan (AMP) covers all aspects of the municipal wastewater system and is one of a family of several asset management plans comprising the complete municipal asset stock. This plan demonstrates responsive asset management, compliance with regulatory requirements, and sustainable funding to provide the required levels of service over a 20-year planning period.

The AMP follows the format recommended in the International Infrastructure Management Manual and is consistent with ISO 55000 – the internationally accepted standard for asset management practice.

This AMP developed using the following documents:

- Council Policy 352 - Sustainable Municipal Infrastructure Policy
- Council Policy 342 - Tangible Capital Asset Policy
- Wastewater Financial Model
- 2030 Infrastructure Plan
- 10-Year Capital Plan
- 5-Year Financial Plan
- 20-Year Servicing Plan & Financing Strategy
- 2030 Official Community Plan
- Liquid Waste Master Plan (1990)
- Wastewater Management Plan (1995)

The infrastructure assets covered by this asset management plan are shown in Table 2.1. These assets are used to provide all Wastewater services to the community.

Table 2.1.1: Assets covered by this Plan

Asset category	Dimension	Replacement Value
Wastewater Mains	597 km	\$550 M
Lift Stations	35 Sites	\$38.8 M
Brandt's Creek Trade Treatment Plant	1 Site	\$13.7 M
Waste Water Treatment Facility	1 Site	\$149 M
Regional Compost Facility	1 Site	\$9.6 M
TOTAL		\$761 M

Key stakeholders in the preparation and implementation of this AMP are shown in Table 2.1.1. Further improvements to the plan will require ongoing consultation with stakeholders and have been marked as “future” in the table below.

Table 2.1.2: Key Stakeholders in the AMP

Key Stakeholder	Role in Asset Management Plan
Council	<ul style="list-style-type: none"> • Represent needs of community, • Ensure Corporation is financial sustainable, • Agree to levels of service and risk (future), • Approve the Asset Management Plan, • To ensure appropriate resources and funding are made available to support the Asset Management Plan.
City Manager and Senior Management	<ul style="list-style-type: none"> • To provide strategic advice and leadership in the management of infrastructure assets.
Infrastructure Engineering	<ul style="list-style-type: none"> • Develops short and long-range infrastructure capital plans. • Establish levels of service for assets and measure infrastructure performance. • Adapt to changing regulations and emerging issues as required. • Develop, implement and review the asset management program
Infrastructure Delivery	<ul style="list-style-type: none"> • Manage delivery of capital projects.
Civic Operations	<ul style="list-style-type: none"> • Maintenance and operations of City Infrastructure
Development Services	<ul style="list-style-type: none"> • Manages the delivery of developer built infrastructure.
Policy and Planning	<ul style="list-style-type: none"> • Community planning including OCP

2.2 Goals and Objectives of Asset Management

The Corporation (City of Kelowna) exists to provide services to its community. These services are supported by infrastructure assets. We have acquired infrastructure assets by purchase, through construction by the City and contributed by developers to support growth.

Our goal in managing infrastructure assets is to meet the defined level of service (as amended from time to time) in the most cost effective manner for present and future consumers. The key elements of infrastructure asset management are:

- Providing a defined level of service and monitoring performance,
- Managing the impact of growth through demand management and infrastructure investment,
- Taking a lifecycle approach to developing cost-effective management strategies for the long-term that meet the defined level of service,
- Identifying, assessing and appropriately controlling risks, and
- Having a long-term financial plan which identifies required, affordable expenditure and how it will be financed.

2.3 Core and Advanced Asset Management

This AMP is prepared over a 20-year planning period in accordance with the International Infrastructure Management Manual. It is prepared to meet legislative requirements and the City's objectives for sustainable service delivery and long term financial planning and reporting. This AMP is considered a core asset management plan that uses a 'top down' approach where analysis is applied at the 'system' or 'network' level.

Future revisions of this AMP will move towards 'advanced' asset management using a 'bottom up' approach for gathering asset information for individual assets to support the optimization of activities and programs to meet agreed service levels. This will require more comprehensive data collection, asset maintenance and reporting. To facilitate this, the City will purchase of a computerized asset management system (AMS) in 2017 that would improve efficiency of maintenance, track repair frequency and prioritize high risk assets for replacement.

3. LEVELS OF SERVICE

3.1 Strategic and Corporate Goals

This asset management plan is prepared to align with the corporate vision, mission and goals.

Corporate Vision:

To be the best mid-sized city in North America

Corporate Mission:

Leading the development of a safe, vibrant and sustainable city

Relevant goals and objectives and how these are addressed in this AMP are shown in Table 3.2.

Table 3.1: Corporate Plan and how these are addressed in this Plan

Goal	Objective	How Goal and Objectives are addressed in AMP
Performance excellence	The City is a high-performing, accountable Corporation that delivers on its plan.	Short, long-term Capital Plans are required to deliver world class infrastructure that is financially sustainable. The AMP is a long-term plan that will guide the City's capital investment over the next 20-years.
Responsive customer service	The City understands evolving needs and ensures services are appropriate and accessible.	The AMP will establish current and future LOS and use this information to direct capital investment to support service levels.
Engaged communities	The City listens and encourages full participation for the community to clarify needs and build neighbourhood identities.	The AMP will be reviewed with Council so that it reflects community priorities.
Pioneering leadership	The City finds better ways to deliver services to the community.	Through the development of the AMP the City reviewed innovative solutions to provide those services.
Strong financial management	Kelowna delivers on a multiple bottom line, balancing community priorities with resource realities.	The AMP is affordable and considers renewal, growth and service level improvements. This 20-year AMP is developed so that we can plan ahead for future cost pressures and mitigate the impacts to rate payers.

3.2 Legislative Requirements

Table 3.2: Legislative Requirements

Legislation	Requirement
Provincial Environmental Management Act	Provides the Municipal Wastewater Regulations regarding effluent discharge.
Federal Fisheries Act	Wastewater System Effluent Regulations regarding effluent discharge.
Local Government Act	Sets out role, purpose, responsibilities and powers of local governments including the preparation of a long term financial plan supported by asset management plans for sustainable service delivery.
Workplace Health & Safety Act and Regulations	Prescribes the Organizational responsibility for occupational health and safety including individual responsibilities, systems, reporting incidents and non-conformities and corrective actions.
PSAB 3150 Accounting Standards	Tangible Capital Asset accounting standards for the public sector, including municipalities.
Community Charter	Sets out the legal framework for the powers, duties, and functions of municipal organizations. Provides municipal organizations with the authority to address existing and future community needs.

3.3 Levels of Service

Levels of service measure how the community receives the service and whether the Wastewater Utility is providing good service to its customers. The collection, treatment and disposal of wastewater is highly regulated and these regulations set (for the most part) the service levels for the Wastewater Utility. The levels of service measured in this asset management plan are:

Condition	Is the service maintained in a state of good repair?
Function/Quality	Does it meet regulatory requirements and users' needs?
Capacity	Does the service have adequate capacity?

The table below details the level of service objectives, how they are measured and the current and expected performance.

Table 3.3: Level of Service

Service Attribute	Service Objective	Performance Measure	Current Performance	Expected position in 10 years based on projected investment								
Condition	Maintained in a state of good repair.	Remaining Useful Life (age based). Replacement value assets with less than 20% remaining service life.	<div>Replacement Value of Assets with <20% Remaining Service Life</div> <table><thead><tr><th>Year</th><th>Replacement Value (\$)</th></tr></thead><tbody><tr><td>2016</td><td>40,000,000</td></tr><tr><td>2025</td><td>25,000,000</td></tr><tr><td>2035</td><td>75,000,000</td></tr></tbody></table>		Year	Replacement Value (\$)	2016	40,000,000	2025	25,000,000	2035	75,000,000
Year	Replacement Value (\$)											
2016	40,000,000											
2025	25,000,000											
2035	75,000,000											
Function <i>(Fit for Purpose)</i>	There is minimal service interruption.	Main blockages and/or breaks	Number of wastewater main blockage removals – 13 (2014)	Remain constant over the 10-year period								
	Minimal odours from network and facilities.	Service requests.	Treatment and Network -28 service complaints in (2014) Bio-Solids (Sludge composting) -43 requests in (2013)	Remain constant over the 10-year period.								
		Wastewater treatment meets regulatory standards.	Meet regulatory effluent requirements.	Meet regulatory effluent requirements.								
		Bio-solids composting class	Class A compost (100%)	Class A compost (100%)								
Capacity/ Utilization	Wastewater network has sufficient capacity.	Number of serviceable properties without wastewater service.	3925	1925								

4. FUTURE DEMAND

4.1 Demand Drivers

Drivers affecting demand include changes in population, demographics, housing densities, climate, economic factors and changing regulations.

The demand drivers that may impact future service delivery and utilization of assets are outlined in Table 4.1.

Table 4.1: Demand Drivers, Projections and Impact on Services

Demand drivers	Present position	Projection	Impact on services
Population Increase	Current population 125,000	From 2014 to 2040 population increase 60,000 (~50%)	Increase wastewater flow
Unserviced properties Added	3925 unserviced properties	Provide service to 2000 properties	Increase wastewater flow
Demographic	Percentage population 65+ is 21%	Percentage population 65+ to increase to 26%	TBD
Housing Density	Single Family – 61% Multi-Family – 39%	Single Family – 43% Multi-Family – 57%	Increase in Wastewater capacity required for areas of densification
Climate Change	Rainfall infiltration contributions to Wastewater mains	More intense rainfall events resulting in infiltration spikes	Increase wastewater flow
Changing Regulation	Status Quo	Unknown	Unknown

4.2 Demand Management Plan

Demand for new services will be managed through a combination of managing existing assets, upgrading of existing assets and providing new assets to meet demand and demand management.

The 20 Year Servicing Plan was developed in conjunction with the 2030 OCP and accounts for most of the demand drivers except climate change.

Opportunities identified to date for demand management are shown in Table 4.2.

Table 4.2: Demand Management Plan Summary

Demand Driver	Impact on Services	Demand Management Plan
Population increase	Increase in Wastewater	Upgrade existing and add new infrastructure to accommodate growth as per 20-year Servicing Plan.
Unserviced Areas Added	Increase in Wastewater	Upgrade existing and add new infrastructure to accommodate servicing existing areas that are currently serviced by onsite septic systems.
Demographic	Impact unknown at this time	Continue to assess the impacts.
Housing Density	Increase in Wastewater capacity required for areas of densification	Renewal program to consider increasing capacity to meet the needs of increased housing density and multiple dwelling in urban centres.
Climate Change	Impact unknown at this time	Impacts unknown at this time
Changing Regulation	More stringent regulations	Continue to work with Regulators to understand the need and timing of any changes.

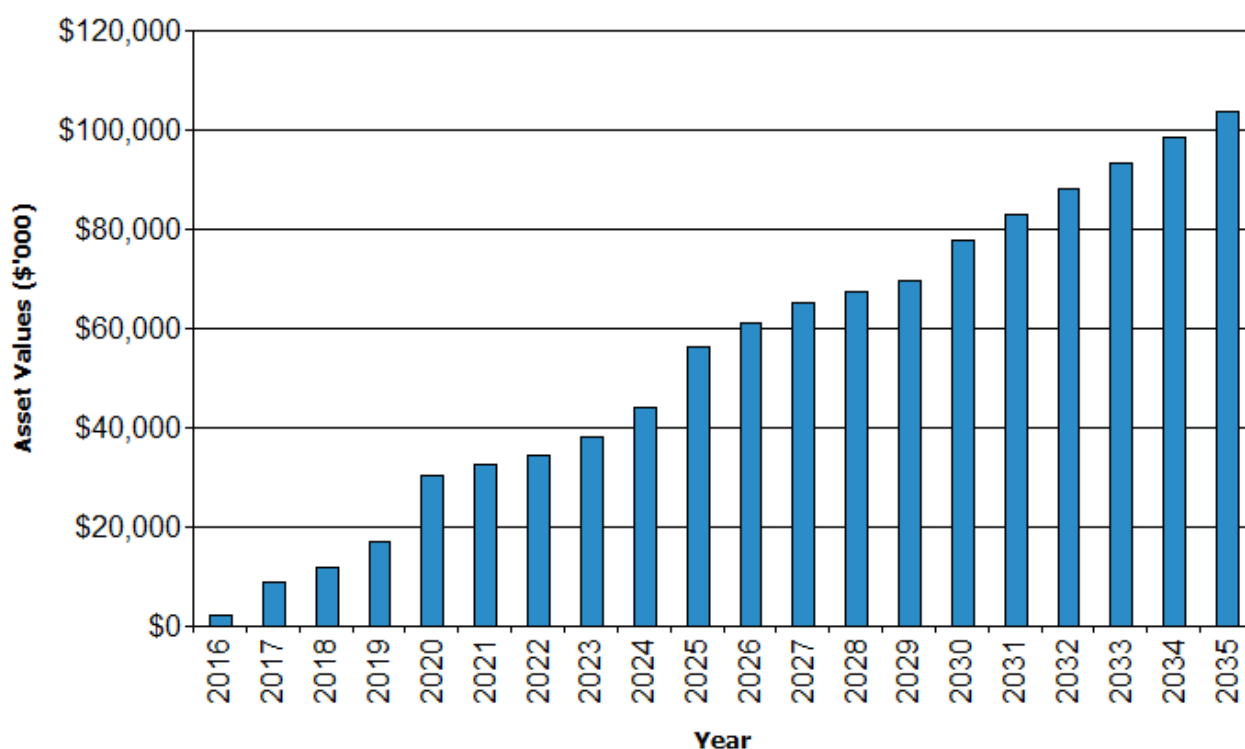
4.3 Asset Programs to meet Demand

New wastewater infrastructure required to meet growth will be acquired from land development (contributed) and constructed by the City and developers (through our DCC program) as outlined in 20 Year Servicing and Financial Strategy. Figure 1 shows the cumulative value of new assets required to accommodate growth and/or improve service levels. A project listing is provided in Appendix C.

On average the City receives \$2 million worth of contributed assets from land development. This amount is included in the totals shown in the below Figure.

Figure 1: Upgrade and New Assets to meet Demand

Kelowna - Upgrade & New Assets to meet Demand (Waste Water_S2_V3)



Over the next 20 years the Water asset stock will increase by \$103 million to accommodate growth and/or improve service levels. This represents a 14% increase in asset stock from the current replacement value of \$761 million. Acquiring these new assets will commit the City to fund ongoing operations, maintenance and renewal costs. These future costs are identified and considered in Section 5.

5. LIFECYCLE MANAGEMENT PLAN

The lifecycle management plan details how the City plans to manage and operate the assets at the agreed levels of service while optimizing life cycle costs.

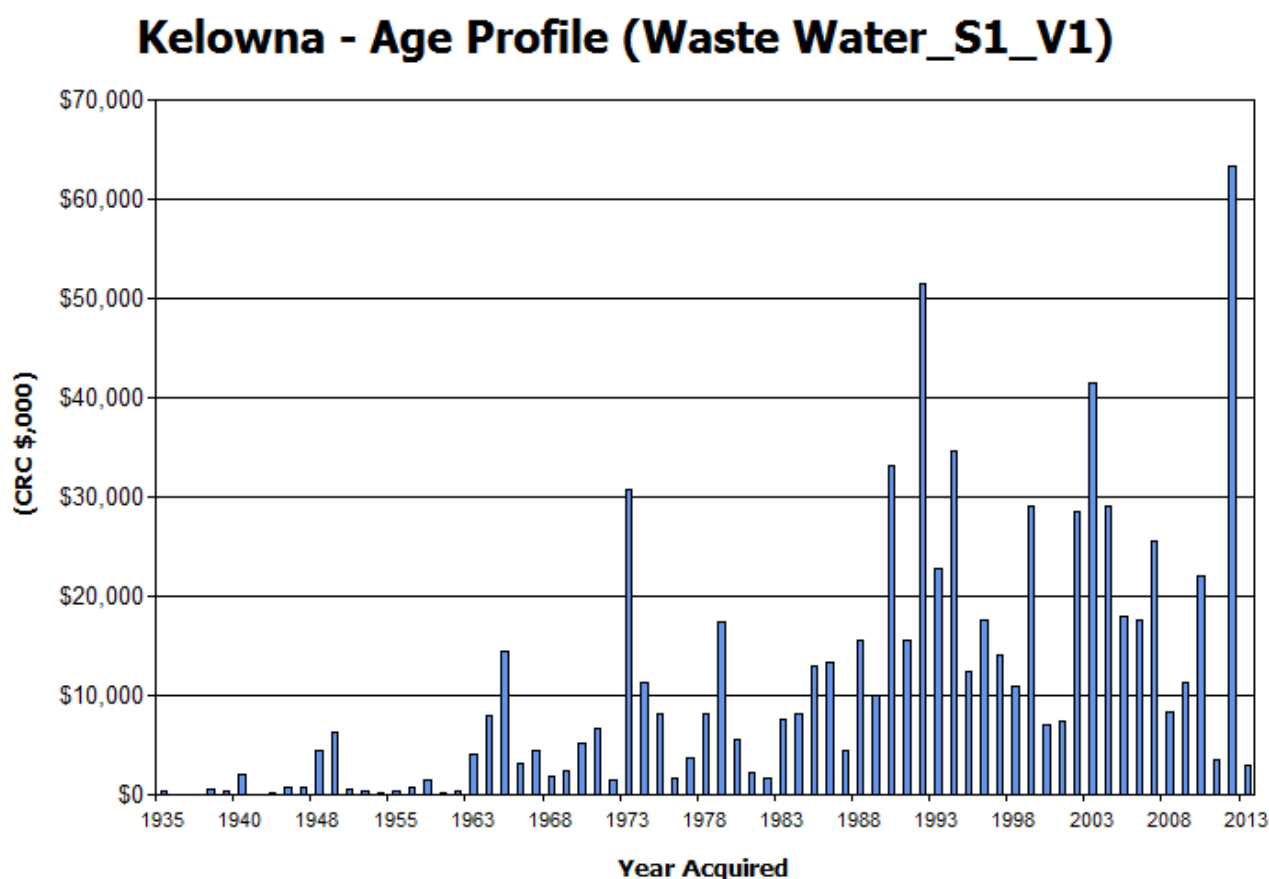
5.1 Background Data

5.1.1 Physical parameters

The infrastructure covered by this asset management plan were previously listed in Table 2.1 and include all linear and vertical assets required for Wastewater service delivery.

The age profile of the assets included in this AMP is shown in Figure 2. The graph shows the total value of assets for year acquired or last renewed in each year in current replacement values.

Figure 2: Asset Age Profile



5.1.2 Asset capacity and performance

Wastewater services are generally provided to meet design standards as set out in the Subdivision, Development and Servicing Manual.

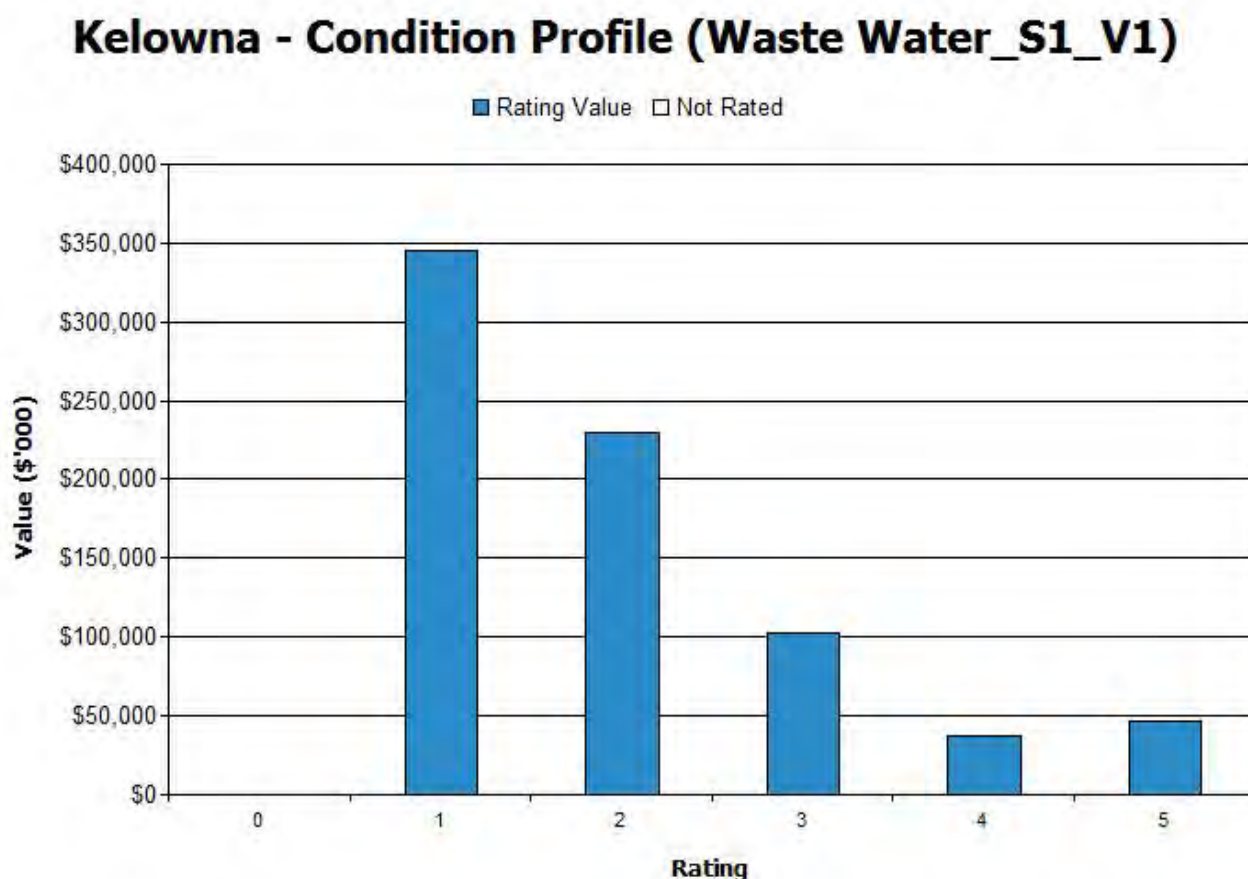
There are no known deficiencies in service performance.

5.1.3 Asset condition

The City has an annual CCTV program for assessing condition of the network mains. This is a relatively new program and to date approximately 15% of the network has been rated. Wastewater facility assets are assessed during routine maintenance. For this AMP remaining useful life is used a simple metric for assessing asset condition. This will be replaced with actual condition data once the City's condition monitoring program becomes more robust.

The percentage of remaining useful life for Wastewater linear and vertical assets is plotted below.

Fig 3: Asset Condition Profile



Condition is measured using a 1 – 5 grading system as detailed in Table 5.1.3.

Table 5.1.3: Simple Condition Grading Model

Condition Grading	% of Remaining Asset Useful Life
0	Assets not rated or unknown
1	80-100%
2	60-79%
3	40-59%
4	20-39%
5	<20%

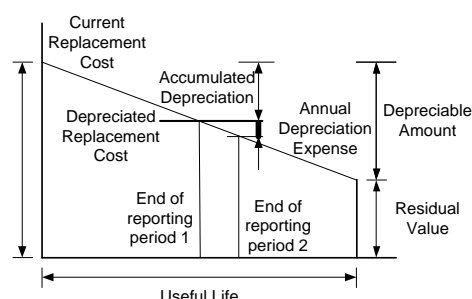
The above graph shows that most of the Wastewater assets (89%) have more than 40% of their useful life remaining and that the Wastewater system is in relatively good condition. The infrastructure that has less than 20% of its useful life remaining will be the focus of future condition assessment to plan replacement timing.

In the next 20 years the percentage of assets with less than 20% of their remaining useful life is expected to increase from 6% (\$43 million) to 8% (\$72 million) which suggests renewal funding will need to continue to increase beyond the 20-year planning horizon. More detailed condition assessment will also be required to confirm asset condition and optimal renewal timing.

5.1.4 Asset valuations

The value of assets covered by this asset management plan are shown below. Assets are valued at current construction costs based (where possible) on actual tendered prices. Definitions to all of the following financial terms are provided in the appendix.

Current Replacement Cost	\$761 M
Depreciable Amount	\$761 M
Depreciated Replacement Cost	\$548 M
Annual Depreciation Expense	\$10.9 M



Various ratios of asset consumption and expenditure have been prepared to help guide and gauge asset management performance and trends over time.

Rate of Annual Asset Consumption (Depreciation/Depreciable Amount)	1.4%
Rate of Annual Asset Renewal (Capital Renewal Budget (2016)/Depreciable amount)	0.4%
Rate of Annual Asset Upgrade (Including Contributed Assets) (Capital Upgrades (2016)/Depreciable amount)	0.3%
Asset Renewal as percentage of consumption (% Renewal/ % Consumption)	30.9 %
Percentage increase in asset stock	0.3%

Based on the 2016 renewal budget the City is renewing assets at 30.9% of the rate that they are being consumed. The renewal rate is adequate given the age of Wastewater assets but renewal investment will need to increase in the long term to be sustainable. By 2035 renewal investment increases to \$6.5 million or 53% of the depreciable amount.

At the same time the City is increasing the Wastewater asset stock by 0.3%. The increase in asset stock to accommodate growth will contribute to high operating and maintenance costs and further renewal funding in the future. Monitoring these indicators over time will indicate whether the City's wastewater assets are being maintained (i.e. assets are being renewed as they are consumed on average).

These measures together with the sustainability measures in Section 6.1.1 provide valuable information to inform the City's strategic direction and objectives.

5.2 Infrastructure Risk Management Plan

A high level assessment of risks associated with service delivery from infrastructure assets is summarized in Table 5.2. This risk assessment identified risks that may result in loss or reduction in service from infrastructure assets or a 'financial shock' to the City.

Table 5.2: Critical Risks and Action Plans

Service or Asset at Risk	What can Happen	Risk Rating (VH, H)	Risk Action Plan	Residual Risk *	Additional Costs
Wastewater System	Increase investment for asset renewals over the longer term (year 20-60)	H	Continually update asset management plans to inform council and community of impending increases.	M	Existing Staff and Operational Resources
Bio-Solids	Reduced market for OgoGrow resulting in biosolids surplus	H	Develop plan for disposal options including marketing and sales	M	2016 and 2017 approved budget
Bio-Solids	Shortage of wood chips required for composting.	H	Develop and identify new sources for wood fibre with associated costs.	M	Source procurement and development resources Capital and Operational resources required
Wastewater Network	Contamination of wastewater collection system by illegal discharge to system.	M	Continue source control monitoring.	M	Existing Staff and Operational Resources
Wastewater Network	Gas lines cored through the pipes (directional drilling) potential for explosion.	H	Negotiating with gas companies to form agreement regarding potential drilling / pipe conflicts.	M	Existing Staff and Operational Resources
Wastewater Treatment Plant	Major system failure at wastewater treatment plant	M	Maintain operation and maintenance standards. Renewing infrastructure as required. Continue to fully fund O & M and planned renewals as required.	M	As detailed in this AMP
Wastewater System	Regulatory changes increasing effluent standards	M	Monitor regulatory changes and work with regulators to understand need and timing of any changes.	M	Existing Staff and Operational Resources
Wastewater System	Accuracy of estimate useful lives of water assets impacting renewal timing	M	Move away from age based estimates as a proxy for condition. Invest in asset management system to allow for better preventative maintenance and detailed condition assessment.	L	2017 Provisional budget approved.

Note * The residual risk is the risk remaining after the selected risk treatment plan is operational.

5.3 Operations and Maintenance Plan

5.3.1 Operations and Maintenance Plan

Operational expenses are continuous expenses required to provide the service, including power, fuel, staff, plant equipment and overhead.

Maintenance expenses include those necessary for retaining an asset as near as practicable to an appropriate service condition including regular ongoing day-to-day work necessary to keep assets operating.

Maintenance may be classified into reactive and planned work activities. Reactive maintenance is unplanned repair work carried out in response to asset failure and service requests. Planned maintenance is repair work that is identified and managed through scheduled maintenance management. Planned is preferable to reactive maintenance as it reduces costs and service disruption.

Actual past operational and maintenance expenditure is shown in Table 5.3.1. These costs include debt service costs for past operational expenditures

Table 5.3.1: Operating and Maintenance Expenditure Trends

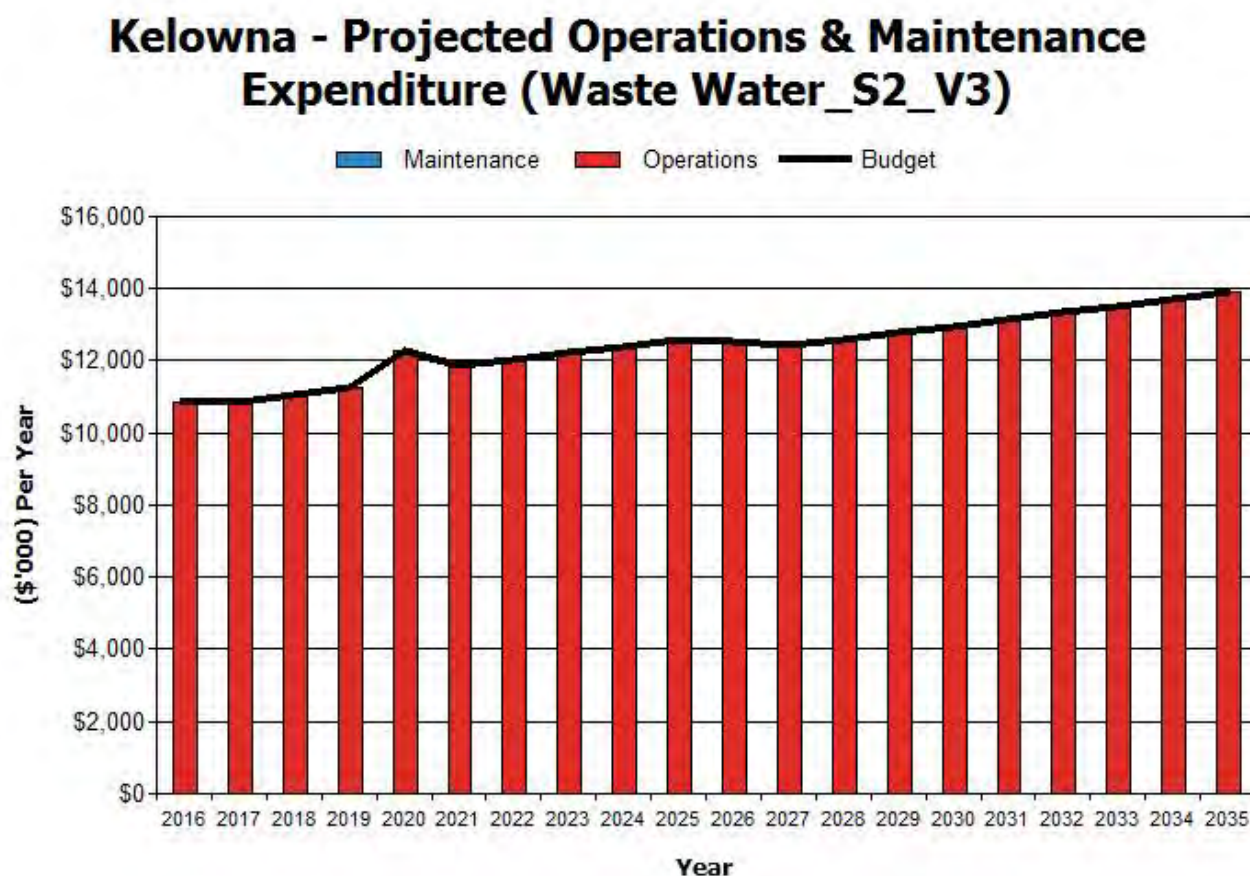
Year	Operating and Maintenance Expenditure
2016	\$10,858,000
2015	\$9,225,000
2014	\$9,377,000
2013	\$9,461,000

Operating and Maintenance expenditures have increased 14.7% over the past 4 years or about 3.7% on average annually.

5.3.2 Summary of future operations and maintenance expenditures

Future operation and maintenance (O&M) expenditures are forecast to increase to maintain the additional infrastructure required to service growth and improve service levels (Figure 4). The Wastewater system will increase asset stock by approximately \$103 million to support growth or improve service levels in the next 20-years. The annual operating budget will need to increase by \$3.0 million to support this new infrastructure. The Wastewater Utility Financial model adequately funds the expected O&M increase for the next ten years assuming an annual growth rate ranging between 1.38– 1.58%. Debt servicing for capital improvements is carried in the O&M budget.

Figure 4: Projected Operations and Maintenance Expenditure



Note: All costs are reported in current dollars (net of inflation).

5.4 Asset Renewal

Renewal expenditure is major work which does not increase the asset's design capacity but restores, rehabilitates, replaces or renews an existing asset to its original or lesser required service potential. Work over and above restoring an asset to original service potential is new/upgrade works expenditure.

5.4.1 Asset Renewal

The cost and timing of asset renewal was determined from the Asset Register by using the asset acquisition year and useful life to determine the renewal year. The asset renewal timing in this AMP is based on the assets theoretical expected service life and as such the actual renewal timing may differ depending on asset condition, risk and coordination with other infrastructure projects. Using asset age as a proxy for condition tends to be conservative and more detailed condition assessment is required to determine actual asset condition and renewal timing. Collection of this information will be made easier with the computerized asset management system.

Renewal costs were determined from industry standards and best practice. Where asset historic costs were available, these costs were escalated to the current year using the Engineering New Record.

The useful lives of assets used to develop projected asset renewal expenditures are shown in Table 5.4.1.

Table 5.4.1: Useful Lives of Waste Water Assets

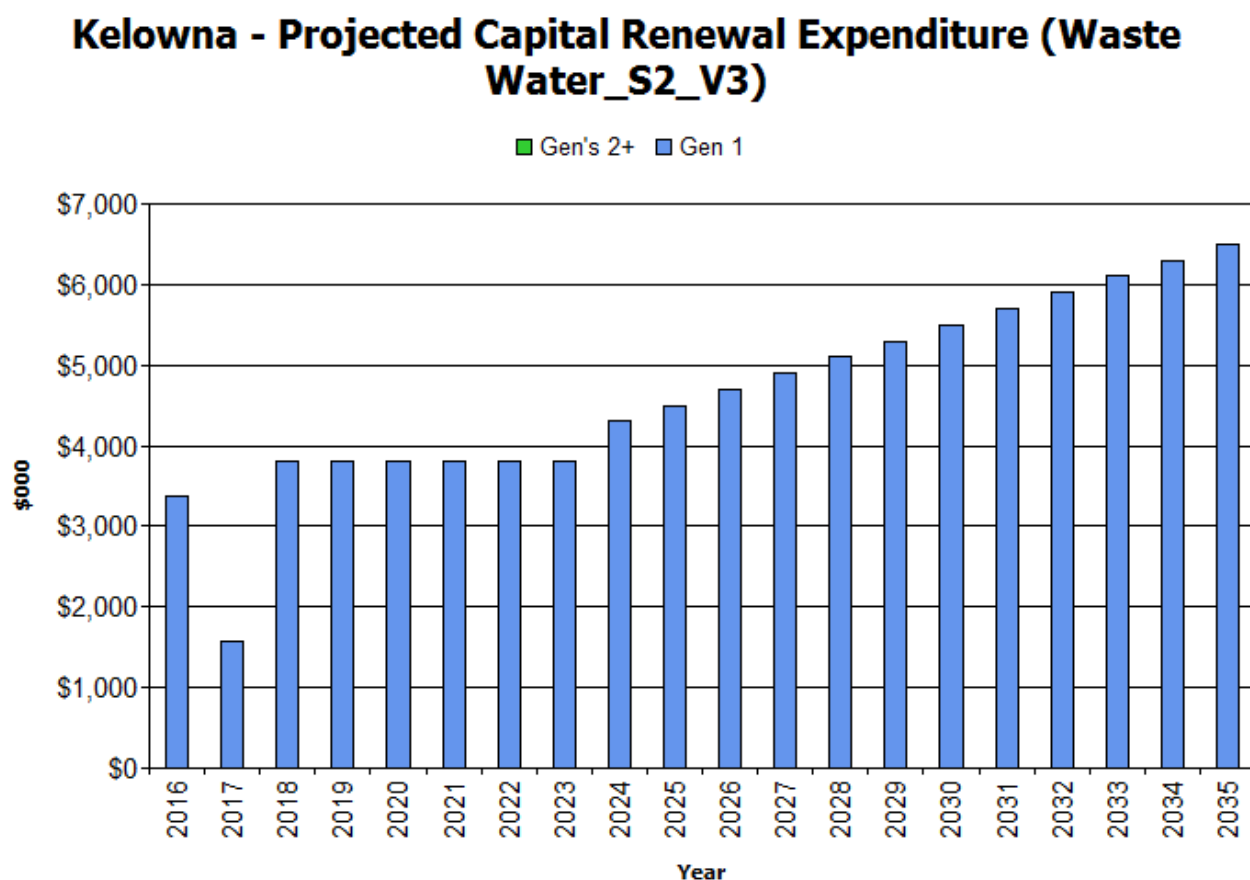
Asset	Asset Type	Material/Component	Useful Life
Network	Main	AC	80
		CONC	80
		WS	80
		RC	80
		DI	80
		HDPE	80
		PVC	100
		STEEL	80
		VIT	80
	Connection	ALL	*
	Manhole	ALL	*
	Valve	ALL	*
Facility	Wastewater Treatment Facility Brant's Creek Trade Treatment Plant Lift Station	Building	80
		Structural	80
		Mechanical	25
		Electrical	25

*Assumed to be same and inclusive with main.

5.4.2 Summary of future renewal and replacement expenditure

Projected future renewal expenditures are forecast to increase over time as the Wastewater assets near the end of their useful lives. There were peaks in development in the 1960's and 1970's and the supporting wastewater infrastructure constructed at that time is now 40-50 years old and is past the mid-way point of its useful life. Figure 5 shows the projected average capital renewal expenditures over the 20-year planning period.

Fig 5: Projected Capital Renewal and Replacement Expenditure



Note: All costs are reported in current dollars (net of inflation).

Over the next 20 years the funding required for asset renewal is \$92 million.

On average there is approximately \$3.8 million per year needed for asset renewal between 2016 and 2024. Renewal expenditures are expected to increase to approximately \$6.5 million by 2035 and will need to increase further to replace aging infrastructure.

These costs have been accounted for in the City's Wastewater Financial model based on a 2% annual increase to the Wastewater utility rate.

5.5 Creation/Acquisition/Upgrade Plan

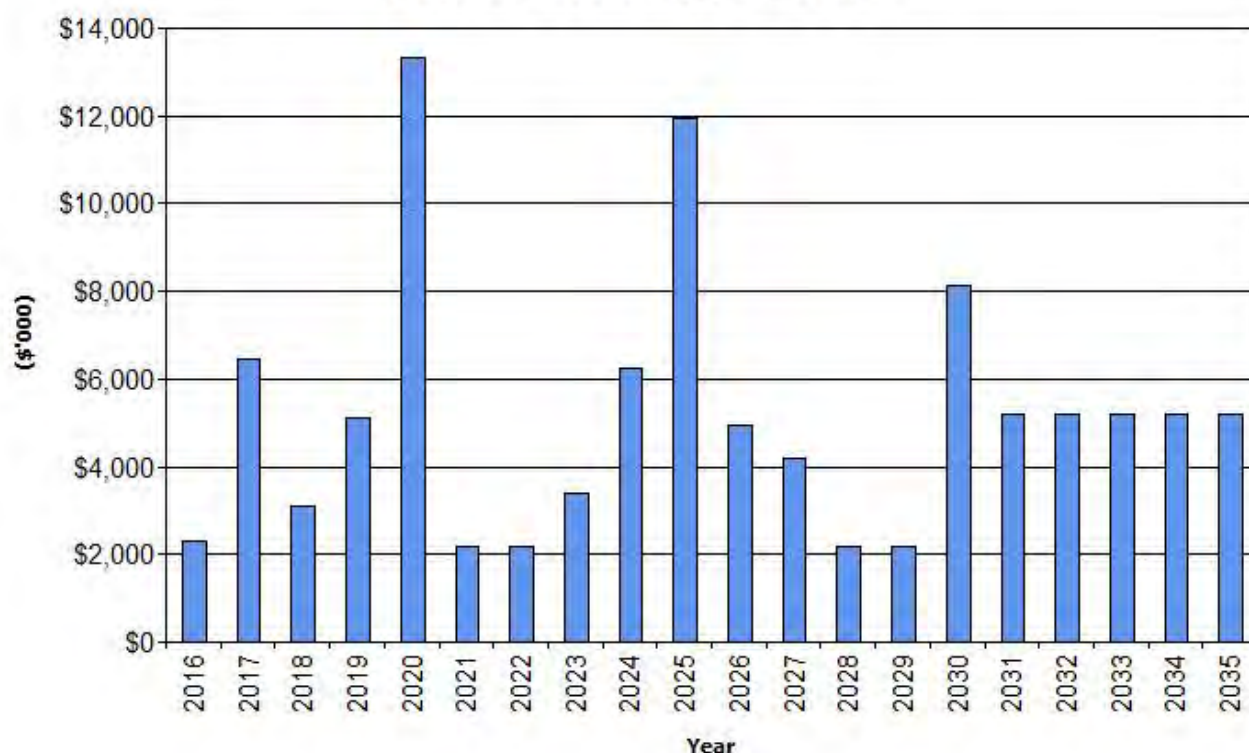
Upgrade/New assets are those works that create a new asset that did not previously exist, or works which upgrade or improve an existing asset beyond its existing capacity. They may result from growth or from an improvement to service levels (i.e. odour control facilities). Assets may also be contributed to the City from land development.

5.5.1 Summary of future upgrade/new assets expenditure

Projected Upgrade/New asset expenditures are summarized in Figure 6. The project list is provided in Appendix C. In total \$103 million worth of new asset expenditures are planned in the next 20 years. Approximately \$40 million are from developer contributed assets and \$63 million is required to accommodate growth as per the City's 10-Year Capital Plan.

Fig 6: Projected Capital Upgrade/New Asset Expenditure

Kelowna - Projected Capital Upgrade/New Expenditure (Waste Water_S2_V3)



Note: All costs are reported in current dollars (net of inflation).

Expenditure on new assets in the City's capital works program are accommodated in the Wastewater Utility financial model.

5.6 Asset Disposal

Disposal includes any activity associated with disposal of a decommissioned asset including sale, demolition or abandonment. For the most part, assets are disposed at the time of asset renewal and the disposal information is tracked and recorded in the asset registry.

For this AMP it is assumed that all disposed assets have no residual value.

5.7 Service Consequences and Risks

5.7.1 What is not in this asset management plan

There are no unfunded O&M activities or capital projects within the next 10 years.

Wastewater assets are depreciating faster than they are being renewed. This funding short fall is acceptable in the short-term because the wastewater system is relatively new. Given current re-investment, however, the wastewater system will age and this may increase the risk of infrastructure failure.

Future updates to this AMP will respond to these and other changes so that the City is prepared to invest in the right infrastructure at the right time.

5.7.2 Service consequences

In the next 10 years there are no anticipated consequences for service levels. Over the longer-term if renewal funding levels do not increase there may be service consequences. These are unknown at this time but may include:

- More frequent asset failure and service interruption,
- More reactive maintenance leading to higher costs.

5.7.3 Risk consequences

Over the next 10-years there is adequate funding for renewal projects. This AMP is developed without actual asset condition data, however, and there is risk that this “high level” plan may have missed infrastructure that is in poor or failing condition. This may create risk consequences for the City. These are unknown at this time but may include:

- Wastewater main failure and service interruption,
- Property damage related to flooding from sewer backups.

Future iterations of this AMP will benefit from improved processes and systems for collecting condition data and quantifying risk. Continuous improvement in the City’s asset management practices will improve efficiency of service delivery and reduce risk of service interruption and/or deterioration.

6. FINANCIAL SUMMARY

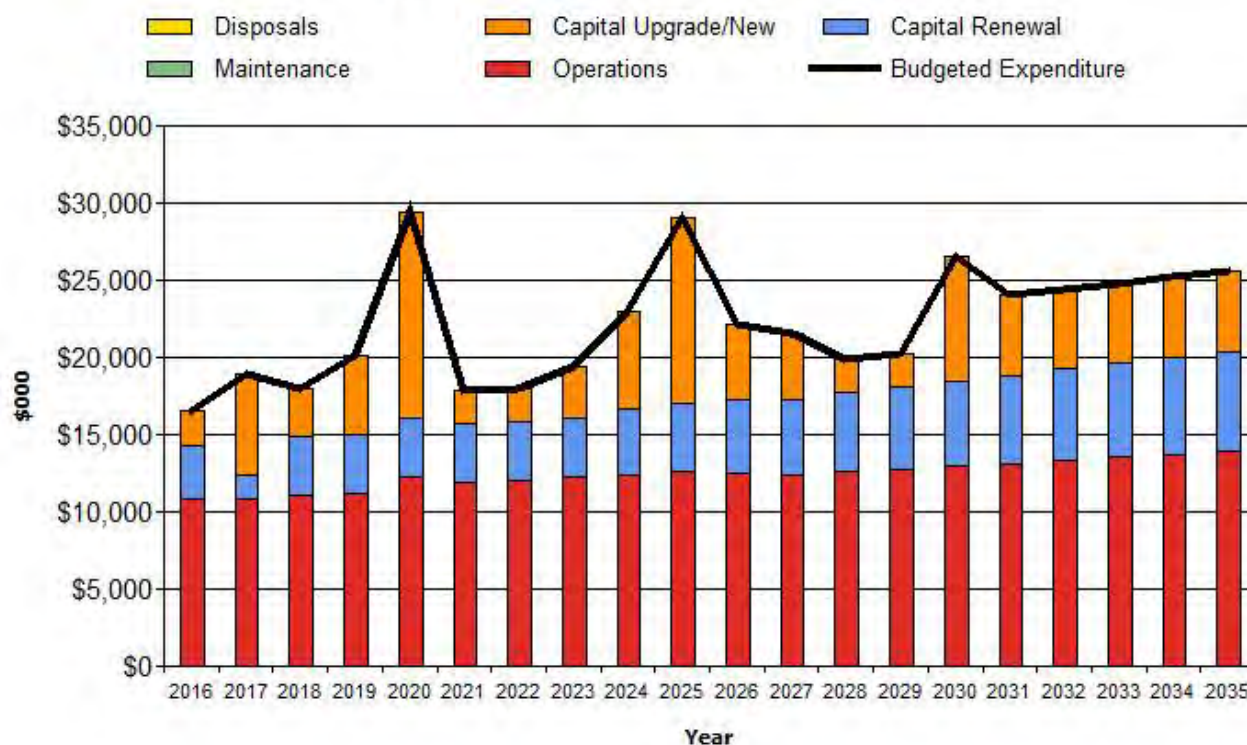
This section contains the financial requirements resulting from all the information presented in the previous sections of this AM Plan.

6.1 Financial Statements and Projections

The financial projections for operations, maintenance and capital expenditures for the next 20-year along with the projected budget are shown in Fig. 7. Figure 7 indicates that over the next 20 years there is adequate budget to fund operations, maintenance and capital expenditures assuming wastewater rates increase with inflation which is projected to be 2% annually. Beyond 10 years the projections become less certain but the Wastewater service is fully funded assuming there are no changes in regulatory requirements and the asset renewal requirements are as forecasted. This AMP will be update on a regular basis so that it captures emerging issues and leverages the best available data.

Fig 7: Projected Operating and Capital Expenditure

Kelowna - Projected Operating and Capital Expenditure (Waste Water_S2_V3)



Note: All costs are reported in current dollars (net of inflation).

6.1.1 Sustainability of service delivery

There are four key indicators for service delivery sustainability that have been considered in the analysis of the services provided by this asset category, these being the asset renewal funding ratio, long term life cycle costs/expenditures and medium term projected/budgeted expenditures over 5 and 10 years of the planning period.

Asset Renewal Funding Ratio

Asset Renewal Funding Ratio **100%**

The Asset Renewal Funding Ratio is the most important indicator and reveals that over the next 10 years, the City is forecasting that it will have budget to fully fund asset renewal.

Long term - Life Cycle Cost

Life cycle costs (or whole of life costs) are the average costs that are required to sustain the service levels over the asset life cycle. Life cycle costs include operations and maintenance expenditures and asset consumption (depreciation expense). The life cycle cost for the services covered in this asset management plan is \$23.0 million per year (average operations and maintenance expenditure plus depreciation expense projected over 10 years).

Life cycle costs can be compared to life cycle expenditure to give an initial indicator of affordability of projected service levels when considered with age profiles. Life cycle expenditure includes operations, maintenance and projected capital renewal expenditure. Life cycle expenditure will vary depending on the timing of asset renewals. The life cycle expenditure over the 10-year planning period is \$15.4 million per year (average operations and maintenance plus capital renewal budgeted expenditure over 10 years).

A shortfall between life cycle cost and life cycle expenditure is the life cycle gap. The life cycle gap for services covered by this asset management plan is \$7.6 million per year.

Life cycle expenditure is 67% of life cycle costs.

The life cycle costs and life cycle expenditure comparison highlights the difference between present outlays and the average cost of providing the service over the long term. The cycle expenditure is less than the life cycle cost and as such is probable that rates will need to be increased beyond inflation in the long-term.

Knowing the extent and timing of any required increase in rates will assist the City in providing services to the community in a financially sustainable manner. This is the purpose of the asset management plans and long term financial plan.

Medium term – 10 year financial planning period

Projected operations, maintenance and capital renewal expenditure over the 10-year planning period provides more reliable data for the assessment of service and financial sustainability as this based on best estimate projections in the AMP. This AMP identifies the projected operations, maintenance and capital renewal expenditures required to provide Wastewater service to the community over a 10-year period.

The projected operations, maintenance and capital renewal expenditure required over the 10-year planning period is \$15.4 million on average per year. The estimated budget available for operations, maintenance and capital renewal funding is \$15.4 million on average per year. This indicates that the City expects to have 100% of the projected expenditures needed to provide Water service.

Medium Term – 5 year financial planning period

The projected operations, maintenance and capital renewal expenditure required over the first 5 years of the planning period is \$14.5 million on average per year.

Estimated (budget) operations, maintenance and capital renewal funding is \$14.5 million on average per year. This indicates that the City expects to have 100% of projected expenditures required to provide Wastewater service.

Asset management financial indicators

Figure 7a compares the asset management financial indicators over the next 5 and 10 years and over the long-term life cycle of the asset category. Ideally, the financing indicators should be 100% for the first 5 years and close to 100% over the 10 year period. Anything less than this in the 5-10 year period would suggest funding levels below that required to sustain existing service levels.

The Wastewater service has adequate budget to support service levels over the next 5 to 10 years. Surplus funds should be placed in a reserve to accommodate funding deficits beyond 10-years.

The Long Term indicator suggests that rates may need to be increased beyond inflation to manage the increasing cost pressures from an aging system. This AMP projects an increase in renewal funding in anticipation of the future cost pressures to minimize rate impacts to the customers.

Figure 7A: Asset Management Financial Indicators

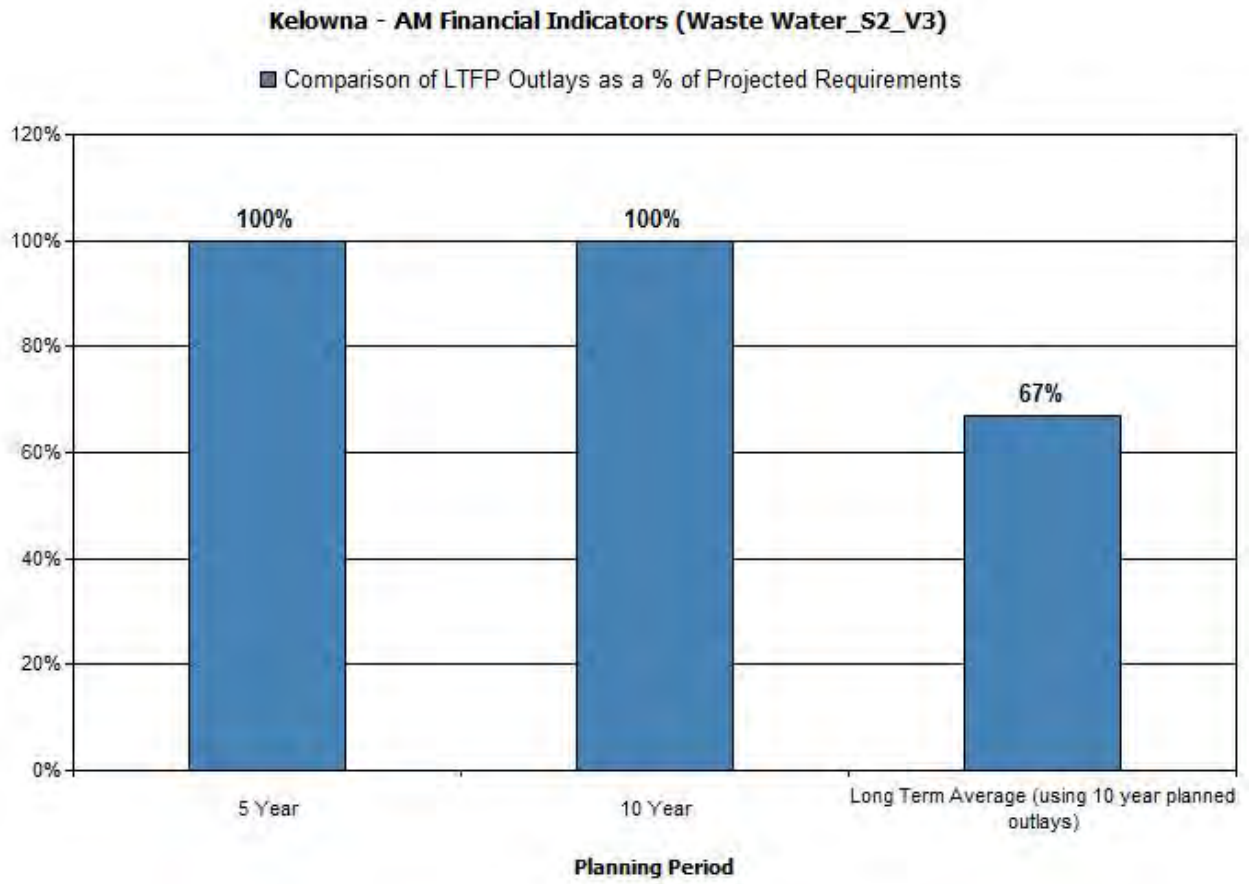
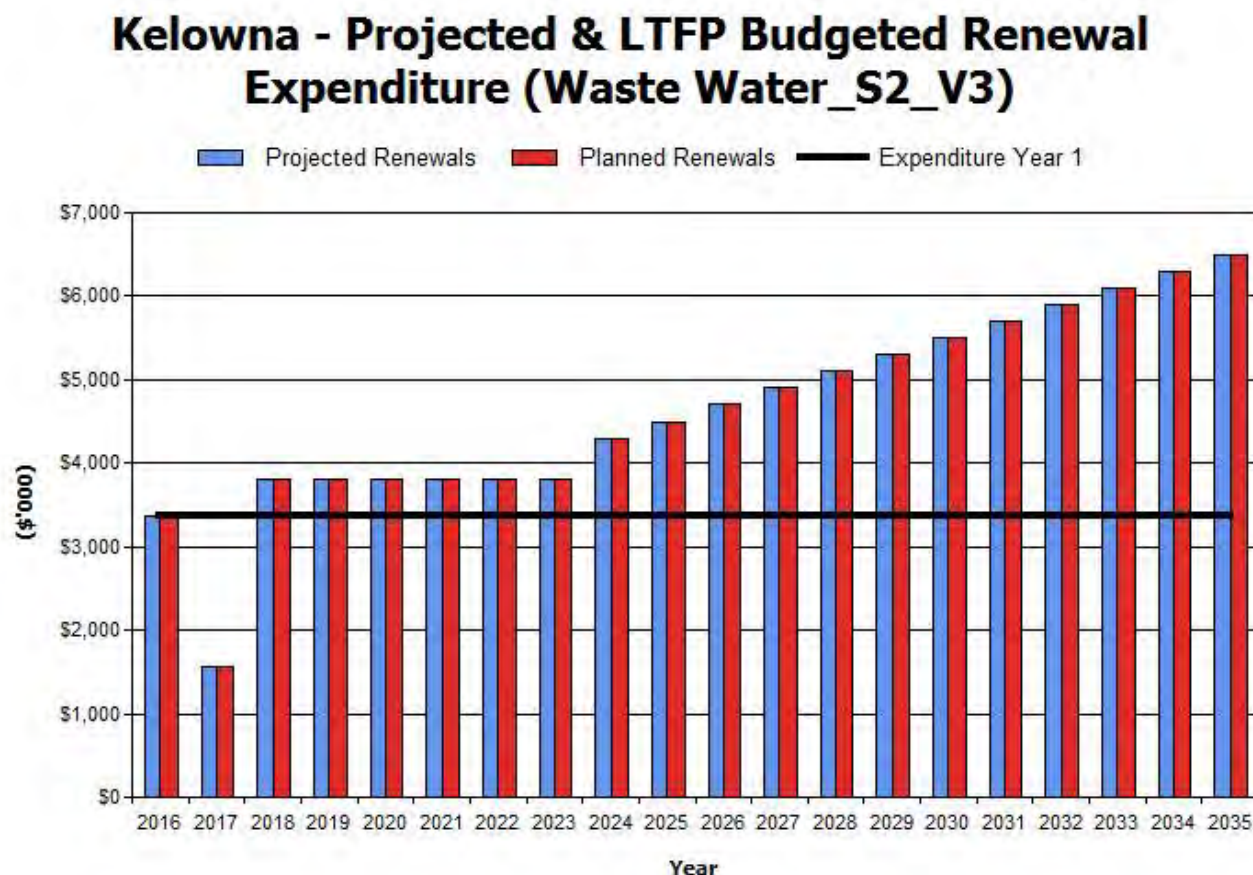


Figure 8 shows the Projected Renewal expenditure from Figures 5 compared to planned renewal expenditure from the long-term financial plan and current (year 1) expenditure. These renewal expenditures are accounted for in the Wastewater Financial Model and are fully funded.

Figure 8: Projected and LTFP Budgeted Renewal Expenditure



Note: All costs are reported in current dollars (net of inflation).

Table 6.1.1 shows that there is no shortfall between projected renewal expenditures and expenditure accommodated in the Wastewater Financial Model.

Table 6.1.1: Projected Expenditures and Budgeted Renewals and Financing Shortfall

Year	Projected Renewals (\$000)	Renewal Budget (\$000)	Renewal Financing Shortfall (\$000) (-ve Gap, +ve Surplus)	Cumulative Shortfall (\$000) (-ve Gap, +ve Surplus)
2016	\$3,373	\$3,373	\$0	\$0
2017	\$1,570	\$1,570	\$0	\$0
2018	\$3,800	\$3,800	\$0	\$0
2019	\$3,800	\$3,800	\$0	\$0
2020	\$3,800	\$3,800	\$0	\$0
2021	\$3,800	\$3,800	\$0	\$0
2022	\$3,800	\$3,800	\$0	\$0
2023	\$3,800	\$3,800	\$0	\$0
2024	\$4,300	\$4,300	\$0	\$0

2025	\$4,500	\$4,500	\$0	\$0
2026	\$4,700	\$4,700	\$0	\$0
2027	\$4,900	\$4,900	\$0	\$0
2028	\$5,100	\$5,100	\$0	\$0
2029	\$5,300	\$5,300	\$0	\$0
2030	\$5,500	\$5,500	\$0	\$0
2031	\$5,700	\$5,700	\$0	\$0
2032	\$5,900	\$5,900	\$0	\$0
2033	\$6,100	\$6,100	\$0	\$0
2034	\$6,300	\$6,300	\$0	\$0
2035	\$6,500	\$6,500	\$0	\$0

Note: A negative shortfall indicates a financing gap, a positive shortfall indicates a surplus for that year.

6.1.2 Projected expenditures for long term financial plan

Table 6.1.2 shows the projected expenditures for this AMP. O&M and capital for renewal and growth is fully funded.

Table 6.1.2: Projected Expenditures for the Wastewater AMP

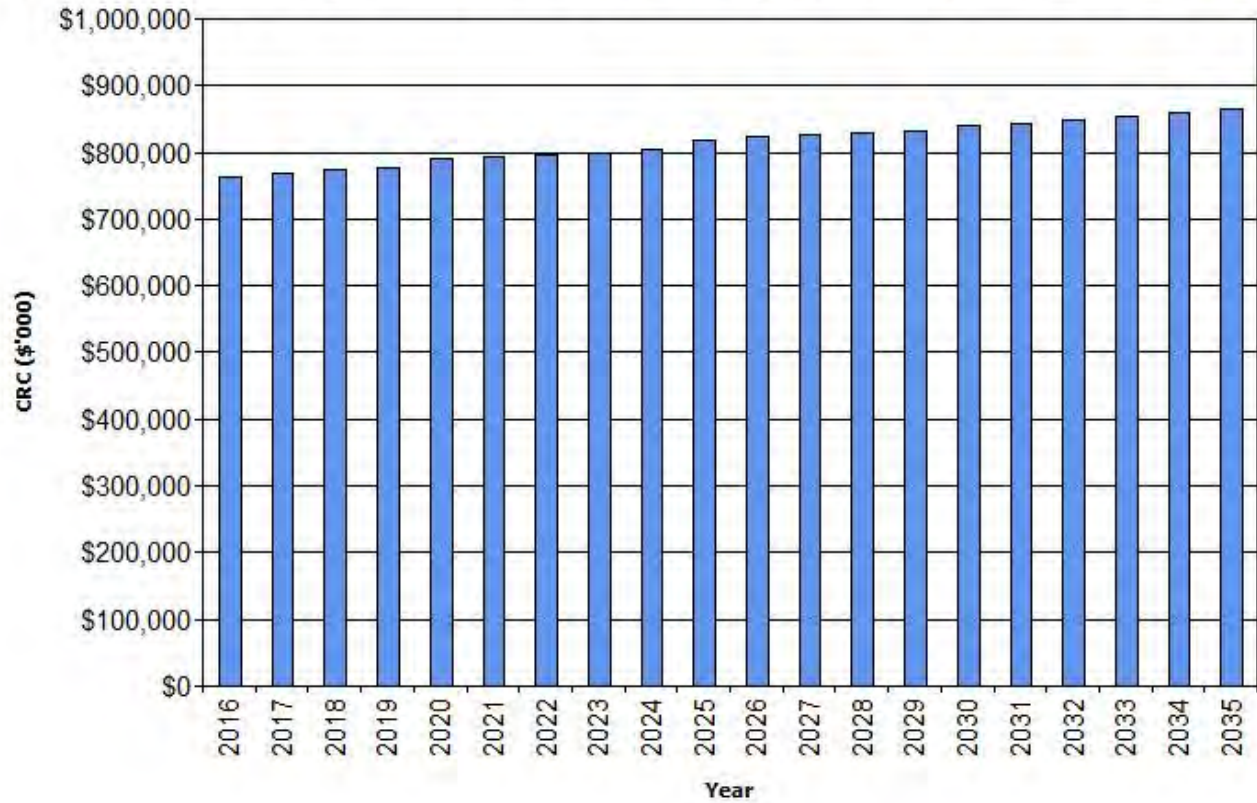
Year	Operations & Maintenance (\$000)	Projected Capital Renewal (\$000)	Capital Upgrade/ New (\$000)
2016	\$10,858	\$3,373	\$2,285
2017	\$10,861	\$1,570	\$6,440
2018	\$11,048	\$3,800	\$3,104
2019	\$11,237	\$3,800	\$5,119
2020	\$12,295	\$3,800	\$13,332
2021	\$11,862	\$3,800	\$2,160
2022	\$12,036	\$3,800	\$2,160
2023	\$12,213	\$3,800	\$3,405
2024	\$12,390	\$4,300	\$6,248
2025	\$12,571	\$4,500	\$11,965
2026	\$12,525	\$4,700	\$4,927
2027	\$12,411	\$4,900	\$4,200
2028	\$12,589	\$5,100	\$2,160
2029	\$12,770	\$5,300	\$2,160
2030	\$12,954	\$5,500	\$8,152
2031	\$13,139	\$5,700	\$5,188
2032	\$13,328	\$5,900	\$5,188
2033	\$13,519	\$6,100	\$5,188
2034	\$13,713	\$6,300	\$5,188
2035	\$13,909	\$6,500	\$5,188

Note: All values are reported in current dollars (net of inflation).

6.2 Valuation Forecasts

Asset values are forecast to increase as additional assets are added to accommodate growth or improve service levels. The projected current replacement cost of Wastewater assets is expected to increase by \$103 million to \$864 million over the planning period.

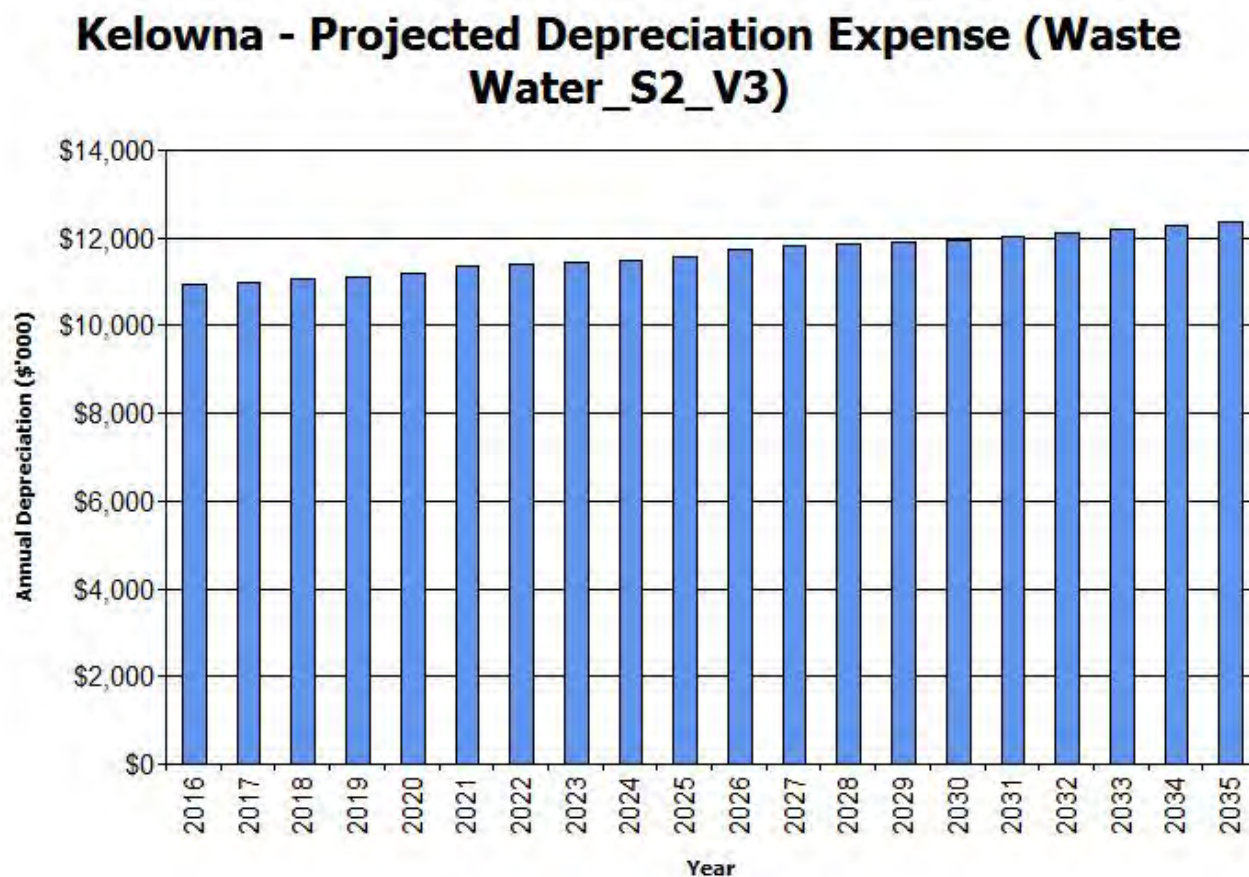
Kelowna - Projected Asset Values (Waste Water_S2_V3)



Note: All costs are reported in current dollars (net of inflation).

Figure 10 shows the projected depreciation expense for assets over the 20-year planning period. The increase in annual depreciation (\$1.6 million) is a result of contributed assets from developers and the construction of new assets and upgrade of existing assets to accommodate growth or improve service levels.

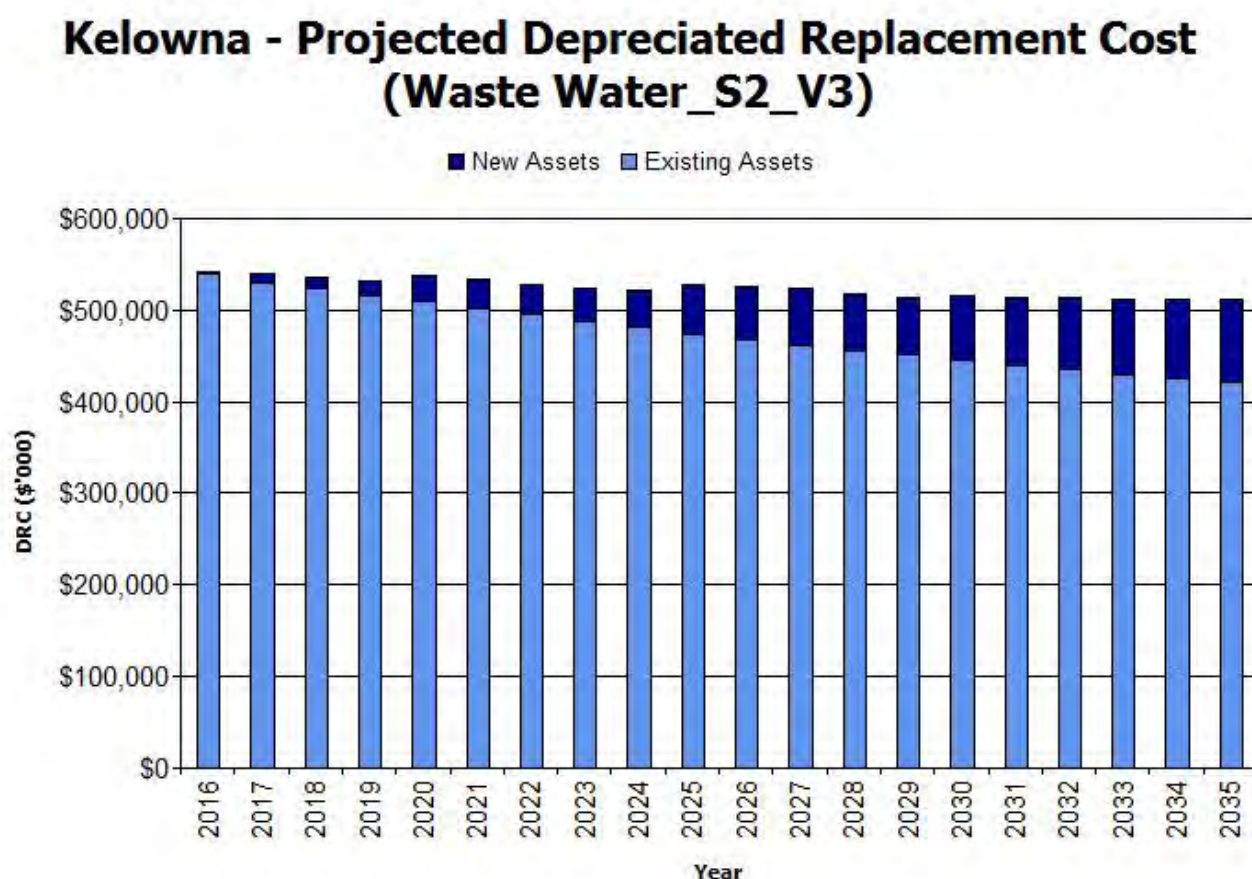
Figure 10: Projected Depreciation Expense



Note: All costs are reported in current dollars (net of inflation).

The depreciated replacement cost will vary over the forecast period depending on the rates of addition of new assets, disposal of old assets and consumption and renewal of existing assets. Figure 11 shows the projected replacement cost (carrying amount) for assets over the 20-year planning period. The depreciated replacement cost of contributed and new assets is shown in the darker colour and the depreciated replacement cost of existing assets is shown in the lighter colour. This figure shows that existing assets are being consumed faster than they are replaced and even with the addition of new assets the depreciated replacement cost of the Wastewater assets will decrease by 2035.

Figure 11: Projected Depreciated Replacement Cost



6.3 Key Assumptions made in Financial Forecasts

This section details the key assumptions made in presenting the information contained in this AMP.

Table 6.4: Key Assumptions made in AM Plan and Risks of Change

Key Assumptions	Risks of Change to Assumptions
Asset replacement timing is based on asset age and the theoretical asset useful life.	Asset replacement timing may be overly conservative and replacement timing may be sooner than projected.
Asset condition is based on percent of theoretical asset useful life remaining.	Actual condition of assets may be worse than anticipated and this may affect asset performance.
Replacement costs are based on industry cost estimates.	Actual replacement costs may be more or less.

Regulatory compliance will remain constant.	Changes in legislation & regulation may increase operating and maintenance expenditures and trigger additional capital investment.
Asset registry is accurate and comprehensive.	Missing or inaccurate asset information may cause and underestimation of future O&M and Capital costs.

6.4 Forecast Reliability and Confidence

The expenditure and valuations projections in this AMP are based on best available data. Accuracy of data is critical to effective asset and financial management. Data confidence is classified on a 5 level scale¹ in accordance with Table 6.5.

Table 6.4: Data Confidence Grading System

Confidence Grade	Description
A Highly reliable	Data based on sound records, procedures, investigations and analysis, documented properly and recognised as the best method of assessment. Dataset is complete and estimated to be accurate $\pm 2\%$
B Reliable	Data based on sound records, procedures, investigations and analysis, documented properly but has minor shortcomings, for example some of the data is old, some documentation is missing and/or reliance is placed on unconfirmed reports or some extrapolation. Dataset is complete and estimated to be accurate $\pm 10\%$
C Uncertain	Data based on sound records, procedures, investigations and analysis which is incomplete or unsupported, or extrapolated from a limited sample for which grade A or B data are available. Dataset is substantially complete but up to 50% is extrapolated data and accuracy estimated $\pm 25\%$
D Very Uncertain	Data is based on unconfirmed verbal reports and/or cursory inspections and analysis. Dataset may not be fully complete and most data is estimated or extrapolated. Accuracy $\pm 40\%$
E Unknown	None or very little data held.

The estimated confidence level for and reliability of data used in this AM Plan is shown in Table 6.4.1.

Table 6.4.1: Data Confidence Assessment for Data used in AM Plan

Data	Confidence Assessment	Comment
Demand drivers	B	Based on local corporate knowledge, OCP, 20-yr Servicing Plan, Asset Registry.
Growth projections	B	Population projections from Policy and Planning
Operations & Maintenance expenditures	B	Municipal records – historically, operations expenditure and maintenance expenditure not separately identified.
Projected capital costs	B	Asset values based on industry standards
Asset residual values	B	Municipal assets are generally used to the end of their useful life and would not have a residual value of a material amount.
Asset useful lives	B	Useful lives based on industry standards.
Condition modelling	D	Condition modeling not yet undertaken
Network renewals	C	Based on asset inventory registers and capital project expenditures
Upgrade/New expenditures	B	Program expenditure projections are based on growth projections and 20-year Servicing Plan
Disposal expenditures	N/A	Not considered as part of this AM PLAN

Over all data sources, the data used in the preparation of this AMP is assessed at a Reliable (B) confidence level, but there is room for improvement especially in the area of Condition modelling.

¹ IPWEA, 2011, IIMM, Table 2.4.6, p 2 | 59.

7. PLAN IMPROVEMENT AND MONITORING

7.1 Improvement Program

An improvement plan was developed so that future iterations of this AMP are more accurate and reliable.

Table 7.2: Improvement Plan

Task No	Task	Responsibility	Resources Required	Timeline
1	Implement Agresso FA for better financial reporting	Financial Services	Exiting staff	2016-17
2	Improve asset data collection	Infrastructure/Development Engineering	Existing Staff	2016-17
3	Implement Asset Management System to improve operational efficiency, track asset maintenance and condition, and optimize life cycle costs.	Infrastructure	Identified in 2017 Provisional Budget	2017-18

7.2 Monitoring and Review Procedures

This AMP will be reviewed regularly and amended to recognize any material changes in service levels and/or resources available to provide those services as a result of budget decisions.

8. REFERENCES

Council Policy 352 - Sustainable Municipal Infrastructure Policy

Council Policy 342 - Tangible Capital Asset Policy

2030 Infrastructure Plan (April 2016)

2015 Financial Plan 5-Year Financial Plan

20-Year Servicing Plan and Financial Strategy (amended 2016)

2030 Official Community Plan

IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM

IPWEA, 2008, 'NAMS.PLUS Asset Management', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/namsplus.

IPWEA, 2009, 'Australian Infrastructure Financial Management Guidelines', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/AIFMG.

IPWEA, 2011, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australasia, Sydney, www.ipwea.org/IIMM

9. APPENDICES

Appendix A Projected 10-year Capital Renewal and Replacement Works Program

Appendix B Projected 10-year Capital Upgrade/New Works Program

Appendix C Abbreviations

Appendix D Glossary

Appendix A Projected 10-year Capital Renewal and Replacement Program

(\$000)

Year	Item	Description	Estimate
2016		Network Renewals	
	1	Renewals	\$3,373
2016		Total	\$3,373

2017		Network Renewals	
	1	Cassiar Sewer Lift Station Upgrade	\$100
	2	Edwards Sewer Lift Station Upgrade	\$200
	3	Lane North of Fuller Sanitary Replacement	\$440
	4	Lane North of Stockwell Sanitary Replacement	\$450
	5	Sanitary Projects, Designs	\$20
	6	Wastewater Treatment Plant Roof Replacement	\$160
	7	WWTP, Control Systems Replacement	\$200
2017		Total	\$1,570

(\$000)

Year	Item	Description	Estimate
2018		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$3,800
2018		Total	\$3,800

2019		Network Renewals	Estimate
	1	Renewal - Wastewater mains and facilities	\$3,800
2020		Total	\$3,800

2021		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$3,800
2021		Total	\$3,800

(\$000)

Year	Item	Description	Estimate
2022		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$3,800
2022		Total	\$3,800

2023		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$3,800
2023		Total	\$3,800

(\$000)			
Year	Item	Description	Estimate
2024		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$4,300
2024		Total	\$4,300
2025		Network Renewals	
	1	Renewal - Wastewater mains and facilities	\$4,500
2025		Total	\$4,500

Appendix B Projected Upgrade/New 10-year Capital Program

(\$000)

Year	Item	Description	Estimate
2016	1	Offsite & Oversize	\$60
	2	Hollywood 7 / Sexsmith Sewer	\$225
	3	Contributed Infrastructure from Development (est.)	\$2,000
2016		Total	\$2,285

(\$000)

Year	Item	Description	Estimate
2017	1	Offsite & Oversize	\$60
	2	Morrison Ave - Sanitary Main	\$150
	3	Contributed Infrastructure from Development (est.)	\$2,000
	4	Airport Gravity - (Bulman - Airport)	\$4,230
2017		Total	\$6,440

(\$000)

Year	Item	Description	Estimate
2018	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Water St FM	\$944
	4	Contributed Infrastructure from Development (est.)	\$2,000
2018		Total	\$3,104

(\$000)

Year	Item	Description	Estimate
2019	1	Emerging Issues	\$100
	2	Offsite & Oversize	\$60
	3	Contributed Infrastructure from Development (est.)	\$2,000
	4	KLO - (KLO - Swordy)	\$853
	5	Gyro Force Main	\$2,106
2019		Total	\$5,119

(\$000)

Year	Item	Description	Estimate
2020	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Existing Compost Plant Expansion	\$7,237
	4	Glenmore Connection - Glenmore Rd from Cross Rd to 200 m north of Scenic Rd	\$2,010
	5	Rose Avenue Lift Station	\$1,925
	6	Contributed Infrastructure from Development (est.)	\$2,000
2020		Total	\$13,332

(\$000)

Year	Item	Description	Estimate
2021	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Contributed Infrastructure from Development (est.)	\$2,000
2021		Total	\$2,160

(\$000)

Year	Item	Description	Estimate
2022	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Contributed Infrastructure from Development (est.)	\$2,000
2022		Total	\$2,160

(\$000)

Year	Item	Description	Estimate
2023	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Rutland Trunk	\$1,245
	4	Contributed Infrastructure from Development (est.)	\$2,000
2023		Total	\$3,405

(\$000)

Year	Item	Description	Estimate
2024	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Contributed Infrastructure from Development (est.)	\$2,000
	4	Lakeshore Trunk - (Gyro - KPCC (Swordy - Casorso))	\$2,040
	5	Gyro Lift Station	\$2,048
2024		Total	\$6,248

(\$000)

Year	Item	Description	Estimate
2025	1	Offsite & Oversize	\$60
	2	Emerging Issues	\$100
	3	Byrns Baron Trunk Phase 2	\$9,805
	4	Contributed Infrastructure from Development (est.)	\$2,000
2025		Total	\$11,965

Appendix C Abbreviations

AAAC	Average annual asset consumption
AM	Asset management
AMP	Asset management plan
ARI	Average recurrence interval
ASC	Annual service cost
BOD	Biochemical (biological) oxygen demand
CRC	Current replacement cost
CWMS	Community Wastewater management systems
DA	Depreciable amount
DRC	Depreciated replacement cost
EF	Earthworks/formation
IRMP	Infrastructure risk management plan
LCC	Life Cycle cost
LCE	Life cycle expenditure
LTFP	Long term financial plan
MMS	Maintenance management system
PCI	Pavement condition index
RV	Residual value
SoA	State of the Assets
SS	Suspended solids
vph	Vehicles per hour
WDCRD	Written down current replacement cost

Appendix D Glossary

Annual service cost (ASC)

- 1) Reporting actual cost
The annual (accrual) cost of providing a service including operations, maintenance, depreciation, finance/opportunity and disposal costs less revenue.
- 2) For investment analysis and budgeting
An estimate of the cost that would be tendered, per annum, if tenders were called for the supply of a service to a performance specification for a fixed term. The Annual Service Cost includes operations, maintenance, depreciation, finance/ opportunity and disposal costs, less revenue.

Asset

A resource controlled by an entity as a result of past events and from which future economic benefits are expected to flow to the entity. Infrastructure assets are a sub-class of property, plant and equipment which are non-current assets with a life greater than 12 months and enable services to be provided.

Asset category

Sub-group of assets within a class hierarchy for financial reporting and management purposes.

Asset class

A group of assets having a similar nature or function in the operations of an entity, and which, for purposes of disclosure, is shown as a single item without supplementary disclosure.

Asset condition assessment

The process of continuous or periodic inspection, assessment, measurement and interpretation of the resultant data to indicate the condition of a specific asset so as to determine the need for some preventative or remedial action.

Asset hierarchy

A framework for segmenting an asset base into appropriate classifications. The asset hierarchy can be based on asset function or asset type or a combination of the two.

Asset management (AM)

The combination of management, financial, economic, engineering and other practices applied to physical assets with the objective of providing the required level of service in the most cost effective manner.

Asset renewal funding ratio

The ratio of the net present value of asset renewal funding accommodated over a 10 year period in a long term financial plan relative to the net present value of projected capital renewal expenditures identified in an asset management plan for the same period [AIFMG Financial Sustainability Indicator No 8].

Average annual asset consumption (AAAC)*

The amount of an Corporation's asset base consumed during a reporting period (generally a year). This may be calculated by dividing the depreciable amount by the useful life (or total future economic benefits/service potential) and totalled for each and every asset OR by dividing the carrying amount (depreciated replacement cost) by the remaining useful life (or remaining future economic benefits/service potential) and totalled for each and every asset in an asset category or class.

Borrowings

A borrowing or loan is a contractual obligation of the borrowing entity to deliver cash or another financial asset to the lending entity over a specified period of time or at a specified point in time, to cover both the initial capital provided and the cost of the interest incurred for providing this capital. A borrowing or loan provides the means for the borrowing entity to finance outlays (typically physical assets) when it has insufficient funds of its own to do so, and for the lending entity to make a financial return, normally in the form of interest revenue, on the funding provided.

Capital expenditure

Relatively large (material) expenditure, which has benefits, expected to last for more than 12 months. Capital expenditure includes renewal, expansion and upgrade. Where capital projects involve a combination of renewal, expansion and/or upgrade expenditures, the total project cost needs to be allocated accordingly.

Capital expenditure - expansion

Expenditure that extends the capacity of an existing asset to provide benefits, at the same standard as is currently enjoyed by existing beneficiaries, to a new group of users. It is discretionary expenditure, which increases future

operations and maintenance costs, because it increases the Corporation's asset base, but may be associated with additional revenue from the new user group, eg. extending a drainage or road network, the provision of an oval or park in a new suburb for new residents.

Capital expenditure - new

Expenditure which creates a new asset providing a new service/output that did not exist beforehand. As it increases service potential it may impact revenue and will increase future operations and maintenance expenditure.

Capital expenditure - renewal

Expenditure on an existing asset or on replacing an existing asset, which returns the service capability of the asset up to that which it had originally. It is periodically required expenditure, relatively large (material) in value compared with the value of the components or sub-components of the asset being renewed. As it reinstates existing service potential, it generally has no impact on revenue, but may reduce future operations and maintenance expenditure if completed at the optimum time, eg. resurfacing or resheeting a material part of a road network, replacing a material section of a drainage network with pipes of the same capacity, resurfacing an oval.

Capital expenditure - upgrade

Expenditure, which enhances an existing asset to provide a higher level of service or expenditure that will increase the life of the asset beyond that which it had originally. Upgrade expenditure is discretionary and often does not result in additional revenue unless direct user charges apply. It will increase operations and maintenance expenditure in the future because of the increase in the Corporation's asset base, eg. widening the sealed area of an existing road, replacing drainage pipes with pipes of a greater capacity, enlarging a grandstand at a sporting facility.

Capital funding

Funding to pay for capital expenditure.

Capital grants

Monies received generally tied to the specific projects for which they are granted, which are often upgrade and/or expansion or new investment proposals.

Capital investment expenditure

See capital expenditure definition.

Capitalisation threshold

The value of expenditure on non-current assets above which the expenditure is recognised as capital expenditure and below which the expenditure is charged as an expense in the year of acquisition.

Carrying amount

The amount at which an asset is recognised after deducting any accumulated depreciation / amortisation and accumulated impairment losses thereon.

Class of assets

See asset class definition

Component

Specific parts of an asset having independent physical or functional identity and having specific attributes such as different life expectancy, maintenance regimes, risk or criticality.

Core asset management

Asset management which relies primarily on the use of an asset register, maintenance management systems, job resource management, inventory control, condition assessment, simple risk assessment and defined levels of service, in order to establish alternative treatment options and long-term cashflow predictions. Priorities are usually established on the basis of financial return gained by carrying out the work (rather than detailed risk analysis and optimised decision-making).

Cost of an asset

The amount of cash or cash equivalents paid or the fair value of the consideration given to acquire an asset at the time of its acquisition or construction, including any costs necessary to place the asset into service. This includes one-off design and project management costs.

Critical assets

Assets for which the financial, business or service level consequences of failure are sufficiently severe to justify proactive inspection and rehabilitation. Critical assets have a lower threshold for action than noncritical assets.

Current replacement cost (CRC)

The cost the entity would incur to acquire the asset on the reporting date. The cost is measured by reference to the lowest cost at which the gross future economic benefits could be obtained in the normal course of business or the minimum it would cost, to replace the existing asset with a technologically modern equivalent new asset (not a second hand one) with the same economic benefits (gross service potential) allowing for any differences in the quantity and quality of output and in operating costs.

Deferred maintenance

The shortfall in rehabilitation work undertaken relative to that required to maintain the service potential of an asset.

Depreciable amount

The cost of an asset, or other amount substituted for its cost, less its residual value.

Depreciated replacement cost (DRC)

The current replacement cost (CRC) of an asset less, where applicable, accumulated depreciation calculated on the basis of such cost to reflect the already consumed or expired future economic benefits of the asset.

Depreciation / amortisation

The systematic allocation of the depreciable amount (service potential) of an asset over its useful life.

Economic life

See useful life definition.

Expenditure

The spending of money on goods and services. Expenditure includes recurrent and capital outlays.

Expenses

Decreases in economic benefits during the accounting period in the form of outflows or depletions of assets or increases in liabilities that result in decreases in equity, other than those relating to distributions to equity participants.

Fair value

The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties, in an arms length transaction.

Financing gap

A financing gap exists whenever an entity has insufficient capacity to finance asset renewal and other expenditure necessary to be able to appropriately maintain the range and level of services its existing asset stock was originally designed and intended to deliver. The service capability of the existing asset stock should be determined assuming no additional operating revenue, productivity improvements, or net financial liabilities above levels currently planned or projected. A current financing gap means service levels have already or are currently falling. A projected financing gap if not addressed will result in a future diminution of existing service levels.

Heritage asset

An asset with historic, artistic, scientific, technological, geographical or environmental qualities that is held and maintained principally for its contribution to knowledge and culture and this purpose is central to the objectives of the entity holding it.

Impairment Loss

The amount by which the carrying amount of an asset exceeds its recoverable amount.

Infrastructure assets

Physical assets that contribute to meeting the needs of Corporations or the need for access to major economic and social facilities and services, eg. roads, drainage, footpaths and cycleways. These are typically large, interconnected networks or portfolios of composite assets. The components of these assets may be separately maintained, renewed or replaced individually so that the required level and standard of service from the network of assets is continuously sustained. Generally the components and hence the assets have long lives. They are fixed in place and are often have no separate market value.

Investment property

Property held to earn rentals or for capital appreciation or both, rather than for:

- (a) use in the production or supply of goods or services or for administrative purposes; or
- (b) sale in the ordinary course of business.

Key performance indicator

A qualitative or quantitative measure of a service or activity used to compare actual performance against a standard or other target. Performance

indicators commonly relate to statutory limits, safety, responsiveness, cost, comfort, asset performance, reliability, efficiency, environmental protection and customer satisfaction.

Level of service

The defined service quality for a particular service/activity against which service performance may be measured. Service levels usually relate to quality, quantity, reliability, responsiveness, environmental impact, acceptability and cost.

Life Cycle Cost *

1. **Total LCC** The total cost of an asset throughout its life including planning, design, construction, acquisition, operation, maintenance, rehabilitation and disposal costs.
2. **Average LCC** The life cycle cost (LCC) is average cost to provide the service over the longest asset life cycle. It comprises average operations, maintenance expenditure plus asset consumption expense, represented by depreciation expense projected over 10 years. The Life Cycle Cost does not indicate the funds required to provide the service in a particular year.

Life Cycle Expenditure

The Life Cycle Expenditure (LCE) is the average operations, maintenance and capital renewal expenditure accommodated in the long term financial plan over 10 years. Life Cycle Expenditure may be compared to average Life Cycle Cost to give an initial indicator of affordability of projected service levels when considered with asset age profiles.

Loans / borrowings

See borrowings.

Maintenance

All actions necessary for retaining an asset as near as practicable to an appropriate service condition, including regular ongoing day-to-day work necessary to keep assets operating, eg road patching but excluding rehabilitation or renewal. It is operating expenditure required to ensure that the asset reaches its expected useful life.

- **Planned maintenance**

Repair work that is identified and managed through a maintenance management system (MMS). MMS activities include inspection, assessing the condition against failure/breakdown criteria/experience, prioritising scheduling, actioning the work and reporting what was done to develop a maintenance history and improve maintenance and service delivery performance.

- **Reactive maintenance**

Unplanned repair work that is carried out in response to service requests and management/supervisory directions.

- **Specific maintenance**

Maintenance work to repair components or replace sub-components that needs to be identified as a specific maintenance item in the maintenance budget.

- **Unplanned maintenance**

Corrective work required in the short-term to restore an asset to working condition so it can continue to deliver the required service or to maintain its level of security and integrity.

Maintenance expenditure *

Recurrent expenditure, which is periodically or regularly required as part of the anticipated schedule of works required to ensure that the asset achieves its useful life and provides the required level of service. It is expenditure, which was anticipated in determining the asset's useful life.

Materiality

The notion of materiality guides the margin of error acceptable, the degree of precision required and the extent of the disclosure required when preparing general purpose financial reports. Information is material if its omission, misstatement or non-disclosure has the potential, individually or collectively, to influence the economic decisions of users taken on the basis of the financial report or affect the discharge of accountability by the management or governing body of the entity.

Modern equivalent asset

Assets that replicate what is in existence with the most cost-effective asset performing the same level of service. It is the most cost efficient, currently available asset which will provide the same stream of services as the existing asset is capable of producing. It allows for technology changes and, improvements and efficiencies in production and installation techniques

Net present value (NPV)

The value to the Corporation of the cash flows associated with an asset, liability, activity or event calculated using a discount rate to reflect the time value of money. It is the net amount of discounted total cash inflows after deducting the value of the discounted total cash outflows arising from eg the

continued use and subsequent disposal of the asset after deducting the value of the discounted total cash outflows.

Non-revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are not expected to generate any savings or revenue to the Corporation, eg. parks and playgrounds, footpaths, roads and bridges, libraries, etc.

Operations

Regular activities to provide services such as public health, safety and amenity, eg street sweeping, grass mowing and street lighting.

Operating expenditure

Recurrent expenditure, which is continuously required to provide a service. In common use the term typically includes, eg power, fuel, staff, plant equipment, on-costs and overheads but excludes maintenance and depreciation. Maintenance and depreciation is on the other hand included in operating expenses.

Operating expense

The gross outflow of economic benefits, being cash and non cash items, during the period arising in the course of ordinary activities of an entity when those outflows result in decreases in equity, other than decreases relating to distributions to equity participants.

Operating expenses

Recurrent expenses continuously required to provide a service, including power, fuel, staff, plant equipment, maintenance, depreciation, on-costs and overheads.

Operations, maintenance and renewal financing ratio

Ratio of estimated budget to projected expenditure for operations, maintenance and renewal of assets over a defined time (eg 5, 10 and 15 years).

Operations, maintenance and renewal gap

Difference between budgeted expenditures in a long term financial plan (or estimated future budgets in absence of a long term financial plan) and projected expenditures for operations, maintenance and renewal of assets to achieve/maintain specified service levels, totalled over a defined time (e.g. 5, 10 and 15 years).

Pavement management system (PMS)

A systematic process for measuring and predicting the condition of road pavements and wearing surfaces over time and recommending corrective actions.

PMS Score

A measure of condition of a road segment determined from a Pavement Management System.

Rate of annual asset consumption *

The ratio of annual asset consumption relative to the depreciable amount of the assets. It measures the amount of the consumable parts of assets that are consumed in a period (depreciation) expressed as a percentage of the depreciable amount.

Rate of annual asset renewal *

The ratio of asset renewal and replacement expenditure relative to depreciable amount for a period. It measures whether assets are being replaced at the rate they are wearing out with capital renewal expenditure expressed as a percentage of depreciable amount (capital renewal expenditure/DA).

Rate of annual asset upgrade/new *

A measure of the rate at which assets are being upgraded and expanded per annum with capital upgrade/new expenditure expressed as a percentage of depreciable amount (capital upgrade/expansion expenditure/DA).

Recoverable amount

The higher of an asset's fair value, less costs to sell and its value in use.

Recurrent expenditure

Relatively small (immaterial) expenditure or that which has benefits expected to last less than 12 months. Recurrent expenditure includes operations and maintenance expenditure.

Recurrent funding

Funding to pay for recurrent expenditure.

Rehabilitation

See capital renewal expenditure definition above.

Remaining useful life

The time remaining until an asset ceases to provide the required service level or economic

usefulness. Age plus remaining useful life is useful life.

Renewal

See capital renewal expenditure definition above.

Residual value

The estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Revenue generating investments

Investments for the provision of goods and services to sustain or improve services to the community that are expected to generate some savings or revenue to offset operating costs, eg public halls and theatres, childcare centres, sporting and recreation facilities, tourist information centres, etc.

Risk management

The application of a formal process to the range of possible values relating to key factors associated with a risk in order to determine the resultant ranges of outcomes and their probability of occurrence.

Section or segment

A self-contained part or piece of an infrastructure asset.

Service potential

The total future service capacity of an asset. It is normally determined by reference to the operating capacity and economic life of an asset. A measure of service potential is used in the not-for-profit sector/public sector to value assets, particularly those not producing a cash flow.

Service potential remaining

A measure of the future economic benefits remaining in assets. It may be expressed in dollar values (Fair Value) or as a percentage of total anticipated future economic benefits. It is also a measure of the percentage of the asset's potential to provide services that is still available for use in providing services (Depreciated Replacement Cost/Depreciable Amount).

Specific Maintenance

Replacement of higher value components/sub-components of assets that is undertaken on a

regular cycle including repainting, replacement of air conditioning equipment, etc. This work generally falls below the capital/ maintenance threshold and needs to be identified in a specific maintenance budget allocation.

Strategic Longer-Term Plan

A plan covering the term of office of councillors (4 years minimum) reflecting the needs of the community for the foreseeable future. It brings together the detailed requirements in the Council's longer-term plans such as the asset management plan and the long-term financial plan. The plan is prepared in consultation with the community and details where the Council is at that point in time, where it wants to go, how it is going to get there, mechanisms for monitoring the achievement of the outcomes and how the plan will be resourced.

Sub-component

Smaller individual parts that make up a component part.

Useful life

Either:

- (a) the period over which an asset is expected to be available for use by an entity, or
- (b) the number of production or similar units expected to be obtained from the asset by the entity.

It is estimated or expected time between placing the asset into service and removing it from service, or the estimated period of time over which the future economic benefits embodied in a depreciable asset, are expected to be consumed by the Corporation.

Value in Use

The present value of future cash flows expected to be derived from an asset or cash generating unit. It is deemed to be depreciated replacement cost (DRC) for those assets whose future economic benefits are not primarily dependent on the asset's ability to generate net cash inflows, where the entity would, if deprived of the asset, replace its remaining future economic benefits.

Source: IPWEA, 2009, AIFMG Glossary

Additional and modified glossary items shown *

INFRASTRUCTURE REPORT CARD

Wastewater System

February 2017

City of
Kelowna

Quick facts

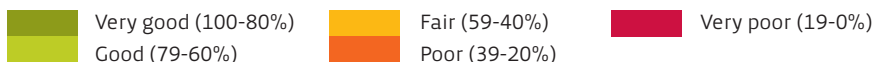
- The City of Kelowna provides wastewater service to approximately 95,000 of its 128,000 residents.
- The infrastructure required to support the City's wastewater service has a replacement value of \$761 million.
- Wastewater is treated with state-of-art biological (chemical free) process that removes nutrients and disinfects effluent.
- The condition of the wastewater infrastructure is fair to good depending on the asset component.
- Both wastewater effluent water quality and treated biosolids are regulated and meet stringent environmental standards before returning to the environment.
- The City of Kelowna Wastewater Utility has an affordable and sustainable plan to ensure customers continue to receive safe, reliable and environmentally responsible wastewater service.

Infrastructure Planning
1435 Water Street
Kelowna, BC V1Y 1J4
TEL 250-469-8614
jshaw@kelowna.ca

Wastewater system score card

Asset component	Quantity	Replacement value (\$ million)	Expected remaining life	Age rating
Wastewater Mains	597 km	550	72%	Good
Lift Stations	35	38.8	44%	Fair
Wastewater Treatment Facility	1	149	61%	Good
Brandt's Creek Trade Waste Treatment Plant	1	13.7	41%	Fair
Regional Compost Facility	1	9.6	75%	Good
Total		761		

Rating scale (remaining service life)



Wastewater system

Kelowna's wastewater system collects, conveys, treats and disposes of domestic and industrial wastewater from homes and businesses. Wastewater is conveyed to Kelowna's Wastewater Treatment Facility (WWTF) through a network of 597 km of wastewater mains and 35 lift stations. There is second treatment facility that treats industrial wastewater from Sunrype and Andrew Peller. The City also has a Biosolids Treatment facility located between Kelowna and Vernon where it treats biosolids from Kelowna, Vernon and Lake Country.

Wastewater Treatment

Kelowna's first WWTF was built in 1913 at the same location where the modern plant sits today. Since that time, Kelowna has led the way in sustainable waste management practices with state-of-art infrastructure and highly trained technical staff using cost effective and environmentally sound practices.

Wastewater treatment involves a three stage chemical free treatment and disinfection process that returns the treated

effluent to Lake Okanagan in a safe and environmentally responsible manner. The biosolids are trucked to the City's regional compost facility where they are treated and sold as OgoGrow – a class A compost that can be safely applied to flowers, shrubs and vegetable gardens.

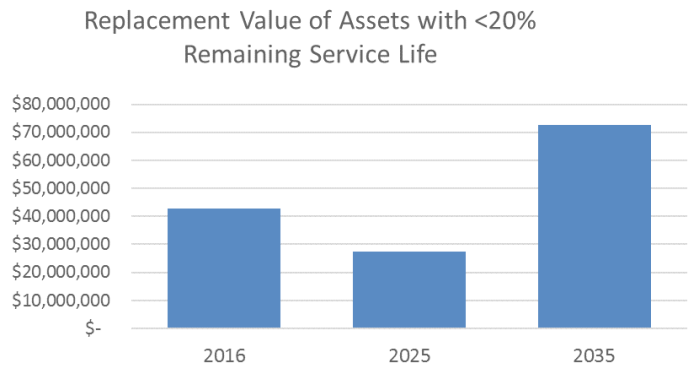
Effluent water quality

Both effluent water quality and treated biosolids are regulated and must meet stringent environmental standards. The City monitors effluent quality through a rigorous testing and monitoring program and is committed to meeting regulatory standards. The City strives to be a leader in sustainable waste management practice through innovation, operational efficiency and timely infrastructure investment.

Wastewater system condition

The Wastewater Utility is a resilient and robust system that is maintained in a state of good repair. Pumping and treatment facilities have backup equipment to ensure continuous service delivery when equipment breaks down or there is a power outage.

The condition of the wastewater infrastructure is fair-to-good depending on the asset component. The wastewater system currently has \$43 million worth of assets with less than 20 percent of their service life remaining.



Over the next 20-years, given the proposed re-investment level, the wastewater system will age and the value of wastewater assets with less than 20 percent service life will increase to \$72 million or about 8 percent of the total replacement value.

Wastewater system risks

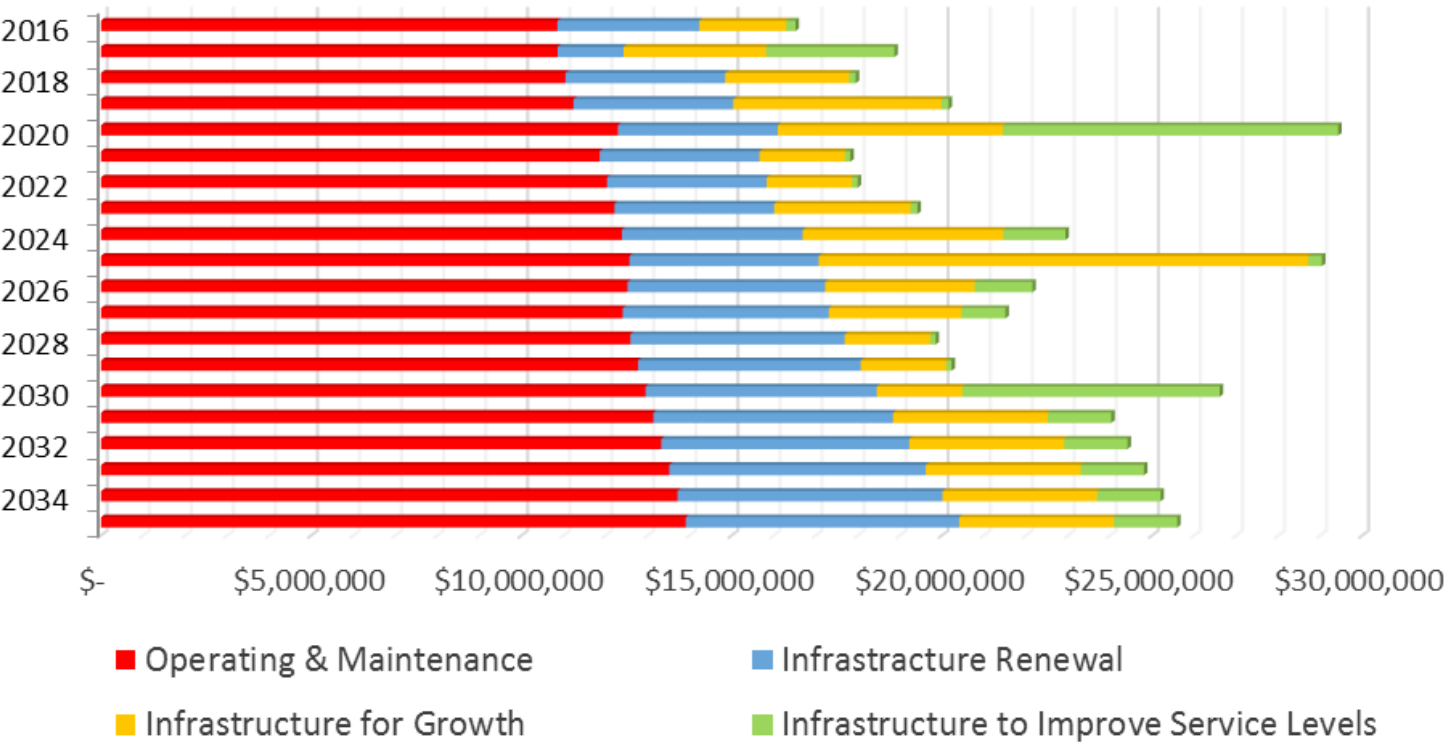
Wastewater assets are depreciating faster than they are being renewed or replaced. This funding short fall is acceptable in the short-term because the wastewater system is relatively new (see 20-year funding needs below).

As the system ages, asset renewal funding will need to increase. If the City doesn't plan for and manage future cost pressures, service levels may need to be reduced or customers may have to accommodate unexpected rate increases. Service reduction may include more frequent interruptions (e.g. pipe breaks) or diminished odour control at our treatment facilities. The regulated treatment of wastewater and biosolids should not be affected and the City is committed to exceeding regulatory standards.

Response

The 20-year funding needs for the Wastewater Utility forecast future cost pressures for system operation, maintenance, infrastructure renewal and infrastructure to support growth and improve service levels. These costs are accounted for in the Wastewater Utility financial model and indicate that on average rate increases will need to match inflation (projected at 2% per annum) to support service delivery for the next 10-years. Long-term, as the wastewater system ages, investment in infrastructure renewal will need to increase and may require rate increases in excess of inflation. Regular updates to this AMP will identify these future cost pressures and plan ahead to mitigate the impacts to the Wastewater Utility customers.

20-year funding needs



WASTEWATER SERVICE ASSET MANAGEMENT PLAN



February 20th, 2017



2015 CITIZEN SURVEY

INVESTMENT PRIORITIES

% Win



KELOWNA WASTEWATER UTILITY

QUICK FACTS

- ▶ Service approximately 75% of City or about 95,000 customers,
- ▶ Wastewater treatment exceeds 42 million litres per day on a peak day,
- ▶ System Infrastructure valued at \$761 million,
- ▶ Both treated wastewater effluent and biosolids meet stringent environmental standards.

WASTEWATER SYSTEM SCORE CARD

Asset component	Quantity	Replacement value (\$ million)	Expected remaining life	Age rating
Wastewater Mains	597 km	550	72%	Good
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Wastewater Treatment Facility	1	149	61%	Good
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Regional Compost Facility	1	9.6	75%	Good
Total		761		

Rating scale (remaining service life)



Very good (100-80%)

Good (79-60%)



Fair (59-40%)

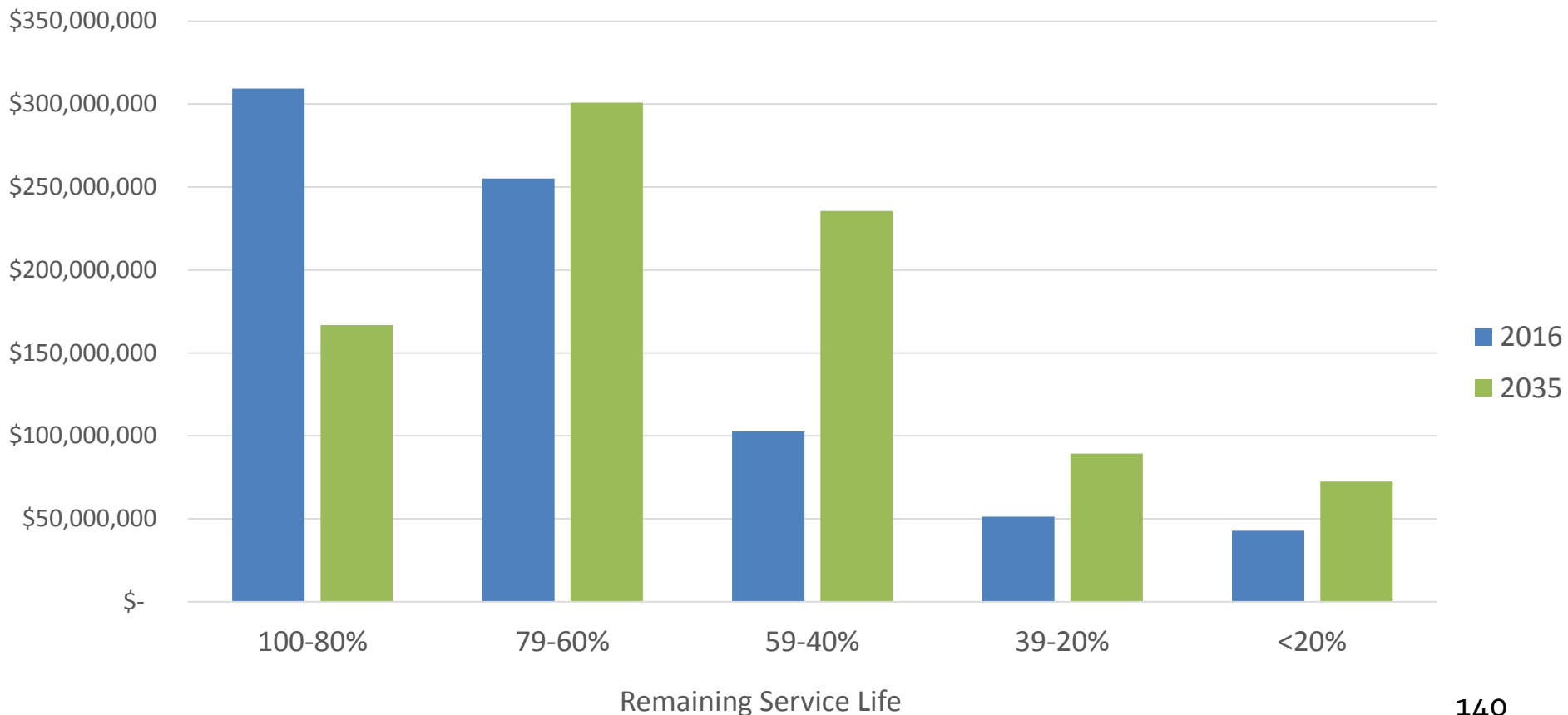
Poor (39-20%)



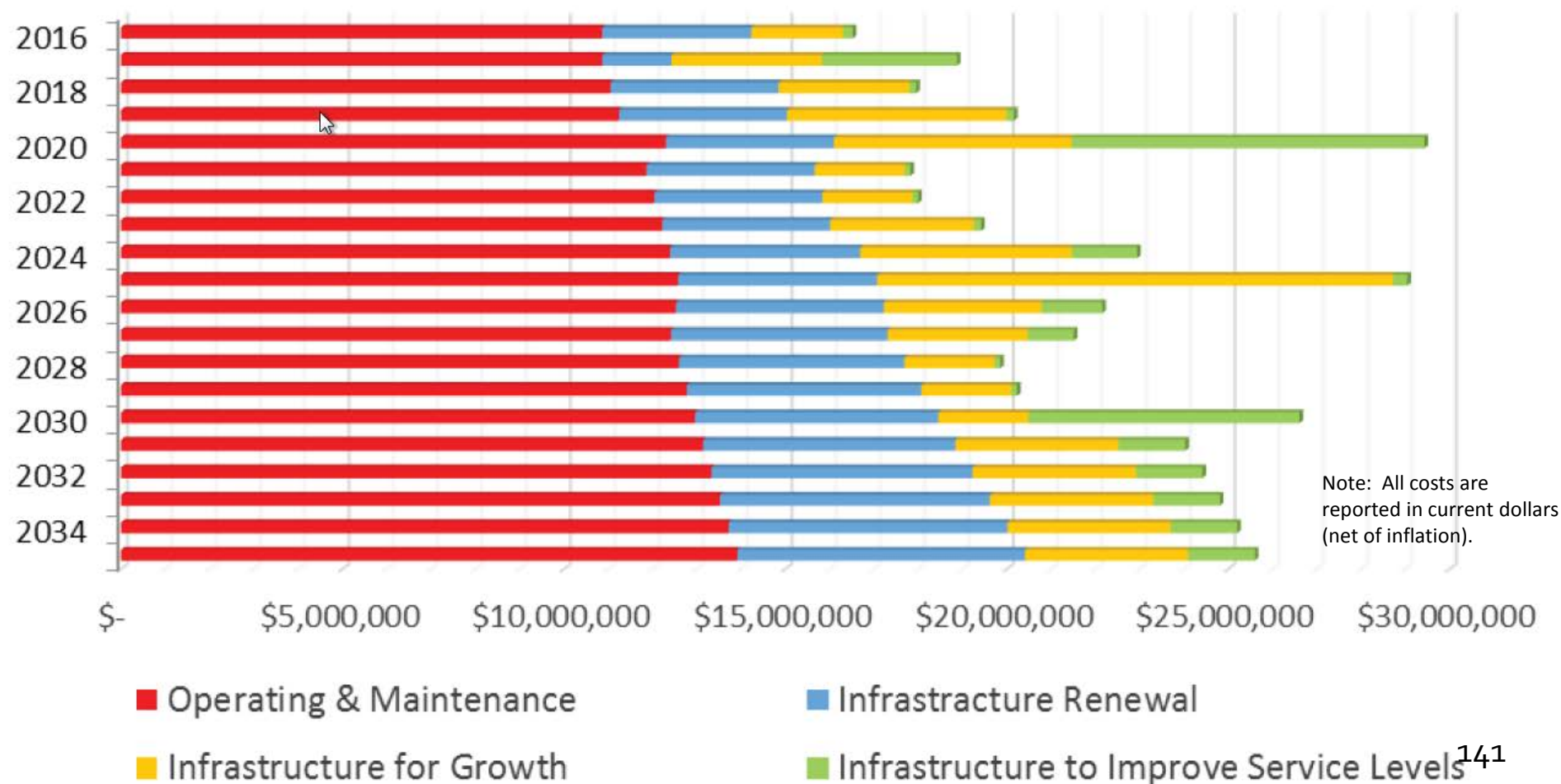
Very poor (19-0%)

WASTEWATER SYSTEM CONDITION

Replacement Value vs Remaining Service Life of Infrastructure



20-YEAR FUNDING NEEDS



WASTEWATER SYSTEM RISKS AND RESPONSE

Risks	Response
Assets are depreciating faster than they are being renewed.	Renewal Funding is being increased over the next 20-Years to more sustainable levels. Long-term renewal funding will need to increase further and may require rates to increase in excess of inflation.
Changing wastewater regulations may require increased infrastructure investment.	Staff will work with provincial regulators to understand the need and timing of any changes so that the City can plan in advance.
Wastewater System is aging and there may be increased risk of asset failure.	Invest in tools and resources to improve preventative maintenance, condition assessment and extend asset service life.

NEXT STEPS

- ▶ Regular Updates to Asset Management Plan,
- ▶ Implement Asset Management System required for better preventative maintenance, condition assessment and to extend assets service life,
- ▶ Continually improve asset management practice.

QUESTIONS?

CITY OF KELOWNA

BYLAW NO. 11351

Amendment No. 8 to Water Regulation Bylaw No. 10480

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Water Regulation Bylaw No. 10480 be amended as follows:

1. THAT **PART 7 – RATES AND CHARGES, 7.6 Water Quality Enhancement Reserve Fund Contribution**, 7.6.1 be deleted in its entirety that reads:

"7.6.1 Every Customer, except Customers in the Beaver Lake Industrial Area, shall pay to the City the applicable charges set out in Schedule "A" to this bylaw to be placed in the **Water Quality Enhancement Reserve Fund**."

And be replaced with:

"7.6.1 Every Customer, except those Customers in the **Beaver Lake Industrial Area**, or **Park and Non ALR Farm Use**, or **Agricultural Property**, shall pay to the City the applicable charges set out in Schedule "A" to this bylaw to be placed in the **Water Quality Enhancement Reserve Fund**."

For land shown on a strata plan that receives the supply of water from the **City Water Utility** from the same **Service Connection**, the City may send a single invoice covering all **Strata Lots** and common property to the strata corporation. If the rate levied remains unpaid as of December 31 of the billing year, the **City** may allocate the total volume of water used among the **Strata Lot** owners on the basis of their unit entitlements and type of use, and determine the charges and penalties owing by the owner of each **Strata Lot**."

2. AND THAT **SCHEDULE "A" – Water Rates and Charges** be deleted in its entirety and replaced with a new **SCHEDULE "A" – Water Rates and Charges** as attached;
3. AND THAT **SCHEDULE "B" - Water Meter Fees and Service Charges** be deleted in its entirety and replaced with a new **SCHEDULE "B" - Water Meter Fees and Service Charges** as attached;
4. This bylaw may be cited for all purposes as "Bylaw No.11351, being Amendment No. 8 to Water Regulation Bylaw No. 10480."
5. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first, second and third time by the Municipal Council this 6th day of February, 2017.

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

SCHEDULE "A"

Water Rates and Charges

Water Utility billing for **Customers** with a water **meter** shall consist of two charges, a flat rate charge based on **meter** size and a consumption charge based on water consumed in the bi-monthly billing period. **Customers** shall pay the following **rates** and charges for water service with 2017 rates effective on May 6, 2017 and the 2018 rates effective on May 6, 2018:

1. **All metered properties, except those Customers in the Beaver Lake Industrial Area, and Agricultural Properties, shall pay the following bi-monthly flat rate charge based on Water Meter size as follows:**

Meter Size	Bi-Monthly Flat Charge	
	In 2017	In 2018
5/8" (15 mm)	\$25.07	\$25.57
3/4" (20 mm)	\$30.60	\$31.21
1" (25 mm)	\$39.37	\$40.16
1½" (37 mm)	\$58.96	\$60.14
2" (50 mm)	\$95.02	\$96.92
3" (75 mm)	\$311.26	\$317.49
4" (100 mm)	\$424.73	\$433.22
6" (150 mm)	\$717.47	\$731.82
8" (200 mm)	\$945.23	\$964.14

Plus a consumption charge per cubic metre consumed bi-monthly according to the following table:

Customer type - Metered	May 6, 2017	May 6, 2018
Single Family and Single Family Strata		
First 60 cubic metres	\$0.428	\$0.437
Next 100 cubic metres	\$0.576	\$0.588
Next 90 cubic metres	\$0.874	\$0.891
Balance of cubic metres	\$1.749	\$1.784
All other Customer types		
Multi-Family Residential Properties – 3 or more attached dwelling units on a single property	\$0.428	\$0.437
Mixed Use properties	\$0.486	\$0.496
Commercial, Industrial and Institutional	\$0.495	\$0.505
Park and Non-ALR Farm Use	\$0.374	\$0.381

2. Beaver Lake Industrial Area Properties

A combined bi-monthly flat rate charge plus a consumption charge for all properties within the Beaver Lake Industrial Area as follows:

Meter Size	Bi-Monthly Flat Charge	
	In 2017	In 2018
5/8" (15 mm)	\$20.29	\$20.69
3/4" (20 mm)	\$29.58	\$30.17
1" (25 mm)	\$39.29	\$40.08
1½" (37 mm)	\$82.83	\$84.48
2" (50 mm)	\$133.60	\$136.27
3" (75 mm)	\$315.89	\$322.21
4" (100 mm)	\$512.88	\$523.13
6" (150 mm)	\$1081.06	\$1102.68
8" (200 mm)	\$1316.17	\$1342.49

Plus a consumption charge of \$0.30 per cubic metre for 2017 and \$0.306 per cubic metre for 2018.

3. Agricultural Properties

A consumption charge of \$0.114 for 2017, \$0.116 for 2018 per cubic metre.

4. Temporary Use

For Temporary Use of water during construction. The following rates and charges will apply beginning two months after approval of each New Construction Building Permit and end upon the first of either the installation of the Water Meter or the project is deemed complete as defined by the British Columbia Builder's Lien Act on:

Single Family residential properties a flat charge of \$41.25 bi-monthly for the years 2017 and 2018.

For non-residential properties and Multi-Family Residential properties a bi-monthly flat charge of \$110.00 for 2017 and 2018.

For Projects deemed to be complete as defined above and that do not have a Water Meter then rates will be twenty (20) times the applicable Temporary Use rate.

5. Fire Protection Use

For **Fire Protection Use** a bi-monthly flat rate charge of \$53.30 for 2017, \$54.37 for 2018.

6. Bulk Water Filling Station Use

The cost of a card for use of the **Bulk Water Filling Stations** is \$20.00, non-refundable.

For **Bulk Water Filling Stations**, a consumption charge of \$0.87 for 2017 and \$0.89 for 2018 per cubic metre of water used.

7. Water Quality Enhancement Reserve Fund Contribution

All **Customers**, except those **Customers** in the **Beaver Lake Industrial Area**, or in the **Park and Non ALR Farm Use**, or **Agricultural Property** rate classes, shall pay an additional bi-monthly flat charge, as follows:

Meter Size	Bi-Monthly Flat Change	
	In 2017	In 2018
5/8" (15 mm)	\$15.77	\$16.08
3/4" (20 mm)	\$15.77	\$16.08
1" (25 mm)	\$32.40	\$33.05
1½" (37 mm)	\$71.48	\$72.91
2" (50 mm)	\$115.71	\$118.02
3" (75 mm)	\$271.22	\$276.44
4" (100 mm)	\$370.08	\$377.48
6" (150 mm)	\$625.06	\$637.56
8" (200 mm)	\$823.50	\$839.97

SCHEDULE "B"

Water Meter Fees and Service Charges

1. Water Meter Fees

Customers shall pay a **Water Meter** Fee at the time of application for water service as follows:

METER TYPE			
Meter Size	Standard	Turbine	Compound
5/8" x 3/4" (residential)	\$ 290.00		
3/4" (commercial)	\$ 290.00		
1" (commercial)	\$ 375.00		
1.5" (commercial)		\$ 1,430.00	\$ 2,032.00
2" (commercial)		\$ 1,705.00	\$ 2,808.00
3" (commercial)		\$ 2,556.00	\$ 3,457.00
4" (commercial)		\$ 4,230.00	\$ 5,325.00
6" (commercial)		\$ 6,900.00	\$ 8,650.00
8" (commercial)		\$ 10,718.00	
4" Fire line	\$ 10,578.00		
6" Fire line	\$ 13,590.00		
8" Fire line	\$ 19,975.00		

The **Water Meter** Fee for commercial meters includes the following components as applicable to each meter setting: specified meter, companion flanges, strainer, gaskets, bolts, remote reading device and connecting cable all supplied and owned by the **City**.

The **Water Meter** Fee for commercial meters does not include the following: master control valve on service inlet and meter isolation valve downstream of meter, pressure reducing valve(s) (PRV's), pressure gauges, back flow prevention device and bypass piping and bypass valve all to be supplied and owned by the **Property** owner.

The **Water Meter** Fee for residential meters includes the following: **Water Meter**, meter setting fittings, installation of **Water Meter** within a 325 mm copper pipe run, supply of a remote reading device and connecting cable all of which will be supplied and owned by the **City**.

2. Service Fees

Customers will pay and will be invoiced on their **City Water Utility** bills for the following service fees:

Service	Fees
Set-up or transfer of service for every new billing account.	\$ 5.00
Water disconnect (shut-off) or connect (turn-on) during regular office hours	\$ 25.00
Emergency water disconnect (shut-off) or connect (turn-on) during off-hours	\$160.00

Both the transfer and water turn-on charge will apply if water is turned on and a new account is established.

Regular office hours shall mean the regular operating hours of the **City's** Water Utility Services Branch.

3. Hydrant Use Permit Fee

The fee for each **Hydrant Use Permit** shall be \$60.00 plus \$25.00 per day for each day of Hydrant Permit. The fee for a **Hydrant Use Permit** shall include the costs of providing, installing and removing **Approved Backflow Preventer**.

CITY OF KELOWNA

BYLAW NO. 11352

Amendment No. 34 to Sewerage System User Bylaw No. 3480

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Sewerage System User Bylaw No. 3480 be amended as follows:

1. THAT Section 2. DEFINITIONS, "Residential User" be deleted that reads:

"the words "Residential User" shall mean any connection to the sewer system from a building used exclusively for residential purposes and containing not more than two (2) residential units."

And replaced with the following:

"the words "Residential User" shall mean any connection to the sewer system from a building used primarily for residential purposes."

2. AND THAT the table in Section 4. be deleted that reads:

	2015	2016
Flat Rate per Month	\$19.59	\$19.98
Bi-Monthly Rate	\$39.18	\$39.96

And replaced with a new table that reads:

	2017	2018
Flat Rate per Month	\$20.38	\$20.79
Bi-Monthly Rate	\$40.76	\$41.58

3. AND THAT the Section 5 (1) be deleted that reads:

"5. (1) Commercial users that have a City of Kelowna metered water supply shall pay a monthly or bi-monthly charge for the use of the sewerage system calculated on the quantity of water delivered to the premises by the City of Kelowna Water Utility at the following rate for each one (1) cubic meter:

	2015	2016
Flat Rate per Month/ Bi-Monthly	\$0.88/m ³	\$0.90/m ³

This rate shall be based on Standard Sewage having the following strength:

Biochemical Oxygen Demand	250 milligrams per litre
Suspended Solid	300 milligrams per litre
Grease	90 milligrams per litre

Provided that the charge shall not be less than:

	Effective May 6, 2015	Effective May 6, 2016
Metered base rate per month	\$10.71	\$10.92
Bi-Monthly	\$ 21.42	\$ 21.84

Provided that if the Utility Manager for the City of Kelowna has reason to believe that the sewage discharged exceeds the strength of standard commercial sewage, then the City of Kelowna may test the sewage discharged. If the results of the test indicate a strength in excess of standard commercial sewage, testing will be at the discharger's expense and the City of Kelowna shall apply a charge for the discharger for sewage system use on the basis of "Base Costs" using the following basis of calculation:

Effective January 1, 2003:

Base Costs

- (1) Biochemical Oxygen Demand (BOD)
- for each kilogram discharged 40 cents
- (2) Total Suspended Solids (TSS) - for
each kilogram discharged 40 cents
- (3) Fats, Oil & Grease (FOG) - for each
kilogram discharged 17.5 cents
- (4) Volume (V) - In addition to the amounts listed above,
under (1), (2) and (3) the discharger shall also pay for the
liquid Volume at the current rate per cubic meter as
specified in the first paragraph of Section 5 (1) this
bylaw.

When the City of Kelowna makes the monthly/bi-monthly charge on the basis of "Base Costs", then the number of kilograms of Biochemical Oxygen Demand, Total Suspended Solids and Fat, Oil & Grease, shall in each case be calculated in accordance with Section 6. The formula used to calculate surcharge billings shall be as follows:

Billing = Flow (m³) x {V + B(measured BOD - 0.25) + T(measured TSS - 0.3) + F(measured FOG - 0.09)}

Where measured BOD, TSS and FOG are in units of kg/m³."

And replaced with:

5. (1) Commercial Users that have a City of Kelowna metered water supply shall pay a monthly or bi-monthly base rate plus a consumption charge for the use of the sewerage system calculated on the quantity of water delivered to the premises at the following rate for each one (1) cubic meter:

	Effective May 2017	Effective May 2018
Metered base rate per month	\$11.14	\$11.36
Bi-Monthly	\$ 22.28	\$ 22.72

	2017	2018
Consumption charge	\$0.92/m ³	\$0.94/m ³

This rate shall be based on Standard Sewage having the following strength:

Biochemical Oxygen Demand	250 milligrams per litre
Suspended Solid	300 milligrams per litre
Grease	90 milligrams per litre

Provided that if the Utility Manager for the City of Kelowna has reason to believe that the sewage discharged exceeds the strength of standard commercial sewage, then the City of Kelowna may test the sewage discharged. If the results of the test indicate a strength in excess of standard commercial sewage, testing will be at the discharger's expense and the City of Kelowna shall apply a charge for the discharger for sewage system use on the basis of "Base Costs" using the following basis of calculation:

Base Costs

- (2) Biochemical Oxygen Demand (BOD) - for each kilogram discharged 41 cents
- (2) Total Suspended Solids (TSS) - for each kilogram discharged 41 cents
- (3) Fats, Oil & Grease (FOG) - for each kilogram discharged 18 cents
- (4) Volume (V) - In addition to the amounts listed above, under (1), (2) and (3) the discharger shall also pay for the liquid Volume at the current rate per cubic meter as specified in the first paragraph of Section 5 (1) this bylaw.

When the City of Kelowna makes the monthly/bi-monthly charge on the basis of "Base Costs", then the number of kilograms of Biochemical Oxygen Demand, Total Suspended Solids and Fat, Oil & Grease, shall in each case be calculated in accordance with Section 6. The formula used to calculate surcharge billings shall be as follows:

$$\text{Billing} = \text{Flow (m}^3\text{)} \times \{V + B(\text{measured BOD} - 0.25) + T(\text{measured TSS} - 0.3) + F(\text{measured FOG} - 0.09)\}$$

Where measured BOD, TSS and FOG are in units of kg/m³."

4. AND THAT a new Section 13 be added that reads as follows, and all sub-sequent sections be renumbered:

"(13) For each Sewer Credit Meter Users shall pay a flat rate charge as follows:

	2017	2018
Flat Rate per Month	\$5.00	\$5.08
Bi-Monthly Rate	\$10.00	\$10.16

5. This bylaw may be cited for all purposes as "Bylaw No.11352, being Amendment No. 34 to Sewerage System User to Bylaw No. 3480."
6. This bylaw shall come into full force and effect and is binding on all persons as of May 6, 2017.

Read a first, second and third time by the Municipal Council this 6th day of February, 2017.

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk