City of Kelowna
Regular Council Meeting
AGENDA

Monday, January 13, 2020
1:30 pm
Council Chamber
City Hall, 1435 Water Street

Pages

1. Call to Order

I would like to acknowledge that we are gathered today on the traditional, ancestral, unceded territory of the syilx/Okanagan people.

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 - 13

Regular PM Meeting - December 9, 2019
Budget Deliberations - December 12, 2019

3. Development Application Reports & Related Bylaws

3.1 Hwy 33 W 340, DP19-0092 - ZSY Holdings Ltd. Inc. No. BC0981442 14 - 36

The Mayor to invite the Applicant, or Applicant's Representative, to come forward.

To consider a Staff recommendation to NOT issue a Development Permit for the form and character of a mixed-use building addition on the subject property.

3.2 Stockley St 1075, Z19-0057 (BL11968) - Melcor Lakeside Inc. 37 - 47

To consider rezoning the subject property from the RU4 – Low Density Cluster Housing zone to the RU6 – Two Dwelling Housing zone to accommodate a future subdivision.

3.3 Stockley St 1075, BL11968 (Z19-0057) - Melcor Lakeside Inc. 48 - 48

To give Bylaw No. 11968 first reading in order to rezone the subject property from the RU4 - Low Density Cluster Housing zone to the RU6 - Two Dwelling Housing zone.

5. Bylaws for Adoption (Non-Development Related)

5.1 BL11913 - Amendment No. 20 to Subdivision Development and Servicing Bylaw No. 7900

160 - 190

To adopt Bylaw No. 11913 to amend the Subdivision, Development and Servicing Bylaw No. 7900.

6. Mayor and Councillor Items

7. Termination

City of Kelowna
Regular Council Meeting
Minutes

Date:	Monday, December 9, 2019
Location:	Council Chamber City Hall, 1435 Water Street
Members Present	Mayor Colin Basran, Councillors, Maxine DeHart, Ryan Donn, Gail Given, Charlie Hodge, Brad Sieben, Mohini Singh, Luke Stack* and Loyal Wooldridge
Staff Present	City Manager, Doug Gilchrist; City Clerk, Stephen Fleming, Recreation Technician, Melina Moran*; Divisional Director, Planning & Development Services, Ryan Smith*; Urban Planning & Development Policy Manager, Laura Bentley*; Planner Specialist, Alex Kondor*; Divisional Director, Financial Services, Genelle Davidson*; Infrastructure Engineering Manager, Joel Shaw*; Financial Planning Manager, George King*; OCP Project Planner, Robert Miles*; Park and Landscape Planner, Melanie Steppuhn*; Parks & Buildings Planning Manager, Robert Parlane*; Utility Planning Manager, Rod MacLean*; Divisional Director, Infrastructure, Alan Newcombe*; Legislative Coordinator (Confidential), Arlene McClelland

(* Denotes partial attendance)

1. Call to Order

Mayor Basran called the meeting to order at 1:36 p.m.

I would like to acknowledge that we are gathered today on the traditional, ancestral, unceded territory of the syilx/Okanagan people.

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 Hodge/Seconded By Councillor Given

R1103/19/12/09 THAT the Minutes of the Regular Meetings of December 2, 2019 be confirmed as circulated.

Carried

3. Committee Reports

3.1 Civic Awards Nomination Period

Staff:
- Introduced members of the 2018-2022 Committee.

Ellen Boelcke, Chair, Civic Awards Committee
- Displayed a PowerPoint Presentation identifying each category of nominations.

Moved By Councillor Donn/Seconded By Councillor Wooldridge

R1104/19/12/09 THAT Council receives, for information, the report from Active Living & Culture, dated December 9th, 2019, that announces the opening of the nomination period for the 45th Annual Civic & Community Awards, including an outline of award categories for the program.

Carried

4. Development Application Reports & Related Bylaws

4.1 Hwy 33 E 3215, A19-0010 - William Winter

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

Moved By Councillor Stack/Seconded By Councillor Donn

R1105/19/12/09 THAT Agricultural Land Reserve Appeal No. A19-0010 for Lot 9, Sections 8, 9 and 17, Township 27, ODYD, Plan 32677, located at 3215 Hwy 33 E, Kelowna for a Homesite Severance Subdivision of agricultural land in the Agricultural Land Reserve pursuant to Section 21(2) of the Agricultural Land Commission Act, be supported by Council;

AND THAT Council direct Staff to forward the subject application to the Agricultural Land Commission for consideration.

Carried

5. Bylaws for Adoption (Development Related)

5.1 Rutland Ct 2155-2165, BL11950 (Z19-0106) - CGSB Automotive Group LTD., Inc. No. BC0731187

Moved By Councillor Hodge/Seconded By Councillor Singh

R1106/19/12/09 THAT Bylaw No. 11950 be adopted.

Carried

5.2 Hollywood Rd 150, BL11953 (Z19-0109) - Lexington Enterprises Ltd.

Moved By Councillor Hodge/Seconded By Councillor Singh

R1107/19/12/09 THAT Bylaw No. 11953 be adopted.

Carried

5.3 Pandosy St 1636-1652, BL11959 (TA19-0013) - ALM888 Ventures Ltd, Inc. No. BC1089095

Moved By Councillor Wooldridge/Seconded By Councillor Given

R1108/19/12/09 THAT Bylaw No. 11959 be adopted.

Carried
Mayor Basran and Councillors Donn and Sieben – Opposed

5.4 Pandosy St 1636-1652, BL11960 (Z19-0100) - ALM888 Ventures Ltd, Inc. No. BC1089095

Moved By Councillor Wooldridge/Seconded By Councillor Given

R1109/19/12/09 THAT Bylaw No. 11960 be adopted.

Carried
Mayor Basran and Councillors Donn and Sieben – Opposed

6. Non-Development Reports & Related Bylaws

6.1 Provisional 2020 Financial Plan

Staff:
- Displayed a PowerPoint Presentation providing an overview of the 2020 Financial Plan and responded to questions from Council.

Moved By Councillor Hodge/Seconded By Councillor Wooldridge

R1110/19/12/09 THAT Council receives, for information, the presentation from the Divisional Director Financial Services and the Infrastructure Engineering Manager dated Dec.9, 2019 with respect to the Provisional 2020 Financial Plan.

Carried

6.2 Amendments to Financial Plan Transfer Policy No. 261 and Financial Plan Amendment Policy No. 262

Staff:
- Displayed a PowerPoint Presentation summarizing the recommended policy amendments to the financial plan.

Moved By Councillor Given/Seconded By Councillor Wooldridge

R1111/19/12/09 THAT Council Policy No. 261, being Financial Plan Transfer Policy, be amended as outlined in the Report from the Financial Planning Manager, dated December 9, 2019, Amendment to Financial Plan Transfer Policy No. 261;

AND THAT Council Policy No. 262, being Financial Plan Amendment Policy, be amended as outlined in the Report from the Financial Planning Manager, dated December 9, 2019, Amendment to Financial Plan Amendment Policy No. 262.

Carried

6.3 OCP 2040 Phase 3 Engagement Results

Staff:
- Displayed a PowerPoint Presentation summarizing the feedback on Phase 3 of the 2040 Official Community Plan from the public engagement session and responded to questions from Council.

Moved By Councillor DeHart/Seconded By Councillor Singh

R1112/19/12/09 THAT Council receives the report from the Policy and Planning Department, dated December 9, 2019, for information;

AND FURTHER THAT Council directs staff to report back with preliminary financial impacts of servicing the endorsed growth scenario.

Carried

6.4 Lake Avenue Dog Beach Trial

Staff:
- Displayed a PowerPoint Presentation summarizing the Lake Avenue Dog Beach trial results and responded to questions from Council.

Moved By Councillor Hodge/Seconded By Councillor Stack

R1113/19/12/09 THAT Council receives for information, the report from the Parks & Buildings Planning Manager dated December 2, 2019 with respect to the Lake Avenue Dog Beach Trial Results;

AND FURTHER THAT Council directs staff to use the budget currently allocated for Lake Avenue Dog Beach for a permanent off-leash dog beach at Lake Avenue.

Carried

6.5 Subdivision, Development and Servicing Bylaw 7900 - Schedule 4 and 5 Update - Stormwater

Staff:
- Displayed a PowerPoint Presentation summarizing the amendment to the Subdivision, Development and Servicing Bylaw and responded to questions from Council.

Moved By Councillor Given/Seconded By Councillor Donn

R1114/19/12/09 THAT Council receives, for information, the report from the Infrastructure Engineering Manager dated December 9, 2019, with respect to amending the Subdivision, Development and Servicing Bylaw 7900;

AND THAT Bylaw No. 11913, being Amendment No. 20 to Subdivision, Development and Servicing Bylaw No. 7900 be forwarded for reading consideration.

AND FURTHER THAT Council approve the revised Council Policy 265 - Engineering Drawing Submission Requirements shown as Attachment 1.

Carried

6.6 BL11913 - Amendment No. 20 to Subdivision Development and Servicing Bylaw No. 7900

Moved By Councillor Sieben/Seconded By Councillor Donn

R1115/19/12/09 THAT Bylaw No. 11913 be read a first, second and third time.

Carried

7. Bylaws for Adoption (Non-Development Related)

7.1 West Ave 454-464, BL11955 - Housing Agreement Authorization Bylaw - West Avenue - Mission Group Rentals Ltd., Inc No. BC1151526

Councillor Stack declared a perceived conflict of interest on items 7.1 to 7.3 as his employer applies for rental housing agreements and permissive tax exemptions from time to time and departed the meeting at 3:17 p.m.

Moved By Councillor Sieben/Seconded By Councillor Donn

R1116/19/12/09 THAT Bylaw No. 11955 be adopted.

Carried
Councillor Hodge – Opposed

7.2 Lakeshore Rd 4119, BL11956 - Housing Agreement Authorization Bylaw - Whitworth Holdings Ltd., Inc No. BC1059455

Moved By Councillor Hodge/Seconded By Councillor Donn

R1117/19/12/09 THAT Bylaw No. 11956 be adopted.

Carried

7.3 Sutherland Ave 1165, BL11958 - Housing Agreement Authorization Bylaw - Culos Development (1996) Inc., Inc. No. BC1099204

Moved By Councillor Sieben/Seconded By Councillor Donn

R1118/19/12/09 THAT Bylaw No. 11958 be adopted.

Carried

8. Mayor and Councillor Items

Mayor Basran:
- Thanked Laurel D'Andrea for their many years as Executive Director of Uptown Rutland Business Association and the many charitable causes involved in and provided well wishes for future endeavors.

9. Termination

This meeting was declared terminated at 3:21 p.m.

Mayor Basran

City Clerk

/acm

City of Kelowna
Regular Council Meeting
Minutes

Date:	Thursday, December 12, 2019
Location:	Council Chamber City Hall, 1435 Water Street
Members Present	Mayor Colin Basran, Councillors Maxine DeHart, Ryan Donn, Gail Given, Charlie Hodge, Brad Sieben, Mohini Singh, Luke Stack and Loyal Wooldridge
Staff Present	City Manager, Doug Gilchrist; City Clerk, Stephen Fleming; Divisional Director, Financial Services, Genelle Davidson; Financial Planning Manager, George King; Budget Supervisor, Melanie Antunes; Deputy City Manager, Joe Creron*; Divisional Directors*, Directors*, Department Managers*, Managers* and Supervisors* of the Operations Division, Infrastructure Division, Human Resources and Community Safety Division, Corporate & Protective Services Division, Corporate Strategic Services Division, Active Living & Culture Division, Community Planning & Strategic Investments Division and Kelowna International Airport

(* denotes partial attendance)

1. Call to Order

Mayor Basran called the meeting to order at 9:05 a.m.

I would like to acknowledge that we are gathered today on the traditional, ancestral, unceded territory of the syilx/Okanagan people.

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2. Budget Discussion Schedule

2.1 Opening Comments

The Mayor and City Manager provided opening comments.

2.2 2019 Financial Plan - Provisional Volume

Note: - Page numbers referenced in the resolutions are from the 2020 Financial Plan Provisional - Volume 1 book. The term "star" in the resolutions may be read as "to defer".

3. Capital Program

3.1 Airport - Operating & Capital Requests

There were no amendments to the Airport Operating and Capital Program budget as presented.

3.2 Fire Department - Operating & Capital Requests

Moved By Councillor Stack/Seconded By Councillor Sieben

B020/18/12/12 THAT Council star Fire Inspector Position item on page 307 for further discussion later in the meeting.

Carried

The meeting recessed at 9:36 a.m.

The meeting reconvened at 9:46 a.m.

3.3 Information Services

There were no amendments to the Information Services Capital Program budget as presented.

3.4 Real Estate & Parking

There were no amendments to the Real Estate and Parking Capital Program budget as presented.

3.5 Building

There were no amendments to the Building Capital Program budget as presented.

3.6 Parks

There were no amendments to the Parks Capital Program budget as presented.

3.7 Vehicle and Mobile Equipment

There were no amendments to the Vehicle and Mobile Equipment Capital Program budget as presented.

3.8 Combined Capital Projects

There were no amendments to the Combined Capital Projects budget as presented.

3.9 Transportation

There were no amendments to the Transportation Capital Program budget as presented.

3.10 Water

There were no amendments to the Water Capital Program budget as presented.

3.11 Wastewater

There were no amendments to the Wastewater Capital Program budget as presented.

3.12 Solid Waste

There were no amendments to the Solid Waste Capital Program budget as presented.

3.13 Storm Drainage

There were no amendments to the Storm Drainage Capital Program budget as presented.

The meeting recessed at 11:00 a.m.

The meeting reconvened at 11:14 a.m.

5. Operating Program

5.1 Planning and Development Services

There were no amendments to the Planning and Development Services Operating Program budget as presented.

5.2 Partnerships and Investments

There were no amendments to the Partnerships and Investments Operating Program budget as presented.

5.3 Infrastructure

There were no amendments to the Infrastructure Operating Program budget as presented.

5.4 Civic Operations

Staff requested a change be made to the budget as presented.

Moved By Councillor Donn/Seconded By Councillor DeHart

B021/18/12/12 THAT Council amend the Energy Program Funding item on page 205 from "on-going" to "one-time".

Carried

5.5 Wastewater Utility

There were no amendments to the Wastewater Utility Operating Program budget as presented.

5.6 Water Utility

There were no amendments to the Water Utility Operating Program budget as presented.

The meeting recessed for the lunch break at 11:53 a.m. The meeting reconvened at 12:32 p.m.

5.7 Active Living and Culture

There were no amendments to the Active Living and Culture Operating Program budget as presented.

5.8 Human Resources and Risk Management

There were no amendments to the Human Resources and Risk Management Operating Program budget as presented.

5.9 Community Safety

Moved By Councillor Sieben/Seconded By Councillor Donn

B022/18/12/12 THAT Council star Outreach Support and Cart Storage at Kelowna Gospel Mission item on page 291 for further discussion later in the meeting.

Carried
Councillor Stack - Opposed

Moved By Councillor DeHart/Seconded By Councillor Donn

B023/18/12/12 THAT Council amend the Provisional Budget by moving operating item RCMP – 1 Regular Member Position item on page 291 from P2 to P1;

AND THAT Council amend the Provisional Budget by moving the operating item RCMP – 3 Regular Member Positions on page 292 from P2 to P1.

Carried
Councillors Given, Stack and Wooldridge - Opposed

5.10 Corporate Strategic Services

Moved By Councillor Sieben/Seconded By Councillor Hodge

B024/18/12/12 THAT Council star Business System Analyst Analytics Position item on page 321 for further discussion later in the meeting.

Defeated
Mayor Basran, Councillors DeHart, Donn, Given, Sieben Singh, Stack and Wooldridge - Opposed

5.11 Financial Services

There were no amendments to the Financial Services Operating Program budget as presented.

5.12 Debt and Other

There were no amendments to the Debt and Other Operating Program budget as presented.

5.13 General Revenues

There were no amendments to the General Revenues Operating Program budget as presented.

5.14 City Clerk

There were no amendments to the City Clerk Operating Program budget as presented.

6. Wrap-Up & Discussion

Moved By Councillor Hodge/Seconded By Councillor Given

B025/19/12/12 THAT Council amend the provisional budget by moving operating item Fire Inspector Position on page 307 from P2 to P1.

Defeated
Mayor Basran, Councillors DeHart, Donn, Stack and Wooldridge - Opposed

Moved By Councillor Sieben/Seconded By Councillor Wooldridge

B026/19/12/12 THAT Council direct staff to bring forward a report on the cart storage operations at the Kelowna Gospel Mission prior to Final Budget.

Carried

Moved By Councillor Sieben/Seconded By Councillor Wooldridge

B027/19/12/12 THAT the 2020 Financial Plan, Provisional – Volume 1, as amended by Council, and resulting in a 4.15% tax increase, be approved subject to Final Budget considerations.

Carried

7. Termination

The meeting was terminated at 2:29 p.m.

Mayor

City Clerk

/scf/acm

REPORT TO COUNCIL

Date:	November 18, 2019		
To:	Council		
From:	City Manager		
Department:	Development Planning - Urban		
Application:	DP19-0092	**Owner:**	ZSY Holdings Ltd., Inc.No. BC0981442
Address:	340 Hwy 33 W	**Applicant:**	Urban Options Planning & Permits
Subject:	Development Permit Application		

1.0 Recommendation

THAT Council NOT authorize the issuance of Development Permit No. DP19-0092 for Lot 1 Section 26 Township 26 ODYD Plan EPP62403, located at 340 Hwy 33 W, Kelowna, BC.

2.0 Purpose

To consider a Staff recommendation to NOT issue a Development Permit for the form and character of a mixed-use building addition on the subject property.

3.0 Development Planning

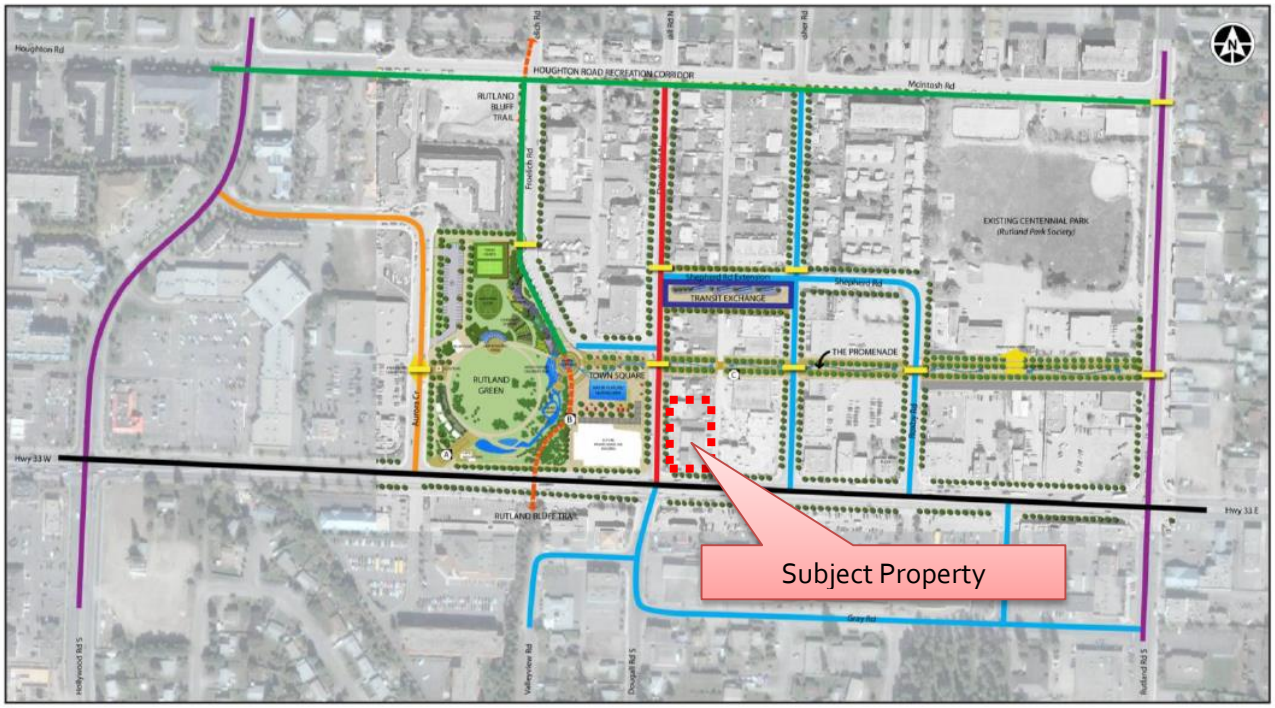
Development Planning does not support the application for a Development Permit for the mixed-use building addition.

The proposed development, which would include a car wash on the main floor and an apartment above, does not substantially meet the Design Guidelines of the Revitalization Development Permit Area. The main issue is that the development, which features a car-oriented use set back from the property line and located near the middle of the lot, fails to establish a pedestrian-friendly interface with the streetscape and sidewalk, which the Design Guidelines call for (see Schedule B).

In addition to being within the Revitalization Development Permit Area, the subject lot is also specifically cited in the Official Community Plan (OCP) as being at the entranceway to the pedestrian-oriented, commercial core of the Rutland Transit Exchange TOD area (OCP, Section 5.20.1). To reinforce this, the lot is shown in the Rutland Urban Streetscape Plan as being at the gateway of the planned Rutland High Street, set to be the main pedestrian-oriented shopping street of the Rutland Urban Centre (Rutland Urban Streetscape Plan, p. 7-12) at the centre of the Rutland Transit Exchange TOD area. Given the lot's prominent position at the entranceway of a pedestrian-oriented area in the heart of Rutland, it is especially important that the site be developed in a pedestrian-friendly way, and that any development proposals be held to a

very high design standard. This point is made explicitly in both the OCP (Section 5.20.1) and the Rutland Urban Streetscape Plan (p. 7-12).

Rutland Urban Streetscape Plan Map:



Street Classification

- **High Street (main shopping street)**
- **Transit Exchange**
- **Commercial**
- **Multi-use Corridor**
- **Highway 33**
- **Arterial**
- **Local**
- **Mid-block Crossing**

Proposal

3.1 Background

The subject parcel was formed in 2016 when the lot at the northeast corner of Hwy 33 W and Dougall Rd. N was consolidated with the adjacent lot to the north. At the same time, the owner applied to rezone the northern portion of the property to C4 – Urban Centre Commercial to match the C4 zoning of the southern portion of the lot. Council approved the rezoning partially based on the concurrent Development Permit application, which proposed a mixed-use building at the northwest corner of the parcel to feature a car wash on the main floor, an apartment above, and retail units fronting Dougall Rd. N (DP15-0235). The proposed development provided the beginning of a streetwall on Dougall Rd. N with a pedestrian-scaled frontage. Also, the design stood to provide a high degree of visual interest to passersby through the use of architectural articulation and windows—the latter of which would have provided pedestrians a view to the happenings inside.

The Development Permit in question has now expired and the owner has come forward with a new proposal.

3.2 Project Description

The applicant proposes to build a mixed-use building near the middle of the subject property attached to an existing building that features a gas bar, convenience store and restaurant. The proposed mixed-use building is to include a car wash on the main floor with a 2-bedroom apartment above. Because the proposed building is in the middle of the lot, it fails to provide a streetwall along any street frontage, as the original proposal did. Further, unlike the original proposal, which hid the car wash behind the building, the current proposal exposes the car-oriented use to the sidewalk and streetscape.

The Site Plan indicates there is a plan to build a second mixed-use building on the northwest corner of the lot (Schedule A of Attachment A). This future building would provide the beginning of a streetwall on Dougall Rd. N similar to that provided by the building originally proposed in 2015. However, this second mixed-use building is not part of any current application; and therefore, staff are not in a position to evaluate it against development regulations and policies—nor determine whether it would in fact work on the site.

When the proposed development was evaluated against the Revitalization Development Permit Area Design Guidelines it was determined the development did not substantially meet the guidelines (see Guideline Checklist in Schedule B). As a potential solution, staff encouraged the applicant to include the second mixed-use building in the current Development Permit application, and covenant that the building would be built within a certain time frame, as this stood to resolve the design concerns. The applicant declined this opportunity; however, to address the design concerns, the owner offered to sign a notarized Letter of Intent formalizing the intention to build a second mixed-use building on the Dougall Rd. N frontage within 10 years (see Attachment C). As this Letter of Intent is not legally binding; and staff continue to be concerned that the second mixed-use building may not work on the site; and the current proposal does not meet the Design Guidelines, staff do not support the application.

3.3 Site Context

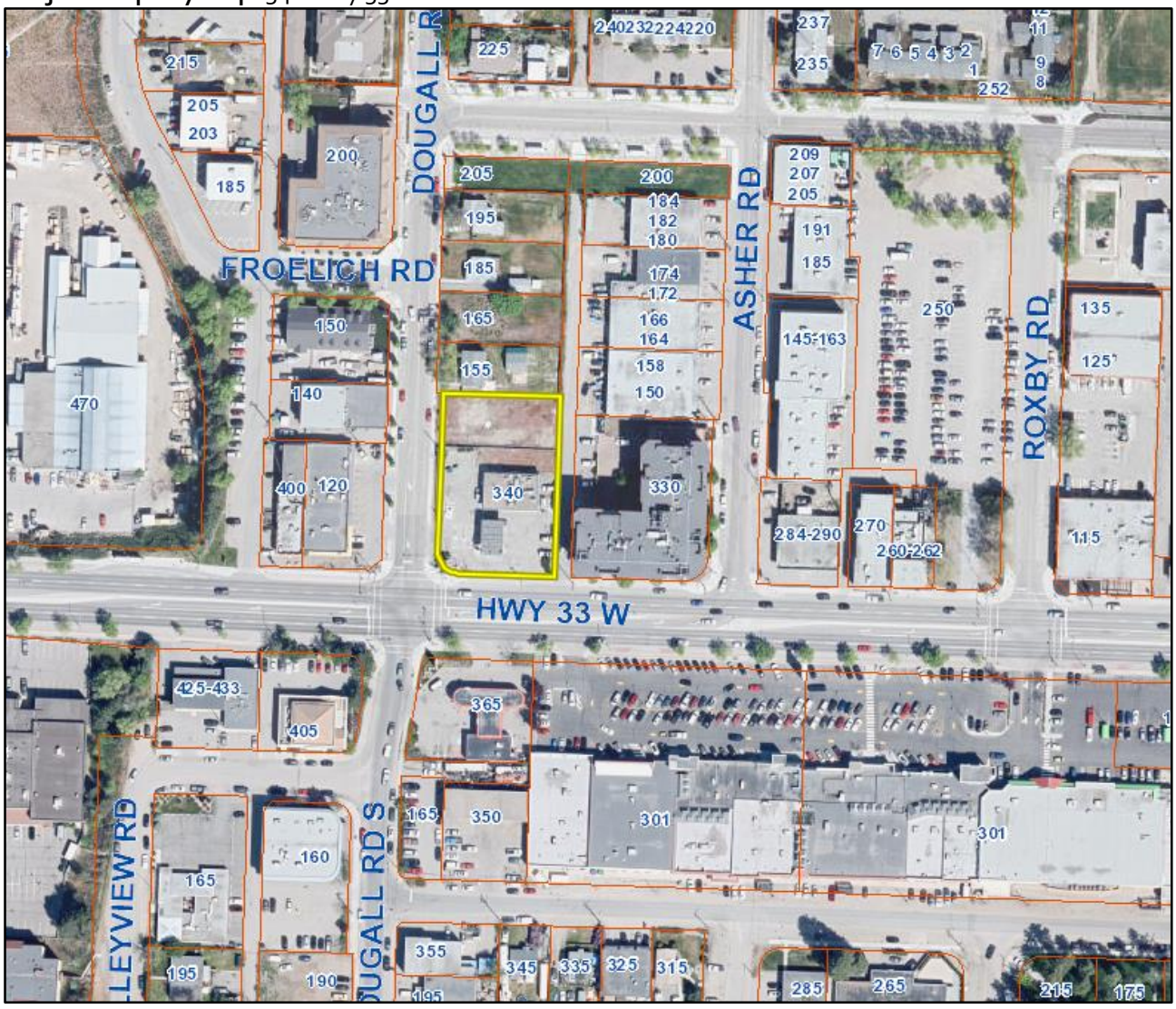
The subject property is in the Rutland Sector near the middle of the Rutland Urban Centre, approximately ½ block (100m) south of the Rutland Transit Exchange. In addition, the lot is cited in the OCP as being "the entranceway to the pedestrian-oriented, commercial core of the TOD" (OCP, 5.20.1). Further, the lot is shown in the Rutland Urban Centre Streetscape Plan as being at the gateway to the planned Rutland High Street, set to be the main pedestrian-oriented shopping street and "spine" of the Rutland Urban Centre (Rutland Urban Centre Streetscape Plan, p. 7-12).

Immediately to the north, between the subject property and the Rutland Transit Exchange, are 4 lots that are owned by the City and sit vacant. The City plans to develop the site in accordance with the vision outlined in the OCP and Rutland Urban Centre Streetscape Plan and in a manner befitting the core of an Urban Centre. To the east is a 4 storey mixed-use building featuring retail at grade and apartment housing above. Commercial properties sit to the east. The property and all surrounding lots have a Future Land Use designation of Mixed Use Residential / Commercial (MXR).

Adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	RU1 – Large Lot Housing	Vacant
East	C4 – Urban Centre Commercial	Mixed Use (Retail / Residential)
South	C4 – Urban Centre Commercial	Gas Bar
West	C4 – Urban Centre Commercial	Commercial Retail

Subject Property Map: 340 Hwy 33 W



3.4 Zoning Analysis Table

Zoning Analysis Table		
CRITERIA	**C4 ZONE REQUIREMENTS**	**PROPOSAL**
Existing Lot/Subdivision Regulations		
Min. Lot Area	930m² for vehicular oriented uses	2,574m²
Min. Lot Width	13m	42m
Min. Lot Depth	30m	64m
Development Regulations		
Max. Floor Area Ratio	1.3	0.23
Max. Site Coverage (buildings)	30% for vehicular oriented uses	16%
Max. Height	4 storeys / 15m	3 storeys / 11.6m
Min. Front Yard	6.0m for pump island	8.3m for pump island
Min. Side Yard (south)	0.0m	15.6m
Min. Side Yard (north)	0.0m	6.9m

Min. Rear Yard	6.0m where abutting residential	8.3m
Other Regulations		
Min. Parking Requirements	1.75 stalls / 100m2 of GFA X 4.74 = 8.3 + 1 stall / resi. unit X 1 = 9.3 = **10**	11
Min. Bicycle Parking	0.6 / 100m2 of GFA X4.74 = 2.8 + 0.5 / dwelling X 1 = 3.8 = **4**	4
Min. Private Open Space	15m²	37m²

4.0 Current Development Policies

4.1 Kelowna Official Community Plan (OCP)

Chapter 14: Urban Design DP Guidelines

B. Revitalization Design Guidelines

Justification: Kelowna's revitalization areas represent the city's core commercial centres with associated, supporting mixed use and residential development. The intent of the Revitalization Development Permit areas is to enhance and catalyze these areas as they continue to experience rapid growth, pressures to intensify, and increasing design expectations. The purpose of the Revitalization Design Guidelines is to ensure that the siting, form, landscaping, exterior design and finish of buildings, and character of development is of high quality and compatible with the vision for these urban centres.

Objectives:

- Enhance the urban centre's main street character in a manner consistent with the area's character;
- Provide for a scale and massing of buildings that promotes an enjoyable living, pedestrian, working, shopping and service experience;
- Create open, architecturally-pleasing and accessible building facades to the street;

Chapter 5: Development Process

Objective 5.20 Achieve high quality urban design and appropriate land uses

Policy .1 Rutland Urban Design. Ensure that the urban design for Uptown Rutland clearly differentiates this commercial district from others in the City and interior of BC. This will be pivotal to making the bus exchange area and redevelopment of Rutland a success. To this end, redevelopment should:

- Feature special architecture and/or landmarks that draw the interest of passers-by at the northeast and northwest corners of the Highway 33 and Dougall Road intersection as these are important sites that should be used to mark the entranceway to the pedestrian-oriented, commercial core of the TOD.

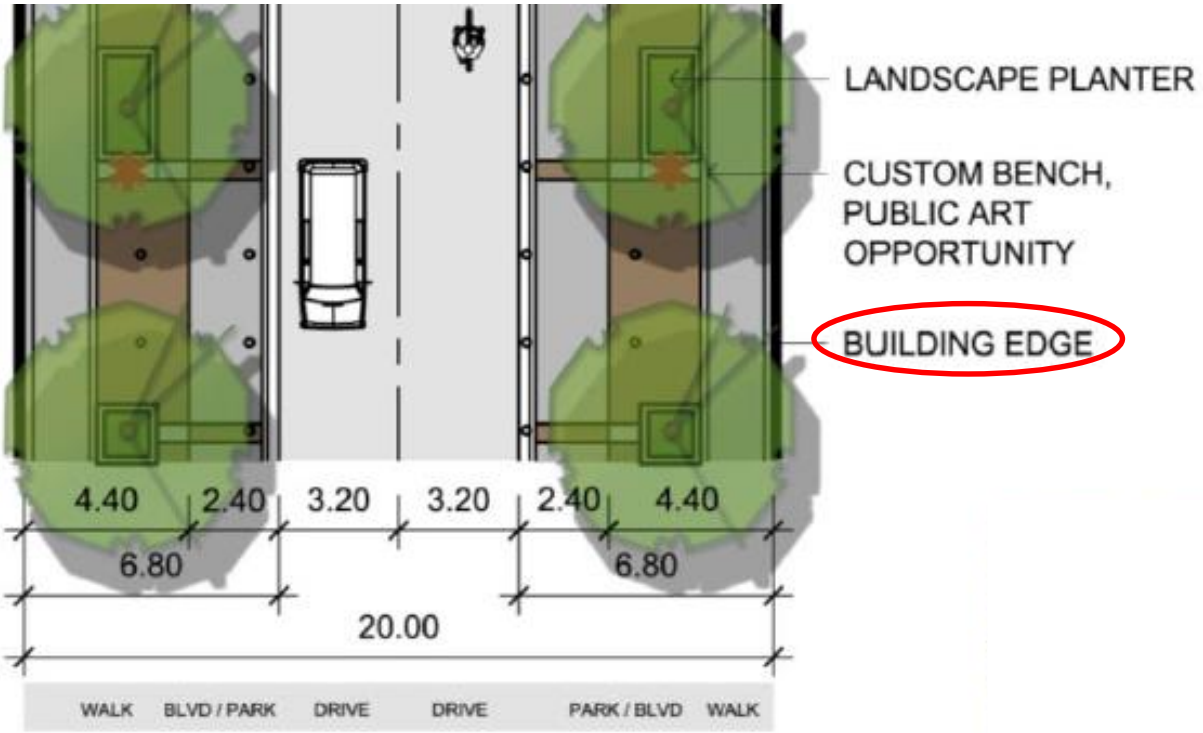
4.2 Rutland Urban Centre Streetscape Plan

Section 2.2 Streetscape Hierarchy

High Street: Streetscape development along the proposed High Street will reinforce Dougall Road as the spine of Rutland Urban Centre attracting and accommodating relatively high volumes of vehicular, pedestrian and cycle traffic. The street will be energized by a variety of shops and services, a relatively dense and complex pattern of

treatments, many shaded places for social engagement, artistic representations of community and heritage, and comfortable and convenient connections to home and transit.

2.4.1 High Street Concept



5.0 Technical Comments

5.1 Development Engineering Department

- See Schedule A

6.0 Application Chronology

Date of Application Received: April 1, 2019
Date Public Consultation Completed: N/A

7.0 Alternate Recommendation

THAT Council authorizes the issuance of Development Permit No. DP19-0092 for Lot 1 Section 26 Township 26 ODYD Plan EPP62403, located at 340 Hwy 33 W, Kelowna, BC subject to the following:

1. The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A,"

2. The exterior design and finish of the building to be constructed on the land, be in accordance with Schedule "B";

3. Landscaping to be provided on the land be in accordance with Schedule "C";

4. The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect;

AND THAT Council's consideration of this Development Permit 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 November 18, 2019;

AND THAT the applicant be required to complete the above noted conditions of Council's approval of the Development Permit Application in order for the permits to be issued;

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

Report prepared by: Aaron Thibeault, Planner II

Reviewed by: Laura Bentley, Urban Planning & Development Policy Manager

Approved for Inclusion: Terry Barton, Development Planning Department Manager

Attachments:

Schedule A: Development Engineering Memo

Schedule B: Revitalization Design Guidelines Checklist

Attachment A: Draft Development Permit DP19-0092

Attachment B: Applicant Rationale

Attachment C: Notarized Letter of Intent

CITY OF KELOWNA

MEMORANDUM

Date:	May 22, 2019
File No.:	DP19-0092
To:	Community Planning (LK)
From:	Development Engineer Manager (JK)
Subject:	340 Hwy 33 W

Form and Character

The comments and requirements contained in this memo are in addition to the offsite infrastructure and services upgrades addressed in the Rezoning Engineering Report under file Z15-0052. The Development Engineering comments and requirements regarding this Development Permit application for Form and Character of the development of a proposed carwash addition to an existing gas bar and convenience store are as follows:

1. DRIVEWAY AND LANE ACCESS

a) With reference to the driveway access to Dougall Rd N at the south west corner of the property, the Subdivision, Development & Servicing Bylaw (Bylaw 7900) stipulates that driveway accesses to commercial and industrial corner lots shall be a minimum of 15 m from the property line of the adjoining road (as per Section 4.6 of Schedule 4 of Bylaw 7900). Due to site grading constraints of this property, the driveway setback requirements will be waived, but right-in/right-out access from this driveway shall be enforced via appropriate signage.

b) Only one access to the property via the laneway will be granted. Therefore, the 8-m wide parking pad directly east of the existing convenience store will require decommissioning.

2. FRONTAGE UPGRADES

a) Property frontages on both HWY 33 W and Dougall Rd N are to be designed as per the Rutland Urban Centre Streetscape Plan Final Report.

3. 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 Security 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.

4. FEES AND CHARGES

a) The 3.0% Engineering and Inspection Fee first noted in the Rezoning Engineering Report (Z15-0052) has changed since the original application was processed. The new

fees will be calculated at 3.5% of the total cost of off-site construction as per Bylaw 10560.

b) Development cost charges are applicable and will be collected at time of Building Permit.

The Development Engineering comments/requirements are subject to the review and requirements from the Ministry of Transportation and Infrastructure (MoTI).

James Kay

James Kay, P.Eng.
Development Engineering Manager

JKH

SCHEDULE B
This forms part of application
DP19-0092
City of Kelowna
COMMUNITY PLANNING
Planner Initials AT

Revitalization Development Permit Area Consideration has been given to the following guidelines as identified in Section 14.B. of the City of Kelowna Official Community Plan relating to Revitalization Development Permit Areas:

REVITALIZATION DEVELOPMENT PERMIT AREA	YES	NO	N/A
Relationship to the Neighbourhood and Street			
Does the proposal maintain the established or envisioned architectural character of the neighbourhood?		✓	
Do developments adjacent to non-revitalization areas create an appropriate transition?			✓
Are spaces for pedestrian friendly amenities, such as street furniture, included on site?		✓	
Is the ratio of streetwall height to street width less than 0.75:1?	✓		
Does the building frontage occupy the entire length of the street, without drive aisles or other dead zones?		✓	
Building Design			
Are architectural elements aligned from one building to the next?	✓		
Are the effects of shadowing on public areas mitigated?	✓		
Are doors or windows incorporated into at least 75% of street frontage?		✓	
Do proposed buildings have an identifiable base, middle and top?	✓		
Are windows, entrances, balconies and other building elements oriented towards surrounding points of interest and activity?		✓	
Are architectural elements such as atriums, grand entries and large ground-level windows used to reveal active interior spaces?		✓	
Are buildings designed with individual entrances leading to streets and pathways rather than with mall style entrances and internal connections?		✓	
For multiple unit residential projects, is ground level access for first storey units provided?			✓
Are buildings finished with materials that are natural, local, durable and appropriate to the character of the development?	✓		
Are prohibited materials such as vinyl siding, reflective or non-vision glass, plastic, unpainted or unstained wood, and concrete block not used in the	✓		
Are stucco and stucco-like finishes omitted as a principal exterior wall material?	✓		
Are vents, mechanical rooms/equipment and elevator penthouses integrated with the roof or screened with finishes compatible with the building's design?	✓		
View Corridors			
Are existing views preserved and enhanced?	✓		
Vehicular Access and Parking			
Are at-grade and above-grade parking levels concealed with façade treatments?		✓	

REVITALIZATION DEVELOPMENT PERMIT AREA	YES	NO	N/A
Are garage doors integrated into the overall building design?			✓
Are pedestrian entrances more prominent features than garage doors and vehicle entrances?		✓	
Is surface parking located to the rear of the building or interior of the block?		✓	
Are truck loading zones and waste storage areas screened from public view?	✓		
Do parking lots have one shade tree per four parking stalls?		✓	
Are pedestrian connections provided within and between parking lots?			✓
Are driving, parking, pedestrian and cycling areas distinguished through changes in colour or pattern of paving materials?		✓	
Signage			
Is signage design consistent with the appearance and scale of the building?	✓		
Are corporate logos on signs complimentary to the overall building character?	✓		
Is signage lighting minimized?	✓		
Public Art			
Is public art incorporated into the project?		✓	

Development Permit & Development Variance Permit DP19-0092

This permit relates to land in the City of Kelowna municipally known as

340 Hwy 33 W

and legally known as

Lot 1 Section 26 ODYD Plan EPP62403

and permits the land to be used for the following development:

a mixed-use building with a car wash at grade and an apartment above

The present owner and any subsequent owner of the above described land must comply with any attached terms and conditions.

Date of Council Decision	November 18, 2019
Decision By:	COUNCIL
Development Permit Area:	Revitalization DP Area
Existing Zone:	C4 – Urban Centre Commercial
Future Land Use Designation:	Mixed Use Residential / Commerical (MXR)

This is NOT a Building Permit.

In addition to your Development Permit, a Building Permit may be required prior to any work commencing. For further information, contact the City of Kelowna, Development Services Branch.

NOTICE

This permit does not relieve the owner or the owner's authorized agent from full compliance with the requirements of any federal, provincial or other municipal legislation, or the terms and conditions of any easement, covenant, building scheme or agreement affecting the building or land.

Owner: ZSY Holdings Ltd. Inc.No. BC0981442

Applicant: Urban Options Planning and Permits

_____ _____

Terry Barton
Community Planning Department Manager
Planning & Development Services

Date

1. SCOPE OF APPROVAL

This Development 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 Development 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 Development 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.

2. CONDITIONS OF APPROVAL

a) The dimensions and siting of the building to be constructed on the land be in accordance with Schedule "A";

b) The exterior design and finish of the building to be constructed on the land be in accordance with Schedule "B";

c) Landscaping to be provided on the land be in accordance with Schedule "C"; and

d) The applicant be required to post with the City a Landscape Performance Security deposit in the form of a "Letter of Credit" in the amount of 125% of the estimated value of the landscaping, as determined by a Registered Landscape Architect.

This Development Permit is valid for two (2) years from the date of approval, with no opportunity to extend.

3. PERFORMANCE SECURITY

As a condition of the issuance of this Permit, Council is holding the security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Developer and be paid to the Developer or his or her designate if the security is returned. The condition of the posting of the security is that should the Developer fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the Municipality may use enter into an agreement with the property owner of the day to have the work carried out, and any surplus shall be paid over to the property own of the day. Should the Developer carry out the development permitted by this Permit within the time set out above, the security shall be returned to the Developer or his or her designate. There is filed accordingly:

a) An Irrevocable Letter of Credit OR certified cheque in the amount of $15,377.50

Before any bond or security required under this Permit is reduced or released, the Developer will provide the City with a statutory declaration certifying that all labour, material, workers' compensation and other taxes and costs have been paid.

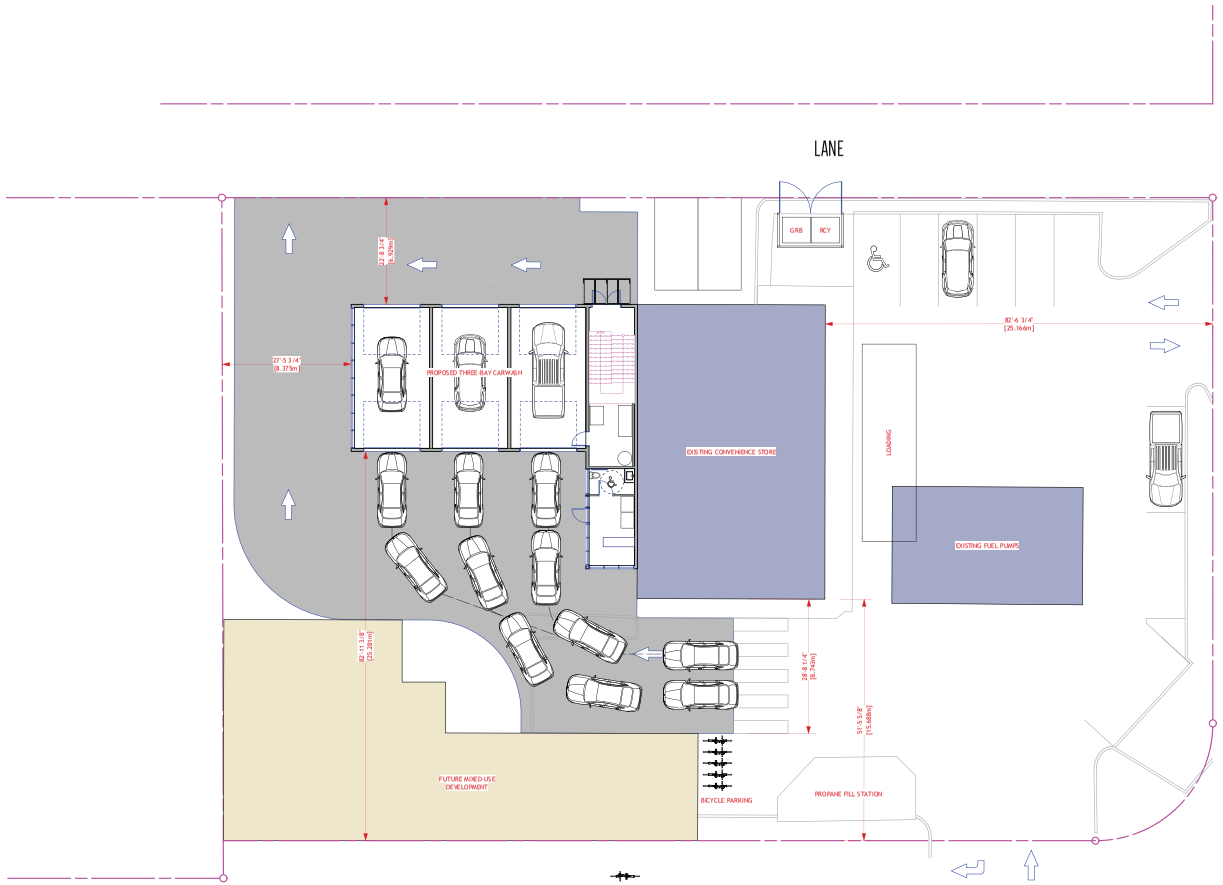
5. INDEMNIFICATION

Upon commencement of the works authorized by this Permit the Developer covenants and agrees to save harmless and effectually indemnify the Municipality against:

a) All actions and proceedings, costs, damages, expenses, claims, and demands whatsoever and by whomsoever brought, by reason of the Municipality said Permit.

All costs, expenses, claims that may be incurred by the Municipality where the construction, engineering or other types of works as called for by the Permit results in damages to any property owned in whole or in part by the Municipality or which the Municipality by duty or custom is obliged, directly or indirectly in any way or to any degree, to construct, repair, or maintain.

The PERMIT HOLDER is the CURRENT LAND OWNER.
Security shall ONLY be returned to the signatory of the
Landscape Agreement or their designates.



1 SITE PLAN
Scale: 1:150

0 25 35 45 55 65 FT

SCHEDULE A
This forms part of application
DP19-0092
City of Kelowna
AT

IHS DESIGN
#202 - 1470 ST. PAUL STREET
KELOWNA, BC V1Y 2E6
www.ihsdesign.com
250.212.7938

PROJECT NORTH

REVISION	DATE	DISCRIPTION

PROJECT
COMMERCIAL DEVELOPMENT
340 HIGHWAY 33 WEST
KELOWNA, BC V1X 1X9
LOT 1 PLAN EPP62403

DRAWING TITLE
SITE

DATE
MARCH 18, 2019

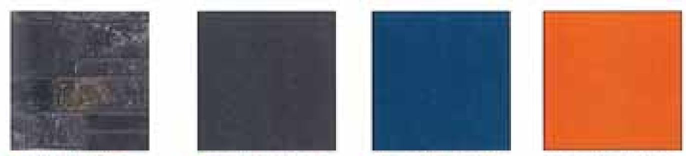
DRAWING NUMBER
9
of
10

SCHEDULE B

This forms part of application
DP19-0092

Planner Initials: AT

City of Kelowna
COMMUNITY PLANNING



IHS DESIGN

PROJECT NORTH

REVISION	DATE	DESCRIPTION

PROJECT: COMMERCIAL DEVELOPMENT, 340 HIGHWAY 33 WEST, KELOWNA, BC V1X 1X9, LOT 1 PLAN EPP62403

DRAWING TITLE: COLOUR BOARD

DATE: MARCH 18, 2019

DRAWING NUMBER: 10 of 10

IHS DESIGN
#202 - 1470 ST. PAUL STREET
KELOWNA, BC V1Y 2E6
www.ihsdesign.com
250.212.7918

PROJECT NORTH

REVISION	DATE	DESCRIPTION

PROJECT

COMMERCIAL DEVELOPMENT
340 HIGHWAY 33 WEST
KELOWNA, BC V1X 1X9
LOT 1 PLAN EPP62403

DRAWING TITLE

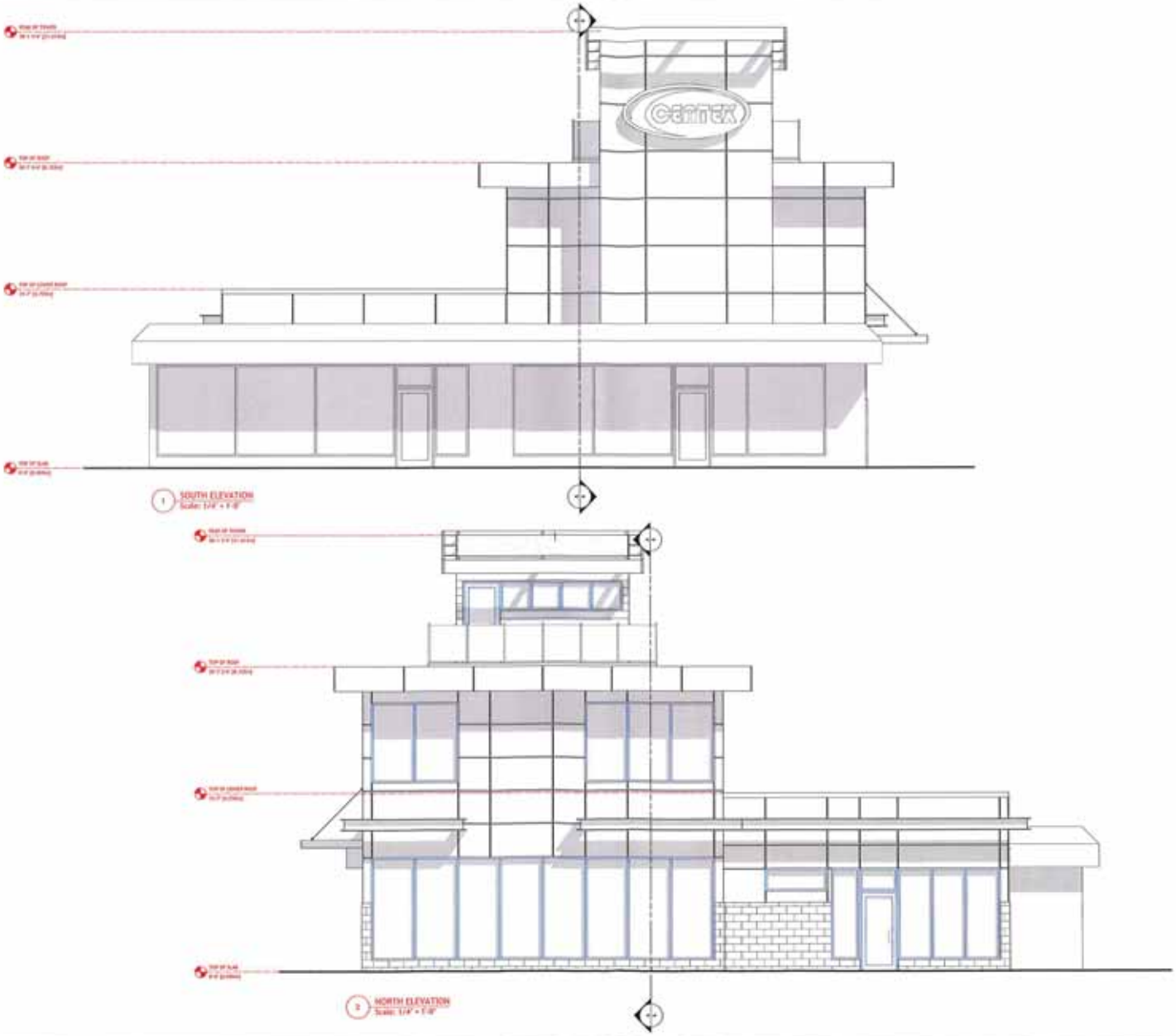
ELEVATIONS

DATE

MARCH 18, 2019

DRAWING NUMBER

2
of
10



IHS DESIGN

PROJECT NORTH

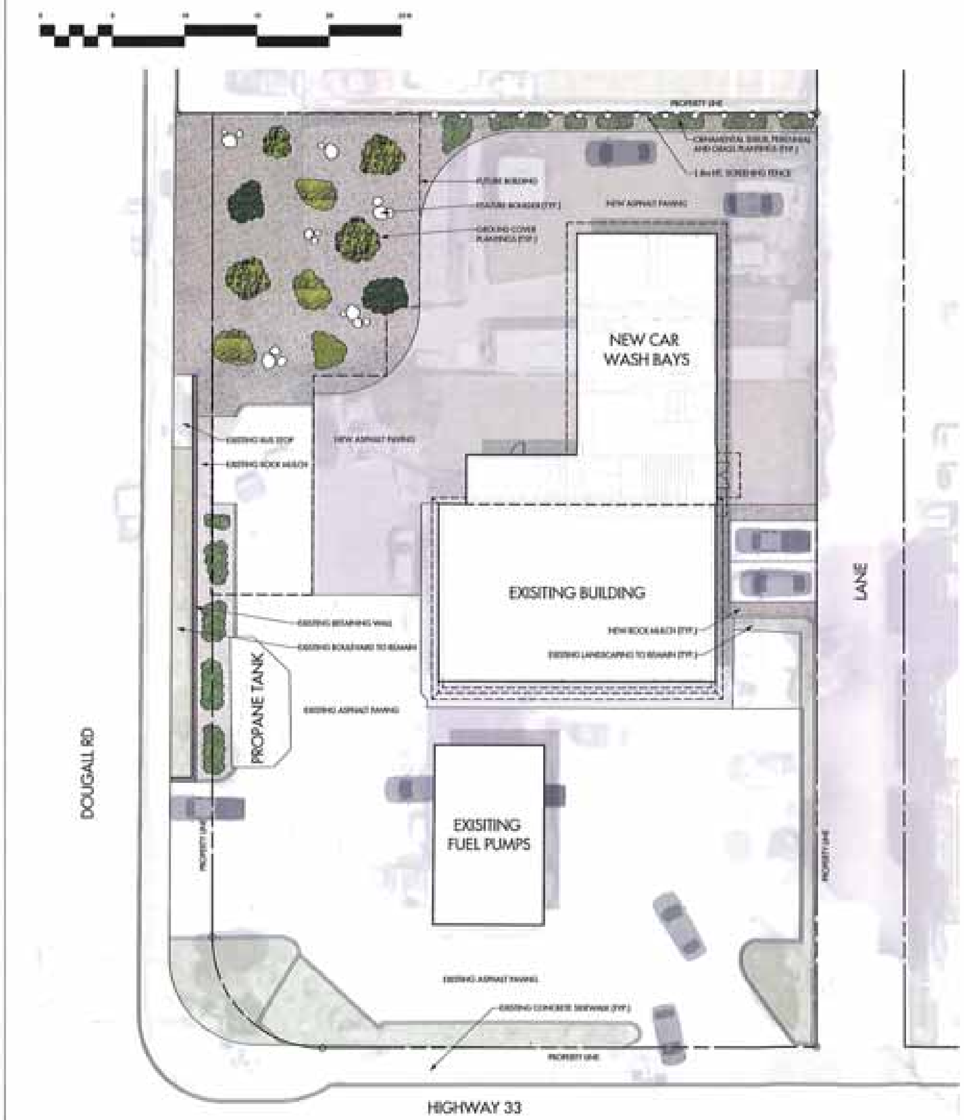
NO	DATE	DESCRIPTION

COMMERCIAL DEVELOPMENT
340 HIGHWAY 33 WEST
KELOWNA, BC V1X 1X9
LOT 1 PLAN EPP62403

ELEVATIONS

MARCH 18, 2019

3 of 10



PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE / SPACING & REMARKS
SHRUBS, PERENNIALS & GRASSES			
AMELANCHIER ALNIFOLIA 'OBELISK'	STANDING OVATION SERVICEBERRY	10	#15 CONT. /1.2M O.C. SPACING
CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	FOERSTER'S FEATHER REED GRASS	12	#01 CONT. /0.75M O.C. SPACING
CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE DOGWOOD	7	#01 CONT. /1.0M O.C. SPACING
COTONEASTER HORIZONTALIS 'PERPUSILLUS'	PROSTRATE ROCK COTONEASTER	2	#02 CONT. /1.2M O.C. SPACING
EUONYMUS FORTUNEI 'EMERALD 'N GOLD'	EMERALD N' GOLD EUONYMUS	2	#02 CONT. /1.0M O.C. SPACING
JUNIPERUS HORIZONTALIS 'PRINCE OF WALES'	PRINCE OF WALES JUNIPERUS	3	#02 CONT. /2.5M O.C. SPACING
JUNIPERUS SABINA 'NEW BLUE TAM'	NEW BLUE TAMARIX JUNIPER	5	#02 CONT. /1.5M O.C. SPACING
RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM CONEFLOWER	6	#01 CONT. /0.6M O.C. SPACING
RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	2	#02 CONT. /1.5M O.C. SPACING

NOTES

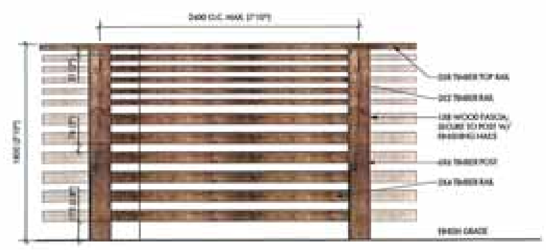
1. PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED C.N.L.A. STANDARDS.

2. SOFT LANDSCAPE AREAS WITH ORNAMENTAL GRASS, SHRUB, AND PERENNIAL PLANTINGS SHALL BE WATERED BY A FULLY AUTOMATIC TIMED UNDERGROUND IRRIGATION SYSTEM. THE GROUNDCOVER PLANTINGS IN ROCK MULCH SHALL BE WATERED MANUALLY UNTIL SUCH A TIME AS A FUTURE BUILDING IS DEVELOPED.

3. SHRUB BEDS TO BE DRESSED IN A MINIMUM 50mm ROCK MULCH. DO NOT PLACE WEED MAT UNDERNEATH TREE AND SHRUB BEDS.

4. SHRUB BEDS TO RECEIVE A MINIMUM 300mm DEPTH TOPSOIL PLACEMENT.

5. SITE GRADING AND DRAINAGE WILL ENSURE THAT ALL STRUCTURES HAVE POSITIVE DRAINAGE, AND THAT NO WATER OR LOOSE IMPEDIMENTS WILL BE DISCHARGED FROM THE LOT ONTO ADJACENT PUBLIC, COMMON, OR PRIVATE PROPERTIES.



1.8m HT. SCREENING FENCE - SECTION / ELEVATION
SCALE: 1:20

OUTLAND DESIGN
LANDSCAPE ARCHITECTURE

SCHEDULE C
This forms part of application
DP19-0092
City of Kelowna
COMMUNITY PLANNING
Planner Initials AT

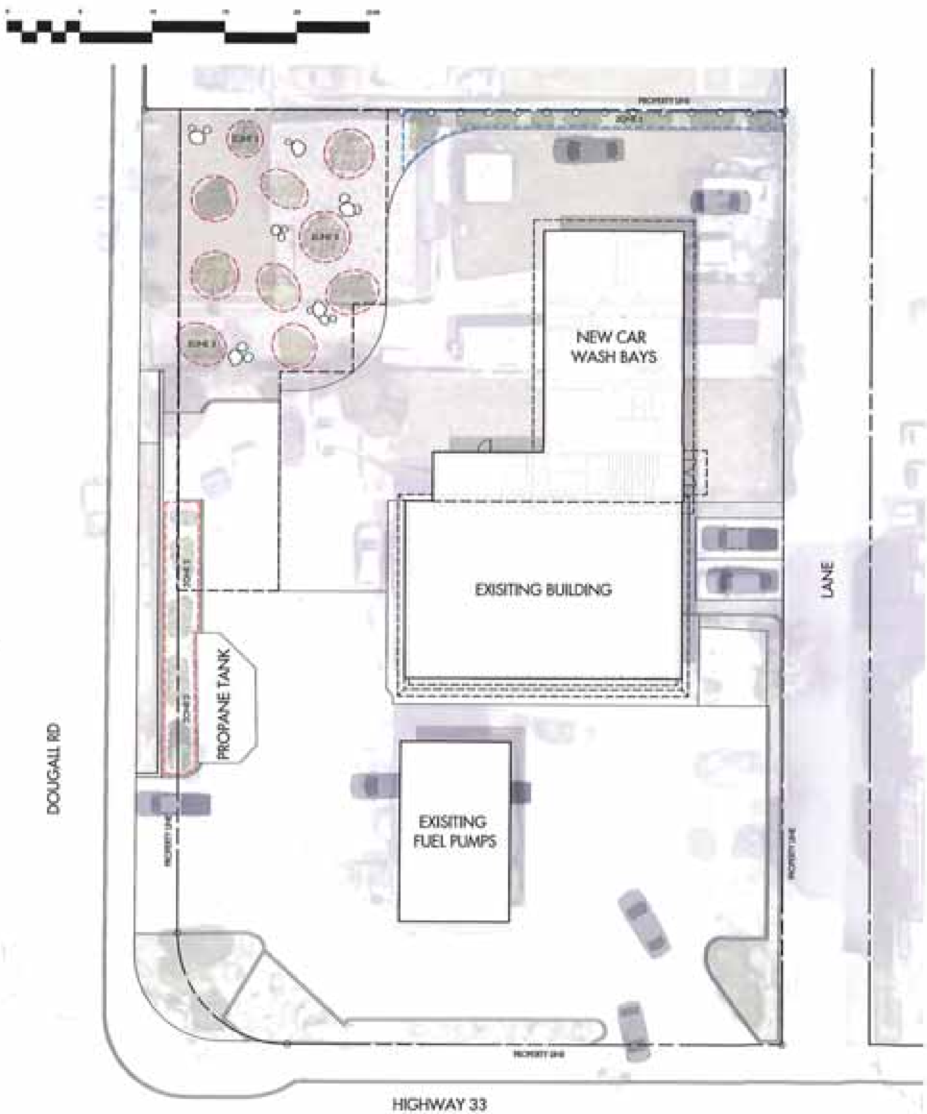
340 HIGHWAY 33 W
Kelowna, BC

CONCEPTUAL
LANDSCAPE PLAN

FIONA BARTON 334

L1/2

ISSUED FOR REVIEW ONLY



IRRIGATION LEGEND

- ZONE #1: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS
  TOTAL AREA: 41 sq.m.
  MICROCLIMATE: SOUTHEAST EXPOSURE, FULL SUN
  ESTIMATED ANNUAL WATER USE: 23 cu.m.
- ZONE #2: HIGH EFFICIENCY SUBSURFACE DRIP IRRIGATION FOR MODERATE WATER USE PLANTING AREAS
  TOTAL AREA: 47 sq.m.
  MICROCLIMATE: SOUTHWEST EXPOSURE, FULL SUN
  ESTIMATED ANNUAL WATER USE: 26 cu.m.
- ZONE #3: TEMPORARY MANUAL (HAND WATERING) IRRIGATION FOR GROUNDCOVERS IN ROCK MULCH
  TOTAL AREA: 78 sq.m.
  MICROCLIMATE: SOUTHWEST EXPOSURE, FULL SUN
  ESTIMATED ANNUAL WATER USE: 33 cu.m.

WATER CONSERVATION CALCULATIONS

LANDSCAPE MAXIMUM WATER BUDGET (WB) = 440 cu.m. / year
ESTIMATED LANDSCAPE WATER USE (WU) = 82 cu.m. / year
WATER BALANCE = 358 cu.m. / year
*REFER ATTACHED IRRIGATION APPLICATION FOR DETAILED CALCULATIONS

IRRIGATION NOTES

1. IRRIGATION PRODUCTS AND INSTALLATION METHODS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE WATER USE REGULATION BYLAW NO. 12485 AND THE SUPPLEMENTARY SPECIFICATIONS IN THE CITY OF KELOWNA BYLAW 7900 (PART 6, SCHEDULE 5).
2. THE IRRIGATION SYSTEM SHALL MEET THE REQUIREMENTS, REGULATIONS, AND BYLAWS OF THE WATER PURVEYOR.
3. THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH AN APPROVED BACKFLOW PREVENTION DEVICE, WATER METER, AND SHUT OFF VALVE LOCATED OUTSIDE THE BUILDING ACCESSIBLE TO THE CITY.
4. AN APPROVED SMART CONTROLLER SHALL BE INSTALLED. THE IRRIGATION SCHEDULING TIMES SHALL UTILIZE A MAXIMUM ET VALUE OF 7" / MONTH (KELOWNA JULY ET), TAKING INTO CONSIDERATION SOIL TYPE, SLOPE, AND MICROCLIMATE.
5. DRIP LINE AND EMITTERS SHALL INCORPORATE TECHNOLOGY TO LIMIT ROOT INTRUSION.
6. IRRIGATION SLEEVES SHALL BE INSTALLED TO ROUTE IRRIGATION LINES UNDER HARD SURFACES AND FEATURES.
7. IRRIGATION PIPE SHALL BE SIZED TO ALLOW FOR A MAXIMUM FLOW OF 1.5m./SEC.
8. A FLOW SENSOR AND MASTER VALVE SHALL BE CONNECTED TO THE CONTROLLER AND PROGRAMMED TO STOP FLOW TO THE SYSTEM IN CASE OF AN IRRIGATION WATER LEAK.

OUTLAND DESIGN
LANDSCAPE ARCHITECTURE
303 - 590 KLO Road
Kelowna, BC V1Y 7S2
T (250) 868-9270
www.outlanddesign.ca

N

340 HIGHWAY 33 W
Kelowna, BC

WATER CONSERVATION PLAN

FIONA BARTON 334

L2/2

ISSUED FOR REVIEW ONLY

OUTLAND DESIGN
LANDSCAPE ARCHITECTURE

Monday, March 29th, 2019

340 Highway 33 W
C/o Centex Kelowna
340 Highway 33 W
Kelowna, BC V1X 1X9
Attn: Chandan Dulay (Ruby)
Via email to: rubydulay1@gmail.com

Dear Ruby:

Please be advised of the following preliminary cost estimate for bonding of the proposed landscape works shown in the 340 Highway 33 W conceptual landscape plan dated 19.03.29;

- 440 square metres (4,736 square feet) of improvements = $12,302.00

This preliminary cost estimate is inclusive of shrubs, mulch, topsoil, irrigation, boulders, & fencing.

You will be required to submit a performance bond to the City of Kelowna in the amount of 125% of the preliminary cost estimate. Please do not hesitate to contact me with any questions about the landscape plan.

Best regards,

K McNamee

Kim McNamee, MBCSLA, CSLA
as per
Outland Design Landscape Architecture

303-590 KLO Road, Kelowna, BC, V1Y 7S2P 250.868.9270
outlanddesign.ca

URBAN OPTIONS
Planning & Permits

ATTACHMENT B
This forms part of application
DP19-0092
City of Kelowna
COMMUNITY PLANNING
Planner Initials AT

March 28, 2019

City of Kelowna
Urban Planning Department
1435 Water Street
Kelowna B.C.

RE: Form and Character Development Permit at 340 HWY 33 W.

Dear Urban Planning Department:

We are seeking a Comprehensive Development Permit to allow for a proposed carwash addition to the rear of the existing gas bar and convenience store located on the subject property. The property was ezoned to the C4 – Urban Centre Commercial zone in 2015.

The proposed carwash building addition is designed as a two storey building, with an office area and a 2 bedroom residence located on the upper level, and a 3 bay carwash on the main level. The car wash bays are accessed from the west side of the addition from a paved driveway and stacking area located behind the existing gas bar building. The exit from the carwash bays is from the east side of the building to a driveway area that will give the users an option to exit towards the east to the adjacent lane or to proceed back towards the gas bar and exist onto Dougall Road N.

There is a portion of the property located between the paved stacking area and Dougall Rd. N. that is to be left undeveloped. It is planned that this area will be developed in the near future.

The exterior of the addition is designed to incorporate several modern contemporary elements. The exterior of the addition is to be finished with "Hardi-Panel" product. The bulk of the wall area is to be finished with a "grey" coloured material, while there will be a "blue" coloured product used as an accent feature near the windows located on the north portion of the addition. "Orange" coloured material is used as an accent to the cashier area, as well as on the tower element. The base of the wall areas is to be finished with a "dark grey" cultures stone product. The stair tower portion will project above the roof line of the addition to provide access to a roof-top patio area for the occupants of the building. This tower element will also provide a focal point for the building as well as a location for signage.

The building design also includes a number of black brushed metal architectural metal shade structures above the main level windows to add visual interest to the resulting building facades.

The vacant future building portion of the property is proposed to be landscaped with a number of shrubs and stone features. The portion of the property located at the north end of the property adjacent to the existing residential uses is designed to be landscaped with a

blend of ornamental shrub plantings along with grasses. There is also a 1.8m high screen fence to be installed along this property line as well.

We feel that the high level of design and the incorporation of high-quality materials will result in a development project that will enhance the visual appeal of the site development. It is anticipated that the proposed addition will have a minimal impact on the surrounding area and be a welcome addition to the neighbourhood.

Regards

Birte Decloux on behalf of Chandan Dulay, ZSY Holdings Ltd.

ATTACHMENT C
This forms part of application
DP19-0092
Planner Initials AT
City of Kelowna
COMMUNITY PLANNING

October 08, 2019

City of Kelowna

Dear Sir:

Re: Letter of Intent to develop property located at 340 Hwy 33 W. Kelowna BC (the "Property")

This letter of intent is to confirm our intention to develop the Property as follows:

1. The Property development will occur in accordance with applicable City of Kelowna zoning bylaws and official community plan guidelines.

2. The development of the Property will consist of a mixed-use building on the Dougall frontage of the Property.

3. A development permit application will be made for the proposed mixed-use building.

4. That the application for a development permit for the proposed mixed-use building will be submitted to the City on or before October 8, 2029.

5. If the terms of this non-binding letter of intent are acceptable, kindly execute below, signifying your approval and provide one fully executed copy to me.

Yours truly,

SIGNED, SEALED AND DELIVERED)
by **Chandan (Ruby) Dulay** in the presence of:)
VARINDER JATANA)
Name)
#43-31255 UPPER MACLURE Rd, Abbotsford, B.C)
Address)
Realtor.)
Occupation)

Chandan (Ruby) Dulay

City of Kelowna
by its authorized signatory:

Per: _____

REPORT TO COUNCIL

Date: January 13, 2020

To: Council

From: City Manager

Department: Development Planning

Application: Z19-0057 **Owner:** Melcor Lakeside Inc.

Address: 1075 Stockley Street **Applicant:** CTQ Consultants Ltd.

Subject: Rezoning Application

Existing OCP Designation: S2RES – Single / Two Unit Residential

Existing Zone: RU4 – Low Density Cluster Housing

Proposed Zone: RU6 – Two Dwelling Housing

1.0 Recommendation

THAT Rezoning Application No. Z19-0057 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 5, Section 19, Township 27, ODYD, Plan KAP81890, located at 1075 Stockley Street, Kelowna, BC from the RU4 – Low Density Cluster Housing zone to the RU6 – Two Dwelling Housing zone be considered by Council;

AND THAT the Rezoning Bylaw be forwarded to 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 Development Planning Department dated January 13, 2020;

AND FURTHER THAT final adoption of the Rezoning Bylaw be considered subsequent to the approval of the Ministry of Transportation and Infrastructure.

2.0 Purpose

To rezone the subject property from the RU4 – Low Density Cluster Housing zone to the RU6 – Two Dwelling Housing zone to accommodate a future subdivision.

3.0 Development Planning

Development Planning Staff support the proposed rezoning amendment from RU4 – Low Density Cluster Housing zone to the RU6 – Two Dwelling Housing zone to accommodate future subdivision. The subject

property is designated S2RES – Single / Two Unit Residential in the Official Community Plan (OCP) and is within the Permanent Growth Boundary. The proposal is generally consistent with the OCP Urban Infill Policies and is fully serviced.

The intent of the current RU4 is to provide for cluster development, in a strata format, to preserve topography and natural features. The property was rezoned as part of the original Area Structure Plan for the Black Mountain neighbourhood more than a decade ago. Staff believe that the proposed RU6 can achieve the same housing intent while allowing the potential for fee simple lots. Staff do have concerns regarding the visual impact and grading of the site given its steep topography and profile to the Hwy 33 corridor, however feel that this can be addressed through the subdivision and development permit process.

4.0 Proposal

4.1 Project Description

The applicant has applied for a rezoning to accommodate a future subdivision which will be accessed from Stockley Street in the north-east corner. The current proposal shows 22 lots in a duplex party-wall configuration. The subdivision would be accessed by a municipal road approximately 200 m in length ending in a cul-de-sac turn around. Given the topography of the site, the proposal will involve several cut and fill slopes to accommodate the roadway and the building envelopes.

4.2 Site Context

The subject property is located in the Belgo – Black Mountain City Sector and at the south end of Stockley Street. Stockley Road is currently a dead-end road which is connected to Black Mountain Drive and eventually Hwy 33 E. The surrounding neighborhood is primarily single family residential on the east side of Stockley Street and older single family residential to the south. Upslope and north-west of the property is designated park and open space. Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	P3 – Parks and Open Space / RU1H – Large Lot Housing (Hillside Area)	Park and Open Space / Single Family Residential
East	RU1H – Large Lot Housing (Hillside Area)	Single Family Residential
South	A1 - Agriculture	Rural Residential
West	P3 – Parks and Open Space	Park and Open Space

Subject Property Map: 1075 Stockley

5.0 Current Development Policies

5.1 Kelowna Official Community Plan (OCP)

Chapter 5: Development Process

Objective 5.3 Focus development to designated growth areas

Policy .2 Compact Urban Form. 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.

Objective 5.22 Ensure context sensitive housing development

Policy .6 Sensitive Infill. 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.

6.0 Technical Comments

6.1 Development Engineering Department

See attached memorandum.

7.0 Application Chronology

Date of Application Received: March 28, 2019
Date Public Consultation Completed: October 15, 2019

Report prepared by: Wesley Miles, Acting Community and Development Planning Manager
Approved for Inclusion: Terry Barton, Development Planning Department Manager

Attachments:

Schedule A: Development Engineering Memo

Attachment A: Conceptual Drawing Package

SCHEDULE A

This forms part of application

Z19-0057

Planner Initials WM

City of Kelowna DEVELOPMENT PLANNING

CITY OF KELOWNA

MEMORANDUM

Date: March 29, 2019

File No.: Z19-0057

To: Suburban and Rural Planning (WM)

From: Development Engineering Manager (JK)

Subject: 1075 Stockley St. Rezoning: RU4 to RU6

Development Engineering Technologist for this application in Andy Marshall. Requirements for this application to rezone 1075 Stockley St from RU4 to RU6 are as follows:

.1) General

a) Steep slopes must be identified and a Restrictive Covenant must be registered for all the steep slopes and environmentally sensitive areas.

b) Provide easements as may be required.

c) The proposed subdivision may require the installation of centralized mail delivery equipment. Please contact Arif Bhati, Delivery Planning Officer, Canada Post Corporation, 530 Gaston Avenue, Kelowna, BC V1Y 2K0 to obtain further information and to determine suitable location(s) within the development.

.2) Geotechnical Report

a) Provide a comprehensive geotechnical report, prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision**

(i) Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.

(ii) Site suitability for development.

(iii) Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).

(iv) Any special requirements for construction of roads, utilities and building structures.

(v) Suitability of on-site disposal of storm water, including effects upon adjoining lands.

(vi) Slope stability, rock fall hazard and slippage including the effects of drainage on the site.

(vii) Identify in detail all slopes greater than 30%.

viii) Top of bank assessment and location including recommendations for property line locations, building setbacks, and ground water disposal locations.

ix) Recommendations for items that should be included in a Restrictive Covenant.

x) Any special requirements that the proposed subdivision should undertake so that it will not impact the bank(s). The report must consider erosion and structural requirements.

xi) Any items required in other sections of this document.

xii) Recommendations for roof drains and perimeter drains.

xiii) Recommendations for construction of detention or infiltration ponds and their effects on the downstream properties.

.3) Water

a) The property is located within the Black Mountain Irrigation District (BMID)

b) Provide an adequately sized domestic water and fire protection system complete with individual lot connections. The water system must be capable of supplying domestic and fire flow demands of the project in accordance with the Subdivision, Development & Servicing Bylaw. Provide water calculations for this subdivision to confirm this. Ensure every building site is located at an elevation that ensures water pressure is within the bylaw pressure limits.

c) Arrange for individual lot connections before submission of the subdivision plan; including payment of connection fees (provide copy of receipt).

d) Design drawings must be reviewed by the Black Mountain Irrigation District prior to the City issuing the drawings for construction. Confirmation of their review must be provided to the City.

e) Design drawings must be reviewed by GEID prior to the City issuing the drawings for construction. Confirmation of their review must be provided to the City.

.4) Sanitary Sewer

a) Provide an adequately sized sanitary sewer system complete with individual lot connections for each proposed lot in accordance with the Subdivision, Development & Servicing Bylaw.

.5) Drainage

a) Provide an adequately sized drainage system complete with individual lot connections. The Subdivision, Development and Servicing Bylaw requires that each lot be provided with an individual connection; however, the City Engineer may permit use of individual ground water disposal systems, where soils are suitable. For on-site disposal of drainage water, a hydrogeotechnical report will be required complete with a design for the disposal method (i.e. trench drain / rock pit). The Lot Grading Plan must show the design and location of these systems for each lot.

b) Provide the following drawings:

i) A detailed Lot Grading Plan (indicate on the Lot Grading Plan any slopes that are steeper than 30% and areas that have greater than 1.0 m of fill);

ii) A detailed Stormwater Management Plan for this subdivision; and,

iii) An Erosion and Sediment Control Plan.

b) Show details of dedications, rights-of-way, setbacks and non-disturbance areas on the lot Grading Plan.

.6) Roads

a) Submit a roads plan complete with standard cross section designations from the Bylaw.

b) Provide traffic control and street name signs where required. The City will install all signs and traffic control devices at the developer's expense.

c) Provide a Street Sign, Pavement Markings and Traffic Control Devices Drawing.

d) Terminal ending roads that will not be extended in the future can be no more than 200m and must end with a cul-de-sac (Schedule 4 section 4.4 By-Law 7900)

e) Grade the fronting road boulevards in accordance with the standard drawing. Major cut/fill slopes must start at the property lines.

f) Landscaped boulevards, complete with street trees, are required as per standard detail specifications.

g) Verify that physical driveway access will satisfy City requirements for all lots.

h) Re-locate existing poles and utilities, where necessary.

.7) Power and Telecommunication Services and Street Lights

a) All proposed distribution and service connections are to be installed underground.

b) Street lights must be installed on all roads.

c) Before making application for approval of your subdivision plan, please make arrangements with Fortis BC for the pre-payment of applicable charges and tender a copy of their receipt with the subdivision application.

d) 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.

.8) 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.

.9) 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.

.10) Other Engineering Comments

a) Provide all necessary Statutory Rights-of-Way for any utility corridors required, including those on proposed or existing City Lands.

b) If any road dedication affects lands encumbered by a Utility right-of-way (such as B.C. Gas, etc.) please obtain the approval of the utility prior to application for final subdivision approval. Any works required by the utility as a consequence of the road dedication must be incorporated in the construction drawings submitted to the City's Development Manager.

.11) Charges and Fees

a) Development Cost Charges (DCC's) are payable.

b) Fees per the "Development Application Fees Bylaw" include:

i) Street/Traffic Sign Fees: at cost if required (to be determined after design).
ii) Survey Monument Fee: $50.00 per newly created lot (GST exempt).
iii) Engineering and Inspection Fee: 3.5% of construction value (plus GST).
iv) Survey Monument, Replacement Fee: $1,200.00 (GST exempt) – only if disturbed.

James Kay

James Kay, P Eng.
Development Engineering Manager

agm

DESIGN CRITERIA:

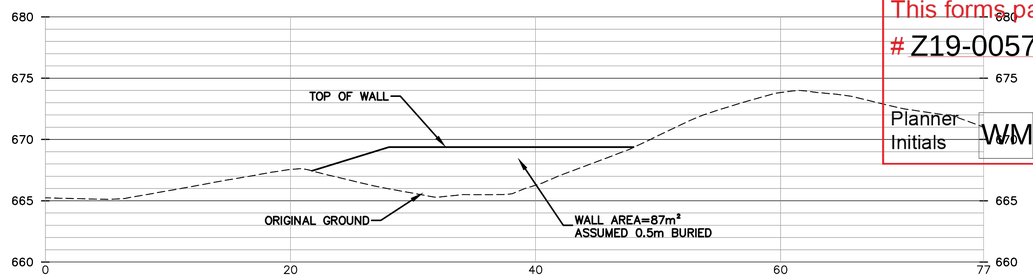
ZONING RM3 (CURRENTLY RU4)

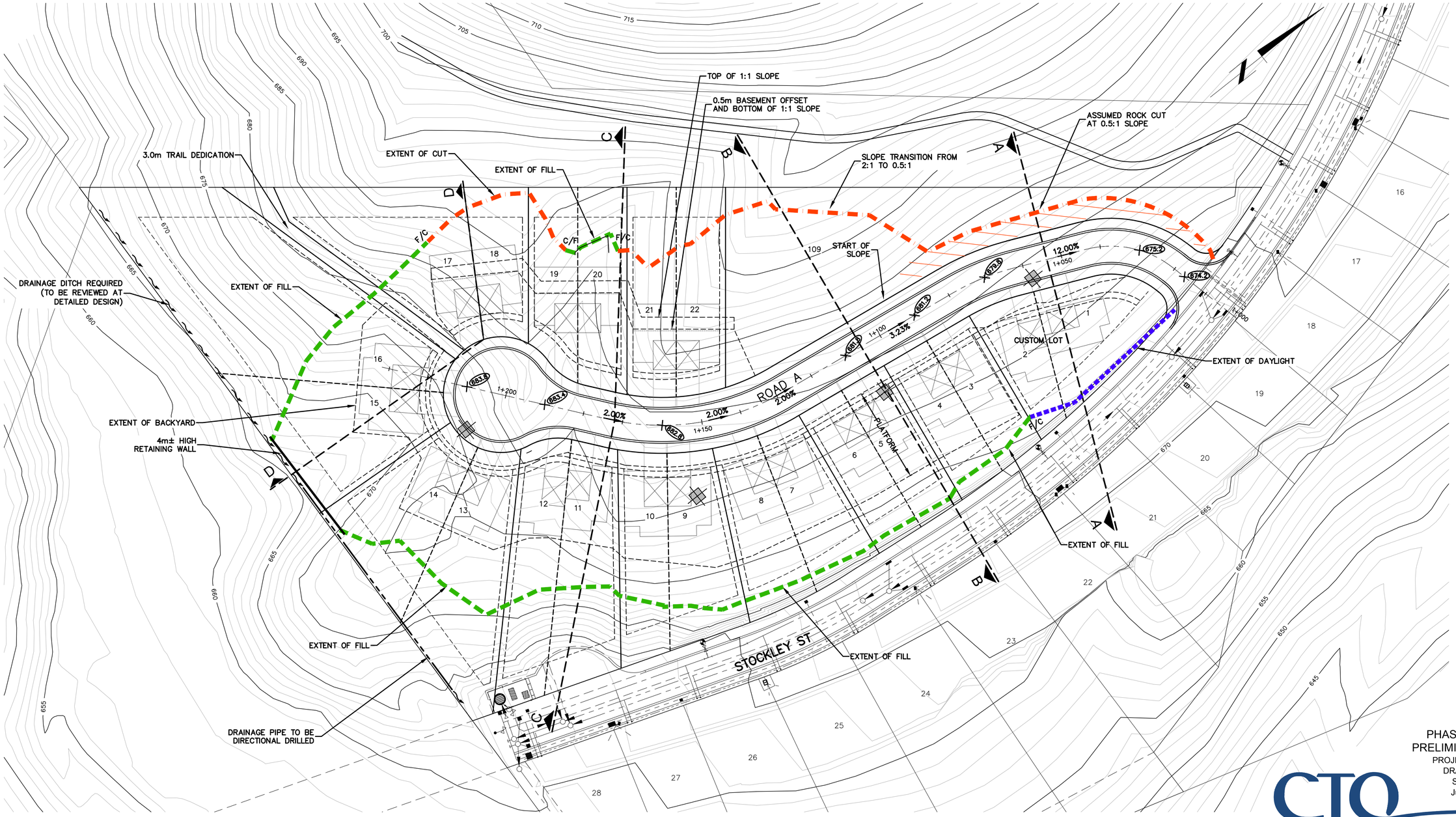
ROAD A
14m ROW.
ROCK CATCHMENTS 2.5m WIDE = 6–7m ROCK CUT
DESIGN ROAD GRADE – MAX 12%

LOT GRADING:
NON–ROCK CUT 2:1
ROCK CUT 0.5:1
ROCK FILL 1.5:1

REAR PROPERTY LINE SETBACK: 7.5m
FRONTAGE PROPERTY LINE SETBACK:1.5m
SIDE PROPERTY LINE SETBACK: 1.5m
GARAGE SETBACK FROM PROPERTY LINE: 6.0m

TOP OF CUT
TOE OF FILL
DAYLIGHT
GRADE BREAK



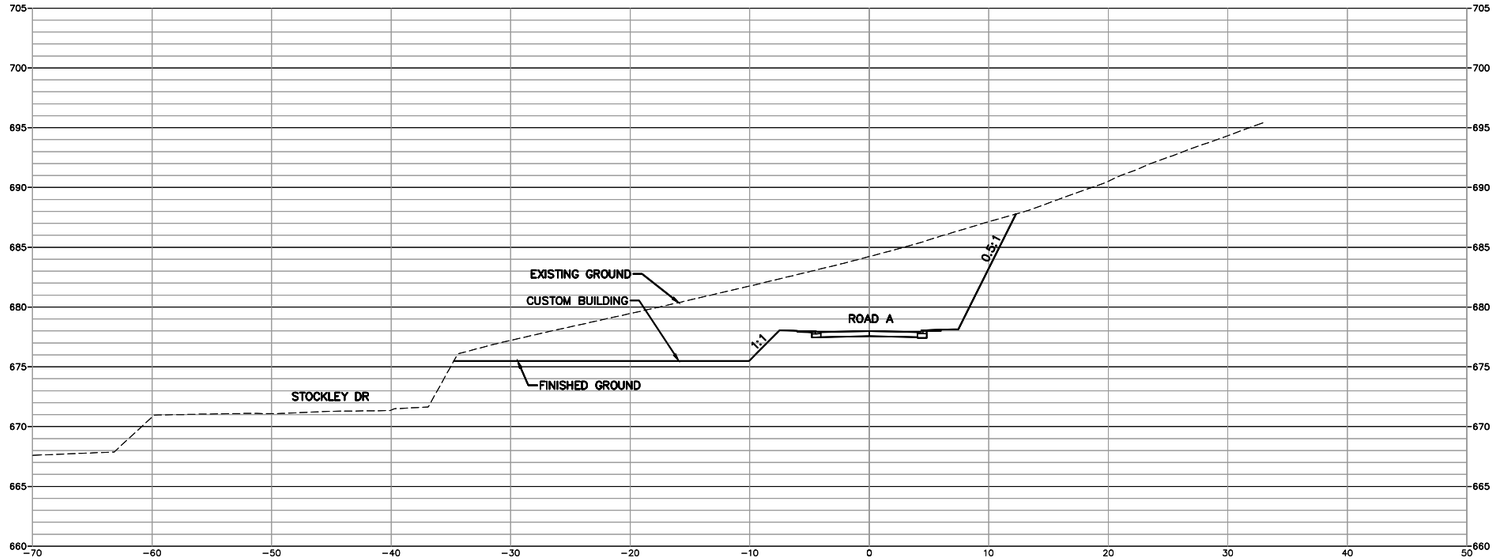


L:\General Data\Projects\03090-30-MELCOR-LOT 5 MF SITE\4-CAD\SKETCHES\03090-30-SK-03-sect.dwg June 28, 2019 Haruko Kagami

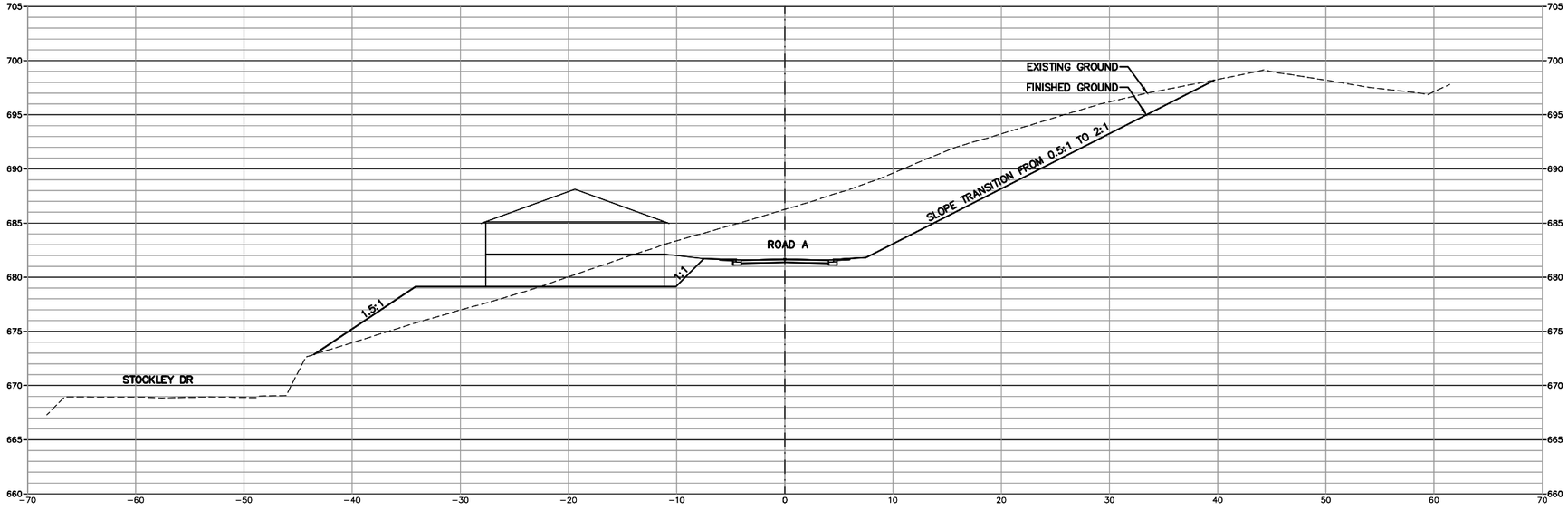
PHASE 2A MF SITE
PRELIMINARY GRADING PLAN
PROJECT No.03090-30
DRAWING: SK-03
SCALE 1:500
June 28, 2019

CTQ

ROAD A – SECTION A

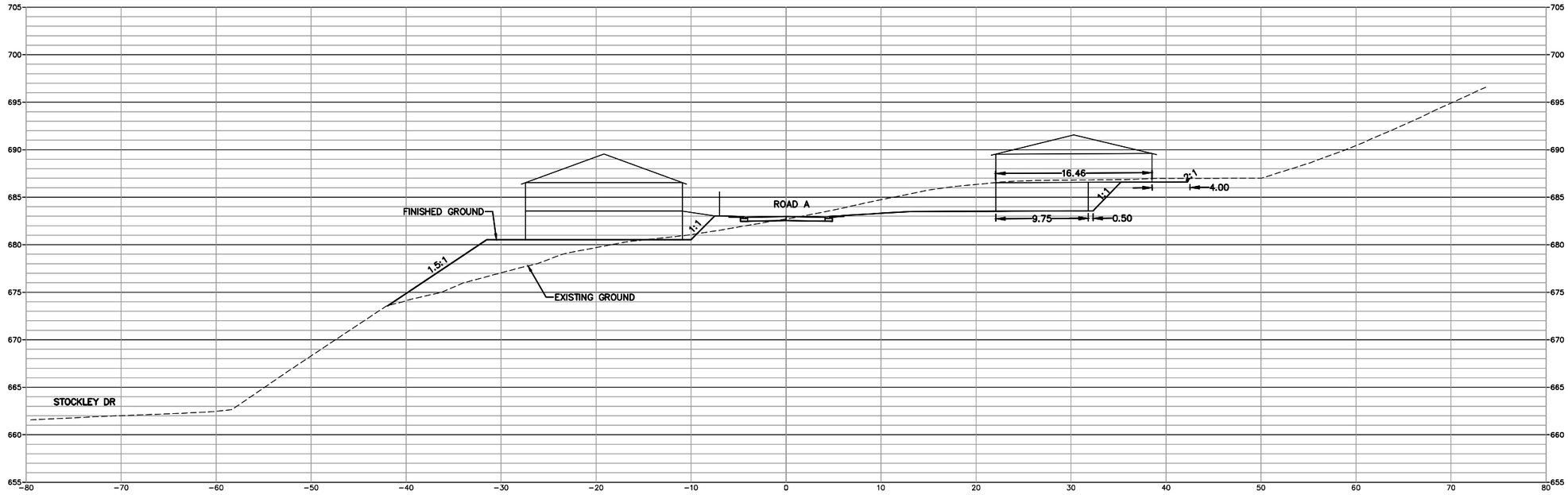


ROAD A – SECTION B

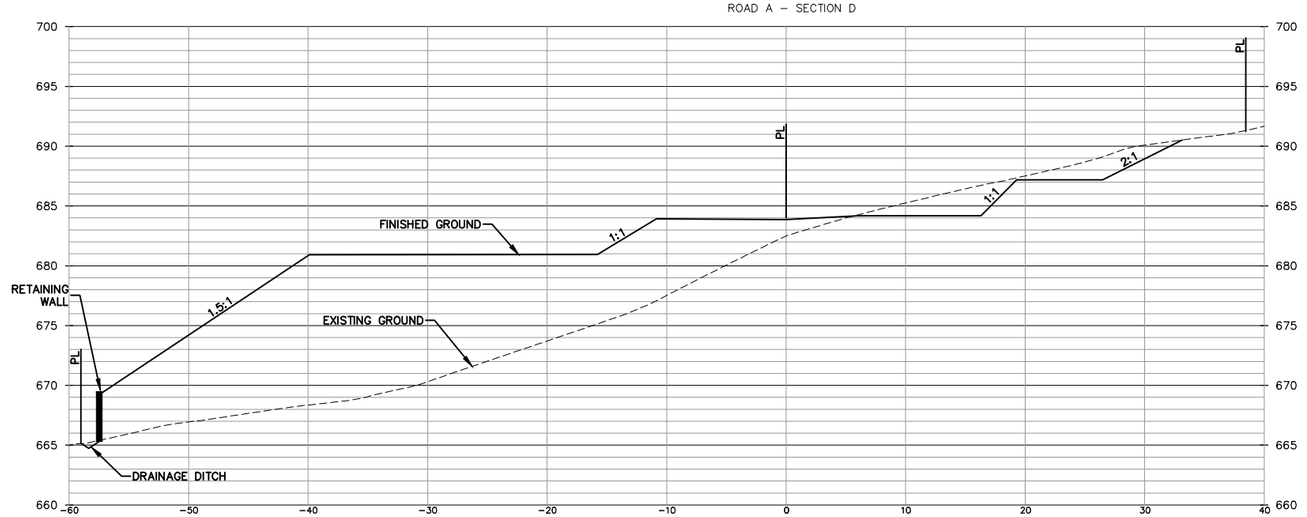


PHASE 2A MF SITE
PRELIMINARY SITE PLAN
PROJECT No.03090-30
DRAWING: SK-03
SCALE 1:500
June 27, 2019

ROAD A – SECTION C



ROAD A – SECTION D



PHASE 2A MF SITE
SECTION C-D
PROJECT No.03090-30
DRAWING: SK-03
SCALE 1:500
June 27, 2019

CITY OF KELOWNA

BYLAW NO. 11968
Z19-0057 – 1075 Stockley 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 5, Section 19, Township 27, ODYD, Plan KAP81890, located on Stockley Street, Kelowna, BC from the RU4 – Low Density Cluster Housing 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

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: January 13, 2020

To: Council

From: City Manager

Department: Development Planning (WM)

Application: Z19-0110

Owner: Amandeep and Manpreet Sidhu

Address: 1085 McCurdy Road

Applicant: Grant Maddock, Protech Consulting 2012

Subject: Rezoning Application

Existing OCP Designation: Industrial (IND)

Existing Zone: A1 – Agriculture 1

Proposed Zone: I2 – General Industrial

1.0 Recommendation

THAT Rezoning Application No. Z19-0110 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 1 District Lot 143 ODYD Plan 10792, located at 1085 McCurdy Road, Kelowna, BC from the A1 – Agriculture 1 zone to the I2 – General Industrial zone 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 Attachment "A" attached to the Report from the Community Planning Department dated January 13, 2020;

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

AND FURTHER THAT final adoption of the Rezoning Bylaw be considered subsequent to the approval of the Ministry of Transportation and Infrastructure.

2.0 Purpose

To consider rezoning the subject property from the A1 – Agriculture 1 zone to the I2 – General Industrial zone to accommodate an automotive/equipment repair shop and office.

3.0 Development Planning

Development Planning Staff are supportive of the proposed rezoning application to facilitate an automotive/equipment repair shop and office. The subject property is designated IND – Industrial in the Official Community Plan (OCP) and is within the Permanent Growth Boundary.

4.0 Proposal

4.1 Project Description

The applicant has applied to rezone the property to the I2 – General Industrial zone to accommodate an automotive/equipment repair shop and office. The office is to be located in the existing structure along McCurdy Road, while the automotive repair shop in the rear of the property is in an existing accessory building. The repair shop will be accessed by a small drive aisle off of McCurdy Road through a shared let down with the neighbouring property. Staff are also tracking a Development Variance Permit associated with the rezoning application.

4.2 Site Context

The subject property is a small remnant parcel located within the Highway 97 Industrial/Commercial Corridor that is zoned A1. North and South along Highway 97 is primarily zoned service commercial, while the businesses East along McCurdy Road primarily have Industrial uses. Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	C3 – Community Commercial	McCurdy Corner Entertainment and Retail Shopping Center
East	C10 & A1 – Service Commercial & Agriculture 1	Service Commercial & Industrial
South	C10 – Service Commercial	Service Commercial
West	C10 – Service Commercial	Service Commercial

Subject Property Map: 1085 McCurdy Road

5.0 Technical Comments

5.1 Development Engineering Department

5.1.1 See Attached Memo [Schedule A]

6.0 Application Chronology

Date of Application Received: August 14, 2019
Date Public Consultation Completed: October 11, 2019

Report prepared by: Wesley Miles, Acting Community Planning and Development Manager
Tyler Caswell, Planner I

Reviewed by: Laura Bentley, Urban Planning & Development Policy Manager

Approved for Inclusion: Terry Barton, Development Planning Department Manager

Attachments:

Schedule A: Development Engineering Memo

Attachment A: Conceptual Drawing Package

CITY OF KELOWNA

MEMORANDUM

Date: August 30, 2019

File No.: Z19-0110

To: Suburban and Rural Planning (WM)

From: Development Engineering Manager (JK)

Subject: 1085 McCurdy Rd A1 to I2

Development Engineering Department have the following comments and requirements associated with this 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 Aaron Sangster.

1) General

a) Where there is a possibility of a high water table or surcharging of storm drains during major storm events, non-basement buildings may be required. This must be determined by the engineer and detailed on the Lot Grading Plan required in the drainage section.

b) Provide easements as may be required.

c) The Fire Department and Environment Division requirements and comments are addressed separately.

d) These are Development Engineering comments/requirements and are subject to the review and requirements from the Ministry of Transportation (MOTI) Infrastructure Branch.

2) Geotechnical Study

a) Provide a geotechnical report prepared by a Professional Engineer competent in the field of geotechnical engineering to address the items below: **NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision.**

The Geotechnical report must be submitted prior to submission of Engineering drawings or application for subdivision approval.

i. Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.

ii. Site suitability for development.

iii. Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).

iv. Any special requirements for construction of roads, utilities and building structures.

v. Recommendations for items that should be included in a Restrictive Covenant.

vi. Recommendations for roof drains, perimeter drains and septic tank effluent on the site.

vii. Any items required in other sections of this document.

viii. Additional geotechnical survey may be necessary for building foundations, etc.

3) Water

a) The developer's consulting engineer will determine the domestic and fire protection requirements of this proposed development and establish hydrant requirements and service needs. The bylaw requirement for industrial zone is 225l/s and is available at the site. If it is determined that upgrades to any other existing water distribution system must be made to achieve the required fire flows, additional bonding will be required.

b) A water meter is mandatory for this development and must be installed inside a building on the water service inlet as required by the City Plumbing Regulation and Water Regulation bylaws. The developer or building contractor must purchase the meter from the City at the time of application for a building permit from the Inspection Services Department, and prepare the meter setter at his cost.

c) This property is located within the Black Mountain Irrigation District (BMID) service area. The water system must be capable of supplying domestic and fire flow demands of the project in accordance with the Subdivision, Development & Servicing Bylaw. The developer is responsible, if necessary, to arrange with BMID staff for any service improvements and the decommissioning of existing services. Only one water service will be permitted per lot.

4) Sanitary Sewer

a) The developer's consulting mechanical engineer will determine the development requirements of this proposed development and establish the service needs. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service.

5) Drainage

a) The developer must engage a consulting civil engineer to provide a storm water management plan for the site, 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 plan, minimum basement elevation (MBE), if applicable, and provision of a storm drainage service for the development and / or recommendations for onsite drainage containment and disposal systems.

b) Provide a detailed Stormwater Management Plan for this development as per the Subdivision, Development and Servicing Bylaw #7900.

c) There is a possibility of a high water table or surcharging of storm drains during major storm events. This should be considered in the design of the onsite system.

6) Roads

a) MuCurdy Rd fronting this development has already been upgraded. No further upgrades are needed at this time.

7) Road Dedication and Subdivision Requirements

a) Grant Statutory Rights of Way if required for utility services.

b) The ultimate width of McCurdy Road at Hwy 97C is established as a 4 lane arterial, complete with a 30.0m right of way (R.O.W). The R.O.W. in the front of the subject property is deficient. It is recommended that a dedication that aligns with 1049 McCurdy Rd frontage.

c) If any road dedication affects lands encumbered by a Utility right-of-way (such as BC Hydro Gas, etc.) please obtain the approval of the utility prior to application for final subdivision approval. Any works required by the utility as a consequence of the road dedication must be incorporated in the construction drawings submitted to the City's Development Manager.

8) Power and Telecommunication Services and Street Lights

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.

b) LED Streetlights must be installed on all roads.

c) Remove existing poles and utilities, where necessary. Remove aerial trespass (es).

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 Development Engineering 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) Charges and Fees

a) Development Cost Charges (DCC's) are payable

b) Fees per the "Development Application Fees Bylaw" include:

i) Street/Traffic Sign Fees: at cost if required (to be determined after design).
ii) Survey Monument, Replacement Fee: $1,200.00 (GST exempt) – only if disturbed.

c) Engineering and Inspection Fee: 3.5% of construction value (plus GST)

James Kay, P.Eng.
Development Engineering Manager

AS

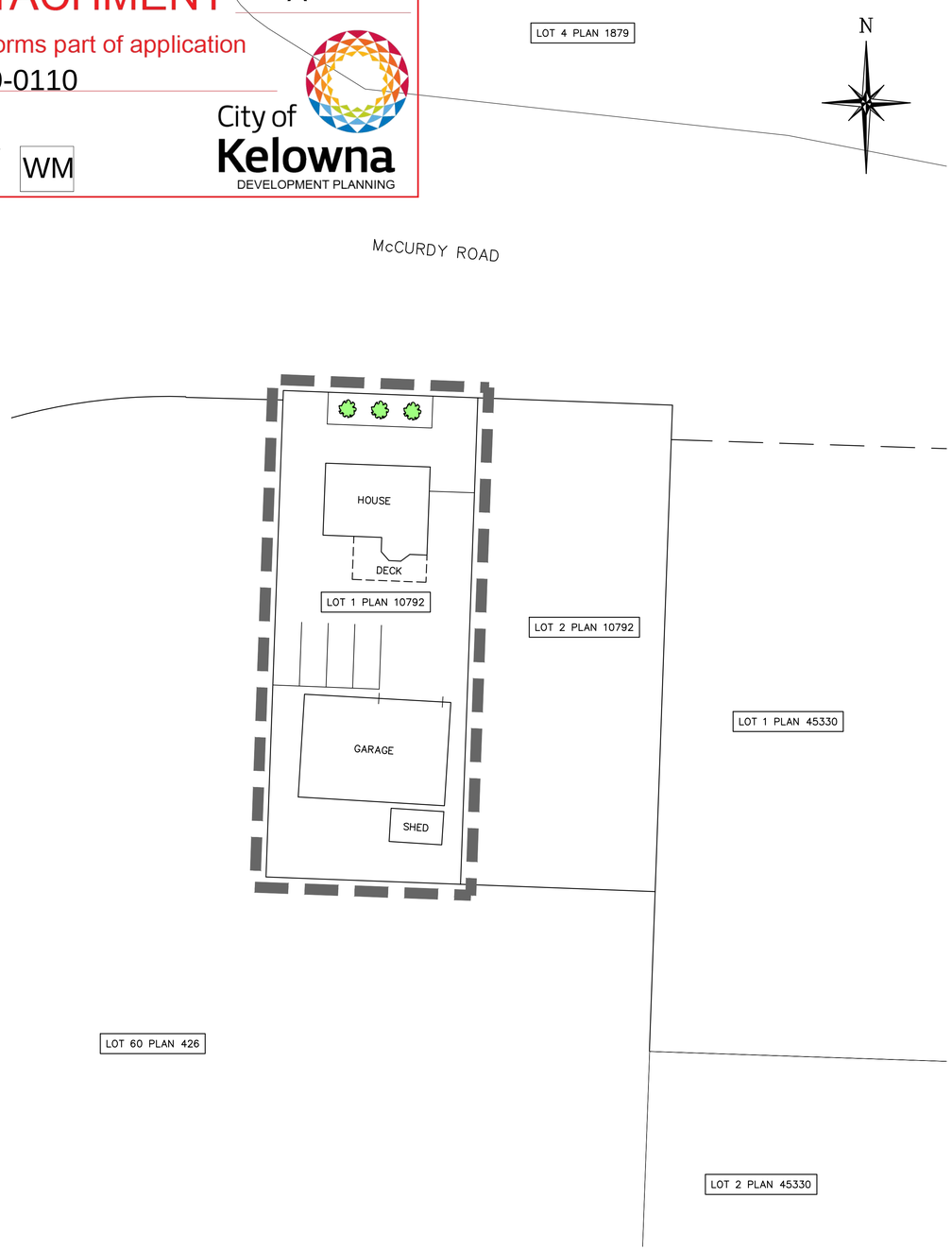
ATTACHMENT A

This forms part of application

Z19-0110

Planner Initials WM

City of Kelowna
DEVELOPMENT PLANNING



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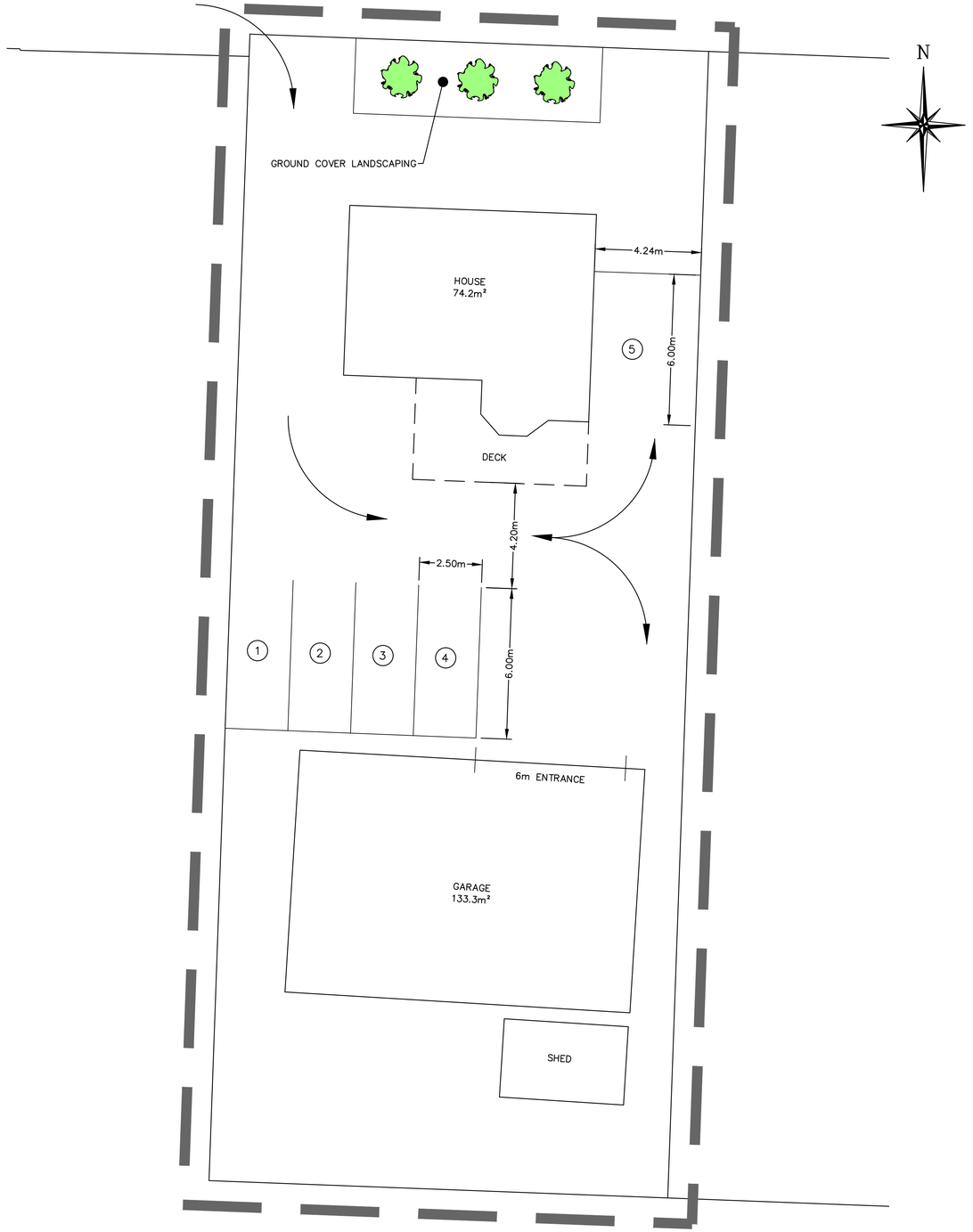

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Legend

Water	Manhole	MH	I.C. (SAN)
San. Sewer	Power Pole	P.P.	I.C. (STM)
Storm Sewer	Lamp Standard	L.S.	C.S.
Gas	Catch Basin	C.B.	LPT
U.G. Telephone	Hydrant		SERVICE BOX
U.G. Electrical	Trees		

PROTECH
CONSULTING 2012
200 – 1461 St. Paul Street Kelowna B.C. Phone 860–1771 FAX 860–1994

NO.	DATE	BY	REVISION	CH'KD

DRAWN	DS
DESIGN	HGM
APPROVED	HGM
DATE	JUNE 2019
SCALE HORIZ.	AS NOTED

THE CITY OF KELOWNA
ENGINEERING DEPARTMENT

A & M SIDHU
1085 McCUDY ROAD
SITE PLAN

DIVISION

DRAWING NO.	REV. NO.
19017–01	0

FILE LOCATION: P:\PROJECTS\19\19017 – McCurdy Road – Sidhu\4 – DESIGN DRAWINGS\01 Preliminary Design\19017–01 – Site Plan.dwg PRINTED ON: 7/23/2019 8:48 AM

CITY OF KELOWNA

BYLAW NO. 11969
Z19-0110 – 1085 McCurdy 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 143 ODYD Plan 10792, located on McCurdy Road, Kelowna, BC from the A1 – Agriculture 1 zone to the I2 – General Industrial 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:	January 13, 2020
File:	0610-01
To:	Council
From:	Doug Gilchrist, City Manager
Subject:	Action Plan 2020
	Report Prepared by: Angie Thiessen

Recommendation:

THAT COUNCIL receive for information, *Action Plan 2020* as attached to the report of the City Manager dated January 13, 2020.

Purpose:

To inform Council of the more significant actions to be undertaken throughout 2020 to deliver on Council priorities 2019 – 2022.

Background:

In April 2019, Council approved the *2019-2022 Council priorities* and directed staff to bring the 2020 action plan forward in January of 2020.

Action Plan 2020 is part of the "take action" step of the City's strategic planning cycle [set priorities; communicate and align; take action; measure, report and improve]. The plan which was developed collaboratively by the City's 10 divisions lists the actions staff will take to deliver on our strategic direction and achieve results. It is being introduced to hold ourselves accountable to Council priorities and respond to the community's vision identified in Imagine Kelowna.

Action Plan 2020:

The plan includes close to 100 of the more significant actions across all City divisions that staff will undertake to advance Council and Corporate priorities. In 2020, projects that support Council's priorities of community safety and social issues, transportation and vibrant neighborhoods, receive some emphasis. Yet the plan also ensures a balance of effort to each of the six Council priorities, including environmental protection and economic resiliency.

Corporately, the plan identifies some of the larger operational improvement initiatives which will enable staff to continue to deliver exceptional value to residents.

While the action plan provides a clear path forward, it is not an exhaustive list of the essential operational work we do as a City annually. Much of this work is undertaken in other operational and business plans within each division.

Next Steps:
In the spring of each year, staff will bring forward a report on our progress towards *Council priorities 2019 - 2022*. The first report will be in April 2020.

Action Plan 2021, and each subsequent annual action plan, will show the work completed and continuing from the previous action plan and the new work to be started.

Existing Policy:
Action Plan 2020 advances both the *Imagine Kelowna* community vision and *Council Priorities 2019 – 2022*.

Considerations not applicable to this report:
Internal Circulation:
Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Financial/Budgetary Considerations:
Personnel Implications:
External Agency/Public Comments:
Communications Comments:
Alternate Recommendation:

Submitted by: A. Thiessen

Approved for inclusion:

Attachments:
Action Plan 2020 overview presentation
Action Plan 2020 document

cc: Senior Leadership Team

City of Kelowna

Action Plan 2020

Delivering on

Council priorities 2019-2022

Imagine Kelowna: vision into action

Message from the City Manager

Cities are complex and dynamic entities. We know that a practiced and purposeful strategic planning process is key to moving our city forward.

Collectively, we are committed to staying focused, making progress on important work and being agile to respond quickly to our residents' needs in a rapidly-changing and increasingly connected world.

Council sets the strategic direction for the City throughout its four-year term and published these priorities last spring in *Council Priorities 2019- 2022*. Together, *Action Plan 2020* is being introduced to hold ourselves accountable to Council priorities and respond to the community's vision in *Imagine Kelowna.*

This annual plan translates strategic direction into results while ensuring our City continues to operate effectively.

Action Plan 2020 includes close to 100 significant projects from across all divisions that we will undertake to advance Council and corporate priorities this year and improve operations. As part of our strategic planning cycle, each Spring we commit to reporting on the progress we've made on Council's priorities.

This action plan provides clear direction and a path forward for our team. However, it is not an exhaustive list of the essential operational work we do as a City annually. In addition to the projects in the action plan, City staff continue to work diligently to provide the services and programs that our residents require and develop plans and foundational work that will help build Kelowna into a city of the future.

Annual action plans and reporting on Council and corporate priorities signals our commitment to increasing transparency, good governance and delivering the results for our city.

Doug Gilchrist
City Manager

"Our vision for an inclusive, prosperous and sustainable future calls upon us to be ambitious to address the challenges ahead."

Imagine Kelowna, published 2018

Table of contents

Purpose of the Action Plan 2020

The City of Kelowna's *Action Plan 2020* identifies the organization's most notable strategic and operational work to deliver in 2020 in response to Council priorities 2019 – 2022. These are the larger pieces of work that align with the specific attributes listed below. The Plan is reviewed by the City's Senior Leadership Team to ensure Council priorities and regulatory obligations are delivered, core business responsibilities are met, and our operations are continuously improved.

Not all work undertaken in the year is included in the plan. Smaller projects and initiatives, along with the many things being done to keep our base business running smoothly, are captured in other systems for management and reporting purposes. Additionally, it is important to point out that the work done by the City's funded partners (e.g. RCMP; Economic Development Commission; Regional District of Central Okanagan) are not included in the Action Plan but are very much a part of achieving the desired community results.

The Action Plan is an important part of the City's overall integrated strategy and corporate performance management process, which outlines how the organization sets priorities, aligns the organization, executes the work, measures outcomes, and evaluates opportunities for improvement.

Attributes used to evaluate inclusion into the Action Plan:

- Alignment to Council | corporate results
- Size and complexity
- Cross departmental involvement and impact
- Risk
- Benefit from regular Senior Leadership Team oversight
- Community or other stakeholder impact and interest

2019 update: summary of completed projects and initiatives

This section identifies the projects and initiatives from the previous year that are now complete. Projects that did not get underway, or are still underway, are included in this year's Action Plan 2020.

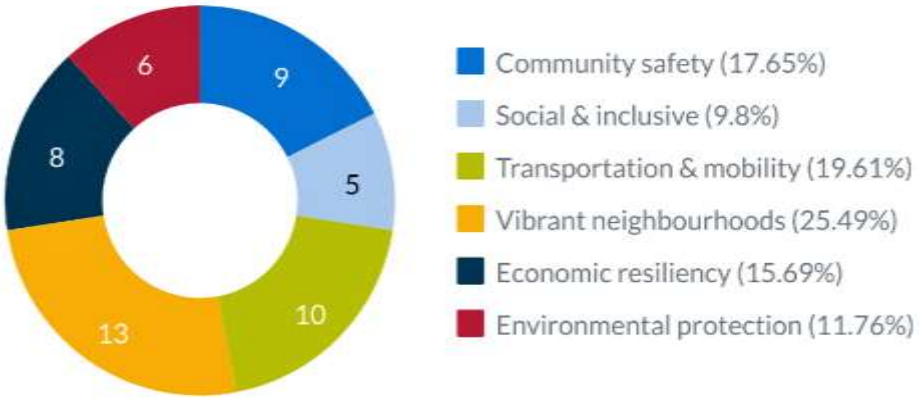
Community safety	
Hired a Community Safety Director	RCMP Online Crime Reporting pilot project
Investment in front-line safety: RCMP, firefighters & Bylaw officers	Public Safety and Crime Survey (2019)
Project 529 bike registry	Security camera installations in all City parkades
RCMP Downtown Enforcement Unit reorganization	
Social & inclusive	
BC Housing partnership – Heath House; Fuller; Welcome Inn	McCurdy, McIntosh, Agassiz housing with supports projects approved
Continued support and funding of Journey Home	Paid Employment for People with Lived Experiences (PEOPLE) program implemented
Established official Territorial Acknowledgment language and protocol	Truth & Reconciliation education resources
Launch KOaST (Kelowna Outreach and Situation Table)	
Transportation & mobility	
Let's Talk Transportation engagement – partnership with Sustainable Transportation Partnership	Parking Strategy - Downtown Area Plan
Long-term parking lot expansion at YLW	Sutherland and Ethel active transportation corridors
Okanagan Gateway Transportation Study	

Vibrant neighbourhoods	
2020-2025 Cultural Plan	Park upgrades completed: Rowcliffe, Bankhead, Glenmore Recreation, Bellevue Creek
Capri-Landmark Area Centre Plan	Pedestrian bridge at Bellevue Creek
City Park Water Park: repaired renovated and re-opened	Hospital Area Plan: Phase 2 & Parking Management Plan
Mission Creek Mountain Bike Skills park improvements	Short-term rental accommodation bylaw
Economic resiliency	
10-Year Capital Plan and Financial Strategy update	Development Cost Charges Bylaw update
Asset Management System Phase 1	Intelligent Cities Strategy
Design, Operations and Closure Plan: Landfill long term plan	Landfill upgrades to streamline customer experience and landfill stewardship
Environmental protection	
Electric Vehicle Direct Current Fast Charge stations (four at YLW)	Mill Creek and Scotty Creek flow monitoring stations installed
Kelowna Major Systems Flood Risk Assessment	Spencer Road culvert replacement: Mill Creek
Large-scale Live Emergency Exercise at YLW	Water and Sanitary Sewer design standards update
Financial management	
Chatbot pilot: Kelowna International Airport website	Model City parcel-based GIS tool developed
Infrastructure Levy determined and approved	Value for Money audit program developed and implemented
Clear direction	
Action Plan 2020	Council Priorities 2019-2022 *(Imagine Kelowna: Vision into Action)*
People	
2019 Employee Engagement Survey	Corporate Training Gap Analysis
5-year staffing plan developed (HR Division)	Collaborative workshop – challenge discovery & design
CUPE contract negotiations & ratification	

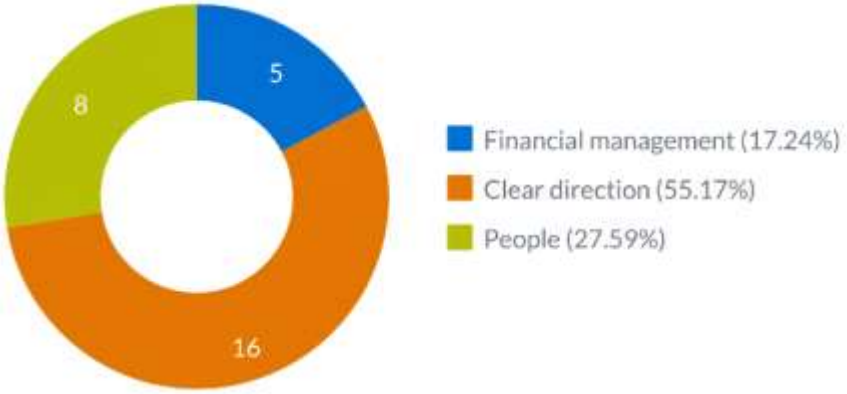
Where we will make a difference in 2020

The diagram below provides a visual of how the projects and initiatives in the action plan align to Council and corporate priorities relative to each other. At a glance, you can see the effort in terms of the number of projects that are being worked on, or will be worked on, throughout 2020, for each focus area.

Council priorities



Corporate results



+ Maintain and improve base business (operations): 18

Summary of projects and initiatives

Action Plan 2020

Projects and initiatives listed here represent work that is currently underway (multi-year, or not completed in the previous year) or planned to start during the year.

Many projects and initiatives will advance more than one priority area and/or result. A primary alignment was chosen to avoid replication.

Alignment with strategic results

Council priorities 2019-2022

Community safety		
The property, petty crime and drug rates are decreasing	Residents feel safe in their communities	The City and its partners are using data and analysis to understand problems and deliver targeted responses
Projects and Initiatives		
CCTV camera database registry	Integration court approval and implementation	
Create a community property/housing standards enforcement team	Integrated security network (Airport)	
Data analytics: expand community safety data model	New safety positions added (25 total: 11 RCMP and 14 support staff)	
Develop a Community Safety & Well-Being Strategy	Tiered policing model: explore opportunities	
Expand CCTV camera and related security infrastructure		

Social & inclusive

The number of people experiencing homelessness is decreasing	Policy guides where the City invests resources	Inclusivity and diversity in the community are increasing

Projects and initiatives

Affordable Housing Land Acquisition Strategy	Social Policy Framework
Business case development: Housing for those with complex needs	Housing with supports community inclusion team
Business case development: Provision of shelter services	

Transportation & mobility

Strategic transportation investments are connecting higher density urban centres identified in the Official Community Plan	More trips are being made by transit, carpooling, cycling and walking	Travel times within our current transportation network are being optimized
Emerging technologies are making it easier to get around	More opportunities to learn about transportation are provided to the community	People of all ages and abilities can get around the city easily

Projects and initiatives

Curb Space Management Strategy	Pedestrian and Bicycle Master Plan update
Ethel 3C (Rose - Raymer), Active Transportation Corridor	Regional Strategic Transportation Plan: Phase 2
Hillside biking transit pilot program	Transportation annual performance monitoring program
Houghton 1 (Nickel - Okanagan Rail Trail), Active Transportation Corridor	Transportation master planning and engagement program
Parking strategy: Capri-Landmark Area Plan development	Transportation Safety Strategy

Vibrant neighbourhoods

The number of current and complete urban centre development plans is increasing	Site design and architecture are high-quality and sensitive to context	The housing mix provides affordable and attainable options
Community amenities are accessible for residents and are multi-purpose	Parks and public spaces are being animated	Key sites in the city are being planned proactively

Projects and initiatives

350 Doyle Ave. Strategic Disposition	Development of multi-sport fieldhouse at Rutland Recreation Park
2040 Official Community Plan update	Pandosy Waterfront Park : Phase 1
Art Walk/Civic Plaza: Civic precinct/downtown planning	Rutland Centennial Park: Phase 4
Artist in Residence pilot program	Parkinson Recreation Centre: conceptual facility design
Capri-Landmark Urban Centre Plan implementation	Parks Master Plan
City Park Promenade design and construction: Phase 2	Strategic redevelopment of key sites, Harvey: Abbott to Richter (Southern Gateway)
Community Access for All, parks and buildings improvement program	

Economic resiliency

The infrastructure deficit is being reduced	City policies are enabling investment	Top talent is living in Kelowna	The economic impact of key sectors is increasing

Projects and initiatives

5G network development initiative: Phase 1	Soaring Beyond 2.5 M Passengers: Air Terminal Building, Phase 1; and, Phase North
Development of East Lands (Airport)	Start-up and entrepreneur's partnership program (tech community)
Flight to 2020: Airport development program	Unsolicited Proposal Policy implementation
Partnership with Tourism Kelowna	

Environmental protection			
Neighbourhoods and city infrastructure are resilient and adaptable to climate change	Community and corporate greenhouse gas emissions are decreasing	Our predictive modelling and forecasting is improving	The City's response to extreme weather events minimizes disruption to delivering regular operations
Projects and initiatives			
Community Electric Vehicle Strategy		Implementation of Energy Step Code Strategy for residential buildings (Part 9)	
Community Energy Retrofit Strategy		Kelowna Area Based Water Management Plan	
Energy Step Code Implementation Strategy for large/complex buildings (Part 3)		Mill Creek flood protection project: new reservoir	

Corporate results

Financial management		
Lower value activities are being improved or stopped	Non-tax revenues are increasing	The cost to deliver services is quantified

Projects and initiatives	
Active Living & Culture fees & charges review	Facility reserve fund review (Active Living & Culture)
Chat bot scale up	Quantify actual costs related to building maintenance including service repair
Corporate photography management and access (digital asset management)	

Clear direction		
There is a common understanding of where the organization is going in the future	Progress on Council and corporate results is measured, monitored and reported	Divisional / departmental plans show how we are advancing Council and corporate results and outline key operational initiatives
Divisions and departments have meaningful performance measures that are reviewed regularly	Innovation is encouraged and supported throughout the organization	Services, processes and business activities are being transformed

Projects and initiatives	
Action Plan 2020	Information management program
Budget software replacement	Online application system upgrade
Corporate Asset Management System	Replace legacy Community Planning & Development business systems
Council priorities mid-term update	Service request system replacement

Clear direction *continued*	
Data Strategy	Reporting on Council Priorities 2019-2022
Divisional strategic and business plans	Strategy management software: discovery & pilot
Electronic documents & records management system (EDRMS) Phase 1: discovery and plan Phase 2: selection and implementation	Water meter reading and servicing repatriation
Imagine Kelowna partnerships and communication	Web platform update to Drupal 8: Phase 2 implementation

People			
The ability to attract, select and retain the right people is improving	Collaboration within the organization, and with external stakeholders is improving problem solving	Staff engagement has increased	Organizational values have shifted to prepare us for the future
Projects and initiatives			
Corporate and department engagement plans: track and monitor implementation		Collaborative workshop: solution testing (Phase 2) (Community safety)	
Corporate succession planning: action plan from People Meeting		Organizational vision & values	
Collaborative workshops: discovery (Phase 1) and testing (Phase 2) (Environmental protection)		Systems leaders table	
Collaborative workshops: discovery (Phase 1) and testing (Phase 2) (Transportation)		User-centered Design resource	

Maintain and improve base business (operations)

Maintain	Growth	New
Projects and initiatives		
City Hall renovations: Phase V	Passenger bridge upgrades	
Corporate Emergency Response and Business Resumption Plan	Preliminary plan design program: new projects	
Email and mobile marketing platform: Phase 2	Safety management software development: City Works	
Event Strategy	Transition of South East Kelowna Irrigation District integration with City Water Utility	
Integrated risk management	Unit 4 approval workflow: Phase 3	
Intranet redevelopment	Update 20 Year Servicing Plan and Development Cost Charges Bylaw in conjunction with Official Community Plan (OCP)	
KLO Rd Mission Creek bridge replacement	Update building condition assessment inventory	
Lakeshore Rd (Dehart – Vintage Terrace) Active Transportation Corridor	Update Heritage Conservation Area development guidelines	
McCulloch Area improvements (KLO/Hall/Spiers)	Water meter replacement program	

Expanded look at projects and initiatives

Action Plan 2020

Council priorities 2019-2022

Community safety	
Project | initiative detail ***(alphabetical order)***	Duration
CCTV camera database registry The City and RCMP are looking at areas in the community where expedited access to CCTV camera footage could assist the RCMP with an investigation. Lead department: Information Services Support department(s): Community Safety	2020-2020
Create a community property / housing standards enforcement team Bylaw, in conjunction with RCMP, Fire Department, Interior Health, Social Services and Building Inspectors will create a multi-faceted team and integrated response to address social issues within the City and reduce or eliminate calls for service at repeat locations. Lead department: Bylaw Services Support department(s): Police Services | Community Safety | Development Services	2019-2020
Data analytics: expand community safety data model Identify data sources to create analytics visualizations to be used for investigation, understanding, and informed decision making. Lead department: Intelligent Cities Support department(s): Infrastructure | Integrated Transportation	2020-2020
Develop a Community Safety & Well-Being Strategy This is a comprehensive, overarching community informed plan that will drive the organization of community and safety-related agencies and resources. Lead department: Community Safety Support department(s): Human Resources	2020-2020
Expand CCTV camera and related security infrastructure Expand camera installation to key areas of civic infrastructure. Lead department: Community Safety Support department(s): Civic Operations	2020-2020

Integration court approval and implementation This work involves efforts to support the community steering committee in their proposal to the BC Government to resource a community court. If approval is granted, efforts will be directed towards implementation. Lead department: Community Safety Support department(s):	2019-2020
Integrated security network (Airport) This project will replace the Airport's existing security network with a modern digital system to enhance the network's capabilities and allow the interface of new technology devices and inputs. Lead department: Airport Operations Support department(s):	2020-2020
New safety positions added (25 total: 11 RCMP and 14 support staff) In response to the Crime Reduction Strategy, the social issues facing our community, and the recent Kelowna RCMP and Police Services Resource Review, 25 new safety positions have been approved. Recruitment will begin in 2020. Lead department: Community Safety Support department(s): Human Resources	2020-2021
Tiered policing model: explore opportunities To help reduce illegal activity, this initiative would look at the viability of a tiered policing model within the City of Kelowna. This model would give extended authorities to Bylaw officers such as powers of arrest, search & seizure and the enforcement of municipal, provincial and minor criminal code violations. These Special Provincial Constables would complement the work of police officers. Lead department: Community Safety Support department(s): Multiple departments	2019-2022

Social & inclusive	
Project | initiative detail ***(alphabetical order)***	Duration
Affordable Housing Land Acquisition Strategy Council has endorsed the Healthy Housing Strategy, which included specific direction to consider the development of an Affordable Housing Land Acquisition Strategy. The aim of the Affordable Housing Land Acquisition Strategy is to acquire land to facilitate ongoing partnerships that will result in long-term affordable housing in Kelowna. Lead department: Policy & Planning Support department(s): Multiple departments	2019-2020
Business case development: Housing for those with complex needs The current inventory of shelter units is not equipped to house individuals with complex and unique needs (e.g. mental health, alcohol and drug dependency.) This project will be to work in conjunction with BC Housing, Interior Health, and other service providers to complete a formal review of how to best meet the complex housing needs of our community. Lead department: Real Estate Services Support department(s): Active Living & Culture	2020-2020
Business case development: Provision of shelter services The City is in on-going discussions with a variety of organizations and community groups to optimize the delivery of shelter services in a coordinated and strategic manner. Scope will include support of different models for shelter sites and a review of how existing shelter resources could be allocated in a manner that best meets the needs of our community. Lead department: Real Estate Services Support department(s): Active Living & Culture | Planning & Development	2020-2020
Social Policy Framework This project is to develop a Social Policy Framework (SPF) that focuses on planning for the social success of the community with a particular lens on preventing, or at a minimum, mitigating the likelihood of future social issues. The SPF will provide a blueprint to help evaluate and address community needs linked to Kelowna's social well-being. Lead department: Active Living & Culture Support department(s): Policy & Planning | Community Safety | Information Services	2020-2020
Housing with supports community inclusion team Staff, through discussions with partners, are developing a housing with supports community inclusion team (aka Transition Team). This model will bring a comprehensive and collaborative systems approach to the process of ongoing integration and create the conditions necessary for the success of supportive housing in neighbourhoods. Lead department: Community Safety Support department(s): Active Living & Culture | Communications | Information Services	2019-2021

Transportation & mobility	
Project | initiative detail ***(alphabetical order)***	Duration
Curb Space Management Strategy Curb space is where movement meets access. This valuable public asset is unfortunately not always optimized for its highest and best use. With a more diverse set of pressures on our public right of ways, we need to plan for how we allocate this space into the future to deliver value to the public. Lead department: Regional Programs Support department(s): Real Estate	2020-2020
Ethel 3C (Rose – Raymer), Active Transportation Corridor (ATC) The Ethel Street ATC is a priority "all ages and abilities bicycling project" within the Pedestrian Bicycle Master Plan. This extension will connect to bike lanes on Raymer, to Kelowna Secondary School and support future phases that will extend the ATC further south, connecting to Okanagan College, KLO and Casorso. Lead department: Infrastructure Support department(s):	2020-2021
Hillside biking transit pilot program Often a barrier to biking can be climbing steep grades within Kelowna. Through this program, people on bikes wait at one of the specially marked transit stops at the top or bottom of hillsides. If there is room for bike and rider, they let the bus operator know they are riding up or down the hillside for free as part of the program. Lead department: Regional Programs Support department(s): Integrated Transportation | Community Engagement	2020-2020
Houghton 1 (Nickel - OK Rail Trail), Active Transportation Corridor (ATC) Following a 2019 routing study, the proposed separated bike lanes will travel north from Houghton Rd along Nickel/Lester Rd, west on Leathead Rd, crossing Hwy 97 and connect to the OK Rail Trail 200 meters west of Hwy 97. The completion of this segment will improve access between previously constructed portions of Houghton ATC/Rutland Urban Centre to the OK Rail Trail. Lead department: Infrastructure Support department(s):	2020-2021
Parking Strategy: Capri-Landmark Area Plan development The 2013 Citywide Parking Strategy identified the area of Capri-Landmark as a business district that requires a detailed Parking Management Area Plan to deal with current and emerging/future issues. This project will allow an area parking plan to be created for the area around the Landmark Development (Dayton, Dixon, Kirchner Rd). Lead department: Parking Services Support department(s): Communications	2020-2020

Pedestrian and Bicycle Master Plan update This project will complete a comprehensive update of the recommended projects and policies of the Pedestrian and Bicycle Master Plan adopted in 2016. It will also consider inclusion of new best practice design standards, consider emerging mobility opportunities and challenges (such as micro mobility) and identify future funding strategies. Lead department: Transportation & Mobility Support department(s): Integrated Transportation	2020-2021
Regional Strategic Transportation Plan: Phase 2 The Regional Strategic Transportation Plan (RSTP) for the Central Okanagan is a long-range plan that will help to evaluate and identify strategic, prioritized transportation investments (projects, programs, and policies) that will be needed over the next 20 years to achieve the vision and goals for the Central Okanagan for transportation established in Phase 1. Lead department: Integrated Transportation Support department(s): Multiple departments	2017-2020
Transportation annual performance monitoring program Develop an annual performance monitoring program to help answer the question: How is the City doing at implementing the TMP and achieving the vision and goals for transportation? Specific performance metrics and data sources will be identified that can be reported on an annual basis, in both report format and via updates to the TMP website. Lead department: Regional Planning Support department(s): Community Communications	2020-2021
Transportation master planning and engagement program The Kelowna Transportation Master Plan is a long-range plan that will help to evaluate and identify strategic, prioritized investments (projects, programs, and policies) that will be needed over the next 20 years to achieve the community's vision and goals for transportation in the City of Kelowna. The plan will incorporate the vision of Imagine Kelowna, and coordinate closely with the OCP update and Regional Strategic Transportation Plan. Lead department: Integrated Transportation Support department(s): Multiple departments	2017-2020
Transportation Safety Strategy This project will initiate the first-ever City of Kelowna Transportation Safety Strategy. One of the TMP goals is to improve safety. As such, it is anticipated that the TMP will include a recommendation to develop a more targeted safety policy and implementation plan. The safety plan will identify the commitment of the community towards safer roads and travel. Lead department: Integrated Transportation Support department(s): Civic Operations | Communications	2020-2021

Vibrant neighbourhoods	
Project | initiative detail ***(alphabetical order)***	Duration
350 Doyle Ave Strategic Disposition Strategic long-term leasehold disposition of a 0.87-acre portion of 350 Doyle Avenue. This leasehold disposition is consistent with the vision established in the Civic Precinct Plan and aims to animate and increase the vibrancy of the area while at the same time delivering a number of community amenities in the form of an extension to the Artwalk, a public plaza, and a community space. Lead department: Strategic Land Development Support department(s): Parks & Buildings Planning | Cultural Services	2019-2020
2040 Official Community Plan (OCP) update The City of Kelowna is reviewing its Official Community Plan. The OCP will be an action-oriented document and will outline strategies, policies and practical tools for achieving the goals of the OCP. A key part of the OCP planning process will be to develop a more integrated and systematic approach to neighbourhood planning. An Implementation Strategy will accompany the new OCP. Lead department: Policy & Planning Support department(s): Multiple departments	2017-2021
Art Walk/Civic Plaza: Civic precinct/downtown planning To develop the schematic design for the Art Walk and Civic Plaza in partnership with the future developer. Lead department: Parks & Buildings Planning Support department(s): Real Estate | Communications	2018-2020
Artist in Residence pilot program Engage the work of a series of professional artists to support a 3-year pilot Artist in Residence program with the goal of addressing social justice issues in our community through art. Art and artists play an integral role in empowering social justice movements by creatively illuminating social issues, engaging new audiences in activism, and catalyzing new public discourse about advocacy missions from multiple perspectives. Lead department: Cultural Services Support department(s): Community & Neighbourhoods | Communications	2020-2022
Capri-Landmark Urban Centre Plan implementation Policy and Planning will work with a range of departments to harmonize various policies and bylaw from the Capri-Landmark Plan. This would require a mix of both policy and bylaw work as well as project management work to support and coordinate the work required of other departments (e.g. amendments to OCP, Zoning bylaw updates, etc.) Lead department: Long Range Planning Support department(s): Multiple departments	2020-2020

City Park Promenade design and construction: Phase 2 Replacement of the waterfront walkway in City Park from the Hot Sands Washroom to the Point. The existing walkway is in poor condition due to settlement and damage from tree roots. The improvement will include increased width where possible to accommodate the high volumes of traffic, lights for night time use, park furniture and feature universal accessibility standards. Lead department: Infrastructure Delivery Support department(s): Communications	2020-2021
Community Access for All, parks and buildings improvement program To identify and implement a priority list of design changes that enact the greatest benefit in improving accessibility to our public parks and buildings for those with mobility challenges, but also those with sensory or cognitive challenges, seniors, caregivers, and parents with babies and toddlers. Lead department: Infrastructure Delivery Support department(s): Parks & Buildings Planning | Communications	2019-2025
Development of multi-sport fieldhouse at Rutland Recreation Park Central Okanagan Rugby Enthusiasts (CORE) approached the City to partner in developing a multi-sport fieldhouse in Rutland Recreation Park. CORE to raise construction funds; CORE will operate the facility through a lease and operating agreement; and, the City will have access to space for public programming and will retain control of sportfield scheduling. Lead department: Business & Entrepreneurial Development Support department(s): Multiple departments	2018-2021
Pandosy Waterfront Park: Phase 1 Public consultation, design and first phase of construction for Pandosy Waterfront Park. The first phase of the masterplan includes demolition of the existing residential properties, a central plaza, activity lawn, beach front, restored shoreline, and outdoor classroom. Construction of the first phase is anticipated to be completed in 2021. Lead department: Infrastructure Delivery Support department(s): Communications	2020-2021
Rutland Centennial Park: Phase 4 This fourth and final phase of park development will be used to construct a park washroom building, an event stage, a basketball court, walking paths and landscaping of the remaining undeveloped areas of the park. Lead department: Infrastructure Delivery Support department(s): Communications	2020-2020
Parkinson Recreation Centre: Conceptual facility design Staff are working on the conceptual facility design for the replacement of the Parkinson Recreation Centre. Proposed options will be brought to Council when developed. Lead department: Parks & Buildings Planning Support department(s): Multiple departments	2020-2021

Parks Master Plan To develop a comprehensive master plan for our active parks. The master plan will establish priorities between the four park types: city-wide, recreation, community and neighbourhood, as well as the needs of different stakeholder groups, and create a plan for future park development and renewal moving forward. Lead department: Parks & Buildings Planning Support department(s): Multiple departments	2020-2021
Strategic redevelopment of key sites: Harvey: Abbott to Richter (Southern Gateway) Holistic review and analysis of key sites in the Harvey Avenue corridor between Abbott and Richter Streets, with a particular emphasis on the potential re-use/re-development of civic sites in a manner that enhances the aesthetic, cultural and economic 'entrance' to the City. Lead department: Strategic Land Development Support department(s): Multiple departments	2020-2020

Economic resiliency

Project | initiative detail ***(alphabetical order)***	Duration
5G network development initiative: Phase 1 5G networks will potentially transform government, industry and communications by making dramatic network improvements in both speed and latency. Improved connectivity will lead to a new Internet of Things ecosystem with more connected devices than ever before. An internal working group will develop guidelines on the City's role. Lead department: Intelligent Cities Support department(s): Multiple departments	2020-2020
Development of East Lands (Airport) The Airport would benefit from the development of the East Lands to support growth. Conceptual design and costing is underway. Lead department: Airport Support department(s):	2018-2022
Flight to 2020: Airport development program The program will focus on the next elements of the development program required to sustain airport growth into 2020. Lead department: Airport Support department(s):	2014-2020

Partnership with Tourism Kelowna The City, in recognition of the significant value of tourism in the local economy, seeks to clarify roles, objectives and deliverables through a more collaborative approach to long term strategic planning for tourism. This will include development of the next 5-year strategic plan required for renewal of the 3% Municipal & Regional District Tax. Lead department: Business & Entrepreneurial Development Support department(s): Multiple departments	2019-2020
Soaring beyond 2.5 M passengers: Air Terminal Building, Phase 1 Phase 1 provides a new expanded pre-board screening area as well as an expanded Departures area for passengers. Construction is planned to be complete by the end of Q2 2023. Lead department: Airport Support department(s):	2020-2023
Soaring beyond 2.5 M passengers: Air Terminal Building, Phase North Phase North redevelops a portion of the north end of the air terminal building for International Arrivals and adds a Passenger Boarding Bridge at Gate 2. Construction is planned to be complete by the end of Q4 2021. Lead department: Airport Support department(s):	2020-2021
Start-up and entrepreneur's partnership program (tech community) The City of Kelowna encourages a culture of innovation by creating partnerships with the business community to share ideas, collaboratively solve problems and improve operations. For 12 weeks, startups and enterpreneurs partner with the City to test out a product or service that helps local government become more efficient and encourage a culture of innovation. Lead department: Business & Entrepreneurial Development Support department(s):	2019-2020
Unsolicited Proposal Policy implementation The City of Kelowna is often approached with great ideas. A policy will be developed that outlines the approach used to manage new and innovative ideas being presented to the City . It is intended to give confidence to innovators, entrepreneurs, investors and the community that proposals will be considered in a consistent, transparent and lawful manner to deliver the highest standards of public value. Lead department: Business & Entrepreneurial Development Support department(s): Purchasing | Intelligent Cities	2019-2020

Environmental protection	
Project | initiative detail ***(alphabetical order)***	Duration
Community Electric Vehicle Strategy Electric vehicles (EV) play a critical role in meeting greenhouse gas (GHG) emission reduction targets. This project will examine policy and infrastructure to support the transition to increased EV ownership within the community. The strategy will consider infrastructure and policy as part of a comprehensive system that includes access at home, work, in public parking spaces, at destination sites, and along highway corridors for longer distance trips. Lead department: Policy & Planning Support department(s): Multiple departments	2019-2020
Community Energy Retrofit Strategy As part of the Community Climate Action Plan, the City has recommended developing and implementing a Community Energy Retrofit Strategy that outlines how the City will address energy efficiency and GHG emissions reduction in existing buildings. To meet Kelowna's own greenhouse gas (GHG) emissions reduction targets, energy retrofits for existing buildings will be a vital component. Lead department: Policy & Planning Support department(s): Communications | Development Services	2019-2020
Energy Step Code Implementation Strategy for large/complex buildings (Part 3) The *BC Energy Step Code* is a provincial standard designed to help local government and industry incrementally move towards all new construction to be "net-zero energy ready" by 2023. Because a large number of new developments in Kelowna include Part 3 buildings, the City needs to develop an Implementation Strategy to address these larger buildings. Lead department: Policy & Planning Support department(s): Development Services	2020-2020
Implementation of Energy Step Code Strategy for residential buildings (Part 9) With Council's endorsement of Kelowna's Energy Step Code Implementation Strategy for Part 9 Residential Buildings, the City is now turning its focus to program delivery. Community awareness, training, technical and administrative changes and tracking processes, will support strategy implementation. Lead department: Policy & Planning Support department(s): Development Services	2020-2022

Kelowna Area Based Water Management Plan This is a strategic multi-year planning initiative being done in partnership/consultation with the Regional District of Central Okanagan, the Okanagan Basin Water Board and various provincial ministries. Key areas of focus include the Kelowna Integrated Water Supply Plan, storm water management, creek and water basin protection, waste water effluent, source water protection, drought management, environmental flow needs, natural water assets and groundwater. Lead department: Infrastructure Support department(s): Utility Services | Communications | Financial Services	2019-2021
Mill Creek flood protection project: new reservoir Planning, design and construction of storm retention facilities on Mill Creek downstream of Kelowna International Airport. This phase of work will include modeling, environmental assessment, First Nations engagement, development of cost estimates and construction of one pond. Lead department: Utility Planning Support department(s): Multiple departments	2020-2021

Corporate results

Financial management	
Project | initiative detail ***(alphabetical order)***	Duration
Active Living & Culture (ALC) fees & charges review This exercise will take a deeper look into various fees and charges that are tied to the ALC Fees & Charges Bylaw and recommend adjustments to ensure rates are current. This review will also examine the current Recreation & Cultural Services – Philosophy/Fees & Charges Council policy. Lead department: Recreation & Business Services Support department(s): Financial Services | Sport & Event Services	2020-2020
Chat bot scale up We will look for other City use cases to scale up chat bots beyond the pilot done at the Kelowna International Airport in order to improve customer service and increase staff efficiencies. Lead department: Intelligent Cities Support department(s): Airport	2020-2020
Corporate photography management and access (digital asset management) Photographs are used in City publications, documents, presentations, websites and social media. Staff outside of communications require access to regularly updated photography. To ensure quick and easy access for staff, this project will look at a digital asset sharing solution to maintain a high-quality and properly acquired photography library. Lead department: Corporate Communications Support department(s): Information Services	2019-2020
Facility reserve fund review (Active Living & Culture) There are a number of facility based reserve accounts that are supported through base budget operations, facility revenue and liquor primary license operations. This project is to review the program to ensure it reflects current needs and best opportunities are realized. The review will look at funding mechanisms, policy, types and uses of funds. Lead department: Active Living & Culture Support department(s): Financial Services	2020-2020
Quantify actual costs related to building maintenance including service repair Work to better quantify costs of maintaining buildings and other key assets to build an inventory of $/sq. ft costs of infrastructure. Lead department: Building Services Support department(s): Financial Services	2019-2020

Clear direction	
Project | initiative detail ***(alphabetical order)***	Duration
Action Plan 2020 The City of Kelowna's *Action Plan 2020* identifies the organization's most notable strategic and operational projects to deliver in 2020 in response to *Council priorities 2019-2022*. Lead department: Corporate Strategy & Performance Support department(s): Communications	2019-2020
Budget software replacement The current budget software is an in-house application, greater than 10 years old, that no longer meets the needs of the organization. This project will be done in phases to determine corporate needs and requirements, understand available products and to purchase and implement the chosen solution. Lead department: Financial Planning Support department(s): Information Services | Communications	2020-tbd
Corporate Asset Management System A multi-year, multi-phased implementation of a corporate asset management system to provide comprehensive management of the City's portfolio of assets, including roads, buildings and equipment. Lead department: Infrastructure Support department(s): Information Services | Civic Operations	2015-2021
Council priorities mid-term update Develop the process and complete the engagement with Council and senior leaders to update the Council priorities by early 2021. The mid-term update is part of the organization's refined approach to developing and managing corporate-level strategy. Lead department: Corporate Strategy & Performance Support department(s): Corporate Communications	2020-2021
Data Strategy To ensure the City's data holdings, both internal and public, are available, usable, have integrity and are secure, a formal data governance strategy needs to be developed. Included will be establishing standards and processes for acquiring and handling data, as well as accountability for the process. Lead department: Intelligent Cities Support department(s):	2020-2020

Divisional strategic and business plans Multi-year strategic and business plans, by division, outline direction for the next three to five years along with significant projects related to Council and corporate priorities and base business. Formalized plans help with resource forecasting, encourage collaboration and demonstrate transparency of contemplated work. Significant progress was made in 2019, with completion projected before May 2020. Lead department: Corporate Strategy & Performance | All divisions Support department(s): Communications	2019-2020
Electronic documents & records management system (EDRMS): Phase 1 discovery and plan creation The "EDRMS Discovery and Plan Creation (phase 1)" project is an investigation and analysis of the city's current electronic records management practices to develop EDRMS requirements and a roadmap to improve the management of electronic records. The implementation of a EDRMS will be done in the next project: "EDRMS Implementation (phase 2)". Lead department: Legislative Services Support department(s): Information Services	2019-2020
Electronic documents & records management system (EDRMS): Phase 2 selection and implementation Continuing from the Phase 1 project, this phase is to acquire and implement a system to manage the systematic control of the creation, use, maintenance, storage, security, retrieval, and disposition of records and information. A formal Request for Proposal (RFP) based on the requirements gathered in the "RIM - EDRMS Discovery and Plan Creation (phase 1)" project, will be used to select the new system. Lead department: Legislative Services Support department(s): All City departments	2020-2023
Imagine Kelowna partnerships and communication As outlined in Imagine Kelowna, realizing its vision will require a community-wide effort and significant collaboration over the long-term. The planned work is targeted community engagement to identify areas for collaboration, and to create shareable communications materials. Lead department: Corporate Strategy & Performance Support department(s): Community Communications	2020-2020
Information management program During the information gathering sessions as part of Phase 1 of the EDRMS project, staff shared their business practices and identified a wide range of business needs. To move the organization forward, an integrated information management environment is required. This project is to create a new corporate program for managing information that will focus on our digital information assets. Lead department: Legislative Services Support department(s): Information Services	2020-2020

Online application system upgrade An online event application system was implemented in 2018 that has streamlined the outdoor event application system. This project will upgrade the system to allow for additional online application types (ie. film, tournament and grants) and related reporting features. Lead department: Event Development Support department(s): Information Services | Communications	2020-2020
Replace legacy Community Planning & Development business systems This project will replace legacy planning and licensing business systems used in the Community Planning & Development division. These systems have been in place for over 20 years and are used to manage land development, construction activity, business licensing, and other permitting functions. Lead department: Planning & Development Support department(s): Multiple departments	2019-2020
Reporting on Council Priorities 2019-2022 The public facing report, potentially an online dashboard on the City's website, will report on the organization's progress towards all 39 Council and corporate priorities identified the *Council Priorities 2019-2022* document. The project supports more transparent public reporting and continuous improvement. Lead department: Corporate Strategy & Performance Support department(s): Information Services	2019-2020
Service request system replacement The current service request system has been in place since 2002. It has gone through a number of modifications and enhancements and an increased web and mobile presence. The internal software platform for this system is one identified for retirement in the IS Digital Strategy. The replacement of the Service Request system will be addressed in a number of phases. 20,000 requests per year are received. Lead department: Information Services Support department(s): Intelligent Cities | Communications	2019-2020
Strategy management software: Discovery & pilot We are a large and diverse organization with hundreds of operational and strategic plans and strategies. We have performance metrics and data being collected and stored in different systems by different teams around the organization. A technical solution (tool) with help us manage and understand the connection of plans to each other, to our vision, and to the priorities of council and city administration. It will also improve our ability to assess and report our progress. Lead department: Corporate Strategy & Performance Support department(s): Information Services	2019-2020

Water meter reading and servicing repatriation Water meter servicing is currently under external contract with a requirement to install, maintain, and service all water meters for the City of Kelowna Water Utility. Upon expiration of the current contract at the end of 2019, these services will be returned to being administered internally. A significant savings in Utility operating costs is anticipated. Lead department: Utility Services Support department(s): Multiple departments	2019-2020
Web platform update to Drupal 8 (Phase 2 implementation) With backend preparations completed in 2019, phase 2 will begin in 2020 to upgrade all City websites to Drupal 8. Lead department: Application Systems Support department(s):	2019-2020

People

Project | initiative detail ***(alphabetical order)***	Duration
Corporate and department engagement plans: track and monitor implementation As a response to the 2019 employee engagement survey, engagement plans from a corporate perspective have been created. Oversight will be done throughout the year to track, monitor and report on the progress of the engagement goals. Lead department: HR Programs & Systems Support department(s):	2020-2020
Corporate succession planning: action plan from People Meeting Every 18 months senior leadership meets to discuss the state of succession planning in the City. An action plan is created to close gaps. A People Meeting was held in December 2019 and the action plan will be developed and implemented accordingly. Lead department: HR Programs & Systems Support department(s):	2019-2021
Collaborative workshops: discovery (Phase 1) and testing (Phase 2) (Environmental protection) The discovery workshop (Phase 1) will require Intelligent Cities Staff working closely with an internal stakeholder group addressing Environmental issues related to Council Priorities. A Challenge Statement will be developed for participants to research, ideate and develop potential prototypes and continue to iterate and test to develop a solution that can be implemented. Lead department: Intelligent Cities Support department(s): Multiple departments	2020-2020

Collaborative workshops: discovery (Phase 1) and testing (Phase 2) (Transportation) The discovery workshop (Phase 1) will require Intelligent Cities Staff working closely with an internal stakeholder group addressing Transportation and Mobility issues related to Council Priorities. A Challenge Statement will be developed for participants to research, ideate and develop potential prototypes and continue to iterate and test to develop a solution that can be implement. Lead department: Intelligent Cities Support department(s): Multiple departments	2020-2020
Collaborative workshop: solutions testing (Phase 2) (Community safety) The completion of the collaborative workshop earlier in 2019 resulted in a challenge statement for community safety. Staff will look to take the low-fidelity prototypes and continue to iterate and test to develop a solution that can be implemented. Lead department: Intelligent Cities Support department(s): Multiple departments	2020-2020
Organizational vision & values Refresh the organization's vision and values to reflect Imagine Kelowna and other changes in the organization since the current set was developed over 10 years ago. Have an organization wide conversation about the evolution of the vison and values as part of refining our approach to corporate-level strategy. Lead department: Corporate Strategy & Performance Support department(s): Corporate Communications	2019-2020
Systems leaders table A Community Well-Being Systems Leaders Table is in development. The purpose of this table is to bring decision-makers at the systems level together to examine the potential to create a local systems leadership mechanism that advances innovative solutions, policy and systems change to address the social well-being needs of the citizens of Kelowna Lead department: Active Living & Culture Support department(s): Policy & Planning | Community Safety	2019-2020
User-centered Design resource Using Service Design methodology and with staff involvement, we will develop a way to teach User-Centred Design concepts to staff that is scalable and teaches empathy for the end user. We are intentionally using the mindsets and processes that we wish to teach staff to create this new staff resource. Lead department: Intelligent Cities Support department(s):	2019-2020

Maintain and improve base business (operations)

Project | initiative detail ***(alphabetical order)***	Duration
City Hall renovations: Phase V Phase V renovations for the partial renovation of Level 1. The renovations will create a suite of meeting rooms with improved accessibility for the public, as well as additional workstations and offices. The additional meeting rooms will create flexibility elsewhere in City Hall for training rooms, breakout spaces and temporary dedicated project rooms. Lead department: Parks & Buildings Planning Support department(s): Multiple departments	2020-2021
Corporate Emergency Response and Business Resumption Plan Develop a Corporate Emergency Response and Business Resumption Plan on an impact, exposure and issue priority basis. Included will be a training and maintenance plan to keep the program up to date. Lead department: Risk Management Support department(s):	2020-2021
Email and mobile marketing platform: Phase 2 This two-phase project is to examine our current state of email marketing (GovDelivery), research its effectiveness and the needs of our customers, and create a transition plan to a new platform. Phase 1 focused on discovery and research and implementation planning. This phase will focus on transition, training and implementation. Lead department: Corporate Communications Support department(s): Information Services	2020-2021
Event Strategy Develop an event strategy that considers: event development, event support, event management and event spaces, each of which has specific goals, objectives, and action plans to effectively provide future direction and priorities. Lead department: Event Development Support department(s): Community Communications	2020-2020
Integrated risk management Update the enterprise risk management framework and develop a corporate risk register. This project will include building department risk registers and area specific enterprise wide risk management frameworks. Lead department: Risk Management Support department(s):	2019-2021

Intranet redevelopment To redevelop the City's intranet, making it more social and accessible. The project would also aim to bring intranet governance in alignment with the City's external web platforms. Lead department: Corporate Communications Support department(s): Information Services	2020-2021
KLO Rd Mission Creek bridge replacement The KLO bridge over Mission Creek is approaching the end of its service life. This project will replace the existing bridge, accommodate the Mission Creek Greenway under the west abutment and improve the safety of road approaches. Lead department: Infrastructure Delivery Support department(s):	2020-2021
Lakeshore (Dehart – Vintage Terrace) Active Transportation Corridor Completion of the Lakeshore Rd Active Transportation Corridor approaching the bridge from Collett Rd to just north of the bridge. Urbanization of Lakeshore Rd approaching the bridge from Collett Rd to just north of the bridge. Demolition and reconstruction of the Bellevue Creek bridge. Lead department: Integrated Transportation Support department(s):	2020-2021
McCulloch Area improvements (KLO/Hall/Spiers) Construct improved road approaches to the east of the KLO bridge, including the intersection of KLO / Spiers. This project will be undertaken concurrently with replacement of the bridge and to avoid annual flood and environmentally sensitive time periods. Lead department: Integrated Transportation Support department(s):	2020-2021
Passenger bridge upgrades Certain components of the Airport's passenger bridges are reaching the end of their useful life. This project would replace these components and extend their useful life, allowing the Airport to meet its operational needs and continue to adhere to safety requirements. Lead department: Infrastructure Delivery Support department(s):	2020-2021
Preliminary plan design program: new projects To address Kelowna's current and future mobility needs, the Transportation Master Plan (TMP) will recommend transportation concepts which will result in new projects being considered. The development of preliminary plans will allow for more detailed planning necessary for project implementation and coordination with development projects. Lead department: Transportation & Mobility Support department(s): Integrated Transportation | Communications	2020-2021

Safety management software (SMS) development: City works The city generates significant paper documentation for its Safety8 program. SMS software is user-friendly and can be accessed in the field (mobile app) or at the office (desktop). Workers can input data on workplace incidents, near misses and site inspections from their phone or iPad and can send to the appropriate parties instantaneously. Lead department: Corporate HR Services Support department(s): Multiple departments	2019-2020
Transition of South East Kelowna Irrigation District (SEKID) integration with City Water Utility The integration of SEKID into the City of Kelowna utility is a step towards the vision of a city-wide water distribution system as set out in the 2017 Kelowna Integrated Water Supply Plan. Integration of all water supplied and systems within Kelowna will lead to consistent clean water standards and equity to all residents and businesses in Kelowna. Lead department: Infrastructure Support department(s): Multiple departments	2017-2020
Unit 4 approval workflow: Phase 3 Configuring workflow functionality and then implementing a fully functional and efficient approval workflow. This workflow will include system generated notifications and system recorded approvals or denials by those with authority. The approval workflow will encompass the full procure to pay cycle from requisitions to final payment. Lead department: Purchasing Support department(s): Multiple departments	2019-2020
Update 20 Year Servicing Plan and Development Cost Charges bylaw in conjunction with Official Community Plan (OCP) The purpose of this project is to update the 20 Year Servicing Plan and the Development Cost Charge bylaw concurrent with the OCP update that is planned for 2018 – 2020. An update to the 20 Year Servicing Plan is required to plan the necessary infrastructure to support growth that is predicted in the OCP. Updating the DCC bylaw will ensure new development pays for the infrastructure to support growth. Lead department: Infrastructure Engineering Support department(s): Multiple departments	2018-2020
Update building condition assessment inventory Complete thorough review of buildings to develop building condition assessment inventory. Use inventory to build out asset management program and ten-year capital plan. Lead department: Building Services Support department(s): Infrastructure	2020-2020
Update Heritage Conservation Areas development guidelines Update Heritage Conservation Area Development Guidelines as part of the Official Community Plan update. Lead department: Policy & Planning Support department(s): Development Planning | Communications	2020-2020

Water meter replacement program Replacement of water meters in the City of Kelowna water utility. New meters will be read through an automated system and allow individual residences to monitor their water use. This is a multi-year project, expected to continue for five to seven years. Lead department: Utility Planning Support department(s): Multiple departments	2020-2025

Appendix A

How do all the City's plans work together?

Appendix B

Strategy cycle

City of Kelowna

Action Plan 2020

Delivering on

Council priorities 2019-2022

Imagine Kelowna: vision into action

January 13, 2020

Agenda

- The path to get here
- Delivering on our strategic direction
- 2020 focus areas & project examples
- What is next?

The path to get here

<u>November 2018 - March 2019</u>

- Council determined their priorities for their term (now to 2022)
- City Manager and Senior Leadership determined corporate results for next four years
- Council priorities and corporate results combined into one guiding strategic direction document

<u>April 2019</u>

- Council Priorities 2019-2022 launches
  - Public communication
  - Internal communications
  - Organizational alignment

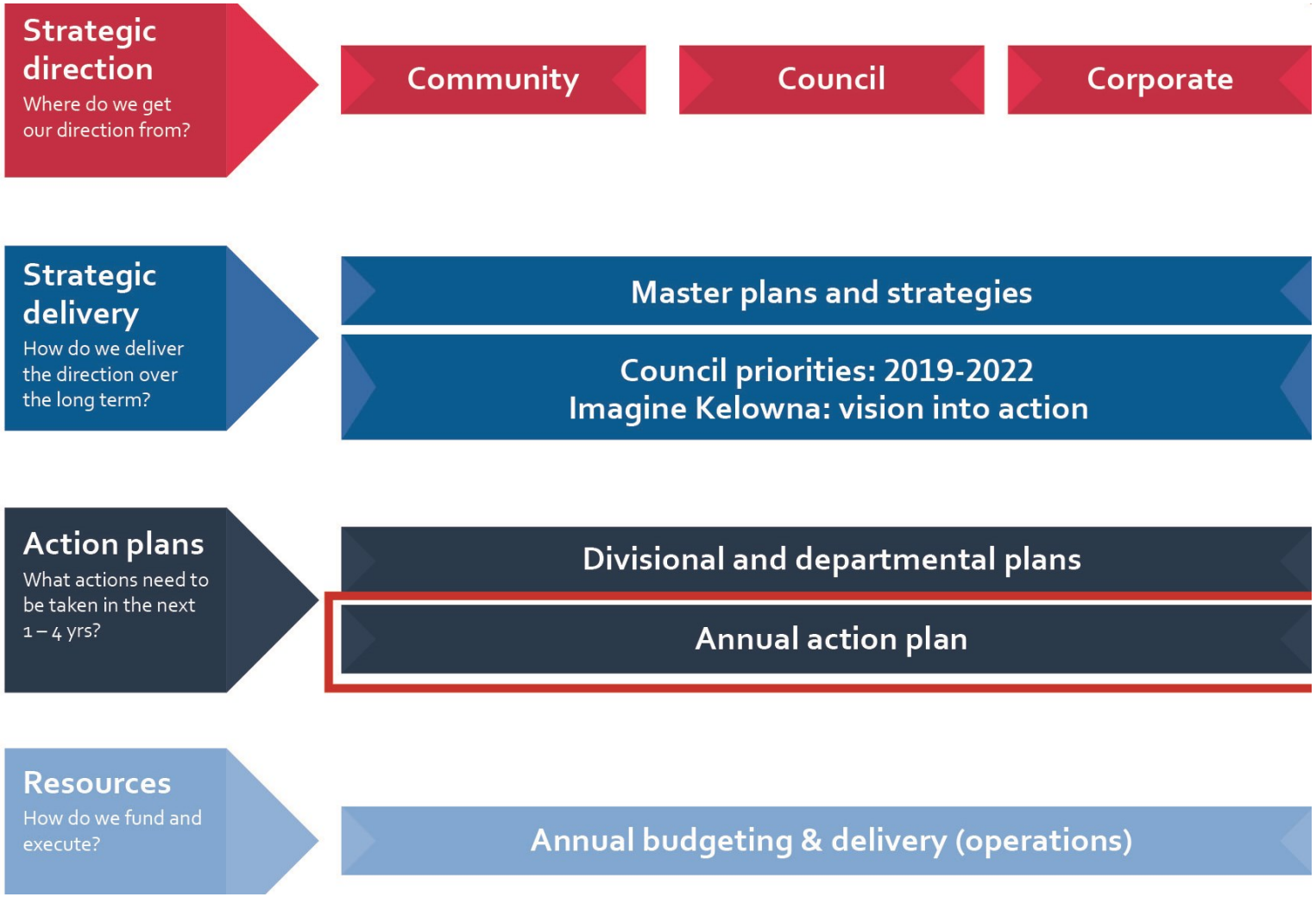
<u>December 2019</u>

- Provisional Budget 2020 approved

<u>January 2020</u>

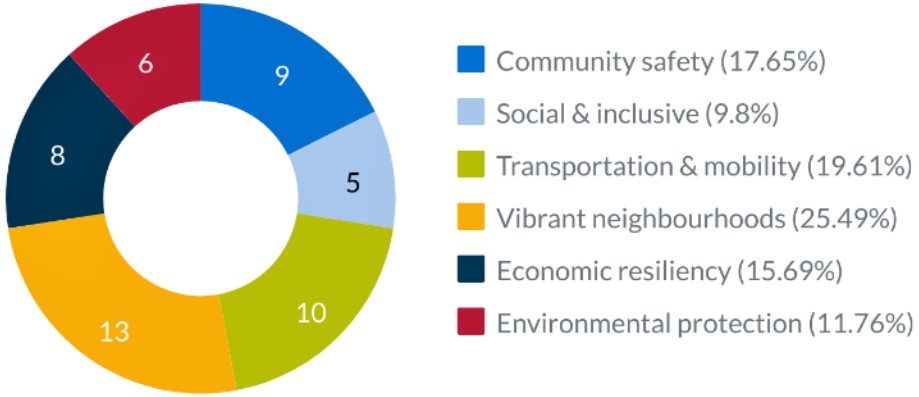
- Action Plan 2020 launches

How we deliver on our strategic direction

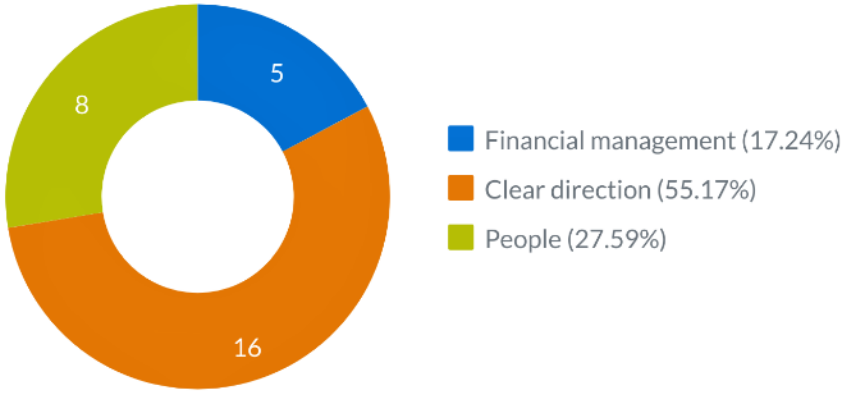


2020 focus areas

Council priorities



Corporate results



Maintain and improve base business (operations) 18

Project examples

Safety / Social & inclusive

- New safety positions
- Community Safety & Well-Being Strategy
- Social Policy Framework
- Housing with supports community inclusion team

Transportation

- Transportation master planning
- Hillside biking transit pilot
- Ethel St and Houghton Active Transportation Corridors

Vibrant neighbourhoods

- 2040 Official Community Plan update
- City Park Promenade design
- Pandosy Waterfront Park development

What's next?

Measure, report and improve

April 2020
Council Priorities 2019-2022
annual reporting

Questions?

For more information, visit
kelowna.ca/actionplan

Report to Council

Date: January 13, 2020

To: Council

From: City Manager

Subject: Amendment to Fire and Life Safety Bylaw No. 10760 and Bylaw Notice Enforcement Bylaw No 10475

Department: Fire Department

Recommendation:

THAT Council, receives, for information, the Report from the Fire Chief dated January 13, 2020 recommending that Council approve the bylaw amendment for the Fire and Life Safety Bylaw No. 10760;

AND THAT Bylaw No. 11747, being Amendment No. 2 to the Fire and Life Safety Bylaw No. 10760 be forwarded for reading consideration;

AND FURTHER THAT Bylaw No. 11833 being Amendment No. 24 to the Bylaw Notice Enforcement Bylaw No. 10475 be forwarded for reading consideration.

Purpose:

To obtain Councils approval to amend the Fire and Life Safety and Bylaw Notice Enforcement Bylaws.

Background:

The Fire and Life Safety Bylaw provides for the City of Kelowna to ensure public safety conditions are in place, especially in relation to fire safety concerns such as fireworks, explosives, open burning and building safety initiatives. The Bylaw authorizes the Fire Chief and designate to exercise powers for fire related inspections and prevention and regulates the prevention and control of fire as identified through the *Community Charter* and *Fire Services Act*.

The Fire and Life Safety Bylaw is being updated to clarify some of the descriptions, reduce redundancy, create efficiency and increase life safety while also aligning with the British Columbia Building Code and British Columbia Fire Code.

The Bylaw Notice Enforcement Bylaw, which outlines the penalties for non-compliance with the Fire and Life Safety Bylaw is being recommended for amendment as well.

Discussion:

The Fire and Life Safety Bylaw is used by Kelowna Fire Department to enforce or support public safety initiatives. This bylaw is often used in conjunction with the BC Fire Code and Building Code during Fire Inspections.

A number of the changes proposed, including clearer language and additional definitions were to better align the bylaw with Provincial Legislation such as the building and fire codes. Examples of this include:

- The addition of Carbon Monoxide alarms in homes, similar to the requirement for smoke alarms.
- Identify the requirement to maintain fire separations, which are currently required only at occupancy stage.
- Clarify the requirements for the maintenance of fire protection systems, especially in relation to record keeping
- Identify that fire protection systems must be maintained by a Fire Protection Service Technician, which will require those maintaining these systems to be a part of the Applied Science Technologist and Technicians of BC (ASTTBC).

Other changes to the bylaw will assist in fire protection for new buildings, especially high-rise construction. These changes include:

- Moving the construction of a fire fighter equipment room from a requirement to a recommendation
- Clarify the requirement for in building communication systems for fire fighter operations to be objective based and to better describe the outcomes and testing requirements

Changes relating to Mobile Food Vendors have also been proposed. With the increase in Mobile Food Vendors, staff are working towards a model where licenses will remain free if inspections are requested during specific pre-identified times such as designated weekends. This program is a shared initiative between Penticton, West Kelowna and Kelowna, where a vendor is only required to be inspected in one municipality to receive approval to operate in any of the three participating communities. An inspection fee is being introduced for inspections that happen outside the designated window.

These proposed amendments do not include potential requirements that may come forward in the future in relation to open burning. This fall, the Province made substantive changes to its Open Burning and Smoke Control Regulation (OBSCR). This has resulted in confusion for agricultural residents. Currently we are working to both understand the new regulation and consider its impact on this bylaw. The only proposed amendment in this report relating to open burning is to introduce a fee for burn pile re- inspections where the pile either does not meet the requirements of the bylaw at first inspection or the inspection is not completed do to actions by the owner. This offsets some of the additional cost of sending an Inspector up for a second or more time.

The proposed changes to the enforcement bylaw will better align it with the changes noted above and to better match the enforcement bylaw with the Fire and Life Safety Bylaw.

Conclusion:

The recommended amendments to the fire and life safety bylaw will clarify language and reduce redundancy in the bylaw, while increasing life safety. It also aligns better with the British Columbia Building Code and the British Columbia Fire Code. This will make it easier for people to follow and adhere to the bylaw. The amendments also create efficiencies for staff by coordinating inspections for mobile venders and lowering the number of burn pile re- inspections.

The recommended amendments to the Bylaw Notice Enforcement Bylaw details better the sections of the Fire and Life Safety Bylaw that the Bylaw Notice Enforcement Bylaw references. This clarifies what the offence when people are given an offence notice.

Internal Circulation:

City Clerk's office
Development services
Bylaw Services
Business Licenses

Considerations applicable to this report:

Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Existing Policy:
Financial/Budgetary Considerations:
External Agency/Public Comments:
Communications Comments:

Considerations not applicable to this report:

Submitted by: Chief Travis Whiting

Approved for inclusion: S. Leatherdale Director of Human Resources

CITY OF KELOWNA

BYLAW NO. 11747

Amendment No. 2 to Fire and Life Safety Bylaw No. 10760

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Fire and Life Safety Bylaw No. 10760 be amended as follows:

1. THAT **PART FIVE: FIRE PROTECTION EQUIPMENT, 5.1 Buildings and Occupancies, 5.1.1 MAINTENANCE AND TESTING** be amended by deleting the following sections:

"5.1.1 Every owner of premises must ensure that all fire protection equipment required under the Building Code or Fire Code shall be inspected, tested and maintained in accordance with good engineering practices and the applicable standards, requirements and guidelines of the British Columbia Building Code, the City's Building Bylaw No. 7245, the British Columbia Fire Code, this Bylaw and all other applicable enactments, all as amended or replaced from time to time, and any equivalents or alternative solutions required or accepted under those enactments.

5.1.2 A "Notice of Responsibility" form shall be used to document and officially notify building owners/ representative(s) of what is expected of them by the Kelowna Fire Department regarding the restoration of the building's fire protection systems and the owner/ representative's fire watch duties.

The "Notice of Responsibility" form may be used in the following circumstances:

a) When a building's fire protection system(s) have been compromised.
b) When a building's fire protection system will not restore to normal working condition.
c) When a FIRE WATCH is required."

And replace them with:

"**5.1.1 MAINTENANCE AND TESTING**

(a) Every Owner or Occupant of a premise for which a system of fire protection equipment is installed or required under the Building Code or Fire Code must:

(i) inspect, test, record, maintain, and repair the system in accordance to the standards and requirements of the Building Code and Fire Code;

(ii) where a Fire Protection Service Technician has inspected or tested fire protection equipment pursuant to 9.1 of this bylaw, the fire protection technician shall label the equipment and the owner or occupant shall maintain records in a manner acceptable to the authority having jurisdiction; and

(iii) promptly notify the Fire Department:

1. if the system or any part of it has been taken out of service, becomes inoperable, or has otherwise stopped functioning properly; and
2. report to the Fire Department when the service is restored, is fully operable and functioning properly.

(b) Every Owner or Occupant who is required under the Fire Code to perform or cause to be performed an inspection or test of fire protection equipment must ensure that:

(i) the inspection or test is performed by a Fire Protection Service Technician;
(ii) a copy of the inspection and/or test form completed by the Fire Protection Service Technician is delivered to the Fire Department; and
(ii) all deficiencies are completed by the date provided and delivered to the Fire Department.

(c) Every Fire Protection Service Technician who carries out inspections, testing, maintenance or repair of fire protection equipment must use an inspection and testing form that is acceptable to the Fire Chief.

(d) No person shall undertake any work or testing on fire protection equipment or life safety systems that sends an alarm directly to an alarm monitoring company without notifying that company prior to undertaking the work or testing.

(e) The Owner or Occupant shall correct any deficiencies to the fire alarm or sprinkler system when the Fire Department attends a premise where a fire alarm or sprinkler system has been activated without proper cause.

5.1.2 Every owner of premises must ensure that all fire protection equipment required under the Building Code or Fire Code shall be inspected, tested and maintained in accordance with good engineering practices and the applicable standards, requirements and guidelines of the British Columbia Building Code, the City's Building Bylaw No. 7245, the British Columbia Fire Code, this Bylaw and all other applicable enactments, all as amended or replaced from time to time, and any equivalents or alternative solutions required or accepted under those enactments.

5.1.3 A "Notice of Responsibility" form shall be used to document and officially notify building owners/ representative(s) of what is expected of them by the Kelowna Fire Department regarding the restoration of the building's fire protection systems and the owner/ representative's fire watch duties.

The "Notice of Responsibility" form may be used in the following circumstances:
a) When a building's fire protection system(s) have been compromised.
b) When a building's fire protection system will not restore to normal working condition.
c) When a FIREWATCH is required.

2. AND THAT **PART FIVE: FIRE PROTECTION EQUIPMENT, 5.5 Smoke Alarms,** be amended by:

a) deleting the title that reads "**Smoke Alarm**" and replace it with "**Smoke Alarm / Carbon Monoxide Alarms**";

b) deleting section 5.5.1 that reads:

"The owner and occupier of every premise with residential occupancy must ensure that smoke alarms are maintained, tested, repaired and replaced in accordance with the requirements of the manufacturer."

And replace it with:

"The owner and occupier of every premise with residential occupancy must ensure that operational smoke alarms and carbon monoxide alarms (if required) are maintained, tested, repaired and replaced in accordance with the requirements of the manufacturer."; and

c) adding the following sentence to the beginning of the Section 5.5.2:

"Operational smoke and carbon monoxide alarms must adhere to the standards of the British Columbia Building Code, the British Columbia Fire Code and Amendments thereto. "

3. AND THAT **PART FIVE: FIRE PROTECTION EQUIPMENT, 5.9 Premises Under Construction**, be amended by adding a new section 5.9.5 that reads as follows:

"5.9.5 The City of Kelowna Fire Safety Plan for Construction, Demolition and Renovation form must be submitted to the fire department for review prior to the commencement of construction."

4. AND THAT **PART SEVEN: EMERGENCY ACCESS AND EVACUATION** be amended by deleting Section **7.1 Construction Fire Safety Plan** in its entirety that reads:

"**7.1 Construction Fire Safety Plan**

7.1.1 Before construction of any building commences the owner or occupier of the property must contact the Fire Department to determine whether a fire safety plan is required.

7.1.2 Where the Fire Chief or designate determines that a fire safety plan is required, the owner or occupier must:

a) prepare the construction fire safety plan in a form, format and diagram template acceptable to the Fire Chief or designate and submit the construction fire safety plan to the Fire Prevention Branch for review;

b) ensure a copy of the construction fire safety plan is maintained on the premises in a location and manner acceptable to the Fire Chief or designate to allow for reference by the Fire Department.";

5. AND THAT **PART NINE: SAFETY TO LIFE, 9.1.8** be amended by adding the following to the end of the paragraph "Fire separations shall be maintained as per the BC Fire Code.";

6. AND THAT **PART FOURTEEN: HIGH BUILDINGS, 14.1 Buildings 6 or more storeys** be amended by:

a) deleting the title that reads "**14.1 Buildings 6 or more storeys** " and replacing it with "**14.1 high buildings as per the British Columbia Building Code"** ;

b) deleting in Section 14.1.1 that reads:

"The owner of any building of six or more storeys, and for which an application for a building permit is submitted to the City after August 1, 2008, shall ensure that;"

And replace it with:

"It is recommended that the owner of any high buildings as per the British Columbia Building Code, for which an application for a building permit is submitted to the City after August 1, 2008, provide the following:"

c) Deleting sub-sections, a & b in their entirety that read:

"a) pressurized stairwells are marked clearly, including roof access stairwells; stairwell doors shall be marked on both sides;

b) an approved Fire Department lock box is installed in accordance with section 7.4 of this Bylaw;"

d) Deleteing "30 minute" and replacing it with "45 minute" in sectin 14.1.1 subsectin d); and

e) Deleting sub-sections e & f in their entirety that read:

"e) a copy of the construction fire safety plan is provided in accordance to section 7.1 of this Bylaw;

f) a copy of the building fire safety plan is provided in accordance to section 7.2 of this Bylaw."

7. AND THAT **PART FIFTEEN: COMMUNICATIONS, 15.1 Emergency Services Communications Equipment, 15.1.1** be deleted in its entirety that reads:

"15.1.1 If the design of a proposed building does not, in the opinion of the Fire Chief or designate, facilitate or permit emergency services communication between the interior of the building and the Fire Department personnel assembling at the exterior of the building in response to an incident, the owner must install and maintain in or on the building one of the following:

a) a passive antenna or radiating cable system;

b) an internal multiple antenna system with unidirectional or bi-directional amplifiers as needed;

c) a voting receiver system; or

d) any other system proposed by the owner and approved in writing by the Fire Chief or designate as meeting the requirements of the emergency services communications system."

And replace it with:

"15.1.1 The design and construction of new buildings shall provide reliable two-way radio communications for emergency responders inside the buildings to command vehicles in accordance with Schedule C. Prior to **occupancy**, the installed system will be subject to a field test and approval by the Kelowna Fire Department to ensure that it meets the Kelowna Fire Department's operational needs."

8. AND THAT **PART TWENTY TWO: FEES AND COST RECOVERY, 22.1 Permit and Service Fees,** 22.1.1 be amended by adding new sub-paragraphs (l) and (m) that read:

"l) an additional inspection(s) of a burn pile, if on the initial inspection by the fire department the burn pile or site is deemed unaccepatable;

m) a yearly inspection of a mobile vender, fee to be waved if the inspection is done on a designated weekend."

9. AND THAT **SCHEDULE "A" Interpretation** be amended by:

a) adding a definition for **ASTTBC** in its appropriate location that reads:

"**ASTTBC**" means Applied Science Technologist and Technicians of BC which is a self-governing, professional association pursuant to the Applied Science Technologist and Technicians Act RD CHAP. 15, 1996.";

b) adding a definition for **Fire Protection Service Technician** in its appropriate location that reads:

"**Fire Protection Service Technician**" means a person certified under the Applied Science Technologists and Technicians Act "ASTTBC" as a fire protection technologist, or a person having other equivalent certification acceptable to the Fire Chief, that qualifies the person to perform inspections and testing of fire protection equipment.";

c) adding a definition for **Mobile Vendor** in its appropriate location that reads:

"**Mobile Vendor**" means cooking equipment used in fixed, mobile or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or any form of temporary roofed enclosure. The authority having jurisdiction can exempt temporary facilities, such as a tent, upon evaluation for compliance to the applicable requirements."; and

d) deleting the definition for "firewatch" that reads:

"**firewatch**" The assignment of a person or persons to an area for the express purpose of notifying the fire department, the building occupants, or both of an emergency; preventing a fire from occurring; extinguishing small fires; or protecting the public from fire or life safety Dangers

and replace it with a new definition that reads:

"**firewatch**" means the assignment of a person or persons to an area for the express purpose of assuming the responsibility of notifying the fire department, the building occupants, or both, of an emergency; preventing a fire from occurring; extinguishing small fires; or protecting the public from fire or life safety dangers;"

10. AND THAT **SCHEDULE "B" FEES AND COST RECOVERY** be amended by adding to the end of the Table the following new line:

"Re-inspection of burn pile	22.2	$50.00
Inspection of a mobile vender (waved if done on a designated weeked)	22.2	$50.00"

11. This bylaw may be cited for all purposes as "Bylaw No. 11747 being Amendment No. 2 to Fire and Life Safety Bylaw No. 10760";

12. 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

Adopted by the Municipal Council of the City of Kelowna this

_____
Mayor

_____
City Clerk

Schedule C

In-Building Radio Communications Coverage

1.0 PREFACE

This Schedule (Schedule C) shall be the reference document for ensuring and verifying minimum acceptable emergency radio communications reliability inside buildings to meet the emergency response needs of the Kelowna Fire Department (KFD).

This Schedule specifies the minimum radio communications reliability requirements and the procedures and testing requirements for verifying the acceptability of the radio communications coverage inside a building.

Please note that this Schedule shall be used as the reference by KFD to determine the acceptability (or unacceptablity) of the in-building radio communications reliability.

2.0 IN-BUILDING RADIO COMMUNICATIONS REQUIREMENTS

2.1 Definition of Reliable Two-Way Radio Communications

Reliable two-way radio communications as defined below shall be achieved between personnel inside the building communicating over the *KFD simplex "tactical" radio frequency channel* with personnel outside the building.

All two-way radio communications in both directions shall meet a Delivered Audio Quality defined as follows:

"Understandable possibly with some noise"

(DAQ 3.4 – 4.0 as defined in Telecommunications Industry Association TSB 88 standards in all locations and under the operating conditions specified below).

2.2 Description of Interior Building Coverage Requirements

Reliable two-way radio communications shall be achieved in the following areas and locations inside the building:

Location		Floor Area for Reliable Two-Way Radio Communications
1.	Public access hallways, elevator lobbies	95% of each area on each floor
2.	Living areas	95% of each enclosed areas within each living area
3.	Parking garage	95% of all areas on each level
4.	Common rooms, recreation rooms and recreation areas such as pools, hot tubs, gyms	95 % of each enclosed areas and each open area
5.	Foyers, lobbies, atriums, and enclosed entranceways.	95% of each enclosed area and each open area

Location		Floor Area for Reliable Two-Way Radio Communications
6.	Stairwells	100 % of all areas within each stairwell
7.	Elevators	100% inside closed elevators
8.	Designated refuge areas (shelter in-place and protected ares)	100 % of each enclosed area and each open area
9.	Mechanical and electrical rooms	100% of all areas within each room
10.	Storage areas including hazardous materials storage (paints, solvents, cleaning supplies, etc.)	100% of each enclosed area and each open area
11.	Fire command centres, alarm panel locations	100% of each enclosed area and at each location in open areas.
12.	Commercial parking garages	95% of all areas on each level
13.	Individual offices and open office areas	95% of each enclosed area and each open area
14.	Warehouse, manufacturing and fabricating plant areas, enclosed rooms and open areas	95% of each enclosed area and each open area
15.	Retail malls, individual retail stores, open mall areas	95% of each shop, each enclosed area and eachopen area
16.	Locations, and areas not listed above will be at the discretion of the Fire Chief	

Note: The building interior shall be completely constructed with all exterior and interior walls, doors and windows installed.

2.3 Personnel Communications

Reliable two-way radio communications shall be achieved in the above areas between personnel inside the building using a handheld (portable) radio communicating with personnel outside the building who are communicating using a vehicle mobile radio.

The radio communications reliability minimum requirements shall be met when:

1. personnel inside the building are using handheld (portable) radios that are equipped with a flexible whip or helical style antennas with a length not exceeding 1/8 wavelength and the antenna is securely connected to the antenna connector on the radio.

2. personnel outside the building are using a vehicle mounted radio (mobile) that is connected to a whip style antenna not exceeding ¼ wavelength mounted on the roof of the vehicle.

The location of the vehicle shall be specified by the Fire Department.

2.4 Wearing Handheld (Portable) Radio

The reliable two-way radio communications requirements shall be met when the radio is worn in a holster or on a clip on the belt of the person at the waist with the radio antenna against the body and shielded by the person's arm.

2.5 Personnel Body Position Variations

Reliable two-way radio communications shall be met when the person is standing facing North, East, South, and West

3.0 INITIAL DEMONSTRATION OF TWO-WAY RADIO COMMUNICATIONS RELIABILITY

The following shall be carried out after the building has been completed. The building interior shall be completely constructed with all exterior and interior walls, doors and windows installed.

3.1 Handheld (Portable) Radio Equipment Preparation

1. The handheld radio transmitter and receiver (transceiver) shall be tested in accordance with radio equipment manufacturer's instructions to verify that the radio transmitter and receiver performance meets the manufacturer's minimum performance standards and specifications, and shall be in full compliance with relevant Innovation, Science & Economic Development (ISED) standards and specifications, in accordance with the KFD radio station license.

2. The handheld radio battery shall be fully charged and shall not be below the minimum battery charge level for full perfromance as specied by the radio manufacturer at any time throughout all two-way radio communications tests .

3. The antenna shall be a felixible, helical style antenna (rubber duckie style), free from all defects and damage, and shall connect securely to the transceiver antenna terminal.

4. The handhled radio transmitter output power shall not exceed 5 Watts.

5. The handheld radio shall be equipped with an external/remote speaker microphone to enable the radio to be operated when the radio is in the holster or on a clip at the waist.

6. The external speaker microphone shall be tested with the radio in accordance with the manufacturer's instructions to verify that the radio transmitter modulation level and the voice quality meet the manufacturer's specification and the quality of the received audio in the speaker/microphone is clear and noise-free.

7. The external/remote speaker microphone shall be free from all defects and damage, and shall connect securely to the transceiver connector.

3.2 Vehicle (Mobile) Radio Equipment Preparation

A KFD fire engine, or similar KFD vehicle with an installed radio and rooftop mounted ¼ wave whip antenna shall be used for the tests.

1. The radio transmitter and receiver (transceiver) shall be tested in accordance with the radio manufacturer's instructions to verify that the radio transmitter and receiver performance meets the manufacturer's minimum performance standards and specifications and shall be in full compliance with relevant ISED standards and specifications, in accordance with the KFD fradio station license..

2. The radio tests shall include the vehicle radio microphone to verify that the transmitter modulation level using the microphone meets the manufacturer's specification, and the transmitted audio (modulation) is noise and distortion free.

3. The transceiver shall be connected to a ¼ wave whip antenna mounted on the roof of the vehicle for testing purposes.

4. The antenna and antenna cable shall be free from defects and damage and shall be securely connected to the transceiver antenna terminal.

3.3 Mapping The Areas To Be Tested

Each floor including all levels in parking garages (if applicable) shall be divided into equal area grids to cover all floors throughout the entire building.

Each grid shall not exceed 6 meters by 6 meters.

For large open area structures, such as storage buildings or warehouses, the grid pattern may be larger at the sole discretion of the Fire Chief.

In the case of hallways or areas that may be narrower than 6 metres, and the grid extends into adjacent enclosed areas or rooms, each separate enclosed area or room within the same grid shall be considered to be a separate grid.

The grid shall be overlayed on the floor plans of each floor including parking garages, and each grid shall be labeled with a unique identifierthat shall be recorded on the test record forms for each two-way radio communications test.

3.4 Two-Way Communications Reliability Demonstration Procedure

The two-way radio communications tests shall be conducted at each location within each grid as specified above.

The tests shall be carried out with the test personnel positioned in the middle (centre) of each grid (as close to centre as practical).

In enclosed areas that are smaller than 6 metres by 6 metres, the test personnel shall stand in the approximate centre of the area, or as close to the centre of the area as practical.

At each test location, two-way radio communications tests shall be carried out under the following conditions by the test personnel inside the building:

Test Personnel with Handheld Radio Inside Building		
Position	**Facing**	**Radio On Body**
Standing	North, East, South, West	Radio worn in a holster or a belt clip on the test personnel belt at waist level – test personnel arm shielding antenna

1. The in-building test personnel shall make initial communications contact with the test personnel at the outside vehicle location.

2. When contact has been established, the in-building personnel shall transmit a voice message speaking clearly and slowly counting from 1 – 5.

3. The test personnel shall speak directly into the speaker/microphone appproximately 5 cm from the microphone.

4. Vehicle test personnel shall transmit their assessment of the quality of the received transmissions to the in-building personnel who shall record the vehicle test personnel's assessment on the test record form for each grid location.

5. After recording the vehicle test personnel assessment on the test record form, the in-building test personnel shall request a clear, slow count from the vehicle test personnel in the same manner as the transmissions by the in-building personnel.

   Note: The vehicle test personnel shall verify that there is very low, or no significant local area ambient (background) acoustical noise that could affect the quality of the voice transmission to the in-building test personnel.

6. The vehicle test personnel shall transmit a voice message speaking clearly and slowly counting from 1 – 5.

7. The test personnel shall speak directly into the microphone appproximately 5 cm from the microphone.

8. The in-building test personnel shall record their assessment of the quality of the voice message received from the vehicle transmission on the test record for each grid location.

Note: If either the vehicle test personnel or the in-building test personnel suspect that the other end is transmitting a voice message but there is no reception or the received voice is not understandable, contact may be required using commercial mobile telephone service to have the transmission repeated until a firm assessment of the received voice message is made.

3.5 Radio Communications Voice Quality Assessment

The assessment of the quality of each voice message received by the vehicle test personnel and the in-buidling test personnel shall be one of the following and recorded on the test record for each two-way test:

0: No voice or communications
1: poor or noisy- barely understandable (DAQ = 1 -2)
2: understandable possibly with some noise (DAQ 3.0 – 4.0)
3: loud and clear, no noise (DAQ 4.5 – 5.0)

One of the above assessments shall be recorded on the test form for each test voice message received by the vehicle test personel and the in-building test personnel at each test location inside the building and for each handheld radio and body position specified below.

3.6 Reliability Evaluation

1. For any grid, assessments 2 and 3 *in both directions*: Pass

   A Pass assessment shall be for reception of voice messages by the vehicle test personnel and for reception of voice test messages by the in-building test personnel for the same test location and all body and handheld radio positions specified below.

2. For any grid, assessments 0 and 1 *in either or both directions*: Fail

   A fail assessment shall be for reception of a voice test message by either the vehicle test personnel or by the in-building test personnel (or both).

3. On each floor and in separately identified areas in 2.2 above that do not require 100% radio communications coverage reliability:

   - The total number of "Pass" locations divided by the total number of grid locations in each separately identified area shall be at least 95% of the total grid locations *for voice communications in both directions;* i.e. from the vehicle test personnel to the in-building test personnel, *and* from the in-building test personnel to the vehicle test personnel.

   Note: Failure of any 2 adjacent grids in any area shall result in failure of the entire area including all grids within the area; for example, if an area is covered by 3 or more grids, failure of 2 adjacent grids shall result in failure of all grids in the area for purposes of calculating areas of reliable coverage.

4. In the case of partial grids, such as in hallways or areas that may be narrower than 6 metres, and the grid extends into adjacent areas or rooms, each separate area or room within the same grid shall be considered to be a separate grid for purposes of calculating the acceptable coverage area.

5. In locations and areas identified in 2.2 above requiring 100% radio communications coverage reliability:

   - All test results in both directions; i.e. by the vehicle test personnel *and* by the in-building test personnel shall be assessed based on the pass and fail criteria in 1 through 5 in 3.5 above.

   - A failure in any part of an area defined as requiring 100% coverage shall be a failure of the entire area.

4.0 FIRE DEPARTMENT REPORT

KFD will prepare a report that references the two-way radio communications test results and specifies the acceptability or unacceptability of the radio communications coverage throughout the inside of the building in accordance with this Schedule.

5.0 USE OF TECHNOLOGY

5.1 General

The design and installation of any technology that may be required to meet the in-building radio communications reliability requirements, including Distributed Antenna Systems (DAS), bi-directional amplifiers (BDAs), radiating cable, passive reflectors and antenna systems shall meet industry accepted standards and best practice for public safety radio communications systems.

The technology shall meet and as applicable be approved for the intended application in accordance with (ISED Canada standards and specifications CPC-2-1-05 "Zone Enhancers" and RSS-131 "Zone Enhancers for the Land Mobile Service".

All system design and installation shall meet all applicable municipal, provincial and federal codes and regulations.

Other references:

1. Radio manufacturer's maintenance manual and test and maintenance instructions.

2. Telecommunications Industry Association:

   - TIA Systems Bulletin TSB 88: Wireless Communications Systems Performance In Noise And Interference Limited Situations
   - EIA/TIA 603: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards
   - TIA 156 – Land Mobile Radio Antenna Systems Minimum Standards for RF Signal Booster

All technology shall use an electrical power source that shall not be disabled or disrupted if the primary Fortis BC power source fails or is interrupted.

Backup electrical power in the event of Fortis BC power failure or interruption may be provided by either a building provided backup power source such as an auxillary power generator or a self-contained backup battery power source that shall maintain fulll electrical power capabilities for all technology for a minimum of 4 hours during continuous in-building emergency radio communications.

The use of any in-building radio coverage enhancement technology shall not result in spurious radiation (RF leakage) outside the building except via dedicated, intentional antennas or other intentional radiators required for the in-building coverage enahncement technologies.

Any spurious or leakage radiation outside the building shall not result in any degradation of the performance of any radio communications used by KFD or any other other emergency responders in the area.

5.2 As-Built Drawings and Specifications

As built drawings shall be provided for any technology that is added to the building design or structure specifically to improve the in-building radio communications coverage.

The drawings shall detail the specific technology make and model numbers, interconnections and schematic or block diagrams of the interconnected technology.

6.0 ULTIMATE AUTHORITY

The Fire Chief, or designate, shall have ultimate authority to accept or reject the reliability of the radio communications inside the building, and the test reports submitted by the building owner.

7.0 ANNUAL COVERAGE VERIFICATION TESTS & INSPECTIONS

The following tests, measurements and inspections shall be carried out annually from the date of acceptance of the intial demonstration tests (Section 3.0 in this Schedule).

The two-way voice communications tests shall verify that the in-building radio signal reliability and voice quality assessment for two-way handheld radio communications has not degraded since the tests were conducted initially in Section 3.0.

The technology measurements (as applicable) and installation shall meet the requirements specified in this Schedule.

The annual verification tests, measurements and inspections shall be the responsibility of the building owner (Owner).

The Owner shall certify to KFD in a written statement, that the two-way voice communications quality, the technology and installation continue to meet the requirements specified in this Schedule.

Personnel who are assigned to carry out the two-way radio tests shall be proficient in the use of handheld radios and possess sound knowledge of radio comunications voice quality assessment and testing procedures.

Personnel who are assigned to the measurement of the technology and the system inspection shall be fully qualified technicians having sound skills and strong experience with the installation, measurement and inspection of radio communications equipment and previous experience with in-building radio communications coverage enhancement systems.

7.1 Test Radio Equipment Preparation

All radio equipment shall be prepared for the tests in acccordance with Sections 3.1 and 3.2 in this Schedule.

7.2 Building Test Locations & Tests

The test locations selected for the annual verification tests shall be based on the grid (map) used for the initial demonstration tests described in Section 3.3 in this Schedule.

1. On each floor of the building, including parking garages in areas identified as *95% coverage* in Section 2.2 of this Schedule:

    a) At least 2 grids on each floor.
    b) Grids selected from the grids used for the original tests conducted after building completion under Initial Demonstration of Two-Way Radio Communications Reliability tests, (Section 3.3 in this Schedule) .
    c) Centre of each selected grid shall not be exposed to windows.
    d) Conduct tests as specified in 3.4 in this Schedule.
    e) For each test location, assess the two-way voice communications quality as defined in 3.5.
    f) Evaluate the two-way radio coverage reliability as specified in 3.6 of this Schedule.

2. In each location identified as 100% coverage in Section 2.2 of this Schedule:

    a) At least 1 two-way voice communications test in each location.

    b) Each location shall be the same as the location used for the original tests conducted after building completion under Initial Demonstration of Two-Way Radio Communications Reliability tests, (Section 3.3 in this Schedule).
    c) The location shall not be exposed to windows unless window exposure in the location is unavoidable because of the size or the location of the room or space in the building.
    d) Conduct tests as specified in 3.4 in this Schedule.

e) For each test location, assess the two-way voice communications quality as defined in 3.5.
f) Evaluate the two-way radio coverage reliability as specified in 3.6 of this Schedule.

7.3 Technology Measurements & Inspections

If technology is used for enhancing the in-building two-way radio communications coverage, such as bi-directional amplifiers (BDA) and distributed antenna system (DAS),
the technology shall be determined to be functioning properly by making basic measurements of the amplifier uplink and downlink gain.

The measurement results shall be within the manufacturer's specified limits, and shall be the same as the measurement results that were conducted when the equipment was originally installed.

All antennas, interconnecting cables, and connectors shall be inspected for damage, loose connections, etc.

Any equipment or cables that are located on the exterior of the building and are exposed to the weather shall be inspected for water damage to the equipment and moisture leakage inside the connectors and cables.

Any damaged cables shall be replaced and all loose connections tightened based on industry accepted best practices.

After replacement or repair of any equipment, antennas, or cables the two-way voice communications tests specified in Section 7.2 of this Schedule shall be repeated in the areas that are affected by the repairs or replacement.

7.4 Test Results Confirmation Letter

A test confirmation letter shall be prepared that clearly, and definitively confirms that the annual coverage verification tests, measurements and inspection meets the requirements in accordance with this Schedule and as specified in Sections 3.5 and 3.6.

The test confirmation letter shall be completed using the template attached as part of this Schedule.

PALIDOR Radio Communications Consultants

Annual Test Confirmation Letter Template

Date

Building Owner Name(s)
Owner's address & contact information
Building Name
Building Address

Fire Chief
Kelowna Fire Department
2255 Enterprise Way
Kelowna, BC VIY 8B8

Certification of In-Building Radio Communications Annual Coverage Testing, Measurements and Inspection of *[Insert Name and Address of Building*]

Reference: City of Kelowna Fire and Life Safety Bylaw No. 10760, Schedule C.

Date(s) of Tests, Measurements and Inspection: Insert date(s) as applicable

We hereby certify that:

1. The annual coverage verification tests, measurements, and system inspections were carried out in full compliance with the requirements in this Schedule.

2. The results of the two-way voice communications tests meet the minimum two-way voice communications quality requirements specified in this Schedule.

3. The technology meets the manufacturer's minimum performance and functional specifications.

4. The installation of the in-building radio coverage enhancement technology and all equipment and materials conform to industry accepted standards and best practice.

Name (Owner or Owner's representative)
Title
Signature
Date

CITY OF KELOWNA

BYLAW NO. 11833

Amendment No. 24 to Bylaw Notice Enforcement Bylaw No. 10475

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Bylaw Notice Enforcement Bylaw No. 10475 be amended as follows:

1. THAT **Schedule "A"** be amended by deleting the Fire and Life Safety Bylaw No. 10760 in its entirety that reads:

Bylaw No.	Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available (*Maximum 50% Reduction in Penalty Amount Where Compliance Agreement is Shown as "Yes")
Fire and Life Safety Bylaw No. 10760						

PART ONE: ADOPTION AND APPLICATION OF THE FIRE CODE						
10760	1.1	Failure to post adequate No Smoking Signs	$50.00	$40.00	$60.00	Yes
10760	1.1	Fail to supply/maintain approved fire extinguisher	$100.00	$90.00	$110.00	Yes
10760	1.1	Fail to adhere to posted occupant loads(overcrowding)	$500.00	$450.00	$500.00	Yes
10760	1.1	Failure to practice fire drill	$100.00	$90.00	$110.00	Yes
10760	1.1	Failure to install fire alarm/sprinkler system	$250.00	$200.00	$300.00	No
10760	1.1	Failure to post emergency evacuation plan	$100.00	$90.00	$110.00	Yes
10760	1.1	Failure to provide Emergency Vehicle Access	$100.00	$90.00	$110.00	Yes
10760	1.1	High Rack storage exceeds permissible height	$250.00	$200.00	$300.00	Yes
PART THREE: FIRE DEPARTMENT						
10760	3.6	Enter designated fire area	$100.00	$90.00	$110.00	Yes
10760	3.7	Impersonate a member of the Fire Department	$500.00	$450.00	$500.00	No
10760	3.8	Obstruction of Fire Chief or Designate	$500.00	$450.00	$500.00	No
10760	3.8	Interference with Fire Hose line	$500.00	$450.00	$500.00	No

PART FOUR: PERMITS						
10760	4.1	Set Off Consumer Fireworks without permit	$250.00	$200.00	$300.00	Yes
10760	4.1	Set Off Display Fireworks without permit	$500.00	$450.00	$500.00	Yes
10760	4.1	Unpermitted Fuel Tank	$100.00	$90.00	$110.00	Yes
10760	4.1	Start a fire without a Permit	$345.00	$300.00	$390.00	No
10760	4.5	Fail to comply with burning conditions	$345.00	$300.00	$390.00	No
10760	4.5	Burn prohibited materials	$345.00	$300.00	$390.00	No
10760	4.5	Burn a structure for the purpose of demolition	$5,000.00	$5000.00	$5000.00	No
10760	4.5	Start a fire without permission	$345.00	$300.00	$390.00	No
10760	4.5.2	Inadequate supervision	$345.00	$300.00	$390.00	Yes
10760	4.5.2	Appliance not CSA/ULC/CGA or equivalent approved	$345.00	$300.00	$390.00	Yes
10760	4.5.2	Appliance fueled by unapproved fuel	$345.00	$300.00	$390.00	Yes
10760	4.5.2	Fail to provide 1 meter clearance	$345.00	$300.00	$390.00	No
10760	4.5.2	No approval from Authority Having Jurisdiction on Gas Inspection	$345.00	$300.00	$390.00	Yes
10760	4.5.2	Fail to provide adequate extinguishing agent	$345.00	$300.00	$390.00	Yes
10760	4.5.2	Burning of refuse, waste or wood	$345.00	$300.00	$390.00	No
10760	4.5.3	Burn materials other than from property	$345.00	$300.00	$390.00	No
10760	4.5.3	Operate a backyard incinerator	$345.00	$300.00	$390.00	Yes

PART FIVE: FIRE PROTECTION EQUIPMENT						
10760	5.1	Spray Operations without conforming spray booth.	$500.00	$450.00	$500.00	Yes
10760	5.1	Obstructed FD Access Route	$500.00	$450.00	$500.00	Yes
10760	5.1	Failure to institute a fire watch	$500.00	$450.00	$500.00	No
10760	5.2	Failure to provide signage on Fire Dept. connection	$100.00	$90.00	$110.00	Yes
10760	5.2.3	Obstruct access to Fire Dept. Connection or Standpipe	$100.00	$90.00	$110.00	Yes
10760	5.3	Hydraulic Calculations on Sprinkler not provided (per riser)	$100.00	$90.00	$110.00	Yes
10760	5.5	No working smoke alarm on premise.	$250.00	$200.00	$300.00	No
10760	5.5	Insufficient number of smoke alarms on premise	$250.00	$200.00	$300.00	Yes
10760	5.6.2	Unauthorized use of hydrant	$250.00	$200.00	$300.00	Yes
10760	5.6.3	Tamper with hydrant	$250.00	$200.00	$300.00	No
10760	5.7	Fail to provide hydrant maintenance/testing documentation	$100.00	$90.00	$110.00	Yes
10760	5.7	Fail to tag hydrant out of service	$100.00	$90.00	$110.00	No
10760	5.8	Obstruction within one (1) meter of fire hydrant	$100.00	$90.00	$110.00	Yes
10760	5.8	Fail to maintain/inspect hydrant	$100.00	$90.00	$110.00	Yes

PART SIX: FIRE ALARM SYSTEMS						
10760	6.1	Failure to provide contact information	$100.00	$90.00	$110.00	Yes
10760	6.2	Cause or allow false alarm	$500.00	$450.00	$500.00	Yes
PART SEVEN: EMERGENCY ACCESS AND EVACUATION						
10760	7.2	Fail to submit Fire Safety Plan	$100.00	$90.00	$110.00	Yes
10760	7.2.1	Failure to provide/maintain Fire Safety Plan on site	$100.00	$90.00	$110.00	Yes
10760	7.8	Failure to evacuate during fire alarm	$100.00	$90.00	$110.00	Yes
PART EIGHT: REGULATION OF FIRE HAZARDS						
10760	8.1	Accumulation of combustible materials in alley, premises, sidewalk	$100.00	$90.00	$110.00	Yes
10760	8.1.4	Keep an ash pit other than provided for	$100.00	$90.00	$110.00	Yes
10760	8.1.5	Fail to place ashes in non-combustible receptacle	$100.00	$90.00	$110.00	Yes
10760	8.2	Failure to maintain refuse container clearances	$100.00	$90.00	$110.00	Yes
10760	8.3	Store flammable products in underground parkades	$250.00	$200.00	$300.00	Yes
10760	8.3	Unsafe storage of flammable liquids	$100.00	$90.00	$110.00	Yes
10760	8.7	Failure to secure vacant building	$500.00	$450.00	$500.00	Yes

PART EIGHT: REGULATION OF FIRE HAZARDS						
10760	8.10	Fail to maintain commercial cooking equipment	$100.00	$90.00	$110.00	Yes
10760	8.10	Fail to maintain fire suppression system	$100.00	$90.00	$110.00	No
PART NINE: SAFETY TO LIFE						
10760	9.1	Obstructed Access or Egress - A2 Licensed Beverage Est & B-2	$500.00	$450.00	$500.00	No
10760	9.1	Obstructed Access or Egress	$100.00	$90.00	$110.00	No
10760	9.1	Failure to maintain fire door separations	$100.00	$90.00	$110.00	Yes
10760	9.1	Unauthorized installation of locking devices on required exit doors	$250.00	$200.00	$300.00	Yes
PART TEN: INSPECTIONS OF PREMISES						
10760	10.2	Failure to provide access for fire inspection after owner advised	$75.00	$50.00	$100.00	Yes
PART TWELVE: INSPECTION AND TESTING OF FIRE PROTECTION RQUIPMENT						
10760	12.1	Fail to notify of testing, repair of Alarm System	$100.00	$90.00	$110.00	Yes
10760	12.1	Fail to maintain and test fire alarm	$250.00	$200.00	$300.00	Yes
10760	12.1	Fail to maintain and test sprinkler/standpipe and/or hose system	$250.00			

				$200.00	$300.00	Yes
10760	12.1	Fail to retain records of fire life safety systems	$100.00	$90.00	$110.00	Yes
10760	12.1	Fail to test/maintain/provide emergency lights or exit signs	$100.00	$90.00	$110.00	Yes
PART SEVENTEEN: FIREWORKS						
10760	17.1.1	Sell/offer for sale fireworks	$100.00	$90.00	$110.00	No
10760	17.1.3	Store display fireworks	$100.00	$90.00	$110.00	No
10760	17.2.8	Discharge fireworks outside approved time	$100.00	$90.00	$110.00	No
10760	17.2.13	Fail to remove and dispose of fireworks and debris	$100.00	$90.00	$110.00	Yes

And replace it with:

Bylaw No.	Section	Description	A1 Penalty	A2 Early Payment Penalty	A3 Late Payment Penalty	A4 Compliance Agreement Available (*Maximum 50% Reduction in Penalty Amount Where Compliance Agreement is Shown as "Yes")
Fire and Life Safety Bylaw No. 10760						
PART ONE: ADOPTION AND APPLICATION OF THE FIRE CODE						
10760	1.1	Failure to post adequate No Smoking Signs	$50.00	$40.00	$60.00	Yes
10760	1.1	Fail to supply/maintain approved fire extinguisher	$100.00	$90.00	$110.00	Yes
10760	1.1	Fail to adhere to posted occupant loads(overcrowding)	$500.00	$450.00	$500.00	Yes
10760	1.1	Failure to practice fire drill	$100.00	$90.00	$110.00	Yes
10760	1.1	Failure to install fire alarm/sprinkler system	$250.00	$200.00	$300.00	No
10760	1.1	Failure to post emergency evacuation plan	$100.00	$90.00	$110.00	Yes
10760	1.1	Failure to provide Emergency Vehicle Access	$100.00	$90.00	$110.00	Yes
10760	1.1	High Rack storage exceeds permissible height	$250.00	$200.00	$300.00	Yes

10760	1.1	Failure to comply with Fire Codes not identified in this Schedule	$250.00	$200.00	300.00	Yes
PART THREE: FIRE DEPARTMENT						
3.5 No Interference						
10760	3.5.1	Obstruct or interfere access	$500.00	$450.00	$500.00	No
10760	3.5.2	Interfering with responding to an alarm or other request for assistance	$500.00	$450.00	$500.00	No
10760	3.5.3 (a)	Interfering with member/officer entering/upon fire scene - cause and origin of fire	$500.00	$450.00	$500.00	No
10760	3.5.3 (b)	Interfering with member/officer entering/upon fire scene - activation of fire alarm system	$500.00	$450.00	$500.00	No
10760	3.5.3 (c)	Interfering with member/officer entering/upon fire scene - sprinkler system or fire or life safety protection system	$500.00	$450.00	$500.00	No
3.6 Prohibition Against Entry						
10760	3.6.1 (a)	Enter building or premise threatened by building incident	$100.00	$90.00	$110.00	Yes
10760	3.6.1 (b)	Enter in a designated fire area	$100.00	$90.00	$110.00	Yes
10760	3.6.1 (c)	Refusal to leave designated fire area	$100.00	$90.00	$110.00	Yes
3.7 False Representation						
10760	3.7.1	Impersonate a member of the Fire Department	$500.00	$450.00	$500.00	No
3.8 No Obstruction at Assistance Response						
10760	3.8.1	Obstruction of a member during a response	$500.00	$450.00	$500.00	No

PART FOUR: PERMITS						
		4.1 Permit Required				
10760	4.1.1 (a)	Installation and Removal without a permit	$100.00	$90.00	$110.00	Yes
10760	4.1.1 (b)	Store flammable or combustible liquids without permit	$100.00	$90.00	$110.00	Yes
10760	4.1.1 (c)	Open flames for display	$100.00	$90.00	$110.00	Yes
10760	4.1.1 (d)	Set Off Consumer Fireworks without permit	$250.00	$200.00	$300.00	Yes
10760	4.1.1 (d)	Set Off Display Fireworks without permit	$500.00	$450.00	$500.00	Yes
10760	4.1.1 (e)	Rack storage exceeding 12'in high	$250.00	$200.00	$300.00	Yes
10760	4.1.1 (f)	Start a fire without a Permit	$345.00	$300.00	$390.00	No
		4.5 Open Air Burning				
10760	4.5.2 (a) (i)	Appliance not CSA/ULC/CGA or equivalent approved	$345.00	$300.00	$390.00	Yes
10760	4.5.2. (a) (ii)	Appliance fueled by unapproved fuel	$345.00	$300.00	$390.00	Yes
10760	4.5.2 (a) (iii)	Fail to provide 1 meter clearance	$345.00	$300.00	$390.00	No
10760	4.5.2 (a) (iv)	No approval from Authority Having Jurisdiction on Gas Inspection	$345.00	$300.00	$390.00	Yes
10760	4.5.2 (a) (v)	Owner not supervising unit	$345.00	$300.00	$390.00	Yes
10760	4.5.2 (a) (vi)	Failure to provide adequate extingusishing agent	$345.00	$300.00	$390.00	Yes

10760	4.5.2 (a) vii	Burning of refuse, waste or wood in outdoor bbq fire pit or fireplace	$345.00	$300.00	$390.00	No
10760	4.5.3 (a)	Open air burning on lots less than one (1) hectare	$345.00 $345.00	$300.00	$390.00	No
10760	4.5.3 (b)	No adult in attendance of burning	$345.00	$300.00	$390.00	No
10760	4.5.3 (c)(i)	Burning pile not less than 30.5m from combustible structure or material	$345.00	$300.00	$390.00	No
10760	4.5.3 (c)(ii)	Burning pile not less than 30.5m from standing timber or brush	$345.00	$300.00	$390.00	No
10760	4.5.3 (c)(i)	Burning pile not less than 30.5m from water course	$345.00	$300.00	$390.00	No
10760	4.5.3 (d)	Burning pile less than 30.5 m of property lines without consent	$345.00	$300.00	$390.00	No
10760	4.5.3(e)	Buring materials not originating from the property in which a permit applies	$345.00	$300.00	$390.00	No
10760	4.5.3 (f)	Burning of compostable materials	$345.00	$300.00	$390.00	No
10760	4.5.3 (g)	Failing to adhere to venting index	$345.00	$300.00	$390.00	No
10760	4.5.3 (h) (i)	Use of matrials to start, fuel or feed a fire	$345.00	$300.00	$390.00	No
10760	4.5.3 (h) (ii)	Burning of standing crops or grasslands	$345.00	$300.00	$390.00	No
10760	4.5.3 (i)	Buring with a susupended or cancelled permit without inpection of extinguished site prior to new permit issuance	$345.00	$300.00	$390.00	No
10760	4.5.3 j	Operate a backyard incinerator	$345.00	$300.00	$390.00	Yes
10760	4.5.3 (k)	Start a fire without permission of owner or agent	$345.00	$300.00	$390.00	No

10760	4.5.3 (m)	Starting a fire without a valid permit	$345.00	$300.00	$390.00	No
10760	4.5.3 (o)	Failure to comply with conditions, restrictions and requirements imposed by Fire Chief	$345.00	$300.00	$390.00	No
PART FIVE: FIRE PROTECTION EQUIPMENT						
		5.1 Buildings and Occupancies				
10760	5.1.1 (a)(i)	Failure to maintain system per Building Code and Fire Code	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (a)(ii)	Failure to Maintain record s (by owner or occupant_	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (a) (iii)(1)	Failure to notify Fire Department if system is not functioning properly	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (a) (iii)(2)	Failure to notify Fire Department when system is restored	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (b) (i)	Failure to test fire protection equipment by a Fire Protection Service Technician	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (b) (ii)	Failure to deliver a copy of fire protection test to fire hall	$100.00	$90.00	$110.00	Yes
10760	5.1.1 (b) (iii)	Failure to adhere to completion dates of deficiencies	$100.00	$90.00	$110.00	Yes
10760	5.1.2	Failure to adhere to legislative standards for fire protection equipment	$100.00	$90.00	$110.00	Yes
10760	5.1.3 (a)	Failure to use "Notice of Responsibility" when systems are compermised	$100.00	$90.00	$110.00	Yes
10760	5.1.3 (b)	Failure to use "Notice of Responsibility" when systems will not restore to working condition	$100.00	$90.00	$110.00	Yes

10760	5.1.3 (c)	Failure to use "Notice of Responsibility" when FIRE WATCH is required	$100.00	$90.00	$110.00	Yes
		5.2 Connections for Building Sprinkler and Standpipe Systems				
10760	5.2.3	Obstruct access to Fire Dept. Connection	$100.00	$90.00	$110.00	Yes
10760	5.2.4 (a)	Failure to provide signage on Fire Department connection	$100.00	$90.00	$110.00	Yes
10760	5.2.4 (b)	Failure to provide signage maximimum pumping inlet	$100.00	$90.00	$110.00	Yes
		5.3 Sprinkler Systems				
10760	5.3.3 (a)	Failure to identify sprinkler design standard	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (b)	Failure to identify available water supply	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (c) (i)	Failure to identify occupancy hazard or commodity classification	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (c) (ii)	Failure to provide method of packaging and encapsulation	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (c) (iii)	Failure to provide method of storage of commondities	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (c) (iv)	Failure to provide height of storage	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (c) (v)	Failure to provide clearance between racks, piles or stacks	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (d)	Failure to provide required level of manual firefighting equipment	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (e)	Failure to provide required density of water application	$100.00	$90.00	$110.00	Yes

10760	5.3.3 (f)	Failure to provide required design area of water application	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (g)	Failure to provide required fire alarm system and central station connections	$100.00	$90.00	$110.00	Yes
10760	5.3.3 (h)	Failure to provide current status of sprinkler system to Fire Inspector	$100.00	$90.00	$110.00	Yes
		5.5 Smoke Alarms				
10760	5.5.1	No working smoke or carbon monoxide arlarms on premise.	$250.00	$200.00	$300.00	No
10760	5.5.2	Insufficient number of operational smoke and carbon monoxide alarms on premise	$250.00	$200.00	$300.00	Yes
		5.6 Fire Hydrants				
10760	5.6.2	Unauthorized use of hydrant	$250.00	$200.00	$300.00	Yes
10760	5.6.3	Tamper with hydrant	$250.00	$200.00	$300.00	No
10760	5.6.4	Unauthorized removal of a fire hydrant	$250.00	$200.00	$300.00	No
		5.7 Fire Hydrant Maintenance				
10760	5.7.3	Fail to tag hydrant out of service	$100.00	$90.00	$110.00	No
		5.8 Fire Hydrants on Private Property				
10760	5.8.1 (a)	Obstruction within one (1) meter of fire hydrant	$100.00	$90.00	$110.00	Yes
10760	5.8.1 (b)	Provide clear view of fire hydrant from street	$100.00	$90.00	$110.00	Yes
10760	5.8.4	Fail to maintain/inspect hydrant	$100.00	$90.00	$110.00	Yes
10760	5.8.5 (a)	Failure to flush and drain hydrant	$100.00	$90.00	$110.00	Yes
10760	5.8.5 (b)	Failure to provide written inspection, servicing and testing report	$100.00	$90.00	$110.00	Yes

10760	5.8.5 (c)	Failure to provide written report of flow test	$100.00	$90.00	$110.00	Yes
10760	5.8.5 (d)	Failure to comply with NFPA 291 Standards	$100.00	$90.00	$110.00	Yes

PART SIX: FIRE ALARM SYSTEMS						
6.1 Contact Persons						
10760	6.1.1	Failure to provide contact information	$100.00	$90.00	$110.00	Yes
6.2 Activation						
10760	6.2.1(a)	Activate fire alarm with no fire	$500.00	$450.00	$500.00	Yes
10760	6.2.1(b)	Activate fire alarm with no imminent fire or incident	$500.00	$450.00	$500.00	Yes
10760	6.2.1(c)	Active fire alarm when not testing systems	$500.00	$450.00	$500.00	Yes
PART SEVEN: EMERGENCY ACCESS AND EVACUATION						
7.1 Construction Fire Safety Plan						
10760	7.1.1	Failure to contact fire department if fire safety plan is required prior to construction	100.00	90.00	110.00	No
10760	7.1.2 (a)	Failure to have fire safety plan reviewed	100.00	90.00	110.00	No
10760	7.1.2 (b)	Failure to provide a copy of fire safety plan on site	100.00	90.00	110.00	No
7.2 Fire Safety Plan						
10760	7.2.1 (a)	Failure to prepare Fire Safety Plan	$100.00	$90.00	$110.00	Yes
10760	7.2.1 (b)	Failure to pay fee	100.00	90.00	110.00	Yes
10760	7.2.1 (c)	Failure to review and update Fire safety plan and submit to FD for review	100.00	90.00	110.00	Yes
10760	7.2.1 (d)	Failure to provide/maintain Fire Safety Plan on site	$100.00	$90.00	$110.00	Yes
7.4 Access and Keys						

10760	7.4.1	Failure to provide/maintain fire department clearly marked lock box and/or keys	$100.00	$90.00	$110.00	no
		7.8 Evacuation of Buildings				
10760	7.8.1	Failure to evacute during fire alarm	$100.00	$90.00	$110.00	no
PART EIGHT: REGULATION OF FIRE HAZARDS						
		8.1 Removal of Fire Hazards				
10760	8.1.1	Accumulation of combustible in/around premises	$100.00	$90.00	$110.00	Yes
10760	8.1.4	Keep an ash pit other than provided for	$100.00	$90.00	$110.00	Yes
10760	8.1.5	Fail to place ashes in non-combustible receptacle	$100.00	$90.00	$110.00	Yes
		8.2 Refuse and Recycling Containers				
10760	8.2.1 (a)	Failure to maintain refuse container clearances near combustible materials	$100.00	$90.00	$110.00	Yes
10760	8.2.1 (b)	Failure to maintain refuse container clearances near unprotected building openings	$100.00	$90.00	$110.00	Yes
		8.3 Flammableor Comustible Liquids				
10760	8.3.1	Store flammable products in underground parkades	$250.00	$200.00	$300.00	Yes
10760	8.3.2	Unsafe storage of flammable liquids	$100.00	$90.00	$110.00	Yes
		8.7 Vacant Premises				
10760	8.7.2 (a)	Failure to maintain litter/debris premise	$345.00	$300.00	$390	Yes
10760	8.7.2 (b)	Failure to secure vacant building	$500.00	$450.00	$500.00	Yes

10760	8.7.2 (c)	Failure to maintain operational requirements of Sprinkler / Fire Alarm System	$250.00	$200.00	$300.00	Yes

PART EIGHT: REGULATION OF FIRE HAZARDS						
8.10 Commercial Cooking Equipment						
10760	8.10.1 (a)	Fail to conduct weekly inspection of commercial cooking equipment	$100.00	$90.00	$110.00	Yes
10760	8.10.1 (b)	Fail to maintain commercial cooking equipment by a Qualified Technician	$100.00	$90.00	$110.00	Yes
10760	8.10.1 (c)	Fail to post commercial kitchen fire suppression system instructions	$100.00	$90.00	$110.00	Yes
PART NINE: SAFETY TO LIFE						
9.1 Exists and Means of Egress						
10760	9.1.1	Obstructed Access or Egress - A2 Licensed Beverage Est & B-2	$500.00	$450.00	$500.00	No
10760	9.1.3 (a)	Obstructed Access or Egress	$100.00	$90.00	$110.00	No
10760	9.1.3 (c)	Failure to provide adequate emergency lighting coverage	$100.00	$90.00	$110.00	Yes
10760	9.1.4	Unauthorized installation of locking devices on required exit doors	$250.00	$200.00	$300.00	Yes
10760	9.1.8	Failure to maintain fire door separations	$100.00	$90.00	$110.00	Yes
PART TEN: INSPECTIONS OF PREMISES						
10.1 Entry for Inspection						
10760	10.2.1	Failure to provide access for fire inspection after owner advised	$75.00	$50.00	$100.00	Yes
PART TWELVE: INSPECTION AND TESTING OF FIRE PROTECTION RQUIPMENT						
12.1 Maintenance and Testing of Emergency Equipment						
10760	12.1.1(b)	Fail to ensure service tags are mounted	$250.00	$200.00	$300.00	Yes
10760	12.1.1(a)	Fail to maintain and test fire alarm	$250.00	$200.00	$300.00	Yes

10760	12.1.3	Fail to retain records of fire life safety systems	$100.00	$90.00	$110.00	Yes
10760	12.1.4	Fail to notify of testing, repair of Alarm System	$100.00	$90.00	$110.00	Yes
PART SEVENTEEN: FIREWORKS						
		17.1 Regulations				
10760	17.1.1	Sell/offer for sale fireworks	$100.00	$90.00	$110.00	No
10760	17.1.3	Store display fireworks	$100.00	$90.00	$110.00	No
		17.2 Permit for Fireworks				
10760	17.2.8	Discharge fireworks outside approved time	$100.00	$90.00	$110.00	No
10760	17.2.13	Fail to remove and dispose of fireworks and debris	$100.00	$90.00	$110.00	Yes

2. This bylaw may be cited for all purposes as "Bylaw No. 11833 being Amendment No. 24 to Bylaw Notice Enforcement Bylaw No. 10475."

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, 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: January 13, 2019

To: Council

From: City Manager

Subject: 2019 Budget Amendment, ICBC Road Improvement Program

Department: Integrated Transportation

Recommendation:

THAT Council receives, for information, the report from the Transportation Planning Engineer dated January 13, 2019 with respect to the ICBC Road Improvement Program;

AND THAT the 2019 Financial Plan be amended to include $206,455 in ICBC Road Improvement Program Contributions related to the receipt of grant funding from the ICBC Road Safety Improvement Program as outlined in the report from the Transportation Planning Engineer dated January 13, 2019.

Purpose:

To amend the 2019 Financial Plan to reflect ICBC's Road Safety Improvement Program contributions.

Background:

Each year the City invests in capital projects to maintain and improve the City's road network. Projects that have the potential to improve road safety or reduce collisions are identified by staff and submitted to ICBC for consideration under ICBC's Road Safety Improvement Program. The ICBC Road Improvement Program contributes funds to road projects, completed by municipalities, that are projected by ICBC to result in reduced future collisions. The City has been a partner in the ICBC Road Improvement Program for over 20 years.

For projects completed in 2019, the City has received $206,455 in ICBC funding related to the projects listed below:

Project Transfer List

Project Name	Project Code	ICBC Contribution Budget Amendment
Rutland Rd Sidewalk	208489	$3,300
Ellis St Bike Lanes	208575	$1,200
Bernard Ave Bike Lanes	208573	$3,500
Clifton Rd Buffered Bike Lanes & Road Diet	328904	$15,300
High Rd Buffered Bike Lanes	328904	$3,800
Summit Dr Buffered Bike Lanes	328904	$500
KLO Buffered Bike Lanes	328904	$1,400
Gordon Dr Buffered Bike Lanes & Works	328904	$1,400
Gerstmar Rd & Springfield Rd Median and Signal Work	328904	$2,100
Baron Rd & Underhill Pedestrian Crosswalk Activated Flashers	335802	$4,200
Ethel 4 ATC & Sutherland ATC	323604A	$27,800
Chute Lake & South Crest Median & Crosswalk Improvements	336201	$2,100
Rutland Rd & Klassen Sidewalk and Bus Stop Improvements	208492	$14,200
Gordon Dr Sidewalk	208485	$2,800
Cooper Rd Buffered Bike Lanes & Right Turn Channelization	2084 3138	$60,000
Glenmore Dr Bike Improvements – Cross, Scenic, Union	208571	$1,800
Hollywood Rd Sidewalk DCC	336001A	$4,300
Doyle Ave Bike Lanes	208572	$4,700
Benvoulin /KLO Rd Southbound Bike Improvements	208563	$2,800
Small Pedestrian Improvements	208493	$4,800
Banks Rd Sidewalk & Bike Lanes	208475	$15,400
Kelowna Road Network – Intersection Safety Study	8069	$29,055
Total ICBC Road Improvement Program Funding Contributions – 2019		**$206,455**

Internal Circulation:
Divisional Director, Infrastructure
Financial Planning Manager
Infrastructure Administration Manager
Integrated Transportation Manager
Budget Supervisor

Considerations not applicable to this report:
Alternate Recommendation
Communications Comments
Existing Policy
External Agency/Public Comments
Financial/Budgetary Considerations
Legal/Statutory Authority
Legal/Statutory Procedural Requirements
Personnel Implications

Submitted by:

Chad Williams, Transportation Planning Engineer

Reviewed & approved by: R. Villarreal, Integrated Transportation Department Manager

Approved for inclusion:  Alan Newcombe, Divisional Director, Infrastructure

cc: A. Newcombe, Divisional Director, Infrastructure
G. Davidson, Divisional Director, Financial Services
R. Villarreal, Integrated Transportation Department Manager

Report to Council

Date: January 13, 2020

To: Council

From: City Manager

Subject: UBCM Community Emergency Preparedness Fund (CEPF) - Structural Flood Mitigation Program Application – Strathcona Area Flood Prevention

Department: Infrastructure Engineering

Recommendation:

THAT Council receives, for information, the report from the Utilities Planning Manager dated January 13, 2020, with respect to the UBCM Community Emergency Preparedness Fund (CEPF) - Structural Flood Mitigation Program Application – Strathcona Area Flood Prevention;

AND THAT Council authorizes staff to apply for a UBCM CEPF Structural Flood Mitigation grant as outlined in this report;

AND THAT Council authorizes the Divisional Director, Infrastructure to execute the UBCM CEPF Structural Flood Mitigation grant, if the application is successful;

AND FURTHER THAT the 2020 Financial Plan be amended to include the grant funding for the Strathcona Area Flood Prevention Project, if the application is successful.

Purpose:

To consider staff's recommendation to apply for a UBCM Community Emergency Preparedness Fund – Structural Flood Mitigation Program Grant.

Background:

During the 2017 flood event on Okanagan Lake, the Kelowna General Hospital property was flooded along Royal Avenue through Strathcona Park. A Flood Risk Assessment recently completed in 2019 identified a localized low area susceptible to flooding along the shoreline and correcting this has become a high priority. Over several years, the City has purchased private waterfront properties in advance of works to achieve flood prevention, erosion management, habitat improvement and public access.

The project will rehabilitate and structurally improve this section of shoreline. The waterfront will be raised to prevent breach and inundation inland. A public path will be built along the shoreline on the high point of the berm, providing multi-use access to the public and a route for service maintenance

vehicles. The fill will be an engineered mix of sands and gravels, while re-vegetation of other parts of the shoreline will form the remaining riparian habitat. The project is designed with all approvals complete.

As part of the application process, a Council resolution is required indicating support for the current proposed activities and willingness to provide overall grant management.

Internal Circulation:
Divisional Director, Corporate Strategic Services
Divisional Director, Infrastructure
Financial Planning Manager
Parks and Buildings Planning Manager
Park and Landscape Planner
Grants & Special Projects Manager
Infrastructure Engineering Manager

Financial/Budgetary Considerations:
The City has applied for a $350,000.00 grant from the UBCM Community Emergency Preparedness Fund – Structural Flood Mitigation Program. The estimated cost to complete the work is $495,000. There is currently $506,000 carried over in an approved capital account dedicated to the works at this site. If the grant is awarded to the City, the grant funds will be applied to eligible project costs related to flood management. All ineligible project costs will be funded through the existing budget approved by Council. In a separate process, the City has received Provincial approval for construction of this shoreline work required in this project. The project will be completed under the administration of the Infrastructure Delivery Department.

Considerations not applicable to this report:
Existing Policy:
Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Personnel Implications:
External Agency/Public Comments:
Communications Comments:
Alternate Recommendation:

Submitted by:

Rod MacLean, P. Eng., Utilities Planning Manager

Approved for inclusion:  A. Newcombe, Infrastructure Divisional Director

cc: Divisional Director, Corporate Strategic Services
Divisional Director, Infrastructure
Financial Planning Manager
Parks and Buildings Planning Manager
Park and Landscape Planner
Grants & Special Projects Manager
Infrastructure Engineering Manager

Report to Council

Date: January 13, 2020

To: Council

From: City Manager

Subject: Age-friendly Communities Grant – Senior Transit Travel Training

Department: Integrated Transportation

Recommendation:

THAT Council receives for information, the report from the Transit Service Coordinator dated January 13, 2020, with respect to the Transit Travel Training program and the BC Ministry of Health Age-friendly Communities Grant;

AND THAT Council authorizes the Transit & Programs Manager to apply for BC Ministry of Health Age-friendly Communities Program grant funding and provide overall grant management, if successful;

AND FURTHER THAT the 2020 Financial Plan be amended to include the grant funding for the Senior Transit Travel Training program if the application is successful.

Purpose:

To request Council authorization to apply for the BC Ministry of Health Age-friendly Communities Grant available to communities to support initiatives that facilitate the creation of age-friendly communities.

To inform Council of the Senior and Youth Transit Travel Training pilot programs for delivery in 2020.

Background:

In partnership with BC Transit, Integrated Transportation staff developed a Senior and Youth Transit Travel Training Action Plan in 2019. The Plan details the objectives, methodology and community partnerships required to deliver on-bus training for seniors and youth to increase utilization of the Conventional Transit System among these demographics.

The BC Ministry of Health's Age-friendly Communities Program includes a grant opportunity for communities undertaking initiatives to enable seniors to age in place. Under Stream 2: Age-friendly projects, initiatives that increase community accessibility through transportation may qualify for up to $15,000 in funding.

Discussion:

In 2016, the City of Kelowna completed a Community for All Action Plan as part of the Healthy City Strategy. This Action Plan identified areas to adapt policies, plans and programs, including transportation related actions, to respond to the evolving needs of our community. Since that time, the City of Kelowna has been implementing these actions including assessing and prioritizing parks and buildings to be more accessible and inclusive. In 2019, the City achieved Age-Friendly BC Community Recognition from the BC Ministry of Health for demonstrating its commitment to the creation of an age-friendly community.

The ability and option to take transit can be a significant part of a person's quality of life providing them with enhanced freedom and independence. However, some people may face challenges with taking transit, whether that be due to age related limits to mobility, physical or sensory disability or lack of experience or access to information about the system. The Senior and Youth Transit Travel Training Action Plan details key elements of travel training pilot programs for seniors and youth including how the programs would initially be structured. The Action Plan, developed in collaboration with BC Transit, considers best-practice examples from peer BC communities and from around North America. The Pilot programs are learning opportunities with objective of refining the programs before considering regular delivery in partnership with BC Transit.

The UBCM administered Age-friendly Communities Program grant funding would supplement the on-going annual Transit Marketing and Programs budget of $10,000 facilitating the delivery of more comprehensive transit travel training. Additional funding would enable staff to engage a consultant to support coordination and delivery of senior's training sessions over the summer, preserving existing budget to support more robust youth training in the fall. Without grant funding, the scope of the pilot program would be limited to fewer participants.

Conclusion:
The deadline for applications to UBCM for grant funding under the Age-Friendly Communities program is January 17, 2020. A successful application to the program for grant funding would significantly enhance the Senior Travel Training component of the Senior and Youth Transit Travel Training pilot program.

Internal Circulation:
Policy and Planning

Considerations applicable to this report:
Budget amendment upon successful grant application.

Considerations not applicable to this report:
Communications Comments
Legal/Statutory Authority:
Legal/Statutory Procedural Requirements:
Existing Policy:
Financial/Budgetary Considerations:
External Agency/Public Comments:

Submitted by:

M. Kittmer, Transit Service Coordinator

Approved for inclusion:  A. Newcombe, Divisional Director, Infrastructure

Attachment 1 - Age-friendly Communities Grant - Senior Transit Training Presentation

cc: Alan Newcombe, Divisional Director, Infrastructure
Rafael Villarreal, Integrated Transportation Department Manager
Jerry Dombowsky, Transit and Programs Manager
Kelly Isaak, Infrastructure Administration Manager
Michelle Kam, Sustainability Coordinator
Melanie Steppuhn, Park and Landscape Planner

Age-friendly Communities Grant

Senior Transit Travel Training pilot

Purpose

To request Council authorization to apply for Ministry of Health Age-friendly Communities grant funding.

And to inform Council of the Senior and Youth Transit Travel Training pilot projects for delivery in 2020.

Age-friendly Communities Grant

- UBCM administered funding.
- January 17, 2020 application deadline.
- Council Resolution – support for project and grant management.

Transit Travel Training

A program that helps to address people's barriers to transit use by educating them on how to effectively interact with transit the system via an on-bus experience.

Seniors Training Methodology

- Senior's/retirement residences – booked sessions.
- Publicly accessible sessions supported by Recreation Services program platform.
- Consideration for how training will reach those whom may need it most.

Youth Training Methodology

- City/School District #23 partnership.
- On-site training at 1-2 local schools.
- 30-minute on-bus outing per class.

Recommendation:

THAT Council authorizes staff to apply for BC Ministry of Health Age-friendly Communities grant funding and provide overall grant management, if successful;

AND THAT the 2020 Financial Plan be amended to include grant funding for the Transit Travel Training program if the application is successful.

Questions?

CITY OF KELOWNA

BYLAW NO. 11913

Amendment No. 20 to Subdivision, Development and Servicing Bylaw No. 7900

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Subdivision, Development and Servicing Bylaw No. 7900 be amended as follows:

1. THAT **SCHEDULE 4 – DESIGN STANDARDS**, title page be amended by deleting the title for Section 3 that reads "**3. DRAINAGE**" and replace it with a new title that reads "**3. STORMWATER MANAGEMENT**";

2. AND THAT **SCHEDULE 4 – DESIGN STANDARDS, Section 1 – Water Distribution, 1.5 Fire Flows** be deleted that reads:

"**1.5 Fire Flows**

Fire flows shall be determined in accordance with the requirements of the current edition of "Water Supply for Public Fire Protection - A Guide to Recommended Practice", published by Fire Underwriters Survey.

The following minimum fire flows must be met for the noted zones under peak daily flow conditions (Table 1.5):

Table 1.5 Minimum Fire Flow Requirements

Developments (without sprinklers)	**Minimum Fire Flow**
Single Family &Two Dwelling Residential	60 L/s
Modular / Mobile Home	60 L/s
Three & Four Plex Housing	90 L/s
Apartments, Townhouses	150 L/s
Commercial	150 L/s
Institutional	150L/s
Industrial	225 L/s

The Design shall not use a fire flow greater than those listed in Table 1.5 to design their onsite fire protection systems. The maximum available fire flow for site development is the lesser of the actual available fire flow at the service connection or the fire flows in Table 1.5.

Subdivisions and main extensions may utilize hydraulic information from water model as provided by the City.

Actual required fire flows shall be determined for all new developments."

And replacing it with:

"**1.5 Fire Flows**

Fire flows are subject to the following minimum requirements (Table 1.5) for all offsite works.

Table 1.5 Minimum Required Fire Flow by Zoning Designation

General Zoning Designation	Minimum Fire Flow*
Single Family &Two Dwelling Residential	60 L/s
Modular / Mobile Home	60 L/s
Three & Four Plex Housing	90 L/s
Apartments, Townhouses	150 L/s
Commercial	150 L/s
Institutional	150 L/s
Industrial	225 L/s

*Off-site fire flow requirements are calculated in accordance with the requirements of the current edition of "Water Supply for Public Fire Protection - A Guide to Recommended Practice", published by Fire Underwriters Survey.

Subdivisions and main extensions must utilize hydraulic information from water model results provided by the City.
Onsite requirements are defined during the Building Permit process:

a) Fire flow requirements for structures are to be calculated based on the worst-case requirement consistent with Section 3.2.5.7 of the BC Building Code.
b) Where a structure design includes an automated sprinkler system to NFPA 13 as per Section 3.2.5.12 of the BC Building Code, then:
    i. The NFPA 13 fire flow result for the worst-case building shall be the fire flow requirement on site.
    ii. Confirmation of meeting the NFPA 13 requirement must be provided to the City.
c) The Owner or Developer must report to the City that the calculated fire flow does not exceed the minimum requirements for that zoning found in Table 1.5."

3. AND THAT **SCHEDULE 4 – DESIGN STANDARDS**, Section 3 be deleted in its entirety and replaced with a new Section 3 – Stormwater Management as attached to and forming part of this bylaw as Appendix A;

4. AND THAT **SCHEDULE 5 – CONSTRUCTION STANDARDS, 2. STANDARD DRAWINGS**, be amended by deleting the standard detailed drawings for **MANHOLE REQUIREMENT FOR SERVICES DRAWING SS-S50 and IDF Curves – City of Kelowna (YLW) SS-S56** and replacing the standard detailed drawings for **MANHOLE REQUIREMENT FOR SERVICES DRAWING SS-S50 and IDF Curves – City of Kelowna (YLW) SS-S56** as attached to and forming part of this bylaw as Appendix B and C;

5. AND THAT **SCHEDULE 5 – CONSTRUCTION STANDARDS, 2. STANDARD DRAWINGS** be amended by adding a standard detailed drawing for **GROUNDWATER RECHARGE SUITABILITY MAP DRAWING SS-S58** as attached to and forming part of this bylaw as Appendix D;

6. This bylaw may be cited for all purposes as "Bylaw No.11913, being Amendment No. 20 to Subdivision, Development and Servicing Bylaw No. 7900."

7. 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 9th day of December, 2019.

Adopted by the Municipal Council of the City of Kelowna this

Mayor

City Clerk

3 Stormwater Management

3.1 General

The City stormwater system integrates surface water flows collected through the City's infrastructure and the natural watercourses that flow into Okanagan Lake. Proper integrated stormwater management practice mitigates impacts with the goal of maintaining Okanagan Lake as a high quality water source, with an abundant water supply, and with a balanced ecosystem. While urban, agricultural and natural areas all benefit from Okanagan Lake, drainage impacts from our systems must be mitigated, as well as be resilient to flood hazard and a changing climate.

The presence of an existing stormwater management facility does not imply that there is adequate capacity to receive the design flow, nor does it imply the facility is necessarily acceptable to the City. Where required, stormwater facilities must be upgraded to accommodate the appropriate flow as specified in this standard.

3.1.1 Outcomes

With respect to stormwater, the City's goals are to:

a) Improve and protect water quality from creek flows, outfalls and groundwater entering Okanagan Lake.

b) Reduce the risk of health hazard, life, and damage to property and infrastructure from

flooding, and provide strategies to attenuate peak flows and volumes.

c) Preserve and protect aquatic and riparian habitat and provide opportunity for restoration.

d) Minimize risks to the Okanagan Lake drinking water source.

e) Increase the resiliency of our watersheds to climate change impacts.

This stormwater management standard applies the latest Best Management Practices (BMP) and processes in use in British Columbia. New systems and development within the City are to use the practices described within this Section as a *minimum* standard.

All flows must be routed through sewer pipe, ditching, water courses, riparian areas, or road allowances with the required capacity and right of way access for operation and maintenance. The City requires that major system flows must be safely routed downstream to an adequately sized municipal drain or natural watercourse without impacting private property.

3.1.2 Regulations

Stormwater management designs must conform to this standard, City of Kelowna bylaws, regulations and policies; in addition to federal and provincial statutes where applicable. These include but are not limited to the following:

- Supplementary Design Criteria
- Existing Master Drainage Plans,
- Local Government Act
- Fisheries Act of BC
- Water Sustainability Act
- BC Water Act
- Navigable Waters Protection Act
- Canada Wildlife Act
- Migratory Birds Convention Act
- Dike Maintenance Act
- Standards and Best Practices for Instream Works (Canada/BC)
- Land Development Guidelines for the Protection of Aquatic Habitat (Canada/BC)
- Urban Runoff Quality Control Guidelines for British Columbia
- National Guide to Sustainable Municipal Infrastructure (Canada)
- Canadian Dam Association Dam Safety Guidelines

3.1.3 Climate Change

The City accepts that climate patterns are changing, and that its customers are impacted by creek flooding, lake rises, temperature fluctuations and fire. The design standards for infrastructure outlined in this bylaw are to be considered a minimum expectation. The City requires that design professionals consider impacts of climate change, through potential changing weather patterns or water levels when implementing a design; particularly in components where critical and long term design decisions are being made, or in areas where the consequence of failure is high.

To account for a changing climate, the capacity of storm works will include an additional 15 percent (15%) upward adjustment, and applied to the rainfall intensity curve stage (IDF) in

Section 3.7.2. This is consistent with recommendations in EGBC (2018): Legislated Flood Assessments in a Changing Climate in BC.

The design professional will be required to consider debris flow and flow management as a result of higher peak flows.

On larger projects, basin characteristics are required elements of the Stormwater Management Plan (See Section 3.2.1). Developers will need to anticipate this form of analysis as part of their overall cost strategy.

3.1.4 Hillside Areas

Hillside areas or areas of poor infiltration conditions have been identified by the City in Drawing **SS-S58.**

a) For development in Hillside Areas, the City focus is on safe conveyance of water. Roof or site drainage must discharge directly to the storm system. This focus is to not allow infiltration to ground except for foundation drainage. Where storm drains are not available or not considered feasible, minor system designs (see 3.2.a below) will require a hydrogeological review provided by a qualified Professional (P.Eng. or P.Geo.) to ensure that site infiltration is possible while not exceeding pre-development conditions, not impacting slope stability or off-site seepage, or not directly impacting downhill properties. The terms of reference of the review must be confirmed by the City Engineer and approved as a condition for obtaining a Development Permit.

b) For new development where Groundwater Recharge is designated **Not Suited**, the City will not permit minor systems (see Item 3.2a) to infiltrate to ground.

3.2 Stormwater Flow Control

The City's Stormwater Management system consists of three main components:

a) **The Minor System** consists of sewer pipes, gutters, catch basins, driveway culverts, open channels, watercourses and storm water management BMPs designed to capture, convey, treat or modify flows up to a 5-year return design event as directed by the City.

b) **The Major System** consists of surface flood paths, roadways, roadway culverts, channels and storm water management facilities designed to capture, convey, treat or modify larger flows up to a 100-year return design event. A piped minor system may be enlarged or supplemented to accommodate major flows. Major roads and arterials, bridges and creek protection armouring are to be designed for the 1 in 200 year event. This is discussed further in Section 3.10.

c) **The Natural System** consists of all natural lakes, rivers, creeks, streams and ephemeral drains that flow naturally downstream ultimately to Okanagan Lake. Natural system capacity and water quality can be impacted negatively by incoming Minor or Major systems.

3.2.1 Stormwater Management Plan

Stormwater Management Plans are required for all municipal development. A plan should include the following:

a) Tributary areas in the catchment which identify existing and potential land uses or current development.

b) References to applicable Area Stormwater Drainage Plans.

c) Details indicating how the proposed site relates to the Master Plan and its recommendations. Contours at 0.5 m elevation intervals.

d) Conceptual lot grading patterns.

e) Existing watercourses, including environmental classifications and/ or fish presence information, if available.

f) Layouts of existing and proposed drainage systems.

g) Major flow paths to a municipal drain or natural watercourse without impacting private property.

h) Proposed control features to meet the water quantity and quality targets identified in the applicable Master Plan

i) Locations, sizes, design flows, volumes, and capacities of all existing and proposed works.

j) Capacity assessment of receiving downstream works, or reference to the applicable Master Plan demonstrating adequate capacity. The City will provide the required stormwater area plans upon request.

k) Minor and Major hydraulic grade line elevations on profiles for all proposed works.

l) Proposed service connection locations and their associated minimum building elevations (MBE). Pre and post development flows both entering and leaving the subject lands.

   i. Pre development is defined as the natural condition prior to any development changes, including those resulting from past development activities.

m) The City may exempt plan requirements for development in rural or agricultural areas upon request or determination by the City Engineer.

3.3 On-Site Stormwater Management and Practice

3.3.1 Storm Effluent Limitations to City Storm System

a) For structures designed or constructed above the proven high groundwater table, intermittent stormwater pumping will be permissible to the City stormwater system where approved by the City Engineer. All operations and testing must be consistent with the requirements in Sanitary Sewer/Storm Drain Regulation Bylaw 6618.

b) Where structures are designed or constructed below the proven high groundwater table, permanent groundwater pumping will not be permitted to discharge to the storm system. The City will approve designs that include provisions for eliminating groundwater penetration into the structure, while addressing buoyancy concerns. These design aspects must be reviewed and approved by the City Engineer.

c) Refer to the latest BC Building code for drainage discharge requirements in parkades.

3.3.2 Water Quality

Whether water is routed through creeks, pipelines or infiltration into ground, the City will require consideration for treatment, emergency management and maintenance of the stormwater infrastructure and water quality. Stormwater designs on private property must meet or exceed minimum water quality guidelines prior to entering the City storm system. Water quality for a minor system flow (50% of the 1 in 2-year) must meet minimum BC Ministry of Environment Recreational Water Quality Guidelines and as per Sanitary Sewer/Storm Drain Regulation Bylaw 6618 .

3.3.3 Construction Sites

The City storm system can be used for temporary site water management provided the water quality exiting the property meets BC Ministry of Environment Recreational Water Quality Guidelines. This temporary use must be approved by the City prior to issuance of the Development Permit and/or Building Permit, following a confirmation of capacity within the downstream system, and adequacy of the quality of storm effluent. There must be no discharge to the sanitary sewer system.

3.3.4 High Density Residential, Commercial and Industrial Storm Systems

a) A control manhole is to be installed within 3 metres of the property line, and downstream of any water quality enhancement system. The manhole will include provision for isolating runoff into the City Storm system.

b) The City requires access to the structure in an emergency and inspection. An SROW is required. Provisions must be considered for response to emergency toxic spills on site. Any costs associated with emergency response are the responsibility of the property owner.

c) Water quality enhancement systems such as oil/grit separators, fuel/water separator (where required), naturalized storm ponds or other approved systems are the responsibility of the site owner, and must be maintained on a regular basis. The City can request regular maintenance records.

d) Minor system flows must meet water quality guidelines described above prior to discharging to a creek or city storm system.

e) On industrial sites where perforated storm systems or dry wells are used, the design must include provisions to manage emergency spills on site and minimize groundwater impacts.

3.4 Runoff Analysis

Storm drainage design should be carried out using one or both of the following methods. Calculations are to be submitted with designs.

a) **Rational Method:** To be used only for hydrologically simple and uniform areas with contributing area less than 10 Ha.

b) **Hydrograph Method**: Applicable for all larger areas or more hydrologically complex catchments, or where stormwater management systems require more than basic conveyances. Use SWMM based models or approved equivalent to analyze these processes. Each model

must include a level of complexity dependent on the watershed and the hydrologic processes that need to be considered (e.g., detention, groundwater recharge and infiltration, evapotranspiration, continuous simulation, etc.).

For all modelling, use the rainfall Intensity Duration Frequency (IDF) curves found in standard drawing **SS-S56**. Both historical data as well as climate change information must be incorporated into the runoff analysis.

3.5 Site and Lot Grading

Grading is to comply with the BC Building Code and the following:

a) Swales and site drainage must be constructed to prevent ponding within lots, with runoff routed, where possible, to storm services in public streets or other appropriate stormwater management system for the site.

b) Grade lots to drain to an approved City drainage system or roadway. Use 1% minimum grade. Grading directly to a natural drainage path must include adequate erosion control and water quality improvement measures.

c) Avoid drainage across adjacent lots. Where cross-lot drainage is unavoidable, provide adequate measures such as channelling, swales, inlets or piped connections to direct flow appropriately. A statutory right of way in favour of the City or private easement is required for unobstructed access.

d) Positive drainage is required for buildings and foundations.

e) Set building elevations above the hydraulic grade line (HGL) of the major drainage system as per Minimum Building Elevations (MBE) guidelines below.

3.6 Minimum Building Elevations (MBE)

The MBE applies to the elevation of the lowest floor slab in a building or the underside of the floor joists where the lowest floor is constructed over a crawl space. Crawl space is defined as the space between a floor and the underlying ground having a maximum height of 1.2 m to the underside of the joists and not used for the storage of goods or equipment damageable by flood waters.

The MBE is to be at least 0.60 m above the storm sewer service connection invert and 0.30 m above the major drainage system hydraulic grade line (HGL), whichever governs except where permissible on Hillside development where:

- foundation drains are disconnected from the storm main; or
- intermittent foundation pumping has backflow prevention.

For developments within close proximity to the Okanagan Lake shoreline, the MBE is elevation 343.66m. Further consideration shall be given to wind and wave action when setting the required MBE.

For sites near a watercourse where a floodplain elevation has been established through flood mapping, the MBE is to be a minimum of 300mm above the 200-year return period peak flood elevation or as per City of Kelowna Mill Creek Flood Plain Bylaw No. 10248. Where a flood elevation has not been established, setbacks are to be as per the Provincial guidelines or 1.5 metres above the natural boundary of any watercourse, lake, marsh or pond.

3.7 Rational Method

The Rational Method for calculation of peak flows is as follows:

$$Q = R\ A\ I\ N$$

Where:

Q = Peak flow in cubic metres per second (m^3/s)
R = Runoff Coefficient (C) x Adjustment Factor (C_{AFs})
A = Area of catchment in hectares (ha)
I = Intensity of rainfall (mm/hr)
N = 1/360

Factors for use in the Rational Formula are indicated below.

3.7.1 Runoff Coefficients (C)

The following runoff coefficients are for use with the Rational Formula. These coefficients are for general application only. Design values are subject to verification by the designer and approval by the City. Higher values may be applicable in those areas which experience rainfall during the winter when the ground is frozen.

Table 3.7.1 Runoff Coefficients (C)

Land Use	Percent Impervious	C	
		Minor Storm (1:5 year)	Major Storm (1:100 Year)
Residential			
• Suburban Residential (Lots>0.4 ha)	20%	0.35	0.40
• Low Density (Single Family)	40%	0.50	0.55
• Medium (Multi-Units Detached)	65%	0.60	0.65
• High Density (Multi-Units Attached)	90%	0.85	0.90
Commercial	90%	0.85	0.90
Industrial	90%	0.85	0.90
Institutional (e.g. Schools)	80%	0.75	0.80
Parks/Grasslands	20%	0.20	0.30
Cultivated Fields	30%	0.30	0.40

Runoff Coefficient Adjustment Factor (C_{AF})

An adjustment factor is to be applied to the runoff coefficient to reflect variations in soil permeability and slope.

Table 3.7.2 Runoff Coefficient - Soil Adjustment Factor (C_{AF})

Soil type and Slope	C_{AF}
Sandy soil with flat slope (up to 5%)	0.9
Sandy soil with steep slope (over 5%)	1.0
Clayey soil with flat slope (up to 5%)	1.0
Clayey soil with steep slope (over 5%)	1.1
Rock	1.1

Note: The above runoff coefficient adjustment factors are subject to verification by the designer. The product of C and C_{AF} can not exceed 1.0.

3.7.2 Rainfall Intensity (I)

Rainfall intensity for use in the Rational Method should be determined using the rainfall IDF curve in standard drawing **SS-S56** for the City of Kelowna. This curve was developed from the Atmospheric Environment Service recording station located at the Kelowna international Airport. To account for climate change, as noted in Section 3.1.3, **a 15 percent increase (15%)** will be applied to the intensity derived from the IDF curve. The duration is equal to the Time of Concentration (Tc), as calculated below.

Time of Concentration (Tc)

The time of concentration is the time required for runoff to route from the most remote part of the catchment area under consideration to the design outlet node. The time of concentration can be calculated using the following formula:

$$T_c = T_i + T_t$$

Where:

T_c = time of concentration (minutes)
T_i = inlet or overland flow time (minutes)
T_t = travel time in sewers, ditches, channels or watercourses (minutes).

Inlet or Overland Flow Time (Ti)

Typical inlet times for urban areas, assuming BMP's are not applied, are as follows:

a) Single Family Lot 10 minutes

b) Multi-Family Lot 8 minutes

c) Commercial/Industrial/Institutional 5 minutes

For relatively flat areas, the inlet time for larger areas can be calculated using the "Airport Method" as follows:

$$T_i = \frac{3.26\,(1.1 - C)\,L^{0.5}}{S^{0.33}}$$

Where:

T_i = inlet time (minutes)
C = runoff coefficient (See above)
L = travel distance (Maximum length = 300 m)
S = slope of travel path (%)

Travel Time

The travel time for routing in sewers, ditches, channels or watercourses can be estimated using the Modified Manning formula:

$$T_t = \frac{L\,n}{60\,R^{0.667}\,S^{0.5}}$$

Where:

T_t = travel time (minutes)
L = length of flow path (m)
n = Manning roughness coefficient:
0.050 Natural channels
0.030 Excavated ditches
0.013 Pipe and concrete lined channels.
R = Hydraulic radius = Area/Wetted Perimeter (m)
S = slope (m/m)

3.7.3 Design Summary Sheet

All design calculations are to be tabulated and shown on the design drawings, or in a report and summarized on design drawings.

3.8 Hydrograph Method

Analysis using the Hydrograph Method requires computer modeling capable of analyzing the hydrologic characteristics of the watershed and generating runoff hydrographs.

For City applications, SWMM based models are appropriate. The City of Kelowna must be consulted before selecting a more specialized software program.

3.8.1 Modelling Procedures

Modelling results are to be calibrated using observed historical rainfall and flow data from the

design watershed. Sensitivity of the model predictions to variations of key parameters should be tested and the findings used to develop a realistic and conservative model.

At a minimum, post-development hydrographs are to be generated at key points of the drainage system for a 5-year and 100 year design storm with durations of 1, 2, 6, 12, and 24 hours for each development condition. A different range of storm durations may be appropriate, subject to City approval. This will identify the critical storm event to be used in designing the system component. Note that the storm durations that generate the critical peak flow may be different from the durations that generate the critical storage volume.

Systems with a number of interconnected ponds or with restricted outlet flow capacity may require a more detailed analysis for sequential storm events or modelling with a continuous rainfall record.

Detailed designs should include hydraulic grade lines (HGLs) of the minor and major systems plotted on profiles of the minor system components and compared with MBE to demonstrate flood protection.

3.8.2 Submission of Modelling Results

Modelling results are to be submitted to the City in a report or drawing containing at least the following information:

a) Stormwater Control Plan as defined in Section 3.2,

b) Name and version of modelling program(s)

c) Parameters and simulation assumptions.

d) Design precipitation details.

e) Pre-development and post-development hydrographs.

3.9 Minor System Design

The minor system includes all drainage works that collect, convey, detain, divert and intercept design storm runoff. The minor design event must be the 5-year design storm.

3.9.1 Pipe and Channel Capacity

Use Manning's formula.

$$Q = \frac{A\,R^{0.667}\,S^{0.5}}{n}$$

Where:

A = Cross sectional area in m^2
R = Hydraulic radius (area/wetted perimeter) in m
S = Slope of hydraulic grade line in m/m
n = Roughness coefficient:
0.013 for all smooth pipes.
0.024 for corrugated pipes and culverts.

3.9.2 Flow Velocities

a) Pipes/Culvert Flow

i. Minimum design velocity for pipes flowing full or half full: 0.60 m/s.

ii. Where grades are greater than 10%, measures are required to prevent pipe erosion and movement such as control structures and/or tie-backs and anchor blocks.

iii. Where a storm sewer discharges into a watercourse, provide riprap bank protection and, if necessary, energy dissipation facilities. Avoid discharge perpendicular to stream flow.

b) Conveyance channels must be armoured and sized for a 1:100-year event. For riprap design chart see standard drawing **SS-S57**.

c) Road Ditches

i. Maximum road ditch velocity is 0.5 m/s without armouring.

ii. Ditch Inlets - Ditch inlets to storm sewers must include wing wall structures, safety grillage for large pipes (>600 mm diameter), debris screens and sedimentation basins.

3.9.3 Alignment

Except as indicated for Curved Sewers, horizontal and vertical alignments are to be straight lines between manholes.

3.9.4 Minimum Pipe Diameter

- Storm Sewers 250 mm
- Culverts crossing roads 450 mm
- Culverts crossing driveways 300 mm
- Catch Basin Leads 200 mm
- Double Catch Basin Leads 250 mm

Downstream pipe sizes are not to be reduced unless the downstream pipe is 600 mm diameter or larger and increased grade provides adequate capacity. Detailed hydraulic analysis is required. The maximum reduction is one standard pipe size.

3.9.5 Minimum Grade

Minimum grades of storm sewers are as required to obtain the minimum velocity of 0.6 m/s at design flow except for catch basin leads and service connections, for which minimum grades are as indicated in Section 3.9.12, Service Connections.

3.9.6 Curved Sewers

Where permitted by the City, horizontal and vertical curves may be formed using pipe joint deflections as follows:

a) The radius of the curve is to be no less than the recommended manufacturer's minimum radius of curvature at a constant radius.

b) Horizontal curves must be parallel to the centre line of road at a constant offset.

c) Only one horizontal curve is permitted between manholes, unless the mainline is installed and appropriately anchored outside the road on a steep hill slope requiring multiple vertical curves.

d) Where the pipe curve does not have a consistent offset from a road centre line, the offsets must be properly referenced on Record Drawings.

e) Subject to City Engineer approval, curved storm sewer systems larger than 600 mm diameter may include deflections formed by mitred bends to a maximum mitre of 45°.

3.9.7 Depth

The minimum depth of the sewer must be sufficient to provide all service connection piping with a minimum cover of 1.2m to the top of the service, anywhere within the finished right-of-way. In no instance shall the cover over the crown of the sewer main be less than 1.2m when installed in travelled areas. The depth of course can be reduced to 1.0m when installed outside of travelled areas.

a) The maximum depth of cover must be 4.5m, except under special circumstances and with permission of the City Engineer.

b) For catch basin leads, the minimum depth of cover is 0.90m.

3.9.8 Pipe Joints

All pipe joints are to be watertight.

3.9.9 Perforated Storm Pipe

a) The City will only consider the installation of perforated storm sewers and/or dry wells to discharge water back to the ground where soil conditions, slope and water table elevation are suitable. The perforated pipe system design must be designed to provide surcharge conditions.

b) Perforated pipes can only be installed in areas of the City described as "Possibly Suited" in the Groundwater Recharge Suitability Map in Standard Drawing **SS-S58** and confirmed by a hydro-geotechnical site investigation.

3.9.10 Manholes

a) Manholes are required at:

i. Every 150m or less.

ii. Every change of pipe size.

iii. Every change in grade, except on curvilinear pipe alignments.

iv. Every change in direction, except on curvilinear pipe alignments.

v. All terminal sections.

vi. Every sewer main intersection.

b) Placement of manholes in existing or future wheel paths must be avoided.

c) Manhole sizes must be in accordance with the Standard Drawings: Manhole connection details as per MMCD S3 & S4, or City of Kelowna supplemental standard drawing **SS-S1a**".

d) Hydraulics: Crown elevations of inlet sewers not lower than crown elevation of outlet sewer. When connecting a collector sewer main to a trunk sewer 300 mm or greater, the invert of the collector main must not connect lower than 0.75D (¾ of the pipe diameter).

e) Minimum drop in invert elevations across manholes:

i. Straight run: 10 mm drop

ii. Deflections up to 45 degrees: 25 mm drop

iii. Deflections 45 to 90 degrees: 50 mm drop

f) Drop manhole and ramp structures should be avoided where possible by steepening inlet sewers. Where necessary, provide drop structures as follows (table 3.9.10):

Table 3.9.10 Drop Structures

Invert Difference	Structure
Up to 0.45m	Inside Ramp
0.45 to 0.90 m	Outside Ramp
Greater than 0.90 m	Outside Drop*

*Inside drop may be used if specifically approved by the City Engineer.

g) Drop manholes and outside ramps must be installed in accordance with standard drawings.

h) Hydraulic losses are to be calculated for manholes with significant change of grade or alignment. For high velocity flows, particularly for pipes 600 mm or larger, detailed analysis is required using the Froude number, or utilizing appropriate computer models. The Manning's equation should not be relied on for pipe slopes above 10%. For low to moderate velocities and smaller pipes, use the following formula:

$$H_L = k\, v^2/2g$$

Where:

H_L = head loss (m)
v = flow velocity entering junction (m/s)
g = gravitational acceleration (9.81 m/s²)
k = head loss coefficient (1.0 for channeled 90° bends and tees, to 1.5 without channelized benching)

Where benching is used, the minimum drops listed above are applicable for velocities below 1 m/s. Where flows exceed 1 m/s, H_L should be specifically computed and used as the drop across the junction.

3.9.11 Catch Basins

a) Catch basins are required at regular intervals along roadways, at intersections and at low points to:
   i. Prevent overflows to driveways, boulevards, sidewalks and private property.
   ii. Avoid interference with crosswalks.
   iii. Avoid low points in curb returns at intersections.

b) Catch basin leads are minimum 200 mm diameter.

c) Minimum grade of a catch basin lead is 1%.
   i. Catch basin leads require a 0.9 m minimum cover. If 0.9 m is not available, design to protect from freezing and traffic loads; design calculations must be provided.

d) Spacing is to provide sufficient inlet capacity to collect the entire minor flow or major flow, where required, into the sewer system.

e) Local suppliers are required to provide rating curves for available catch basin grates. As a general rule, space catch basins to drain maximum impervious areas of:
   i. 500 m^2 on roads with grades up to 4%,
   ii. 400 m^2 on roads with grades greater than 4% at 100 m maximum.

f) Lawn basins are required on boulevards and private properties where necessary to prevent ponding or flooding of sidewalks, boulevards, driveways, buildings and yards.

g) Double or twinned catch basins must not be connected directly together, rather one basin will be wyed into the lead of the other. Maximum lead length to the mainline must be 30 meters and be minimum 250mm diameter. Each CB will have a trapping hood (standard drawing **SS-S54**).

h) Double or twinned catch basins are to be provided at all sag points or sump locations as a minimum. Inlet calculations are required where the major storm needs to be accommodated, such as downhill cul-de-sacs or where there is potential for excessive ponding or overflow onto private property.

i) Oversized grates and/or secondary emergency inlets must be considered where leaves and/or debris collection is anticipated.

3.9.12 Service Connections

Service connections to the City storm system are required for all multi-family, commercial, industrial and institutional land uses.

Single Family Residential service connections to the City Storm system are required in instances where site conditions do not provide for safe infiltration or dispersal of storm water on site. The safe use of infiltration is to be confirmed by a qualified Professional.

a) Service connection requirements:

i. The minimum storm service diameter for any property is 150mm.

ii. Inspection chambers (ICs) are required to be installed as per **SS-S7** and **SS-S9**. Where this is not possible, identify offset on the record drawings and service card. An IC is not required on residential connections where the service is less than 2.5 m long and connected directly into a manhole.

iii. Refer to Drawing **SS-S50** for all service connection requirements to a storm mainline.

iv. All storm services 200 mm and larger require a manhole either on the storm mainline or on the storm service at the property line. The service manhole must be offset from the property line a sufficient distance to ensure replacement will not impact private property.

v. Flow control manholes are to be installed on the private side of the property line as per Drawing **SS-S55**.

vi. Service connections are permitted into manholes as per Drawing **SS-S1a**.

vii. Depth to be minimum 1.2 m.

viii. Minimum grade from property line to storm sewer main is 2%.

ix. Wye fittings are preferred for service connections into proposed City storm sewers. Insertable tees are permitted into 250mm or larger existing mains.

b) Roof Leaders (drains):

i. Where permissible and not in Hillside Areas, roof water is expected to be contained on site as part of best management practices to meet requirements for pre-development storm rate. Acceptable best management practices include splash-pad onto green space, rain harvesting systems or appropriately sized rock pits where soil infiltration parameters permit.

ii. Roof leaders are not permitted to be directed to any infiltration device or soak away pit near to or part of an engineered retaining wall or reinforced earth structure.

iii. Roof leaders or inlets from downward sloping driveways in Hillside Areas must be connected to the City storm sewer.

c) Perimeters Drains

i. Perimeter drains for buildings are required as per the British Columbia Building Code.

ii. Discharge may be to the surface or a soak away pit.

iii. Foundation perimeter drains are not permitted to be directed to any infiltration

device or soak away pit that impacts an engineered retaining wall or reinforced earth structure.

iv. Foundation perimeter drains can be routed by gravity through a storm service to the storm sewer provided that:

- the elevation of the basement/crawlspace floor is at least 600 mm above the MBE (Section 3.6), or
- 600 mm above the anticipated or known high ground water table, or
- 600 mm above the 100 year hydraulic grade line within the sewer main at that point, whichever is higher.

v. Where a sump pump is required, a backflow prevention device must be installed as part of the mechanical configuration to prevent backflow into a basement from the City Storm sewer.

vi. As per Section 3.3.1, permanent groundwater pumping is not permitted to City storm sewers.

3.9.13 Perforated Sub-Drains

Perforated subsurface drainage systems designed for the purpose of permanent groundwater level reduction are not permitted to be connected to the City Storm sewer system.

3.9.14 Locations and Corridors

Wherever possible, storm sewers and service connections should be located within the public road right of way. Side or rear yard easements should be avoided where possible. Where it can't be avoided, statutory right-of-ways will be required for permanent City access.

3.10 Major System Design

The major drainage system includes all drainage pathways that convey, detain and/or intercept flows in excess of the capacity of the minor system. Its primary purpose is to provide flood protection for the 1:100 year return event. The major system generally includes surface flow paths such as ditches, swales, sewers, roadways, plus roadway culverts and watercourses.

3.10.1 Surface Flow Routing

All surface flows should have specially designed routes that are preserved and protected by right-of-ways and are accessible for maintenance. Design criteria include:

a) HGL is to be at least 600 mm below the MBE of adjacent buildings.

b) Maximum flow depth on roadways: 300 mm. Boulevards and intersecting driveway profiles will need to be set such that roadway surface flows are contained within the public right-of-way.

c) One lane, or a 3.5 m width at the crown of each roadway, is to be free from flooding.

d) Where a roadway is used as a major flow path, the road grades are to be designed to accommodate and control the flow at intersections.

e) Flood routing is not permitted on to private property except in engineered flow channels or sewers protected in a statutory right-of-way.

f) Overflow routes are required at all sags and low points in roadways and other surface flow routes.

g) Major flood routes are required to exit down-slope in cul-de-sacs with Statutory Rights of Way established.

3.10.2 Surface Flow Capacity

Flow capacity of road surfaces and swales can be calculated using the Manning formula, presented in Section 3.9.2, Time of Concentration. Typical values of the Manning Roughness Coefficient "n" are:

a) 0.018 for paved roadway

b) 0.03 for grassed boulevards and swales

c) 0.04 to 0.10 for irregular or treed channels.

Design detail is to include consideration of flow velocities and the potential requirement for erosion control measures. Ditches should be designed using a low n-value to determine velocity and provide the basis for stable channel design and a high n-value to determine ditch capacity and free board to prevent flooding or submergence of adjacent roadway subgrades.

3.10.3 Piped System

As noted in Section 3.2.1, the minor drainage system may be enlarged or supplemented to accommodate major flows in special circumstances. Modifications to the design criteria must be included in Stormwater Management Plan. Design considerations include:

a) Provision of adequate inlets to accommodate major flows. Capacity calculations are to be provided in the Stormwater Management Plan.

b) The requirement for surface overflow routes at potential surface ponding locations.

c) Flow depth and velocity.

d) Where applicable, design in accordance with minor drainage system guidelines.

3.10.4 Culverts and Bridges

The following service levels are to be used for design:

Road Class	Design Flood Frequency for Bridges and Culverts
Arterial and Collector	1:200 Year Flood
Local	1:100 Year Flood + provision for overflow if on major channel

The fishery value (aquatic classification) of the watercourse will establish the design requirements for the crossing. Particular designs will apply if fish passage is needed. Approvals are required under the BC Water Act and the Federal Fisheries Act, and may be required under the federal Navigable Waters Protection Act.

Culvert design is to be in accordance with the procedures outlined in an applicable design manual including but not limited to:

a) American Concrete Pipe Association - Concrete Pipe Design Manual

b) Corrugated Steel Pipe Institute - Handbook of Steel Drainage and Highway Construction Products.

c) Standards and Best Practices for In-stream Works - Culverts, Province of British Columbia and DFO.

Inlet and outlet protection is required for all major system culverts. Design considerations are to include inlet control and outlet control conditions, energy dissipation and erosion control measures.

The City requires all municipal channel culverts 500mm or greater to be constructed with headwalls, end-walls and safety grillage as per Standard Drawings.

3.10.5 Watercourses

Natural watercourses are integral components of both the major drainage system and the ecological system. Riparian areas are to be preserved and/or enhanced to sustain habitat for aquatic and other wildlife as well as convey storm runoff.

Increases in peak storm flows and volumes to major watercourses and receiving waters shall be minimized. Consideration must be given to fish bearing streams and to streams presently at capacity.

Designers must consider all federal, provincial and municipal laws, regulations and guidelines noted above, and must obtain comments and approvals from the appropriate agencies.

3.11 Runoff Controls

Runoff controls are required to meet the objectives indicated previously. The controls may include:

3.11.1 Detention Storage

Detention storage is used to capture and store water on site to assure that storm releases are limited to the pre-development release rate for a 1 in 5 year storm. Drainage Basin Plans are available upon request to the City Engineer.

As a guideline, detention storage is not required on any lands west of Richter Street between Bernard Avenue to the north and Wardlaw Avenue to the South unless approved by the City Engineer. Where peak flow rates or volumes are increased and will cause detrimental impacts, provisions for downstream improvements must be provided in order to mitigate the impacts.

Detention storage options and design guidelines include the following:

3.11.2 Parking Lot Storage

a) Requires detailed lot grading design to ensure proper drainage, pedestrian safety and convenience, and major flow paths .

b) Maximum ponding depth: 300 mm outside vehicle stalls, 150 mm within vehicle stalls, however, also with consideration to frequency of ponding and impact to users of the parking lot.

3.11.3 Underground Storage

a) Facilities include tanks and oversized pipes, with outlet controls.

b) Tanks, fencing and graded slopes to be constructed off-line and on-site.

c) Cross sections and inlet and outlet locations should be designed to minimize maintenance requirements.

d) Structural design to accommodate traffic loads and groundwater pressure.

e) Maintenance access provisions required.

3.11.4 Dry Detention Ponds

a) Intended to provide storage only during severe storm events.

b) May be on-line or off-line, although off-line is preferred. Fencing and graded slopes required.

c) May accommodate active recreational uses.

d) Overflow elevations to be coordinated with MBEs.

e) Emergency overflow spillway to be constructed for 1:100yr storm event.

f) Design details, other than discharge rates should be in accordance with current technologies as outlined in Land Development Guidelines for Protection of Aquatic Habitat (Canada/BC).

g) Provide warning signage indicating facility is a stormwater detention structure subject to flooding or rapid water level changes. Signs to be posted at all public access points or road frontages.

3.11.5 Wet Detention Ponds

a) Intention is to provide on-line detention storage and maintain a permanent minimum water levels.

b) Catchment area must be large enough to provide sufficient base flow to ensure wet storage and is sustained without becoming stagnant (based on local hydrologic characteristics).

c) Generally located off-site, and must include fencing and graded slopes on-site.

d) Can provide a public amenity within a passive park.

e) Overflow elevations to be coordinated with MBEs.

f) Design details, other than discharge rates, should be in accordance with current

technologies as outlined in Land Development Guidelines for the Protection of Aquatic Habitat (Canada/BC), and related documents.

g) Provide warning signage indicating facility is a stormwater detention structure subject to flooding or rapid water level changes. Signs to be posted at all public access points or road frontages.

3.11.6 Subsurface Disposal / Infiltration Systems

a) These systems are intended to promote stormwater retention and groundwater recharge.

b) Suitable for high permeability soils with low groundwater elevation. Geotechnical investigation is required.

c) Design details should be in accordance with current technologies as outlined in Infiltration systems guidelines in land Development Guidelines for the Protection of Aquatic habitat (Canada/BC), and related documents.

d) Stormwater infiltration basins planned for Hillside Areas must be designed by a qualified Professional with experience in hydrogeology. The design must be reviewed and confirmed by the City Engineer. See Section 3.1.4.

3.12 Outlet Controls

Outlet controls for storage facilities may be designed using the standard orifice and weir equations:

Orifice Equation:

$$Q = C\ A\ (2\ g\ h)^{0.5}$$

Where:

Q = release rate (m^3/s)
C = orifice coefficient (0.62 for sharp or square edge, 0.85 for rounded edge)
A = area of orifice (m^2)
g = gravitational acceleration (9.81 m/s^2)
h = net head on orifice (m)

Weir Equation:

$$Q = CLH^{1.5}$$

Where:

Q = release rate (m^3/s)
C = weir coefficient
L = effective length of weir crest (m)
H = net head on weir crest (m)

Larger storage facilities are to include provisions for discharges at rates greater than the design release rate (i.e., major storm event and emergency conditions). Rapid drawdown of the water

level may be necessary for emergency purposes or to restore the available storage to accommodate subsequent storm events. Simple reducers are permitted on smaller facilities.

Orifices shall be fixed and designed to pre-development outflow rate. Adjustable mechanisms such as slide gates or removable orifice plates are not permitted unless approved by the City Engineer.

Design of inlet and outlet structures is to include consideration of energy dissipation and erosion control. Safety grates are required over all inlet and outlet openings larger than 500 mm diameter. Locks for access hatches are required.

The following is an introductory list of some runoff controls focused on water quality treatment.

a) Bio-filtration Swales and Constructed Wetlands

b) Intended to provide bio-filtration and sediment removal.

c) May be designed to provide on-line detention storage as well as quality treatment.

d) May be located on-site or off-site.

e) Qualified professional required for design.

f) Design requires consideration of climatic conditions.

3.12.1 Oil and Grit Separators

Oil and Grit Separators are required:

a) On site with parking for 50 or more vehicles (does not apply to parkades).

b) On all industrial zoned properties, unless it can be proven that there is no risk of storm water contamination.

c) Supplier design details are required.

Design criteria for Oil and Grit Separators must include:

a) Devices must have a current Canadian Environmental Technology Verification (ETV) or ISO 14034 ETV verification.

b) A target Total Suspended Solids removal of 60% of the ETV Particle Size Distribution.

c) Performance predictions for all proposed units.

d) A maintenance plan and commitment from all Owners. This will be included in the business license renewal.

e) A location on-site, including a Statutory Right of Way or covenant on title should the City need to inspect the unit.

3.12.2 Oil/Water Separators

a) Required for gas stations, vehicle service areas and storage areas for highway vehicles and construction equipment.

b) Design details in accordance with current technologies as outlined in Urban Runoff Quality Control Guidelines for British Columbia.

3.13 Drainage Pump Stations

Drainage pump stations are not commonly used in the City. Where drainage pumping is required, the designer must review the design concept and proposed guidelines with the City, submit a pre-design report and obtain approval of the City before proceeding with design. At a minimum, the pre-design report should include the following:

a) Delineated catchment area map

b) Estimated flows and HGL

c) Pump station location

d) Connection to existing infrastructure.

3.14 Erosion and Sediment Control (ESC)

All construction projects in the City require an Erosion and Sediment Control (ESC) Plan approved by the City. Storm water runoff from construction sites commonly contains significantly higher contaminant concentrations than storm water from developed sites. Poor construction practices and lack of attention to detail are contributors to sediment transport, in turn impacting both downstream infrastructure, aquatic habitats and Okanagan Lake.

Erosion and Sediment Control will be managed as a separate process with a cost identified as a separate line item in the development planning process

The following policies will be administered:

a) No Person may cause, or permit another Person to cause, sediment or sediment-laden water to discharge into the storm system, with concentrations greater than 75 milligrams per litre (ppm) of total suspended solids (TSS). A sample measuring greater than 60 nephelometric turbidity units (NTU) will be the trigger point where the sample must also be sent to the lab for analysis.

b) A Security Deposit for ESC Works equal to 3% of the Consulting Engineer's opinion of probable costs of civil earthworks and infrastructure will be added to the Servicing Agreement.

   i. The Security Deposit submitted is to secure the full and proper compliance with the provisions of the By-law. In the event, that the Owner, Developer, or Person Responsible has not complied with the provisions of this By-law, the necessary funds from the security deposit may be drawn down, at the City's option, and the money used either by the City or its agents to protect the storm system from sediment or sediment-laden water in adherence with the terms and conditions of this By-law. Notwithstanding, the City is under no obligation to initiate or complete remedial works in or under the Land.

   ii. If the amount of the security deposit is insufficient for the City to complete the ESC Facilities, the Owner and Developer jointly and severally will pay any deficiency to the City on demand.

c) The Owner must retain a Qualified Professional (P.Eng, RPBio, P.Ag, AScT, CPESC, CISEC or CESCL) responsible for inspecting and monitoring the ESC Facilities weekly and after any rain event which exceeds the intensity of 25mm of total rainfall depth in a 24-hour period. All records and data must be made available to the City upon request. Should a site be determined

to be non-compliant, the Professional will be responsible for submitting notification and presenting a remediation plan to the City within two days of the event.

d) The ESC will include a construction plan and site management plan ESC features must be installed before any clearing, excavation, or soils mobilization takes place.

e) The fundamental approaches to effective ESC include:

i. reduce clearing and grading and preserve natural vegetation as much as possible;

ii. phase construction to limit soil exposure at any one time, particularly in wet seasons;

iii. stabilize exposed soils as quickly as possible, whether temporary or permanent;

iv. protect slopes and cuts;

v. prepare the site to limit soil tracked off-site by haul vehicles;

vi. sweep off-site streets when dirt is tracked;

vii. filter runoff water before it leaves the site;

viii. install filters or barriers to protect downstream drains and inlets;

ix. adjust ESC plan to suit changing weather and construction phasing;

x. assess ESC practices after rain event; and

xi. maintain the works throughout construction.

Ideally, practices and features are put in place to prevent erosion from occurring in the first place, but realistically some degree of erosion and sediment transport will occur. When it does, other practices and features are to intercept and capture the sediment before reaching vulnerable areas. As such, the following sub-sections introduce ESC practices in two core categories; erosion control and sediment control.

3.14.1 Erosion Control

Rainfall and wind can aggressively displace and transport soil, although rainfall tends to be the more damaging in BC climates. The soil composition has a significant bearing on its erosion potential. The first line of defense is to either maintain or provide protective cover to the soil. Ideally, natural vegetative cover is maintained for areas that do not need to be disturbed. Where soils do need to be exposed or stockpiled, temporary covers should be applied when rainfall events are imminent.

For exposed site areas, straw mulch is the most common form and can be effective with low cost. However, it is commonly not applied thick enough or replenished frequently enough. It is important that a uniform blanket be provided and refreshed as the straw decays or is displaced. For the most part, bare soil should not be visible.

For steeper slopes, or for areas exposed and inactive for considerable time, manufactured erosion control blankets may be most appropriate. There are many products available and local suppliers should be consulted for the selection of the appropriate one. While they have a higher purchase cost, with proper selection and installation they will provide longer and more effective service with far less maintenance than straw mulch.

For soil stockpiles, poly tarps should be applied when the stockpile is inactive, including short overnight periods if there is any threat of precipitation. If inactive for considerable time, other measures such as temporary seeding, mulching, or matting may be considered.

Once disturbance to an area is complete, permanent cover practices should be established as soon as possible. Top dressing the area with topsoil having high organic content in itself can be a significant benefit; a minimum of 100 mm should be applied for purposes of erosion control. Greater depth is often required to meet landscape growing medium and hydrologic management needs. Sodding, broadcast seeding, hydro-seeding, and drill seeding are acceptable methods to re-establish a blanket of vegetative.

Aside from maintaining good quality ground cover, there are a number of other techniques that can be applied as erosion control, including the following, but not necessarily limited to those below. They should be selected based upon the specific conditions and requirements of the site.

Construction of stable haul roads for transport vehicles coming and going from the site is required.

At a minimum, haul roads include 200 mm of a coarse granular running surface, but strong consideration for underlying filter fabric, and potentially geogrid reinforcing in weak soils, should be given;

a) Intercept trenches on the upstream edges of the working area to redirect runoff;

b) Terracing steeper slopes;

c) Scarifying the soil surface;

d) Bio-engineered protection of very steep slopes;

e) Rip-rap with appropriate underlying filter.

3.14.2 Sediment Control

Silt fences can be an effective barrier to contain soil, but are not an effective filter of sediment laden runoff. Their permeability is insufficient to allow water to pass through, and therefore more commonly act as a dam which is then often undermined or circumvented by the flow of water. When used appropriately as a soil containment barrier, they must be sufficiently installed and maintained. Design criteria include: stakes should be > 7.5cm in diameter and > 1.5m long and driven > 40cm into the ground; stakes should be < 2.4m apart unless wire backing is used; and bottom should be buried in a trench > 20cm.

a) Storm drains and catch basins potentially receiving site runoff are to be protected with filters.

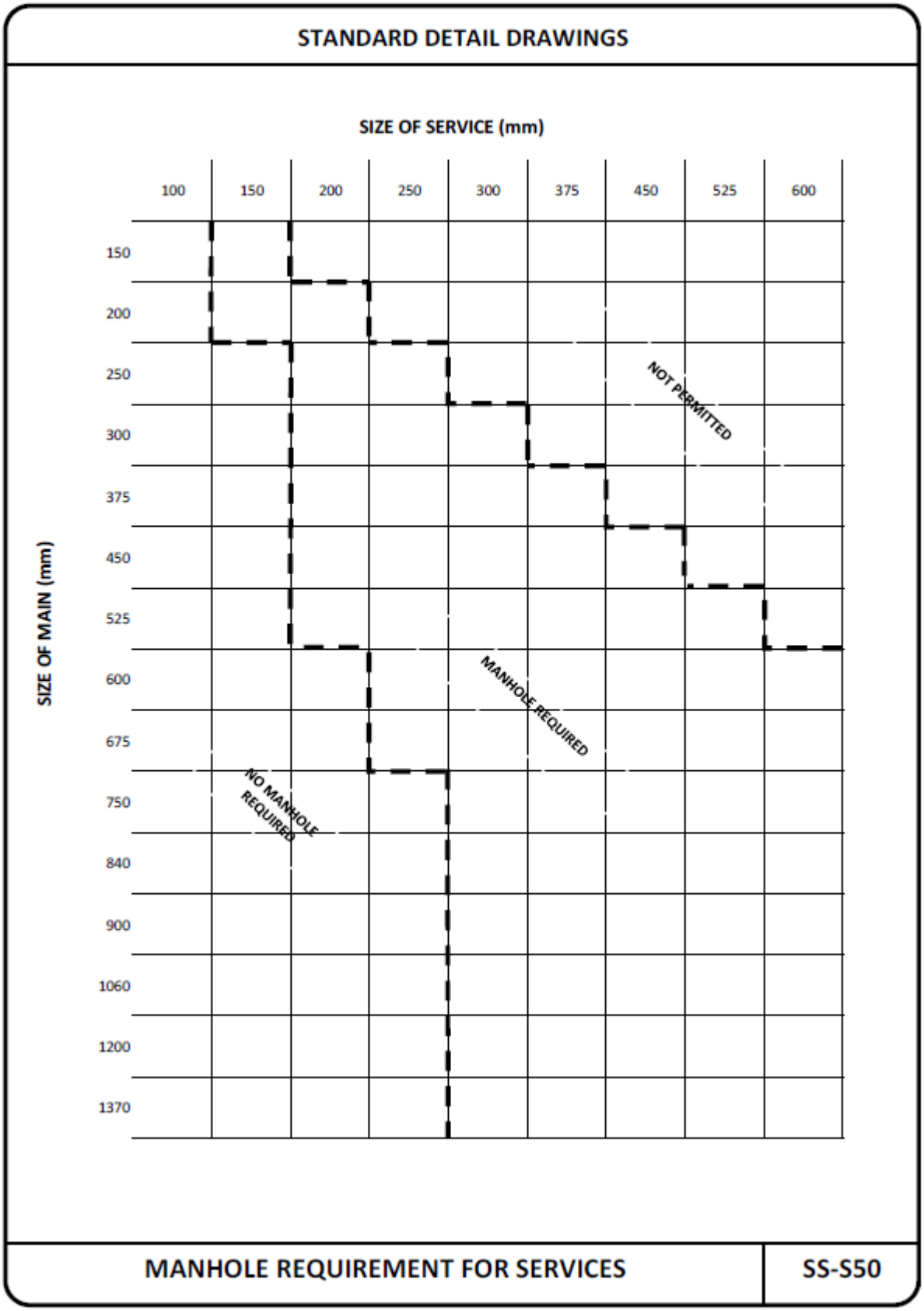
b) Straw bales and gravel berms are to be used within flow paths to slow water and promote trapping of coarse sediment. Note that these are less effective for fine sediment.

c) Dust control is required at all times.

d) Soil transport from vehicles coming and going from the site must be controlled. Where a wheel wash facility is constructed, wash water must be appropriately contained and treated prior to release off-site.

e) Sediment ponds (or basins) are generally applied to larger construction sites (> 2 hectares) to settle suspended sediments larger than 0.02mm. The outlet should consist of a perforated riser pipe with a gravel jacket. Internal gravel baffles are to be installed to create individual cells to reduce velocities and prevent short circuiting of flow to the outlet. As a design guideline, ponds should be sized to accommodate 125 m^3/ha of site area. Of this volume, at least 20% should be dedicated to a forebay. The remainder, as a permanent pool, should measure 1.3-1.8m in average depth, and not exceed 2.4m.

f) Sediment traps are similar to sediment ponds, but designed for small sites. Generally fed by swales, these facilities are located on the low-side of the site to receive site runoff water and allow settling of solids before discharge off-site.


STANDARD DETAIL DRAWINGS
SIZE OF SERVICE (mm)
100
150
200
250
300
375
450
525
600
SIZE OF MAIN (mm)
150
200
250
300
375
450
525
600
675
750
840
900
1060
1200
1370
NOT PERMITTED
MANHOLE REQUIRED
NO MANHOLE REQUIRED
MANHOLE REQUIREMENT FOR SERVICES
SS-S50

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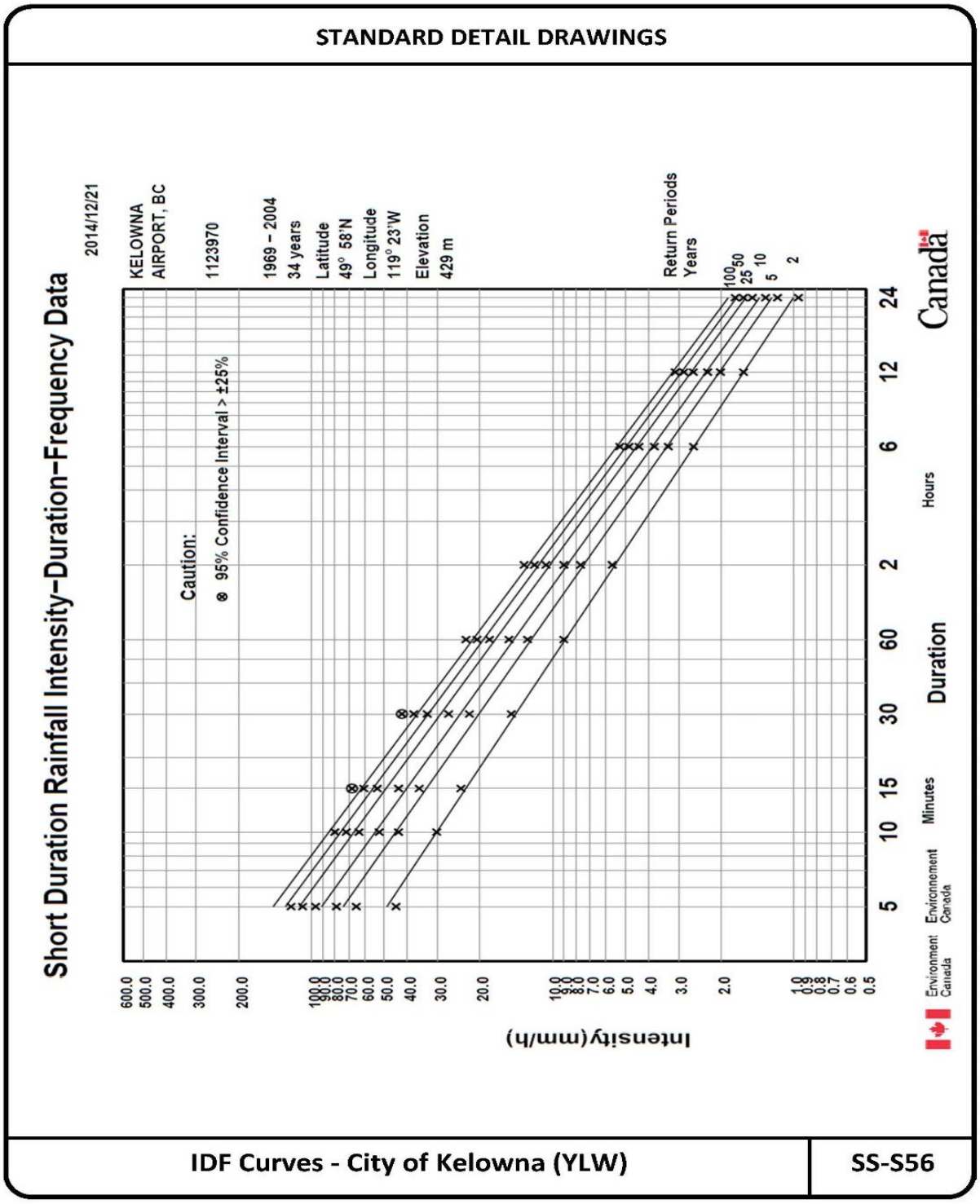
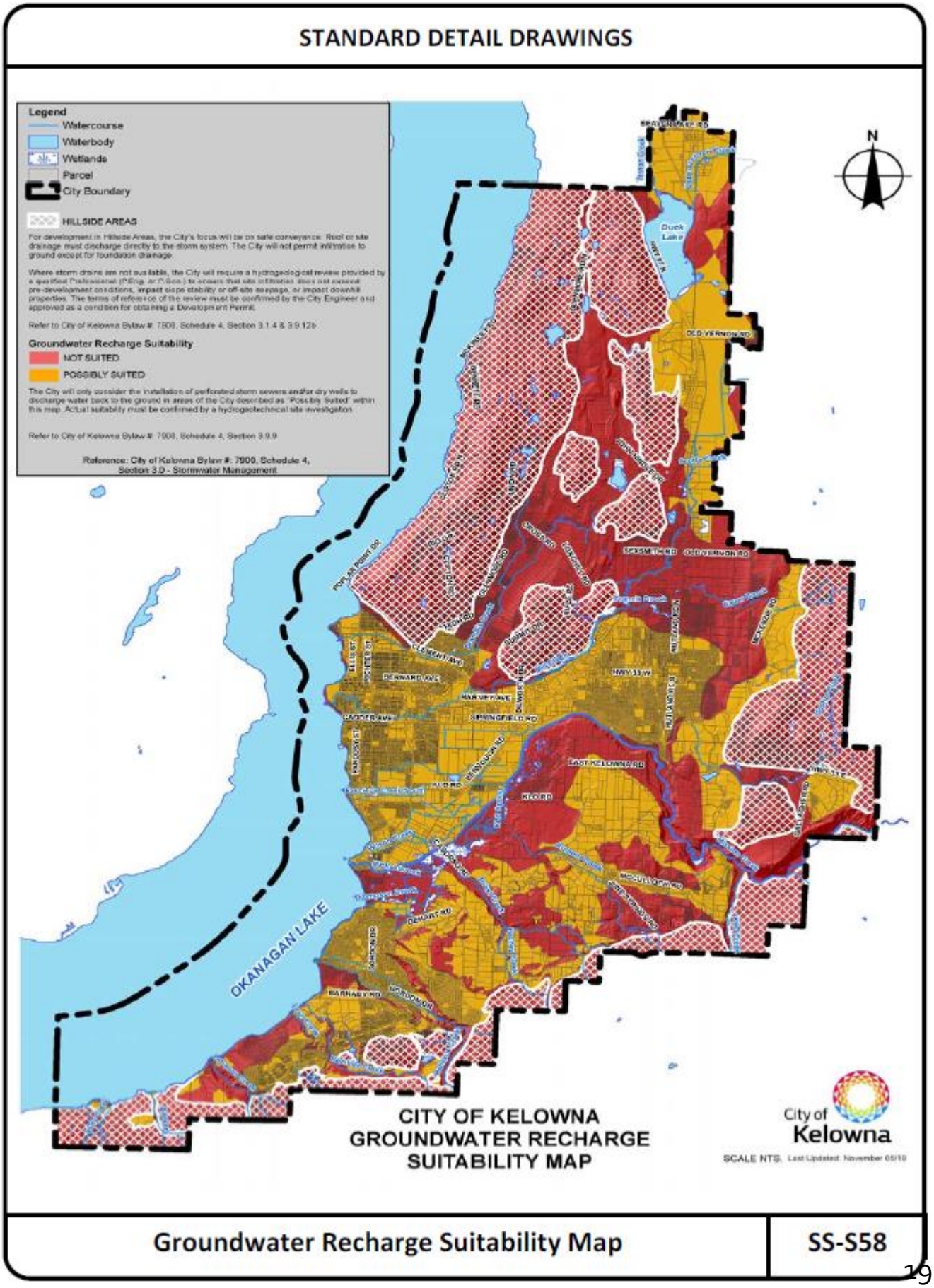

STANDARD DETAIL DRAWINGS
Short Duration Rainfall Intensity–Duration–Frequency Data
2014/12/21
KELOWNA AIRPORT, BC
1123970
1969 – 2004
34 years
Latitude 49° 58'N
Longitude 119° 23'W
Elevation 429 m
Caution:
⊗ 95% Confidence Interval > ±25%
Return Periods Years
100 50 25 10 5 2
Intensity (mm/h)
Duration
Minutes
Hours
Environment Canada
Canada
IDF Curves - City of Kelowna (YLW)
SS-S56

STANDARD DETAIL DRAWINGS



Groundwater Recharge Suitability Map	SS-S58