

# City of Kelowna

## Regular Council Meeting

### AGENDA



Monday, February 26, 2018

1:30 pm

Council Chamber

City Hall, 1435 Water Street

Pages

**1. Call to Order**

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

**2. Confirmation of Minutes**

4 - 13

PM Meeting - February 19, 2018

**3. Development Application Reports & Related Bylaws**

**3.1 Pandosy St 2565 and 2579, Z17-0113 - 1018545 BC Ltd**

14 - 30

To rezone the subject properties to facilitate the development of multiple dwelling housing.

**3.2 Pandosy St 2565 and 2579, Z17-0113 (BL11562) - 1018545 BC Ltd**

31 - 31

To give Bylaw No. 11562 first reading in order to rezone the subject properties from the RU6 - Two Dwelling Housing zone to the RM3 - Low Density Multiple housing zone.

**3.3 Clement Ave 573-603, OCP17-0028 and Z17-0103 - Greenpoint Landscaping Ltd and Okanagan Opportunity GP Inc**

32 - 43

To amend the Official Community Plan to change the future land use designation of the subject properties from MRM – Multiple Unit Residential (Medium Density) to MRH – Multiple Unit Residential (High Density) and to rezone the subject properties from RU2 – Medium Lot Housing to RM6 – High Rise Apartment Housing to facilitate the construction of an apartment building.

3.4	<b>573, 577, 581, 589, 599 &amp; 603 Clement Ave, OCP17-0028 (BL11563) - Greenpoint Landscaping Ltd and Okanagan Opportunity GP Inc.</b>	44 - 44
	<b>Requires a majority of all Council (5).</b>	
	To give Bylaw No. 11563 first reading in order to rezone the subject properties from the MRM - Multiple Unit Residential (Medium Density) designation to the MRH - Multiple Unit Residential (High Density) designation.	
3.5	<b>573, 577, 581, 589, 599 &amp; 603 Clement Ave, Z17-0103 (BL11564) - Greenpoint Landscaping Ltd &amp; Okanagan Opportunity GP Inc.</b>	45 - 45
	To give Bylaw No. 11564 first reading in order to rezone the subject properties from the RU2 - Medium Housing zone to the RM6 - High Rise Apartment Housing zone.	
4.	<b>Bylaws for Adoption (Development Related)</b>	
4.1	<b>Sarsons Rd 434, Z17-0020 (BL11410) - James Northrop</b>	46 - 46
	To adopt Bylaw No. 11410 in order to rezone the subject property from the RU1 - Large Lot Housing zone to the RU2 - Medium Lot Housing zone.	
5.	<b>Non-Development Reports &amp; Related Bylaws</b>	
5.1	<b>Kelowna Bylaw Services Update to Council</b>	47 - 66
	To provide Council with an overarching update of the Kelowna Bylaw Services Department including historical roles and responsibilities, present activities and future strategies in alignment with Mayor and Council's vision and priorities of public safety, addressing homelessness, strong financial management and fostering vibrant urban centres.	
5.2	<b>Amendment to Solid Waste Management Bylaw No. 10106</b>	67 - 77
	To seek Council's approval to amend the Solid Waste Management Regulation Bylaw to help further reduce compost inventory, establish new wholesale customers, and to amend the fee schedule for collection carts.	
5.3	<b>BL11548 - Amendment No. 10 to Solid Waste Management Bylaw No. 10106</b>	78 - 79
	To give Bylaw No. 11548 first, second and third readings in order to amend the Solid Waste Management Bylaw No. 10106.	
5.4	<b>Results of Strategic Review - Biosolids Management and the related Community Engagement Process</b>	80 - 145
	To inform Council on the status of long term planning for biosolids management, the results of the community engagement process on biosolids management and next steps.	



<b>5.5</b>	<b>Okanagan Basin Water Board Grant Application</b>	<b>146 - 149</b>
	To consider staff's recommendation to apply for two 2018-2019 OBWB Water Protection, Conservation and Supply Grants.	
<b>5.6</b>	<b>City of Kelowna Heritage Grants Program</b>	<b>150 - 163</b>
	To consider executing a Grant Agreement with the Central Okanagan Heritage Society to administer and adjudicate the 2018 Heritage Grant Program on behalf of the City of Kelowna.	
<b>5.7</b>	<b>Okanagan Metis &amp; Aboriginal Housing Society - Rental Housing Grant Extension</b>	<b>164 - 169</b>
	To consider the extension of a 2016 rental housing grant for the Okanagan Metis and Aboriginal Housing Society for an affordable rental project at 1170 Highway 33 West due to delays associated with Ministry of Transportation and Infrastructure approvals.	
<b>5.8</b>	<b>handyDART Transit Fare Equalization</b>	<b>170 - 172</b>
	To harmonize handyDART fares with conventional transit service fares.	
<b>5.9</b>	<b>Highway 97 Six Laning – Funding Agreement</b>	<b>173 - 204</b>
	To enter into a funding agreement with the Province of BC for the delivery of City infrastructure works as part of the Ministry of Transportation and Infrastructure road improvement project on Highway 97 between Highway 33 and Edwards Road.	
<b>6.</b>	<b>Bylaws for Adoption (Non-Development Related)</b>	
<b>6.1</b>	<b>BL11275 - Establishment and Loan Authorization Bylaw for Aspen Road</b>	<b>205 - 208</b>
	To adopt Bylaw No. 11275 in order to establish a Local Area Service and Loan Authorization bylaw for Aspen Road.	
<b>6.2</b>	<b>BL11498 - Amendment No. 3 to Development Cost Charge Bylaw No. 10515</b>	<b>209 - 215</b>
	To adopt Bylaw No. 11498 in order to amend the Development Cost Charge Bylaw No. 10515.	
<b>7.</b>	<b>Mayor and Councillor Items</b>	
<b>8.</b>	<b>Termination</b>	



## City of Kelowna Regular Council Meeting Minutes

Date:	Monday, February 19, 2018
Location:	Council Chamber City Hall, 1435 Water Street
Members Present	Mayor Colin Basran, Councillors Maxine DeHart, Ryan Donn, Tracy Gray, Gail Given, Charlie Hodge, Brad Sieben, Mohini Singh and Luke Stack
Members Absent	Councillor Tracy Gray
Staff Present	Deputy City Manager, Joe Creron; City Clerk, Stephen Fleming, Long Range Policy Planning Manager, James Moore*; Planner, Melanie Steppuhn*; Divisional Director, Corporate & Protective Services, Rob Mayne*; Urban Planning Manager, Terry Barton*; Planner Specialist, Adam Cseke*; Planner, Trisa Atwood*; Planner, Emily Williamson*; Divisional Director, Community Planning & Strategic Investments, Doug Gilchrist*; Divisional Director, Infrastructure, Alan Newcombe*; Transit & Programs Manager, Ian Wilson*; Director Strategic Investments, Derek Edstrom*; Property Management Manager, Mike Olson*; Parks & Buildings Planning Manager, Robert Parlane*; Park & Landscape Planner, Lindsay Clement*; Community & Neighbourhood Services Manager, Mariko Siggers*; Divisional Director, Divisional Director, Active Living & Culture, Jim Gabriel*; Financial Planning Manager, George King*; Legislative Coordinator (Confidential), Arlene McClelland
Guests	Superintendent Brent Mundle*, Tracey Read*, Chair of the Heritage Grant Program Committee, Heritage Grant Program Manager, Lorri Dauncey*; Central Okanagan Heritage Society Board Member, Peter Chataway*

(\* Denotes partial attendance)

### 1. Call to Order

Mayor Basran called the meeting to order at 1:33 p.m.

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

### 2. Confirmation of Minutes

Moved By Councillor Hodge/Seconded By Councillor Donn

**R153/18/02/19** THAT the Minutes of the Regular Meetings of February 5, 2018 be confirmed as circulated.

Carried

### 3. Public in Attendance

#### 3.1 RCMP Quarterly Update - Quarterly Update Review, 2017

Superintendent Brent Mundle:

- Displayed a PowerPoint Presentation summarizing the previous quarter activities, goals and progress.
- Responded to questions from Council.

Moved By Councillor Stack/Seconded By Councillor Sieben

**R154/18/02/19** THAT Council receive the RCMP Quarterly Update 2017: October – December report from the Superintendent, Kelowna RCMP Detachment and the Divisional Director of Corporate and Protective Services dated February 19, 2018.

Carried

#### 3.2 Central Okanagan Heritage Society

Staff:

- Introduced the presentation and Tracey Read, Chair of the Heritage Grant Program Committee.

Tracey Read, Chair of City of Kelowna Heritage Grants Program Committee; Lorri Dauncey, Grants Program Manager and Heritage Board Member, Peter Chataway

- Displayed a PowerPoint Presentation summarizing the 2017 Heritage Grants Program and responded to questions from Council.

Moved By Councillor Sieben/Seconded By Councillor Singh

**R155/18/02/19** THAT Council receives, for information, the year-end report from the Central Okanagan Heritage Society as attached to the report dated February 19, 2018, with respect to the City of Kelowna Heritage Grants Program in 2017.

Carried

### 4. Development Application Reports & Related Bylaws

#### 4.1 Tower Ranch Drive OCP17-0002 and Z17-0007 - Parkbridge Lifestyle Communities Inc.

Staff:

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

Moved By Councillor Given/Seconded By Councillor Hodge

**R156/18/02/19** THAT Official Community Plan Map Amendment Application No. OCP17-0002 to amend Map 4.1 in the Kelowna 2030 – Official Community Plan Bylaw No. 10500 by changing the Future Land Use designation of *the properties as outlined in Schedule A, located as outlined in Schedule A*, from the future land use designations identified in the OCP for the property from Single / Two Unit Residential – Hillside (S2RESH) to Single / Two Unit Residential (S2RES); from



Single / Two Unit Residential – Hillside (S2RESH) to Major Park / Open Space (public) (PARK); from Single / Two Unit Residential (S2RES) to Major Park / Open Space (public) (PARK); from Multiple Unit Residential (Low Density) (MRL) to Single / Two Unit Residential (S2RES); and from Single / Two Unit Residential – Hillside (S2RESH) to Multiple Unit Residential (Low Density) (MRL) as shown on Map "A" attached to the Report from the Community Planning Department dated February 19, 2018, be considered by Council;

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

AND THAT Council considers the public process to be appropriate consultation for the *Purpose* of Section 879 of the *Local Government Act*, as outlined in the Report from the Community Planning Department dated February 19, 2018;

THAT Rezoning Application No. Z17-0007 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of *the properties as outlined in Schedule A, located as outlined in Schedule A*, from RU5 – Bareland Strata Housing to P3 – Parks and Open Space; from P3 Parks and Open Space to RU5 – Bareland Strata Housing; from RM2 – Low Density Row Housing to RU5 – Bareland Strata Housing; from RM2 – Low Density Row Housing to RM2h – Low Density Row Housing (Hillside); from RU5 – Bareland Strata Housing to RM2h – Low Density Row Housing (Hillside) as shown on Map "B" attached to the Report from the Community Planning Department dated February 19, 2018, be considered by Council;

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

**Carried**

#### **4.2 Tower Ranch Drive OCP17-0002 (BL11488) - Parkbridge Lifestyle Communities Inc.**

Moved By Councillor Donn/Seconded By Councillor Hodge

**R157/18/02/19** THAT Bylaw No. 11488 be read a first time;

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

**Carried**

#### **4.3 Tower Ranch Drive Z17-0007 (BL11489) - Parkbridge Lifestyle Communities**

Moved By Councillor Donn/Seconded By Councillor Hodge

**R158/18/02/19** THAT Bylaw No. 11489 be read a first time.

**Carried**

#### **4.4 Richter St 1304 & 1308, Z17-0104 - Stewart and Danielle Turcotte and Pyper Geddes**

Staff:

- Displayed a PowerPoint Presentation summarizing the application.

Moved By Councillor Stack/Seconded By Councillor Singh

**R159/18/02/19** THAT Rezoning Application No. Z17-0104 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 34 District Lot 139 ODYD Plan 2085 and Lot 35 District Lot 139 ODYD Plan 2085, located at 1308 and 1304 Richter St, Kelowna, BC

from the RU6 – Two Dwelling Housing zone to the RM5 – Medium Density Multiple Housing 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 Schedule "A" attached to the Report from the Community Planning Department dated February 19, 2018;

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

Carried

**4.5 Richter St 1304 & 1308, Z17-0104 (BL11553) - Stewart and Danielle Turcotte and Pyper Geddes**

Moved By Councillor Donn/Seconded By Councillor Hodge

R160/18/02/19 THAT Bylaw No. 11553 be read a first time.

Carried

Mayor Basran advised that Items 4.6 and 4.7 have been withdrawn from the Agenda by staff and the Applicant and will be re-submitted.

- 4.6 Mugford Rd 135, HD15-0001 - Okanagan Buddhist Cultural Centre**
- 4.7 Mugford Rd 135, HD15-0001 (BL11555) - Okanagan Buddhist Cultural Centre**
- 4.8 Neptune Rd 1235 & 1260, OCP17-0014 & Z17-0053 - Davara Holdings Ltd Inc.**

Staff:

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

Moved By Councillor Hodge/Seconded By Councillor Given

R161/18/02/19 THAT Official Community Plan Map Amendment Application No. OCP17-0014 to amend Map 4.1 in the Kelowna 2030 – Official Community Plan Bylaw No. 10500 by changing the Future Land Use designation of Lot 2, Sec 14, Twp 26, ODYD, Plan 27837, located at 1265 Neptune Rd, Kelowna, BC from the EDINST – Educational/Major Institutional designation to the S2RES – Single/Two Unit Residential designation, be considered by Council;

AND THAT Rezoning Application No. Z17-0053 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 2, Sec 14, Twp 26, ODYD, Plan 27837, located at 1260 Neptune Rd, Kelowna, BC; from the P2 – Educational & Minor Institutional zone to the RU4 – Low Density Cluster Housing zone;

AND THAT Rezoning Application No. Z17-0053 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 3, Sec 14, Twp 26, ODYD, Plan 27837, located at 1235 Neptune Rd, Kelowna, BC; from the RU1 – Large Lot Housing zone to the RU4 – Low Density Cluster Housing zone;

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



AND THAT final adoption of the Official Community Plan Map Amending Bylaw and Rezoning Bylaw be considered subsequent to the issuance of an Environmental Development Permit on the subject properties;

AND THAT final adoption of the Official Community Plan Map Amending Bylaw and Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule "A" attached to the Report from the Community Planning Department dated February 19, 2018;

AND FURTHER that final adoption of the Official Community Plan Map Amending Bylaw and Rezoning Bylaw be considered in conjunction with a Development Permit for the subject properties.

Carried

**4.9 Neptune Rd 1235 & 1260, OCP17-0014 (BL11558) - Davara Holdings Ltd**

Moved By Councillor Donn/Seconded By Councillor Hodge

R162/18/02/19 THAT Bylaw No. 11558 be read a first time;

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

Carried

**4.10 Neptune Rd 1235 & 1260, Z17-0053 (BL11559) - Davara Holdings Ltd**

Moved By Councillor Donn/Seconded By Councillor Hodge

R163/18/02/19 THAT Bylaw No. 11559 be read a first time.

Carried

**4.11 Terai Ct 265, Z17-0111 - Marty and Denise Hoglin**

Staff:

- Displayed a PowerPoint Presentation summarizing the application.

Moved By Councillor Sieben/Seconded By Councillor Donn

R164/18/02/19 THAT Rezoning Application No. Z17-0111 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 11 Section 22 Township 26 Osoyoos Division Yale District Plan 28699, located at 265 Terai Court, Kelowna, BC from the RU1 – Large Lot Housing zone to the RU1c – Large Lot Housing with Carriage House zone, be considered by Council;

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

AND THAT final adoption of the Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule "A" attached to the Report from the Community Planning Department dated February 19, 2018.

Carried

**4.12 Terai Ct 265, Z17-0111 (BL11560) - Marty and Denise Hoglin**

Moved By Councillor Donn/Seconded By Councillor Hodge

R165/18/02/19 THAT Bylaw No. 11560 be read a first time.

Carried

**4.13 Mayfair Rd 935, Z17-0076 - Singla Bros Holdings Ltd, South Okanagan Construction Ltd**

Staff:

- Displayed a PowerPoint Presentation summarizing the application.

Moved By Councillor Singh/Seconded By Councillor DeHart

R166/18/02/19 THAT Rezoning Application No. Z17-0076 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of Lot 6 District Lot 143 ODYD Plan 22014, located at 935 Mayfair Road, Kelowna, BC from the RU1 – Large Lot Housing zone to the RU6 – Two Dwelling Housing 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 Schedule "A" attached to the Report from the Community Planning Department dated August 31, 2017;

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

Carried

**4.14 Mayfair Rd 935, Z17-0076 (BL11561) - Singla Bros Holdings Ltd, South Okanagan Construction**

Moved By Councillor DeHart/Seconded By Councillor Stack

R167/18/02/19 THAT Bylaw No. 11560 be read a first time.

Carried

**4.15 Bylaw No. 11465 (Z17-0060) – 3050 Sexsmith Road**

Moved By Councillor Stack/Seconded By Councillor DeHart

R168/18/02/19 THAT Bylaw No. 11465 be adopted.

Carried

**4.16 Sexsmith Rd 3050, DP17-0158 - Plan B Contractors Inc. – Reid Longstaffe**

Staff:

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

Moved By Councillor Given/Seconded By Councillor Donn

**R169/18/02/19** THAT Final Adoption of Zoning Amending Bylaw No. 11465 be considered by Council;

THAT Council authorizes the issuance of Development Permit No. DP17-0158 for Lot 30, Section 3, Township 23, ODYD, Plan 18861, located at 3050 Sexsmith Rd, 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 the outstanding conditions of approval as set out in Attachment "A" attached to the Report from the Community Planning Department dated July 11, 2017 be completed prior to Building Permit issuance.

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.

**Carried**

## **5. Bylaws for Adoption (Development Related)**

### **5.1 Raymer Rd 4653, Z15-0013 (BL11458) - Ronald Egert**

Moved By Councillor DeHart/Seconded By Councillor Stack

**R170/18/02/19** THAT Bylaw No. 11458 be adopted.

**Carried**

### **5.2 Christleton Ave 344, Z17-0102 (BL11539) - Christopher and Sara Eddy**

Moved By Councillor Stack/Seconded By Councillor DeHart

**R171/18/02/19** THAT Bylaw No. 11539 be adopted.

**Carried**

## **6. Non-Development Reports & Related Bylaws**

### **6.1 Shared Use Agreement with FortisBC**

Staff:

- Provided an overview of the Shared Use Agreement with FortisBC and budget amendment.



Moved By Councillor Given/Seconded By Councillor Stack

**R172/18/02/19** THAT Council approves the City entering into an ongoing Agreement, with FortisBC, which allows the City to carry out maintenance of City owned streetlight infrastructure mounted on FortisBC owned utility poles, in the form attached to the Report of Public Works Manager, dated February 19, 2018;

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

Carried

## **6.2 License Agreement – Bikeshare Pilot Program**

Staff:

- Displayed a PowerPoint Presentation summarizing the Bikeshare Program and highlights of the License Agreement with Dropbike Inc.
- Responded to questions from Council.

Moved By Councillor Given/Seconded By Councillor Donn

**R173/18/02/19** THAT Council receives, for information, the Report from the Manager, Property Management, dated February 19, 2018, regarding the proposed License Agreement with Dropbike Inc.;

AND THAT Council approves the City entering into an 18-month License Agreement with Dropbike Inc. for the bikeshare pilot project term, as per the terms and conditions of the agreement attached to the Report of the Manager, Property Management, dated February 19, 2018;

AND THAT Mayor and Clerk be authorized to execute all documents necessary to complete the transaction.

Carried

## **6.3 Rutland Centennial Park Development**

Staff:

- Displayed a PowerPoint Presentation summarizing the cost implications for Phase 3 of the Rutland Centennial Park and information regarding Phase 4.
- Responded to questions from Council.

Moved By Councillor Given/Seconded By Councillor Hodge

**R174/18/02/19** THAT Council receives, for information, the report from the Park and Landscape Planner dated February 19, 2018, with respect to the Rutland Centennial Park Development;

AND THAT Council approve up to \$75,000 for the Rutland Centennial Park Phase 3 design development and construction documents work funded from reserve;

AND THAT the 2018 Financial Plan be amended to include the transfer of \$75,000 from reserve for Rutland Centennial Park Phase 3 design development and construction documents;

AND FURTHER THAT Council directs staff to bring forward the total construction costs and associated ongoing operating costs for the Rutland Centennial Park Phase 3 in the 2018 Final Budget.

Carried

#### 6.4 Canada 150 Review

Staff:

- Displayed a PowerPoint Presentation summarizing the events and initiatives that took place in 2017 and responded to questions from Council.

Moved By Councillor DeHart/Seconded By Councillor Singh

**R175/18/02/19** THAT Council receives, for information, the report from the Community & Neighbourhood Services Manager dated February 19, 2018 regarding a summary of the Canada 150 initiatives in Kelowna in 2017.

Carried

#### 6.5 Road Closure Adjacent to 210 Loughheed Road

Moved By Councillor Hodge/Seconded By Councillor DeHart

**R176/18/02/19** THAT Council receives, for information, the Report from the Manager, Real Estate Services dated February 19, 2018, recommending that Council adopt the proposed closure of a portion of road adjacent to 210 Loughheed Road;

AND THAT Bylaw No.11556, being the proposed closure of a portion of road adjacent to 210 Loughheed Road, be given reading consideration.

Carried

#### 6.6 BL11556 - Road Closure and Removal of Highway Dedication - Portion of Loughheed Road

Moved By Councillor Singh/Seconded By Councillor DeHart

**R177/18/02/19** THAT Bylaw No. 11556 be read a first, second and third time.

Carried

#### 7. Mayor and Councillor Items

Councillor Donn:

- Noted Heritage Week Events are planned all week and acknowledged appreciation for all the volunteers.
- Commented on the on-going opioid crisis and acknowledged that it's complicated and affects everyone.

Councillor Hodge:

- Will be attending a SILGA Executive Meeting on Monday, February 26<sup>th</sup>.

Councillor DeHart:

- Spoke to her attendance along with Councillor Donn to the Chinese New Year's Celebration at the Parkinson Recreation Centre on February 17<sup>th</sup>. Thanked City snow removal crew for their efforts of clearing the Recreation Centre parking lot.
- Noted that Wednesday is the kick off for the Alzheimer's Association Walk to End Alzheimer's in May.

Councillor Stack:


- Shout out to the Okanagan Symphony Orchestra for their great performance at the Community Theatre this past Saturday evening.

**8. Termination**

This meeting was declared terminated at 4:42 p.m.

\_\_\_\_\_  
Mayor Basran

/acm

  
\_\_\_\_\_  
City Clerk

DRAFT

# REPORT TO COUNCIL



**Date:** February 26, 2018

**RIM No.** 1250-30

**To:** City Manager

**From:** Community Planning Department (KB)

**Application:** Z17-0113

**Owner:** 1018545 B.C. LTD., INC.NO.  
BC1018545

**Address:** 2565 & 2579 Pandosy Street

**Applicant:** Bear Land Development  
Services

**Subject:** Rezoning Application

Existing OCP Designation: MRL – Multiple Unit Residential (Low Density)

Existing Zone: RU6 – Two Dwelling Housing

Proposed Zone: RM3 – Low Density Multiple Housing

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## 1.0 Recommendation

THAT Rezoning Application No. Z17-0113 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of each of the following properties:

1. Lot 10 District Lot 14 Osoyoos Division Yale District Plan 3249, located at 2565 Pandosy Street, Kelowna, BC
2. Lot 11 District Lot 14 Osoyoos Division Yale District Plan 3249, located at 2579 Pandosy Street, Kelowna, BC

from the RU6 – Two Dwelling Housing zone to the RM3 – Low Density Multiple Housing 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 Schedule "A" attached to the Report from the Community Planning Department dated February 26, 2018;

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

## 2.0 Purpose

To rezone the subject properties to facilitate the development of multiple dwelling housing.

### 3.0 Community Planning

Community Planning supports the proposed rezoning from RU6 – Two Dwelling Housing to RM3 – Low Density Multiple Housing. The Official Community Plan (OCP) Future Land Use designation for the properties is MRL – Multiple Unit Residential (Low Density). The subject properties are located in close proximity to the South Pandosy Urban Centre and the Walk Score is 84 (Very Walkable – most errands can be accomplished on foot). There are major BC Transit Routes on Pandosy Street and the properties are within 100 m of the nearest transit stop. This meets the OCP Urban Policy of Compact Urban Form (Policy 5.2.3). In addition, the RM3 zone restricts height to three storeys which is only a half storey higher than height restrictions in the adjacent RU6 zones, therefore, it meets the OCP Policy of Sensitive Infill (Policy 5.22.6).

Staff are currently tracking two variances for this proposal, for site coverage and interior drive aisle width. Should the Rezoning application be supported by Council, a Development Permit and Development Variance Permit application would also be considered by Council prior to a building permit being issued.

To fulfill Council Policy No. 367, the applicant submitted a Neighbour Consultation Summary Form to staff documenting that neighbours within 50 m of the subject properties were notified.

### 4.0 Proposal

#### 4.1 Background

The subject properties each have a single family dwelling that will be demolished as a function of this development. The properties will be required to be consolidated prior to final adoption of the rezoning.

#### 4.2 Project Description

The applicant is proposing the development of nine units of multiple dwelling housing on the subject property, with ground-oriented units along Pandosy Street and Patterson Avenue. All vehicular access is required to come from the lane. The RM3 zone on these properties allows for multiple dwelling housing with a maximum floor area ratio of 0.8 (if at least 75% of parking spaces are provided totally beneath habitable space of a principal building) and a maximum height of 10.0 m or 3 storeys.

Should Council support the rezoning, Staff will bring forward a Development Permit and Development Variance Permit for Council consideration.

#### 4.3 Site Context

The subject properties are located at the corner of Pandosy Street and Patterson Avenue in the City's South Pandosy – KLO Sector. The two lots have a combined area of 1,403 m<sup>2</sup>. Transit stops are located on Pandosy Street, and they are in close proximity to the South Pandosy Urban Centre and are well served by nearby amenities including parks, restaurants, and shops.

Specifically, adjacent land uses are as follows:

Orientation	Zoning	Land Use
North	RU6 – Two Dwelling Housing	Single / Two Unit Residential
East	RU6 – Two Dwelling Housing	Single / Two Unit Residential
South	RU6 – Two Dwelling Housing	Single / Two Unit Residential
West	RU6 – Two Dwelling Housing	Single / Two Unit Residential
	RM1 – Four Dwelling Housing	Multiple Dwelling Housing



**Subject Property Map: 2565 & 2579 Pandosy Street**



**5.0 Current Development Policies**

**5.1 Kelowna Official Community Plan (OCP)**

**Chapter 1 – Introduction**

**Goal 1** - Contain Urban Growth. Reduce greenfield urban sprawl and focus growth in compact, connected and mixed-use (residential and commercial) urban and village centres.

**Chapter 4 - Future Land Use**

Multiple Unit Residential (Low Density) (MRL)

Townhouses, garden apartments, apartments, buildings containing three or more residential units. Complementary uses (i.e. care centres, minor public services/utilities, and neighbourhood parks), that are integral components of urban neighbourhoods would also be permitted. Building densities would be consistent with the provisions of the RM1 – Four-plex Housing, RM2 – Low Density Row Housing, or RM3 – Low Density Multiple Housing zones of the Zoning Bylaw and may include CD Comprehensive Development zoning for similar densities or land uses.

**Chapter 5 - Development Process**

**Policy 5.2.3 - 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.

**Policy 5.22.6 – Sensitive Infill.** Encourage new development or redevelopment in existing residential areas to be sensitive to or reflect the character of the neighborhood with respect to building design, height and siting.

**Policy 5.23.1 – Ground-Oriented Housing.** Encourage all multiple-unit residential buildings in neighbourhoods with schools and parks to contain ground-oriented units with 2 or more bedrooms so as to provide a family housing choice within the multi-unit rental or ownership markets.

## **6.0 Technical Comments**

6.1 Development Engineering Department

See Schedule "A" City of Kelowna Memorandum

## **7.0 Application Chronology**

Date of Application Received: August 21, 2017

Date Public Consultation Completed: February 9, 2018

**Report prepared by:** Kimberly Brunet, Planner

**Reviewed by:** Terry Barton, Urban Planning Manager

**Approved for Inclusion:** Ryan Smith, Community Planning Department Manager

## **Attachments:**

Schedule "A" City of Kelowna Memorandum

Attachment "A" Conceptual Site Plan and Renderings

## CITY OF KELOWNA

# MEMORANDUM

**Date:** December 8, 2017  
**File No.:** Z17-0113

**To:** Community Planning (KB)

**From:** Development Engineering Manager(AS)

**Subject:** 2565 Pandosy Street RU6 to RM3

Development Engineering has the following 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) Domestic Water and Fire Protection

- (a) The development site is presently serviced with a 19mm diameter water service. The developer's consulting mechanical engineer will determine the domestic, fire protection requirements of this proposed development and establish hydrant requirements and service needs. Only one service will be permitted for this development.

.2) Sanitary Sewer

- (a) The development site is presently serviced with a 100mm diameter sanitary sewer service. Only one service will be permitted for this development. The developer's consulting civil engineer will determine sanitary sizing for this development. The applicant, at his cost, will arrange for the removal of the existing service and the installation of a new larger service if required.

.3) Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for these sites which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900. The storm water management plan must also include provision of lot grading plans, minimum basement elevations (MBE), if applicable, and provision of a storm drainage service and recommendations for onsite drainage containment and disposal systems.

.4) Road Improvements

- (a) Pandosy Street fronting this development must be upgraded to an Arterial – Class 2 Residential One Way-3 Lanes (SS-R12) to include barrier curb & gutter, separate concrete sidewalk, storm drainage, landscaped & irrigated boulevard and relocation or adjustment of existing utility appurtenances if required to accommodate the upgrading construction. A modified cross section of SS-R12 showing a separated sidewalk on property line should be used for design and costing.



Z17-0113 2565 Pandosy St. RU6 - RM3 AS.doc

- (b) Patterson Avenue fronting this development must be upgraded to an Local – Class 2 (SS-R4) to included roll over curb & gutter, separate concrete sidewalk, storm drainage, landscaped & irrigated boulevard and relocation or adjustment of existing utility appurtenances if required to accommodate the upgrading construction. A modified cross section of SS-R4 showing a separated sidewalk on property line should be used for design and costing.
- (c) The lane fronting this development is required to be constructed to a paved standard. A cross section of SS-R2 should be used for design and costing.

.5) Road Dedication and Subdivision Requirements

By registered plan to provide the following:

- (a) Grant statutory rights-of-way if required for utility services.

.6) Electric Power and Telecommunication Services

- (a) All proposed distribution and service connections are to be installed underground. Existing distribution and service connections, on that portion of a road immediately adjacent to the site, are to be relocated and installed underground as this site is located adjacent to the South Pandosy urban town centre.
- (b) 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.
- (c) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).

.7) Engineering

Road and utility construction design, construction supervision, and quality control supervision of all off-site and site services including on-site ground recharge drainage collection and disposal systems, must be performed by an approved consulting civil engineer. Designs must be submitted to the City Engineering Department for review and marked "issued for construction" by the City Engineer before construction may begin.

.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 on the insurance policy as an additional insured.

.10) Survey Monuments and Iron Pins

If any legal survey monuments or property iron pins are removed or disturbed during construction, the developer will be invoiced a flat sum of \$1,200.00 per incident to cover the cost of replacement and legal registration. Security bonding will not be released until restitution is made.

.11) Bonding and Levy Summary

(a) Bonding

Storm service upgrades	<b>To be determined</b>
Pandosy Street Frontage Improvements	<b>To be determined</b>
Patterson Avenue Frontage Improvements	<b>To be determined</b>
Lane Frontage Improvements	<b>To be determined</b>
<b>Total Bonding</b>	<b>To be determined</b>

.12) Administration Charge

An administration charge will be assessed for processing of this application, review and approval of engineering designs and construction inspection. The administration charge is calculated as (3.5% of Total Off-Site Construction Cost plus GST).

14) Development Permit and Site Related Issues

Access and Manoeuvrability

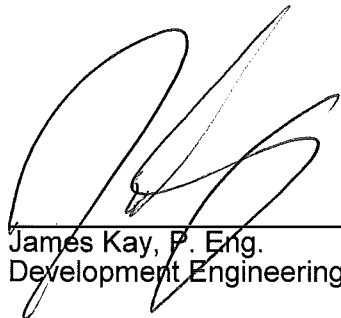
- (a) The access to this site must be from the lane. Access to Pandosy Street is not permitted as per bylaw.

15. Geotechnical Report

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

- (a) Area ground water characteristics.

- (b) Site suitability for development, unstable soils, etc.
- (c) Drill and / or excavate test holes on the site and install pisometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.



James Kay, P. Eng.  
Development Engineering Manager

AS



# 2565 PANDOSY ST., KELOWNA, BC



## PROPERTY DESCRIPTION

CIVIC: 2565 Pandosy, Kelowna, BC  
(Note: this address is a result of a lot consolidation)

LEGAL: Lot 10 & Lot 11 (to be consolidated), District Lot 14, ODYD, Plan KAP3249

## ZONING CALCULATIONS:

CURRENT: City of Kelowna RU6 Zoning  
PROPOSED: City of Kelowna, RM3 Zoning

## SITE INFORMATION:

Gross Site Area=	15,477 sf (1,438 sm)	Allowed	Proposed
Gross Site Area (prior to dedication)=	16,292 sf (1,514 sm)		
Allowable Site Coverage=	50% (7,739sf)	52% (8,077sf)	VARIANCE
Coverage + Hardscaping=	60% (9,286sf)	60% (9,276sf)	

F.A.R. = .75 + .05 = .8 (12,382sf) .8 (12,382sf)

### Unit Area Calculations:

	ENTRY LEVEL	SECOND LEVEL	UPPER LEVEL	TOTAL
UNIT 1	200	640	640	1,480
UNIT 2	245	550	635	1,430
UNIT 3	143	540	560	1,243
UNIT 4	244	550	640	1,434
UNIT 5	215	640	640	1,495
UNIT 6	60	690	630	1,380
UNIT 7	670	635	NA	1,305
UNIT 8	670	640	NA	1,310
UNIT 9	35	640	630	1,305
				12,382

### Private Space Areas / Roof Deck Areas:

	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8	UNIT 9	SHARED
ENTRY LEVEL	35.2sm	10.9sm	7.4sm	10.9sm	6.5sm	10.4sm	50.2sm	60.2sm	N/A	54.3sm
SECOND LEVEL	shared	16.8sm	shared	16.8sm	shared	N/A	N/A	shared	132.3sm	
UPPER LEVEL	11.4sm	N/A	N/A	N/A	11.4sm	55.3sm	N/A	N/A	41sm	N/A
ROOF DECK LEVEL	55.1sm	55.1sm	48.9sm	55.1sm	55.1sm	N/A	N/A	N/A	NA	N/A
TOTAL	101.7sm	82.8sm	56.3sm	82.8sm	73sm	65.7sm	50.2sm	60.2sm	41sm	186.8sm

	Allowed	Proposed
Max. Height =	10m (32.8 ft) or 3 storeys	10m (32.8 ft) or 3 storeys

### Yard setbacks:

front yard -	1.5m Ground Oriented Entry	3.934m
side yard -	1.5m Ground Oriented Entry; 4.0m	1.5m/4.0m
rear yard -	7.5m/1.5m to Accessory Structure	7.5m

### Parking Calculations:

1.5x1 = 2 (Required)	1.5x1 = 2 (Required)	2
2 per /3 bedroom =	2x8 = 16 (Required)	16

Class I, .5/unit	.5x9 = 5 (Required)	5 (dedicated bike storage)
Class II, .1/unit	.1x9 = 1 (Required)	5

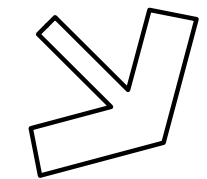
## DRAWINGS:

ARCHITECTURAL:  
A-001 PROJECT & SITE INFORMATION  
A-RENDER RENDERINGS  
A-100 ENTRY LEVEL PLAN  
A-101 SECOND LEVEL PLAN  
A-102 UPPER LEVEL PLAN  
A-103 ROOF PLAN  
A-200 ELEVATIONS  
A-201 ELEVATIONS

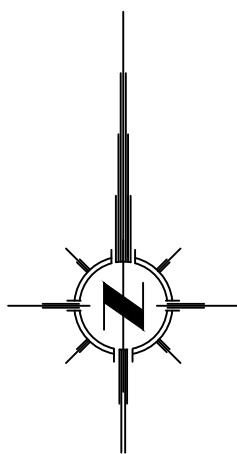
LANDSCAPE:  
L1 LANDSCAPE CONCEPT PLAN  
L2 HYDROZONE PLAN

CIVIL: SITE SERVICING CONCEPT PLAN

## VIEW 1/ A-RENDER

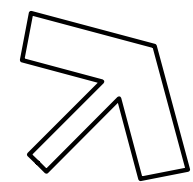


PANDOSY STREET



1 SITE/PARKING PLAN  
A-001 1/8" = 1'-0"

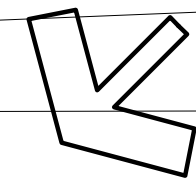
## VIEW 3/A-RENDER



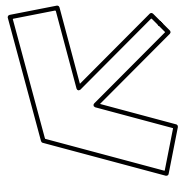
PUBLIC LANE

PATTERSON AVE.

## VIEW 2/A-RENDER



## VIEW 4/ A-RENDER



## ATTACHMENT A

This forms part of application

# Z17-0113

Planner Initials KB

City of Kelowna  
COMMUNITY PLANNING



architecturally  
**DISTINCT SOLUTIONS INC.**  
ph:250-448-7801 cell:250-878-4313

501-1630 Pandosy St.,  
Kelowna, BC V1Y 1P7  
www.distinctsolutions.ca

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All trades are to execute the work in accordance with the current municipality building by-laws and requirements of other local authorities having jurisdiction as well as the British Columbia Building Code - (most recent edition) including all published revisions and addenda. All trades shall assume full responsibility for the locations and protection of all under and above ground utilities, wires and conduit connections, including (but not limited to) water, sewer, gas, hydro and telephone.

Revision No., Date and Description  
08.18.17-FOR DP  
10.04.17-DP REVS  
10.27.17-DP REVS  
11.30.17-DP REVS  
01.18.18-DP REVS

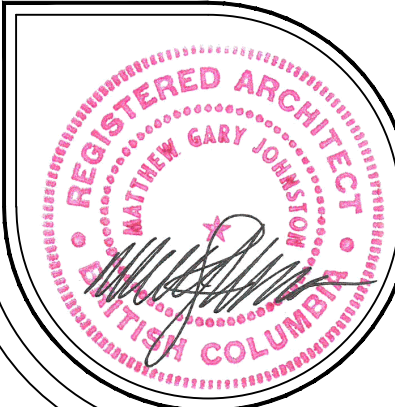
Plot Date 18-Jan-18  
Drawing No. A-001

### PROJECT

2565 PANDOSY STREET

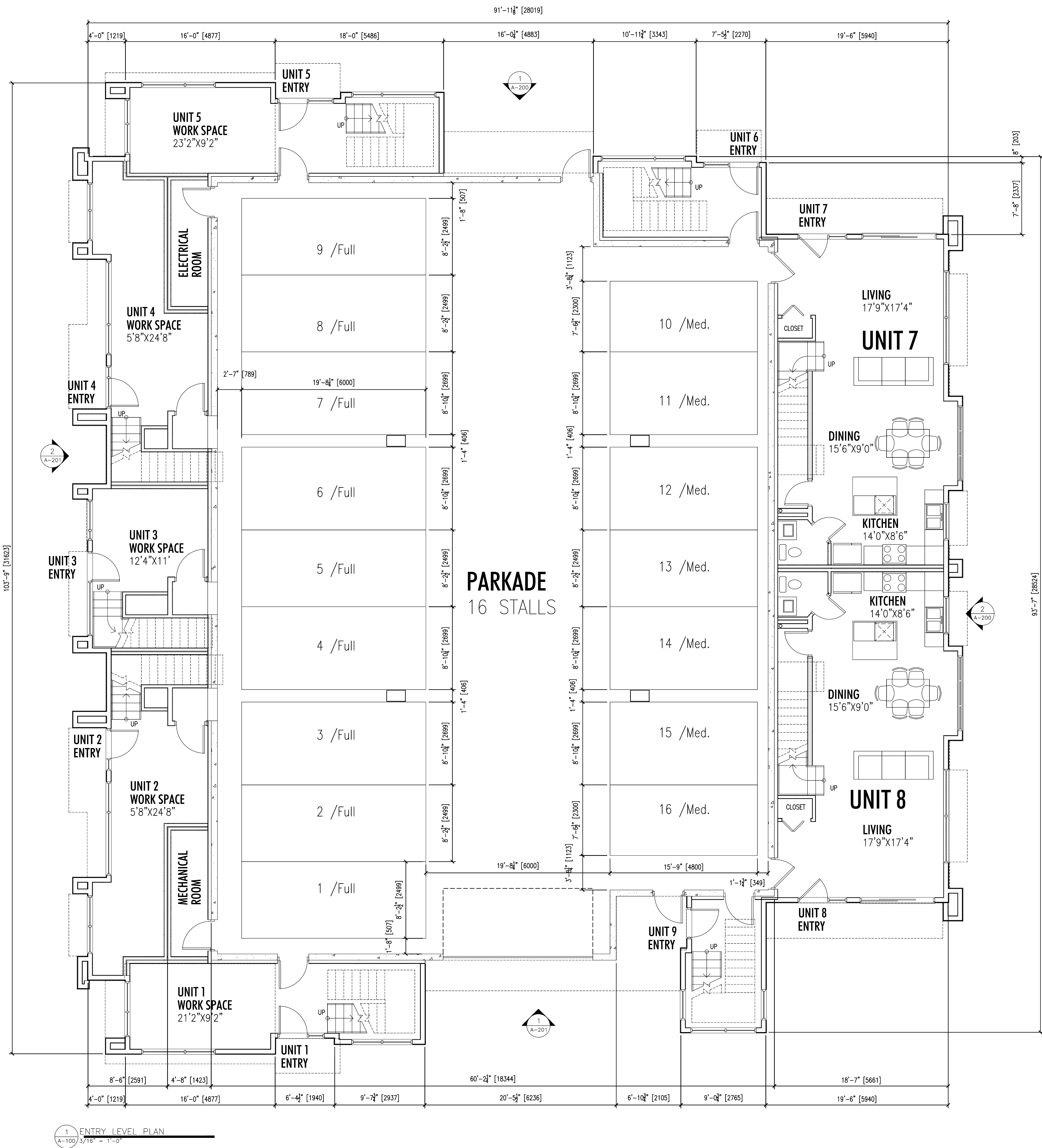
### DRAWING TITLE

PROJECT INFORMATION



FOR DP





1 ENTRY LEVEL PLAN  
A-100 3/16" = 1'-0"

**ATTACHMENT A**

This forms part of application  
# Z17-0113

Planner Initials KB

City of Kelowna  
COMMUNITY PLANNING

architecturally  
**DISTINCT SOLUTIONS INC.**  
ph:250-448-7801 cell:250-878-4318

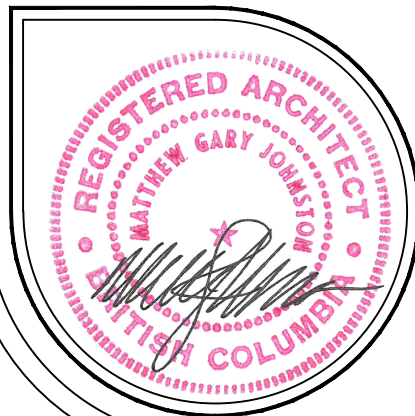
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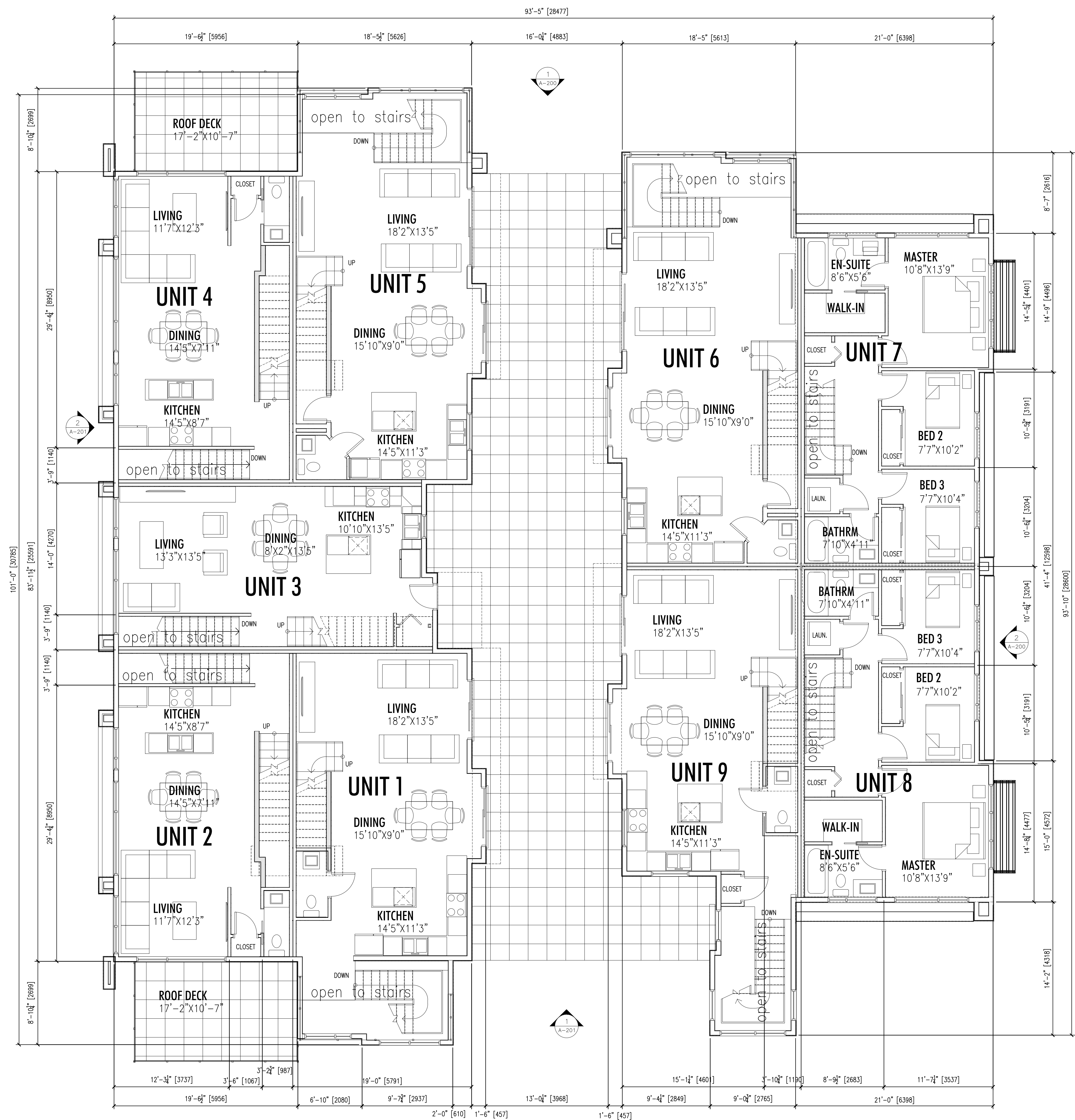
All trades are to execute the work in accordance with the current municipality building by-laws and requirements of other local authorities having jurisdiction as well as the British Columbia Building Code - (most recent edition) including all published revisions and addenda. All trades shall assume full responsibility for the locations and protection of all under and above ground utilities, wires and conduit connections, including (but not limited to) water, sewer, gas, hydro and telephone.

Revision No., Date and Description	
08.18.17-FOR DP	
10.04.17-DP REVS	
10.27.17-DP REVS	
11.30.17-DP REVS	
01.18.18-DP REVS	

Plot Date	Drawing No.
18-Jan-18	A-100
PROJECT	
2565 PANDOSY STREET	
DRAWING TITLE	
ENTRY LEVEL PLAN	



FOR DP



1 SECOND LEVEL PLAN  
A-101 3/16" = 1'-0"

Revision No., Date and Description	
08.18.17-FOR DP	
10.04.17-DP REVS	
10.27.17-DP REVS	
11.30.17-DP REVS	
01.18.18-DP REVS	

Plot Date 18-Jan-18	Drawing No. A-101
PROJECT 2565 PANDOSY STREET	
DRAWING TITLE SECOND LEVEL PLAN	



FOR DP

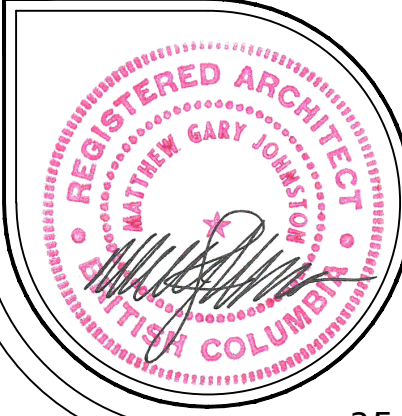




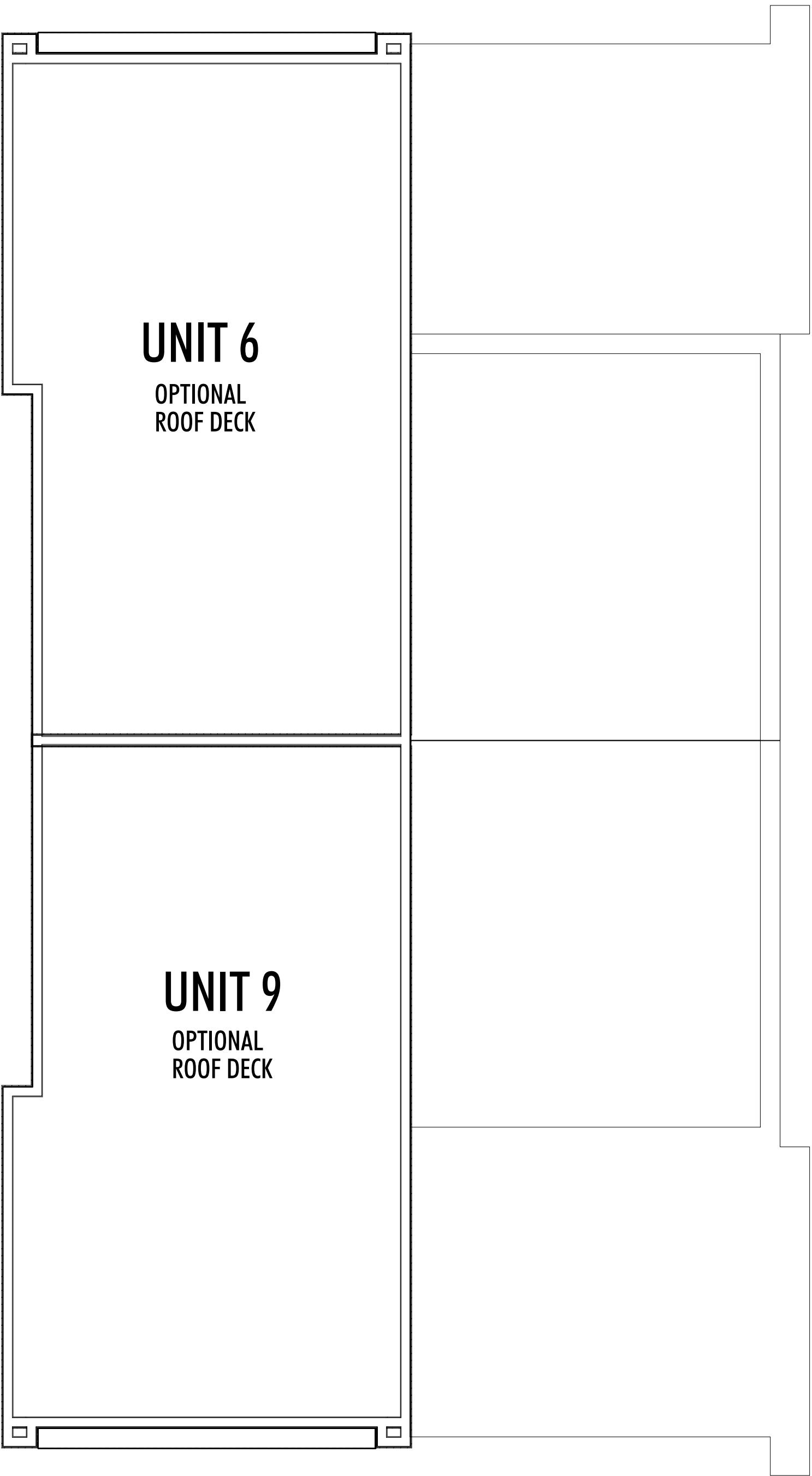
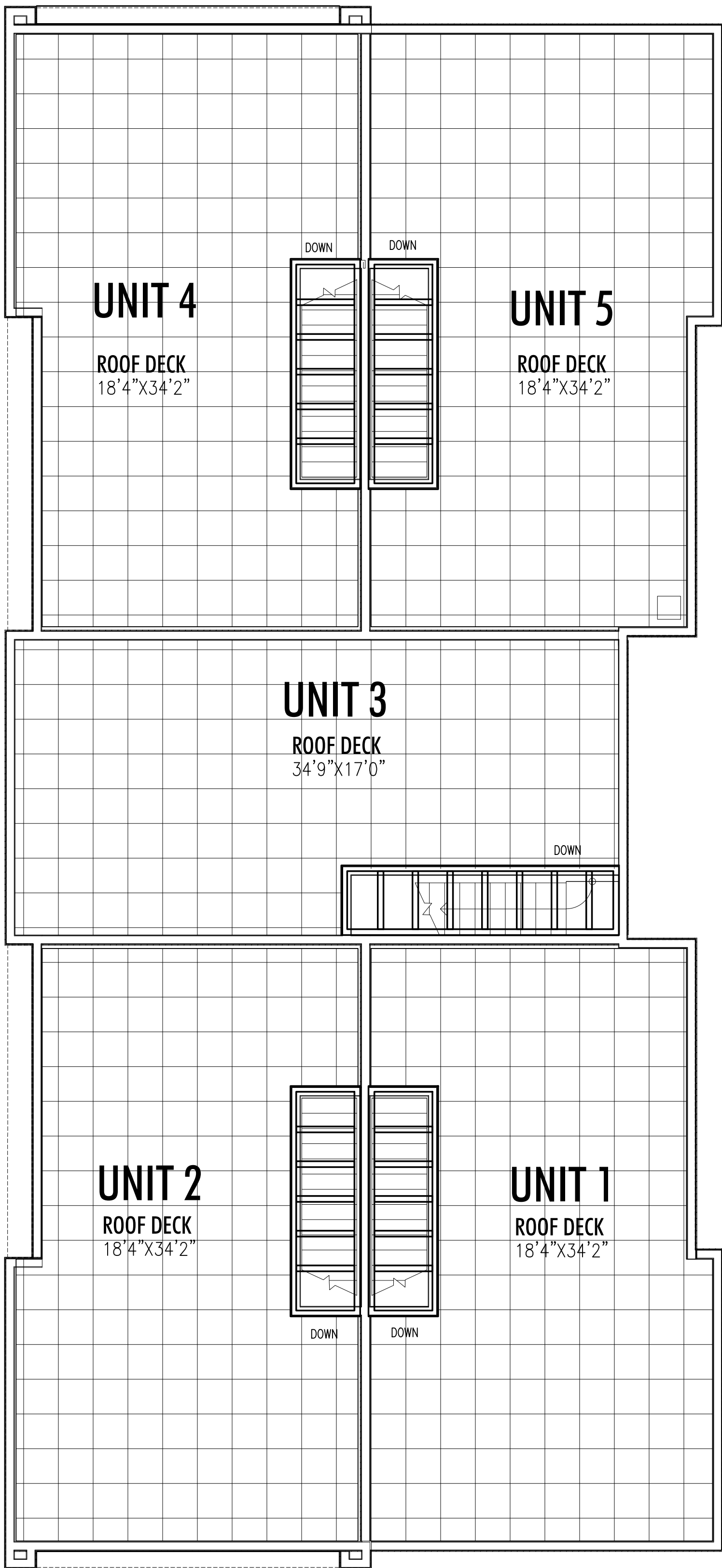
1 UPPER LEVEL PLAN  
A-102/3/16' = 1"0"

Revision No., Date and Description	
08.18.17-FOR DP	
10.04.17-DP REVS	
10.27.17-DP REVS	
11.30.17-DP REVS	
01.18.18-DP REVS	

Plot Date	Drawing No.
18-Jan-18	A-102
PROJECT	
2565 PANDOSY STREET	
----	
DRAWING TITLE	
UPPER LEVEL PLAN	



FOR DP



1 ROOF PLAN  
A=103/3/16" = 1/8"

FOR DP

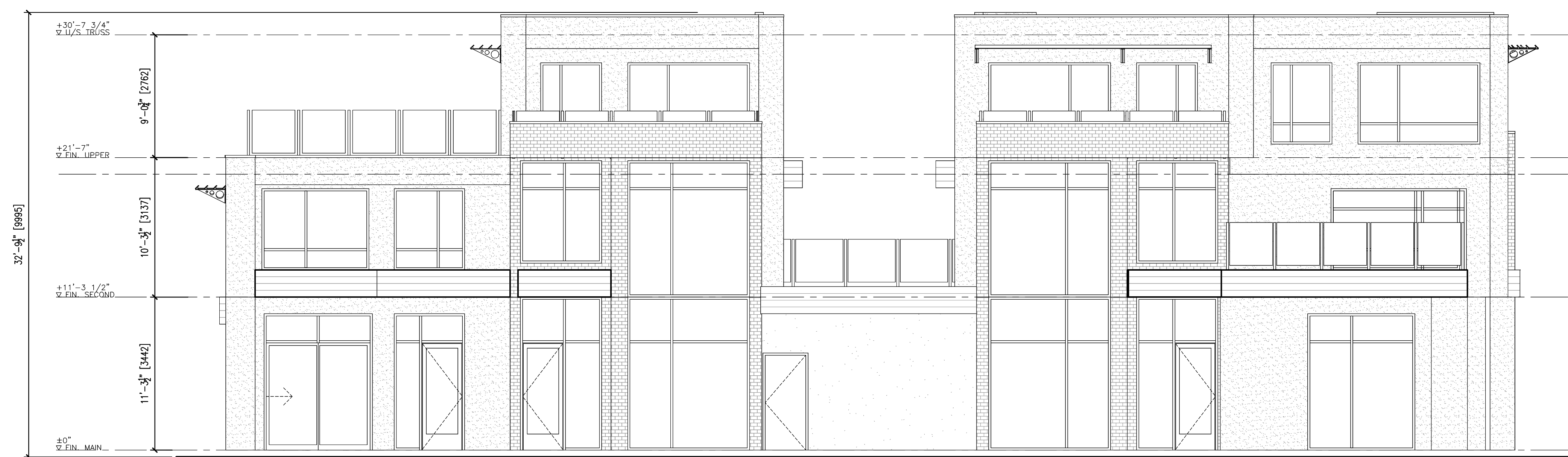
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10.27.17-DP REVS
11.30.17-DP REVS
01.18.18-DP REVS

Plot Date	Drawing No.
18-Jan-18	A-103

PROJECT
2565 PANDOSY STREET
----
DRAWING TITLE
ROOF PLAN



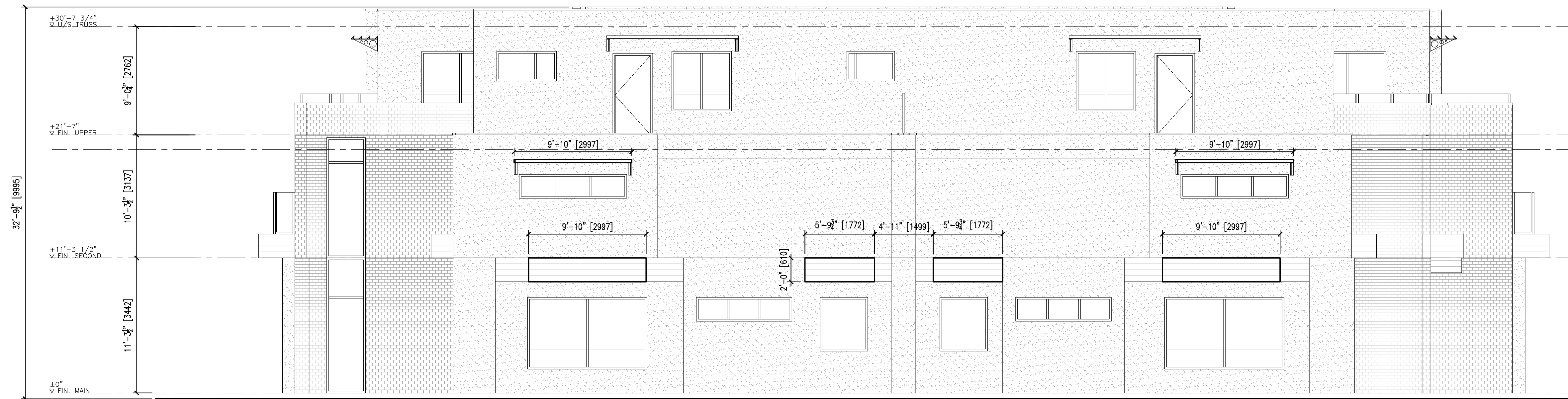




1 NORTH ELEVATION  
3/16"=1'-0"



- MATERIAL LEGEND:
- 1. RECLAIMED BRICK VENEER
  - 2. CHARCOAL BRICK VENEER
  - 3. ACRYLIC STUCCO (LIGHT)
  - 4. ACRYLIC STUCCO (DARK)
  - 5. METAL CLAD WINDOWS (BLACK)
  - 6. GLAZED FIBREGLASS EXTERIOR DOOR (STAIN GRADE)
  - 7. PRE-FIN. METAL CAP FLASHING
  - 8. ALUMINUM/GLASS RAILING SYSTEM
  - 9. ALUMINUM WINDOW SHADES
  - 10. FAUX WOOD CANOPY

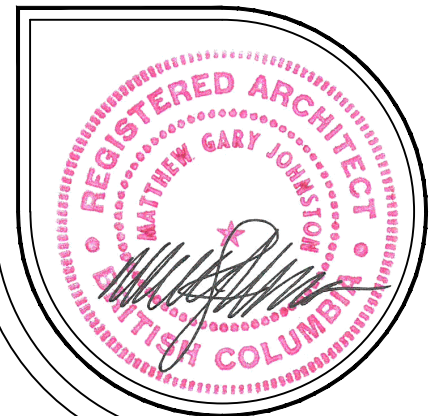


2 EAST ELEVATION  
3/16"=1'-0"

Revision No., Date and Description
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10.04.17-DP REVS
10.27.17-DP REVS
11.30.17-DP REVS
01.18.18-DP REVS

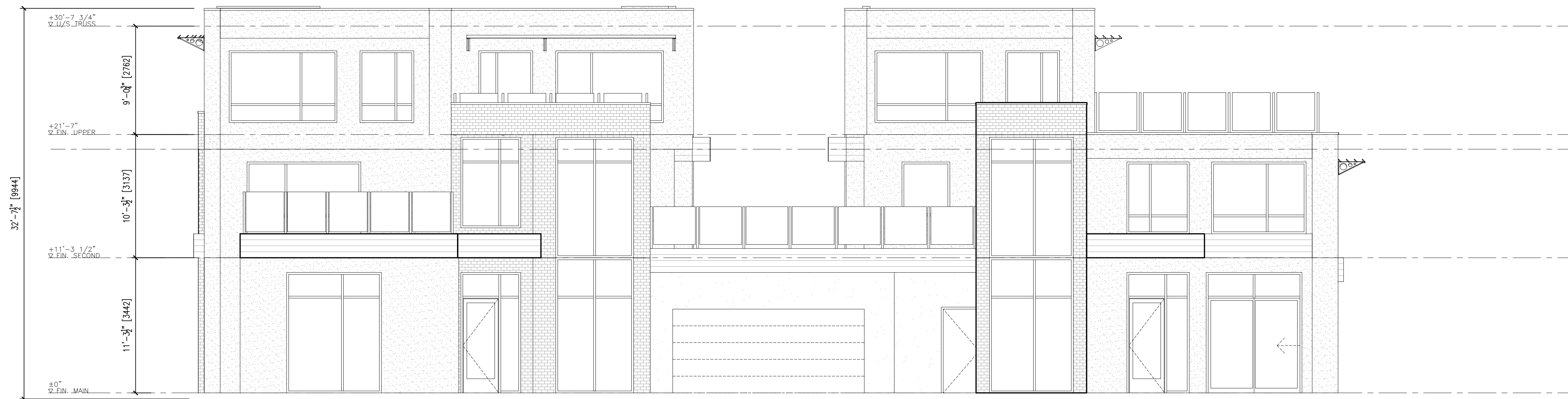
Plot Date	Drawing No.
18-Jan-18	A-200

PROJECT
2565 PANDOSY STREET
DRAWING TITLE
ELEVATIONS



FOR DP





1 SOUTH ELEVATION  
3/16"=1'-0"



- MATERIAL LEGEND:
1. RECLAIMED BRICK VENEER
  2. CHARCOAL BRICK VENEER
  3. ACRYLIC STUCCO (LIGHT)
  4. ACRYLIC STUCCO (DARK)
  5. METAL CLAD WINDOWS (BLACK)
  6. GLAZED FIBREGLASS EXTERIOR DOOR (STAIN GRADE)
  7. PRE-FIN. METAL CAP FLASHING
  8. ALUMINUM/GLASS RAILING SYSTEM
  9. ALUMINUM WINDOW SHADES
  10. FAUX WOOD CANOPY



2 WEST ELEVATION  
3/16"=1'-0"

FOR DP





VIEW 1



VIEW 2

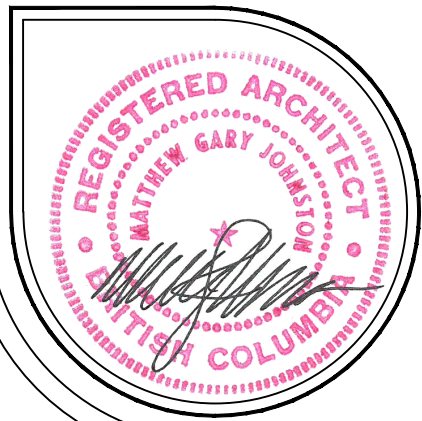


VIEW 3



VIEW 4

Revision No., Date and Description 08.18.17-FOR DP 10.27.17-DP REVS 01.18.18-DP REVS	
Plot Date 18-Jan-18	Drawing No. A-RENDER
PROJECT 2565 PANDOSY STREET -----	
DRAWING TITLE RENDERINGS	



FOR DP

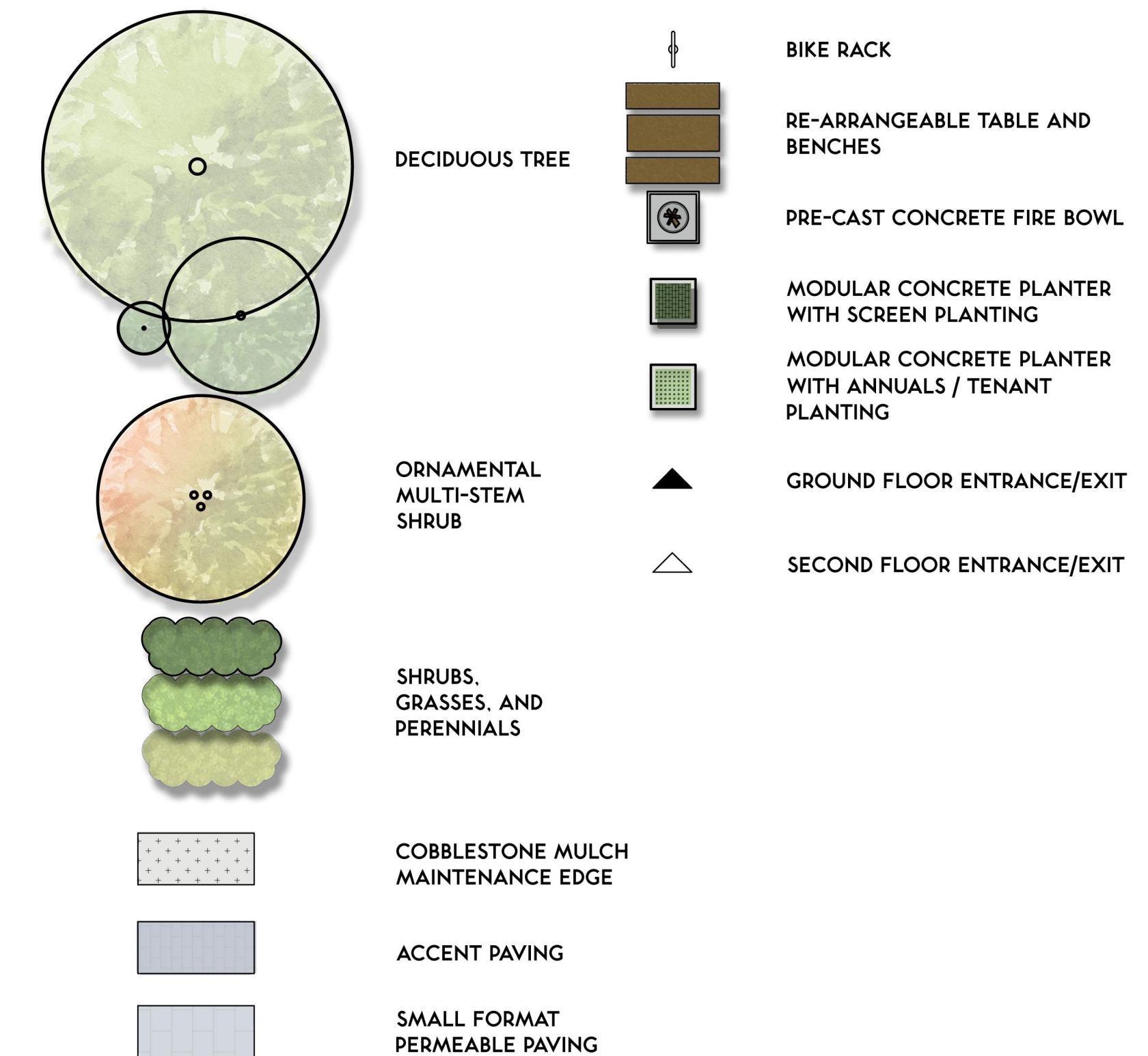




DEVELOPMENT PERMIT NOTES:

- A. PLANT MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO MINIMUM STANDARDS ESTABLISHED IN THE LATEST EDITION OF THE B.C. LANDSCAPE STANDARDS, PUBLISHED BY B.C.L.N.A. AND B.C.S.L.A. AS WELL AS THE CITY OF KELOWNA LANDSCAPE STANDARDS IN BYLAW 7900.
- B. THE LANDSCAPE DESIGN DESIGNATED HEREIN IS CONCEPTUAL BUT REFLECTS THE MINIMUM CITY OF KELOWNA FORM AND CHARACTER REQUIREMENTS.
- C. PLANT MATERIAL SELECTIONS ARE CONCEPTUAL ONLY. FINAL PLANTING SELECTIONS MAY VARY DEPENDING UPON AVAILABILITY AT THE TIME OF CONSTRUCTION.
- D. TREES SHALL BE INSTALLED IN DEFINED SOIL PITS OR PLANTING BED AREAS. ADEQUATE SOIL VOLUME SHALL BE PROVIDED BASED ON THE SPECIFIED TREE SPECIES AND LOCATION.
- E. ORNAMENTAL SHRUB, GRASS AND PERENNIAL CLUSTERS ARE TO BE PLACED WITHIN DEFINED PLANTING BEDS, ALL PLANTING BEDS SHALL HAVE A MIN. OF 450mm (18") IMPORTED GROWING MEDIUM AND 75mm (3") OF COMPOSTED MULCH OR APPROVED EQUAL.
- F. TURF AREAS SHALL BE LOW WATER USE 'NO. 1 PREMIUM' SOD WITH A MIN. OF 150mm (6") IMPORTED GROWING MEDIUM.
- G. A HIGH EFFICIENCY IRRIGATION SYSTEM SHALL BE INSTALLED FOR ALL ORNAMENTAL LANDSCAPE AREAS AND SHALL CONFORM TO THE CITY OF KELOWNA'S IRRIGATION STANDARDS IN BYLAW 7900.

LEGEND:



PLANT LIST:

TREES			
Botanical Name	Common Name	Size / Spacing	Root
<i>Acer griseum</i>	Paperbark maple	6cm Cal.	B&B
<i>Cornus alba</i> 'Sibirica'	Siberian Tartarian dogwood	#10 Pot	Potted
<i>Hamelamelis x intermedia</i> 'Arnold's Promise'	Arnold's promise witch hazel	#10 Pot	Potted
<i>Pyrus calleryana</i> 'Redspire'	Callery pear	B&B	B&B
<i>Quercus palustris</i> 'Pringreen'	Green pillar oak	6cm Cal.	B&B
SHRUBS			
Botanical Name	Common Name	Size / Spacing	Root
<i>Ericameria nauseosa</i>	Rabbitbrush	#05 Cont./1.5m O.C.	Potted
<i>Juniperus communis</i>	Common juniper	#02 Pot / 12m O.C.	Potted
<i>Juniperus horizontalis</i> 'Wiltonii'	Blue rug juniper	#02 Pot / 12m O.C.	Potted
<i>Salix Brachycarpa</i> 'Blue Fox'	Blue fox willow	#02 Pot / 12m O.C.	Potted
PERENNIALS			
Botanical Name	Common Name	Size / Spacing	Root
<i>Artemesia versicolor</i> 'Seafoam'	Curlicue sage	#02 Cont./0.45m O.C.	Potted
<i>Calluna vulgaris</i>	Common heather	#02 Cont./1.0m O.C.	Potted
<i>Colchicum autumnale</i>	Autumn crocus	Bulb	Potted
<i>Lavandula angustifolia</i> 'Munstead'	Munstead lavender	#02 Cont./0.6m O.C.	Potted
<i>Lupinus sericeus</i>	Silky lupine	#02 Cont./0.45m O.C.	Potted
<i>Perovskia atriplicifolia</i> 'Little Spire'	Little spire Russian sage	#02 Cont./0.6m O.C.	Potted
<i>Perovskia</i> 'Longin'	Longin Russian sage	#02 Cont./0.6m O.C.	Potted
<i>Pulsatilla vulgaris</i>	Prairie crocus	Bulb	Potted
<i>Salvia nemorosa</i> 'Caradonna'	Caradonna sage	#02 Cont./0.6m O.C.	Potted
GRASSES			
Botanical Name	Common Name	Size / Spacing	Root
<i>Calamagrostis acutiflora</i> 'Karl Foerster'	Karl Foerster grass	#02 Cont./0.6m O.C.	Potted
<i>Carex flagellifera</i>	Weeping brown sedge	#02 Cont./0.6m O.C.	Potted
<i>Deschampsia caespitosa</i>	Tufted hair grass	#02 Cont./0.6m O.C.	Potted
<i>Deschampsia caespitosa</i> 'Bronzeschleier'	Bronze tufted hair grass	#02 Cont./0.3m O.C.	Potted
<i>Elymus canadensis</i>	Canadian wild rye	#02 Cont./0.6m O.C.	Potted
<i>Koeleria glauca</i>	Blue hair grass	#02 Cont./0.6m O.C.	Potted
<i>Leymus arenarius</i>	Blue lyme grass	#02 Cont./0.6m O.C.	Potted
<i>Miscanthus</i> 'Giganteus'	Giant Chinese silver grass	#02 Cont./1.0m O.C.	Potted
<i>Panicum virgatum</i> 'Heavy Metal'	Heavy metal blue switch grass	#02 Cont./1.0m O.C.	Potted
<i>Sorghastrum nutans</i>	Indian grass	#02 Cont./1.0m O.C.	Potted
<i>Sporobolus heterolepis</i>	Prairie doospeed	#02 Cont./0.6m O.C.	Potted

<h1 style="margin: 0; color: red;">ATTACHMENT</h1> <p style="margin: 10px 0 0 0; color: red;">This forms part of application</p> <p style="margin: 0 0 0 0; color: red;"># Z17-0113</p>	<h1 style="margin: 0; color: red; font-size: 2em;">A</h1>  <p style="margin: 10px 0 0 0;">City of <b>Kelowna</b> COMMUNITY PLANNING</p>
<p>Planner Initials</p> <div style="border: 1px solid black; width: 60px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 5px auto;">             KB         </div>	

COPYRIGHT RESERVED. THIS DRAWING AND DESIGN IS AT ALL TIMES THE PROPERTY OF BENCH SITE DESIGN INC. AND CANNOT BE USED WITHOUT THE COMPANY'S WRITTEN CONSENT.

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REVISIONS / ISSUED:

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3	NOV 30/17	REISSUED FOR DP
2	JUL 26/17	ISSUED FOR DP
1	JUL 05/17	ISSUED FOR REVIEW

NO.	DATE	DESCRIPTION
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CLIENT:

**1018545 B.C. Ltd.**  
KELOWNA, B.C.

PROJECT:

PATTERSON ROAD  
MULTIFAMILY

KELOWNA, B.C.

SHEET TITLE

LANDSCAPE  
CONCEPT PLAN

DESIGN BY	KN
DRAWN BY	GW
CHECKED BY	KN
PROJECT NO.	17-011
SCALE	1:100

SHEET NO. \_\_\_\_\_



**CITY OF KELOWNA**  
**BYLAW NO. 11562**  
**Z17-0113 2565 & 2579 Pandosy Street**

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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 Lots 10 and 11 District Lot 14 ODYD Plan 3249 located on Pandosy Street, Kelowna, B.C., from the RU6 – Two Dwelling Housing zone to the RM3 – Low Density Multiple Housing zone.
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this

Considered at a Public Hearing on the

Read a second and third time by the Municipal Council this

Adopted by the Municipal Council of the City of Kelowna this

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Mayor

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City Clerk

# REPORT TO COUNCIL



**Date:** February 26, 2018

**RIM No.** 1250-30

**To:** City Manager

**From:** Community Planning Department (EW)

**Application:** OCP17-0028 Z17-0103

**Owners:** Greenpoint Landscaping Ltd.,  
Okanagan Opportunity GP Inc.

**Addresses:** 573-603 Clement Ave

**Applicant:** Anagram Properties Inc.

**Subject:** Official Community Plan Amendment and Rezoning Application

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

Proposed OCP Designation: MRH – Multiple Unit Residential (High Density)

Existing Zone: RU2 – Medium Lot Housing

Proposed Zone: RM6 – High Rise Apartment Housing

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## 1.0 Recommendation

THAT Official Community Plan Map Amendment Application No. OCP17-0028 to amend Map 4.1 in the Kelowna 2030 – Official Community Plan Bylaw No. 10500 by changing the Future Land Use designation of each of the following parcels:

1. Lot 29 District Lot 139 ODYD Plan 1303, located at 573 Clement Ave, Kelowna, BC
2. Lot 56 District Lot 139 ODYD Plan 1037, located at 577 Clement Ave, Kelowna, BC
3. Lot 57 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC
4. Lot 58 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC
5. Lot 59 District Lot 139 ODYD Plan 1037, located at 589 Clement Ave, Kelowna, BC
6. Lot 1 District Lot 139 ODYD Plan 11327, located at 599 Clement Ave, Kelowna, BC
7. Lot 2 District Lot 139 ODYD Plan 11327, located at 603 Clement Ave, Kelowna, BC

from the MRM – Multiple Unit Residential (Medium Density) designation to the MRH – Multiple Unit Residential (High Density) designation, be considered by Council;

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

AND THAT Council considers the Public Information Session public process to be appropriate consultation for the Purpose of Section 475 of the *Local Government Act*, as outlined in the Report from the Community Planning Department dated February 26, 2018;

THAT Rezoning Application No. Z17-0103 to amend the City of Kelowna Zoning Bylaw No. 8000 by changing the zoning classification of each of the following parcels:

1. Lot 29 District Lot 139 ODYD Plan 1303, located at 573 Clement Ave, Kelowna BC
2. Lot 56 District Lot 139 ODYD Plan 1037, located at 577 Clement Ave, Kelowna, BC
3. Lot 57 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC
4. Lot 58 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC
5. Lot 59 District Lot 139 ODYD Plan 1037, located at 589 Clement Ave, Kelowna, BC
6. Lot 1 District Lot 139 ODYD Plan 11327, located at 599 Clement Ave, Kelowna, BC
7. Lot 2 District Lot 139 ODYD Plan 11327, located at 603 Clement Ave, Kelowna, BC

from the RU2 – Medium Housing zone to the RM6 – High Rise Apartment Housing 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 Official Community Plan Map Amending Bylaw and the Rezoning Bylaw be considered subsequent to the outstanding conditions of approval as set out in Schedule “A” attached to the Report from the Community Planning Department dated February 26, 2018;

AND THAT final adoption of the Official Community Plan Map Amending Bylaw and the Rezoning Bylaw be considered subsequent to the registration of a height restriction covenant to a maximum of six (6) storeys on the subject property;

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

## **2.0 Purpose**

To amend the Official Community Plan to change the future land use designation of the subject properties from MRM – Multiple Unit Residential (Medium Density) to MRH – Multiple Unit Residential (High Density) and to rezone the subject properties from RU2 – Medium Lot Housing to RM6 – High Rise Apartment Housing to facilitate the construction of an apartment building.

## **3.0 Community Planning**

The subject properties are located within the ‘City Centre’ Urban Centre along Clement Ave. The subject properties, which will be consolidated, are in close proximity to downtown and are well served by nearby amenities including parks, restaurants, and shops. The properties are also in close proximity to the Cawston Ave multi-use corridor with good cycling connectivity to downtown, the Ethel St multi-use corridor, and Rails-with-Trails. The properties’ Walk Score is 92 (Walker’s Paradise – daily errands do not require a car) and the Transit Score is 48 (Some Transit – a few nearby public transportation options). The Clement Ave corridor is an area in transition with the recent construction of the RCMP building and a number of mixed-use developments either in the application stage or in pre-application.

The applicant is requesting an Official Community Plan Amendment to MRH – Multiple Unit Residential (High Density) and rezoning to RM6 – High Rise Apartment Housing in order to facilitate the construction of a six-storey apartment building with a proposed FAR of 1.62. The maximum floor area ratio achievable under the RM5 zone, consistent with the properties’ current MRM future land use designation, is 1.4. The project’s proposed floor area ratio of 1.62 exceeds the maximum permitted floor area ratio in the RM5 zone. In order to proceed with the proposed development an Official Community Plan Amendment and rezoning are required.

In consideration of the subject properties' urban context staff are supportive of the proposed Official Community Plan Amendment to MRH – Multiple Unit Residential (High Density) and rezoning to RM6 – High Rise Apartment Housing to facilitate the construction of a six-storey apartment building.

Staff have reviewed this application and it may proceed without affecting either the City's Financial Plan or Waste Management Plan.

To fulfill Council Policy No. 367 for 'OCP Minor' and 'Zoning Major' applications, the applicant held a public information session on January 20, 2018 at the Delta Grand Okanagan Hotel from 11:00am to 3:00pm. The public information session was advertised in the Daily Courier two weeks prior to the meeting. The applicant also submitted a Neighbour Consultation Summary Form to staff on January 11, 2018 outlining that neighbours within 50m of the subject properties were notified.

#### **4.0 Proposal**

##### **4.1 Background**

At the January 22, 2018 meeting, Council endorsed a rental housing grant of \$115,748 to the applicant based on a proposal for 58 rental dwelling units.

##### **4.2 Project Description**

The applicant is proposing the construction of a six-storey, 58-unit rental apartment building (Attachment A). The project's proposed floor area ratio of 1.62 an Official Community Plan Amendment and rezoning to RM6 – High Rise Apartment Housing.

While the floor area ratio is suitable for the project, the maximum height of 55.0m or 16 storeys permitted in the RM6 zone is not. To respect the residential properties to the south and east, the applicant will register a height restricting covenant to six (6) storeys prior to final adoption of zoning.

Should Council support the OCP Amendment and Rezoning bylaws, staff will bring forward a Development Permit for Council's consideration.

##### **4.3 Site Context**

The subject properties are in the 'City Centre' Urban Centre on the south side of Clement Ave. The seven lots have a combined area of 3096m<sup>2</sup> in a neighbourhood with a mix of residential, commercial, and institutional uses. The properties are connected to urban services and are located within the Permanent Growth Boundary.

Specifically, adjacent land uses are as follows:

<b>Orientation</b>	<b>Zoning</b>	<b>Land Use</b>
North	P1 – Major Institutional	RCMP Building
East	RU2 – Medium Lot Housing	Residential
South	RU2 – Medium Lot Housing	Residential
West	C7 – Central Business Commercial	Residential



**Subject Properties Map: 573-603 Clement Ave**



## 5.0 Current Development Policies

### 5.1 Kelowna Official Community Plan (OCP)

#### Goals for A Sustainable Future

Contain Urban Growth.<sup>1</sup> Reduce greenfield urban sprawl and focus growth in compact, connected and mixed-use (residential and commercial) urban and village centres.

#### Development Process

Complete Communities.<sup>2</sup> Support the development of complete communities with a minimum intensity of approximately 35-40 people and/or jobs per hectare to support basic transit service – a bus every 30 minutes. (approx. 114 people / hectare proposed).

Compact Urban Form.<sup>3</sup> 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

<sup>1</sup> Goal 1. (Introduction Chapter 1).

<sup>2</sup> Policy 5.2.4 (Development Process Chapter 5).

<sup>3</sup> Policy 5.3.2 (Development Process Chapter 5).

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.

Ensure opportunities are available for greater use of active transportation and transit to: to improve community health; reduce greenhouse gas emissions; and increase resilience in the face of higher energy prices.<sup>4</sup>

## **6.0 Technical Comments**

### **6.1 Building & Permitting Department**

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

### **6.2 Development Engineering Department**

- See Schedule 'A', memorandum dated November 21, 2017.

### **6.3 Fire Department**

- No comments related to zoning.

## **7.0 Application Chronology**

Date of Application Received: November 1, 2017

Date Public Consultation Completed: January 20, 2018

**Report prepared by:**

Emily Williamson, Planner

**Reviewed by:**

Terry Barton, Urban Planning Manager

**Reviewed by:**

Ryan Smith, Community Planning Department Manager

**Approved for Inclusion:**

Doug Gilchrist, Divisional Director Community Planning & Strategic Investments

## **Attachments:**

Schedule 'A' – Development Engineering Memorandum dated November 21, 2017

Attachment 'A' – Site Plan and Conceptual Renderings

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<sup>4</sup> Objective 5.10 (Development Process Chapter 5).

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**CITY OF KELOWNA**  
**MEMORANDUM**

**Date:** November 21, 2017  
**File No.:** Z17-0103  
**To:** Community Planning (EW)  
**From:** Development Engineering Manager (JK)  
**Subject:** 573-603 Clement Ave

<b>SCHEDULE A</b>	
This forms part of application # OCP17-0028 Z17-0103	
Planner Initials	EW
 City of <b>Kelowna</b> COMMUNITY PLANNING	

RU2 – RM6

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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 Jason Angus.

**.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.

**.2) Road Dedication and Subdivision Requirements**

- a) A MSU standard size vehicle must be able to manoeuvre onto and off the site without requiring a reverse movement onto public roadways. If the development plan intends to accommodate larger vehicles movements should also be illustrated on the site plan. Indicate on the site plan, the locations of the garbage and recycle bins.
- b) Perimeter access must comply with the BC Building Code. Fire Truck access designs and proposed hydrant locations will be reviewed by the Fire Protection Officer
- c) Lot consolidation is required
- d) Access to the development should be via the laneway

**.3) Geotechnical Study.**

- (a) Provide a 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. The Geotechnical reports must be submitted to the Development Services Department for distribution to the



Development Engineering Branch and Inspection Services Division 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.

Additional geotechnical survey may be necessary for building foundations, etc

#### **.4) Water**

- a) The properties are located within the City of Kelowna service area. The existing lots are serviced with small-diameter water services (7 total). Only one service will be permitted to the site. The applicant, at his cost, will arrange for the removal of all existing services and the installation of one new larger metered water service.
- b) 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 residential zoning is 150l/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.
- c) An approved backflow protection device must also be installed on site as required by the City Plumbing Regulation and Water Regulation bylaws.
- d) 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

#### **.5) 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 (7 total) and the installation of one new larger service.

- b) A flow analysis check is required by the developer's civil engineering consultant to determine if there are any down stream impacts to the sewer system triggered by this development.

**.6) 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.

**.7) Roads**

- a) Clement Ave is designated an urban arterial road. Frontage improvements required are to include curb and gutter, separate sidewalk, piped storm drainage system, road works, landscaped boulevard complete with underground irrigation system, street lights, treed middle median. A modified SS-R9 cross section will be used and provided at the time of design. The developer must have a civil engineering consultant provide a detailed cost estimate for a one-time cash-in-lieu payment to the City of Kelowna for the Clement Ave frontage works.
- b) The lane way is designated to be constructed to a cross section of SS-R2. Storm drainage system will be required for this laneway.
- c) Landscaped boulevards, complete with underground irrigation design drawing as per bylaw, is required on Clement Ave

**.9) 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 as the subject properties are within the "City Center Urban Center".
- b) Streetlights must be installed on all roads.
- c) Make servicing applications to the respective Power and Telecommunication utility companies. The utility companies are required to obtain the City's approval before commencing construction.
- d) Re-locate existing poles and utilities, where necessary. Remove aerial trespass (es).



**.10) 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.

**.11) Other Engineering Comments**

- a) Provide all necessary Statutory Rights-of-Way for any utility corridors required, including those on proposed or existing City Lands, and for public access to Vaughan Ave via the proposed lane.
- b) If any road dedication affects lands encumbered by a Utility right-of-way (such as Terasen, 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.
- c) Only the services and the lane way upgrades must be completed at this time. The City wishes to defer the remainder of the upgrades to Clement Ave fronting this development. Therefore, cash-in-lieu of immediate construction is required and the City will initiate the work later, on its own construction schedule.

**.12) Servicing Agreements for Works and Services**

- b) 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.
- c) 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.



**.13) 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.
  - iii) Engineering and Inspection Fee: 3.5% of construction value (plus GST).
- c) A hydrant levy charge of **\$250.00** (\$250.00 per new lot)
- d) Deferred Revenue:
  - i) Clement Frontage improvements: **To be determined**



---

James Kay, P.Eng  
Development Engineering Manager

JA



Clement Ave - Facing West



Lane Perspectives



Clement Ave - Facing East



Clement Ave - Facing East

PERSPECTIVE VIEWS

CLEMENT AVENUE RENTALS  
573 - 603 CLEMENT AVE, KELOWNA BC

ANAGRAM PROPERTIES

BRILCO CONSTRUCTION

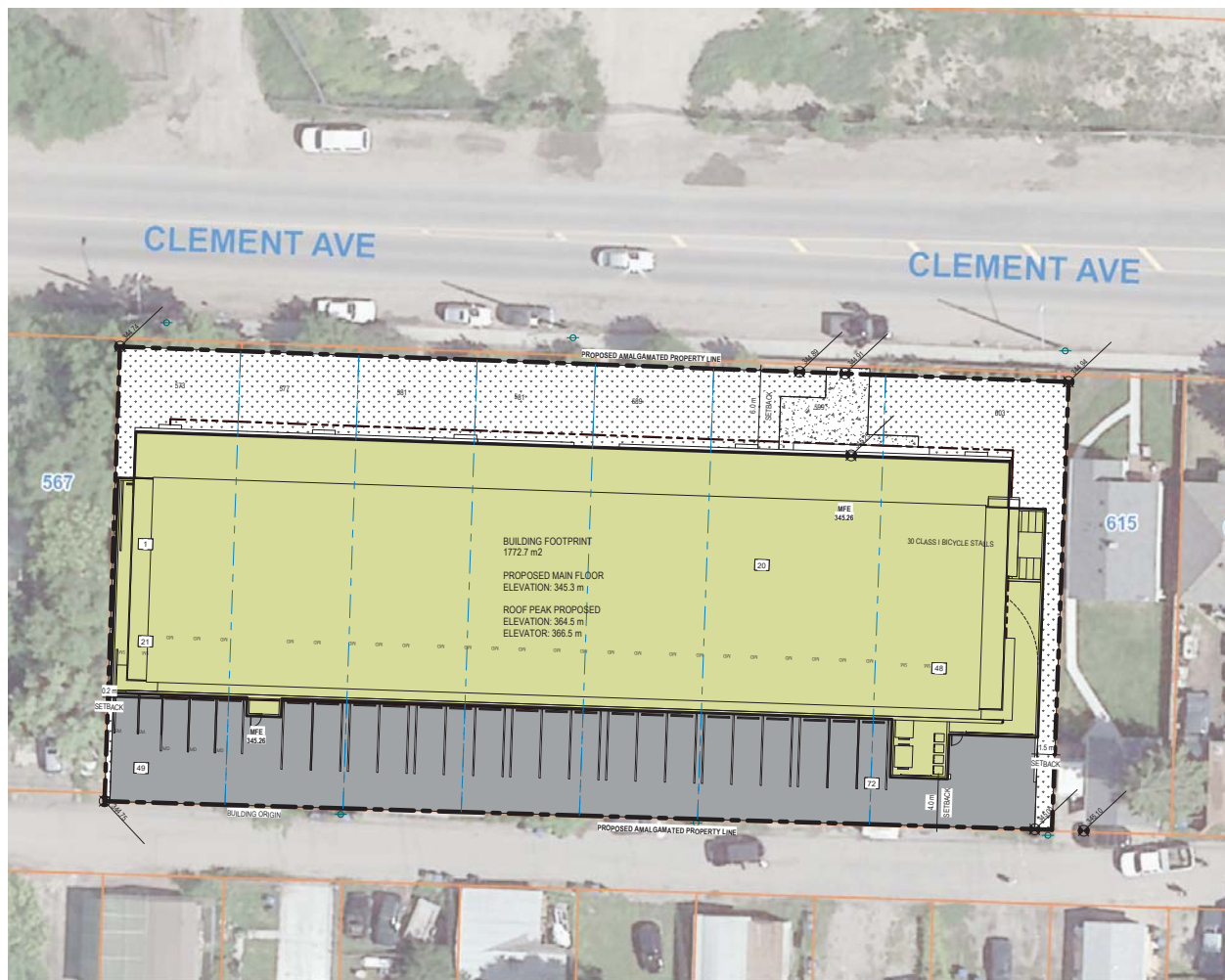
ATTACHMENT **A**

This forms part of application  
# OCP17-0028 Z17-0103

DRAWING: A-09  
PROJECT SCALE: 1/2" = 1'-0" NTS

City of Kelowna  
COMMUNITY PLANNING

Planner Initials **EW**



#### CLEMENT AVENUE PROPERTY - ANAGRAM

This project is planned for 573 - 603 Clement Avenue in Kelowna. The proposed project is a 58 unit apartment building consisting of a ground floor of parking and building entrance and five floors of residential units. The following is a summary of the proposed zoning for this site:

EXISTING ZONING: **RU2 - MEDIUM LOT HOUSING**

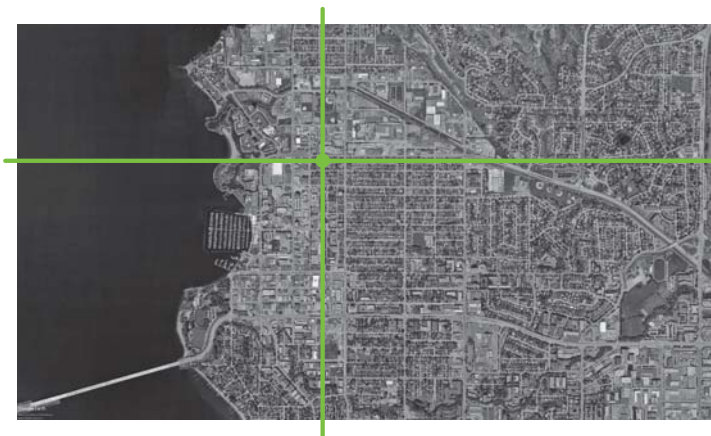
PROPOSED ZONING: **RM6 - HIGH RISE APARTMENT HOUSING**

#### ZONING REQUIREMENTS

	RM6	PROPOSED
MINIMUM LOT	30m X 35m	80.7m X 38.7m
MINIMUM AREA	1700m <sup>2</sup>	3096.4m <sup>2</sup>
MAX FAR	1.5	1.62
	+0.2 PARKING BELOW BLDG +0.1 PER 10% OPEN SPACE > 50%	
SITE COVER	50%	79%
SETBACKS		
FRONT	6.0m	6.6m NORTH
SIDE	4.5m (6.0m FLANKING STREET)	0.2m WEST
REAR	9.0m	1.5m EAST
PRIVATE OPEN SPACE		4.0m SOUTH
BACHELOR	7.0m <sup>2</sup>	
1 BEDROOM	12.0m <sup>2</sup>	
2+ BEDROOM	18.0m <sup>2</sup>	

#### PROPOSED BUILDING CONFIGURATION

PRIVATE OPEN SPACE	1137.1m <sup>2</sup>
UNITS	58 TOTAL (2 x 1BR, 43 x 2BR, 7 x 3BR, 6 x 4BR)
PARKING	39 REGULAR (54%), 28 MEDIUM (38%), 4 SMALL (6%) + 1 HC = 72 STALLS
BICYCLE PARKING	30 CLASS I 6 CLASS II



## ATTACHMENT A

This forms part of application  
# OCP17-0028 Z17-0103



Planner  
Initials  
ANAGRAM  
ARCHITECTS

City of  
**Kelowna**  
COMMUNITY PLANNING

#### SITE PLAN

CLEMENT AVENUE RENTALS  
573 - 603 CLEMENT AVE, KELOWNA BC

**ANAGRAM**  
PROPERTIES

**britco**  
CONSTRUCTION

DRAWING: A-01  
PROJECT: 17123  
DATE: 2017/10/31  
SCALE: 1/16" = 1'-0"



# CITY OF KELOWNA

## BYLAW NO. 11563

### Official Community Plan Amendment No. OCP17-0028 573, 577, 581, 589, 599 & 603 Clement Avenue

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

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

1. THAT Map 4.1 - **GENERALIZED FUTURE LAND USE** of "*Kelowna 2030* – Official Community Plan Bylaw No. 10500" be amended by changing the Generalized Future Land Use designation of:
  - a) Lot 29 District Lot 139 ODYD Plan 1303, located at 573 Clement Ave, Kelowna, BC;
  - b) Lot 56 District Lot 139 ODYD Plan 1037, located at 577 Clement Ave, Kelowna, BC;
  - c) Lot 57 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC;
  - d) Lot 58 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC;
  - e) Lot 59 District Lot 139 ODYD Plan 1037, located at 589 Clement Ave, Kelowna, BC;
  - f) Lot 1 District Lot 139 ODYD Plan 11327, located at 599 Clement Ave, Kelowna, BC; and
  - g) Lot 2 District Lot 139 ODYD Plan 11327, located at 603 Clement Ave, Kelowna, BCfrom the MRM – Multiple Unit Residential (Medium Density) designation to the MRH – Multiple Unit Residential (High Density) designation.
2. This bylaw shall come into full force and effect and is binding on all persons as and from the date of adoption.

Read a first time by the Municipal Council this

Considered at a Public Hearing on the

Read a second and third time by the Municipal Council this

Adopted by the Municipal Council of the City of Kelowna this

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Mayor

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City Clerk



# CITY OF KELOWNA

## BYLAW NO. 11564

### **Z17-0103 – 573, 577, 581, 589, 599 & 603 Clement Avenue**

---

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

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

1. THAT City of Kelowna Zoning Bylaw No. 8000 be amended by changing the zoning classification of:
  - a) Lot 29 District Lot 139 ODYD Plan 1303, located at 573 Clement Ave, Kelowna, BC;
  - b) Lot 56 District Lot 139 ODYD Plan 1037, located at 577 Clement Ave, Kelowna, BC;
  - c) Lot 57 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC;
  - d) Lot 58 District Lot 139 ODYD Plan 1037, located at 581 Clement Ave, Kelowna, BC;
  - e) Lot 59 District Lot 139 ODYD Plan 1037, located at 589 Clement Ave, Kelowna, BC;
  - f) Lot 1 District Lot 139 ODYD Plan 11327, located at 599 Clement Ave, Kelowna, BC; and
  - g) Lot 2 District Lot 139 ODYD Plan 11327, located at 603 Clement Ave, Kelowna, BCfrom the RU2 – Medium Housing zone to the RM6 – High Rise Apartment 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

Adopted by the Municipal Council of the City of Kelowna this

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Mayor

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City Clerk

**CITY OF KELOWNA**  
**BYLAW NO. 11410**  
**Z17-0020 – 434 Sarsons 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 18, District Lot 167, ODYD, Plan 8049 located on Sarsons Road, Kelowna, B.C., from the RU1 – Large Lot Housing zone to the RU2 – Medium Lot 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 29<sup>th</sup> day of May, 2017.

Considered at a Public Hearing on the 13<sup>th</sup> day of June, 2017.

Read a second and third time by the Municipal Council this 13<sup>th</sup> day of June, 2017.

Adopted by the Municipal Council of the City of Kelowna this

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Mayor

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City Clerk

# Report to Council



**Date:** February 26, 2018  
**File:** 0610-01  
**To:** City Manager  
**From:** David Gazley, Bylaw Services Manager  
**Subject:** Kelowna Bylaw Services Update to Council

---

## **Recommendation:**

THAT Council receive as information, a Bylaw Services update and report from the Bylaw Services Manager as presented on February 26, 2018.

## **Purpose:**

To provide Council with an overarching update of the Kelowna Bylaw Services Department including historical roles and responsibilities, present activities and future strategies in alignment with Mayor and Council's vision and priorities of public safety, addressing homelessness, strong financial management and fostering vibrant urban centres.

## **Background:**

The Bylaw Services Department is responsible for the adherence of 27 bylaws within the City of Kelowna. As a principal bylaws are primarily enforced on a complaint basis. Using a fair but firm approach, officers look to seek compliance through education and engagement as the first resort. If escalation is needed, officers can apply enforcement tools to bring violation into compliance, including the Bylaw offence notice. The advantage of using the bylaw offence notice legislation is that any ticket disputes are resolved out of the provincial court system. Disputes are handled using an established adjudication process where hearings are held within City Hall and presided over by an appointed adjudicator.

Historically Bylaw Services' focus was on parking and park patrols with an emphasis on sign enforcement, noise and traffic control, illegal suites and zoning complaints. The volume of complaints 15 years ago is less than half of today's volume. Even in the last five years we have seen file volumes increase by 70 per cent: in 2013 we received 7,641 calls for service, and in 2016 we received 12,966. In 2017, the increase slowed a bit, with an additional 300 files above the previous year. During this time, transient files went up 189 per cent, traffic / parking related files increased by 106 per cent, zoning

related issues increased 105 per cent, noise complaints rose 88 per cent and unsightly premises increased slightly by 22 per cent. In 2013 Bylaw Services had a compliment of 12 officers and a manager. Our only increase in staff to date has been the addition of a supervisor and one officer to handle this 70 per cent increase in call volume.

Bylaw's role has increased to be a valuable resource for a coordinated approach to increased public safety. Priority oriented enforcement includes proactive and reactive efforts. The Bylaw Services Department works closely with its enforcement partners – including the RCMP – as well as community partners. In an effort to reduce neighbourhood disputes, applying the new Good Neighbour Bylaw, certain complainants are urged to enter into mediation offered by the John Howard Society to reduce the number of calls efficiently and expediently. Bylaws was also active in helping the activation of the emergency winter-weather Cornerstone shelter. Increased foot patrols by Bylaw officers helped ensure the safety of the public, neighbouring businesses, staff, and those accessing the support service.

Our alternative compliance approach is that enforcement – ticketing – is not always the most effective way to achieve resolutions, particularly with addressing those experiencing homelessness. Applying a compassionate approach, and through our collaborative work with partner agencies, we aim to find alternative and proactive enforcement methods, as well as ways to educate the public.

Since the inception of the Good Neighbour Bylaw we have received 256 calls for service related to this new bylaw. Although we have not applied any abatement fees through the GNB some problem residences are under investigation and this valuable tool will aid in our efforts to ensure future compliance.

A 2018 process review will focus on building improved proactive data-driven deployment strategies that will further improve our ability to effectively deploy resources to priority files. Current practice includes prioritization of calls, implementation of a zoning enforcement model and continual analysis of calls for services. Looking forward we aim to engage the community further to help evaluate our programs so we can determine our successes and drive the future direction of Bylaw Services.

At this time, Bylaw officers' focus includes continued efforts to attain compliance of agricultural files in the north end of the City, taking quick action on high impact and repeat problem properties using the nuisance abatement feature of the Good Neighbour Bylaw and working on improved education and engagement opportunities to reduce future calls for service.

Attachment to this report includes presentation slides.

**Internal Circulation:**

Office of the City Clerk  
Deputy City Manager  
Communications Consultant

**External Agency/Public Comments:**

RCMP

**Considerations not applicable to this report:**

Personnel Implications



Financial/Budgetary Considerations  
Legal/Statutory Authority  
Legal/Statutory Procedural Requirements  
Communications Comments  
Alternate Recommendation  
External Agency/Public Comments

Submitted by:

D. Gazley, Bylaw Services Manager

**Approved for inclusion:**



R. Mayne, Divisional Director, Corporate and Protective Services

**Exhibits Attached:**

A. Presentation to Council

# Bylaw Services Council Presentation

February 5<sup>th</sup>, 2018

# Agenda

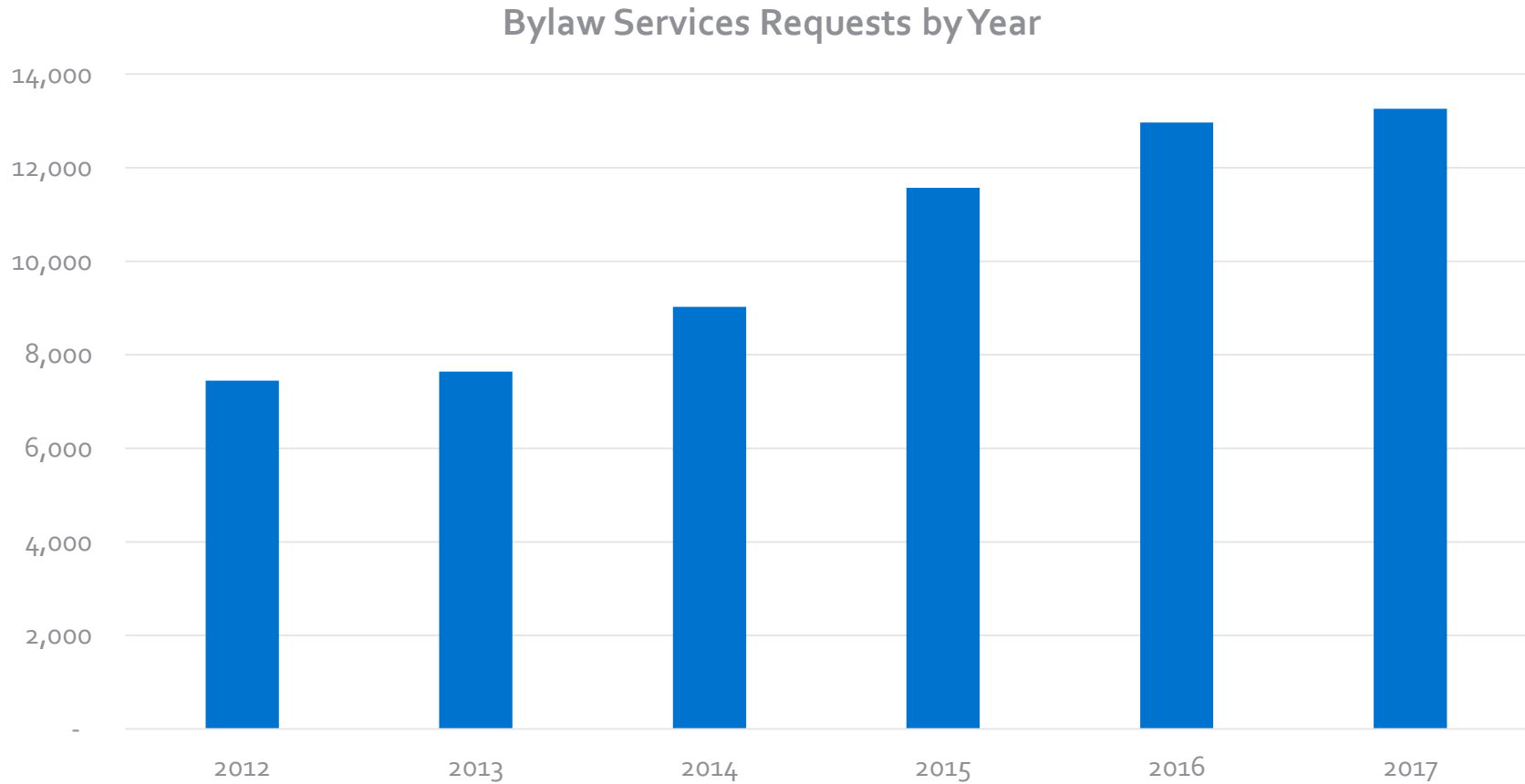
- 1) Historical Overview of Bylaw Activities
- 2) Current State of the Bylaw Department
- 3) Planning for our Future and Next Steps

# Historical Overview

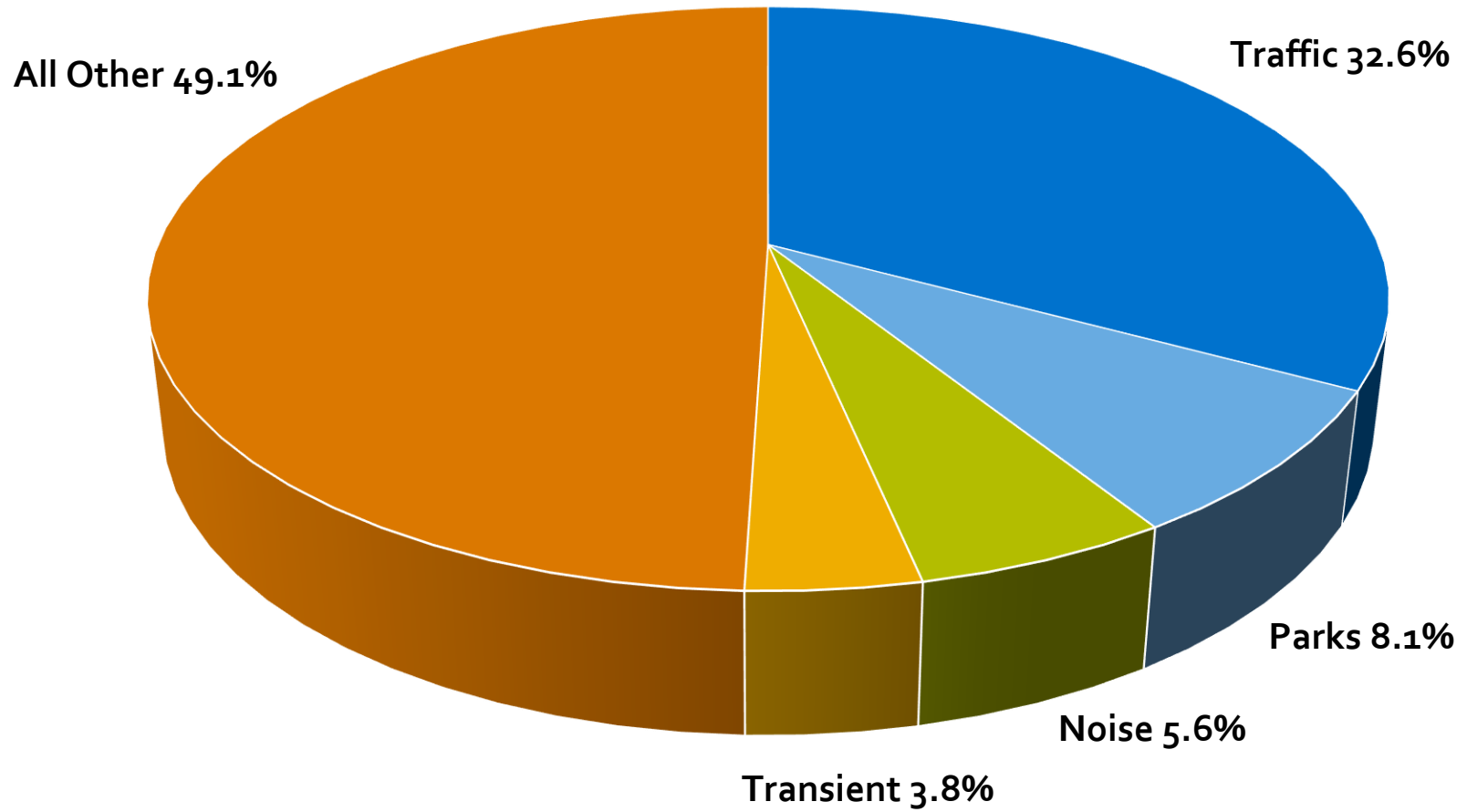
- 1) Traffic / Parking Enforcement
- 2) Property Nuisances / Noise
- 3) Compliance and Enforcement Focused



# Bylaw Services Activity



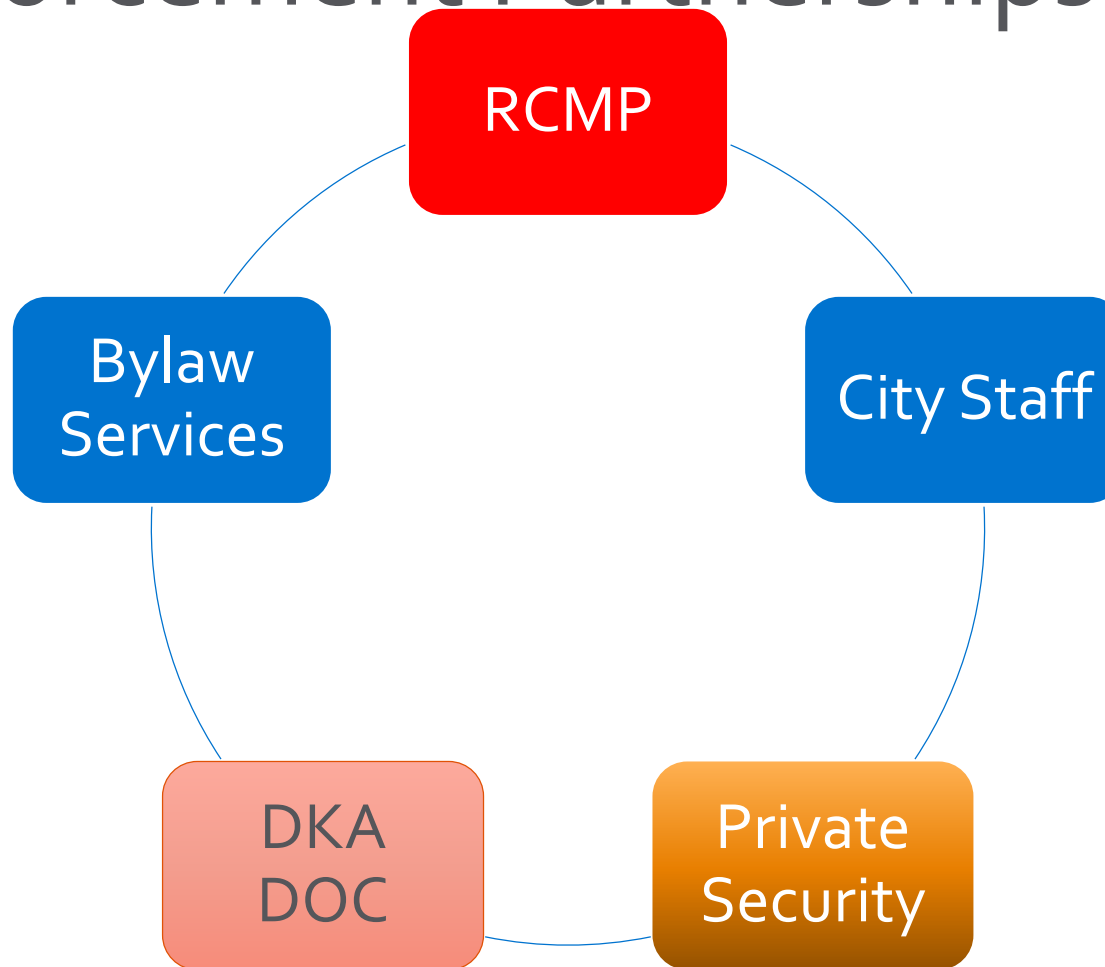
## Bylaw Services Service Requests by Type



# Moving Forward – At a Glance

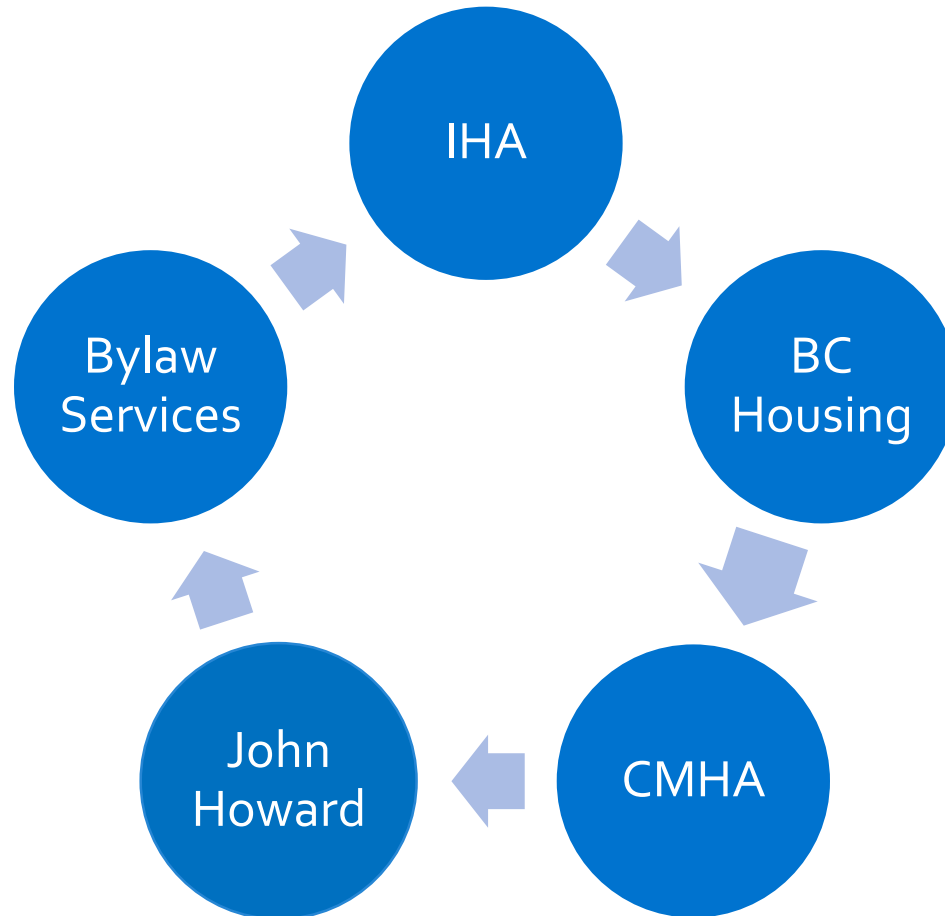
- ▶ Partnerships with External Stakeholders
- ▶ Alternative Compliance or Enforcement Methods
  - ▶ – Restorative Justice – Community Mediation
- ▶ District / Zone Enforcement
- ▶ Root Causation for Success
- ▶ 5 E's of Compliance
  - ▶ Education, Engagement, Engineering, Enforcement, Evaluation

# Moving Forward Enforcement Partnerships

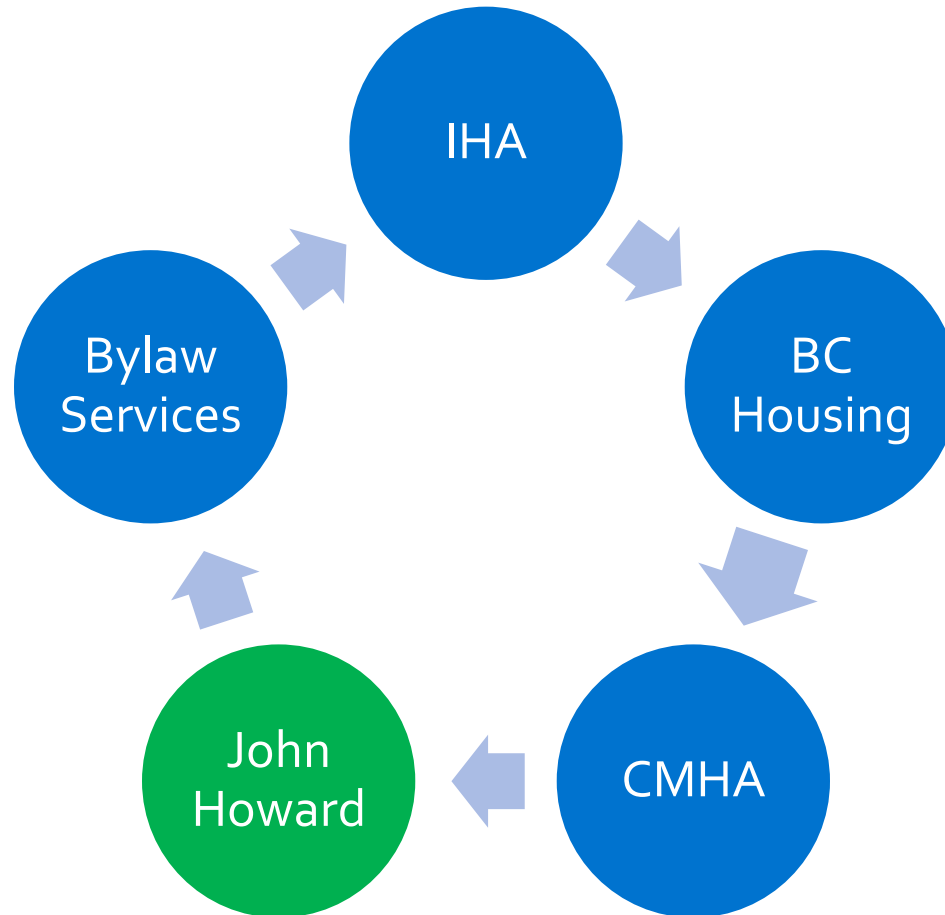




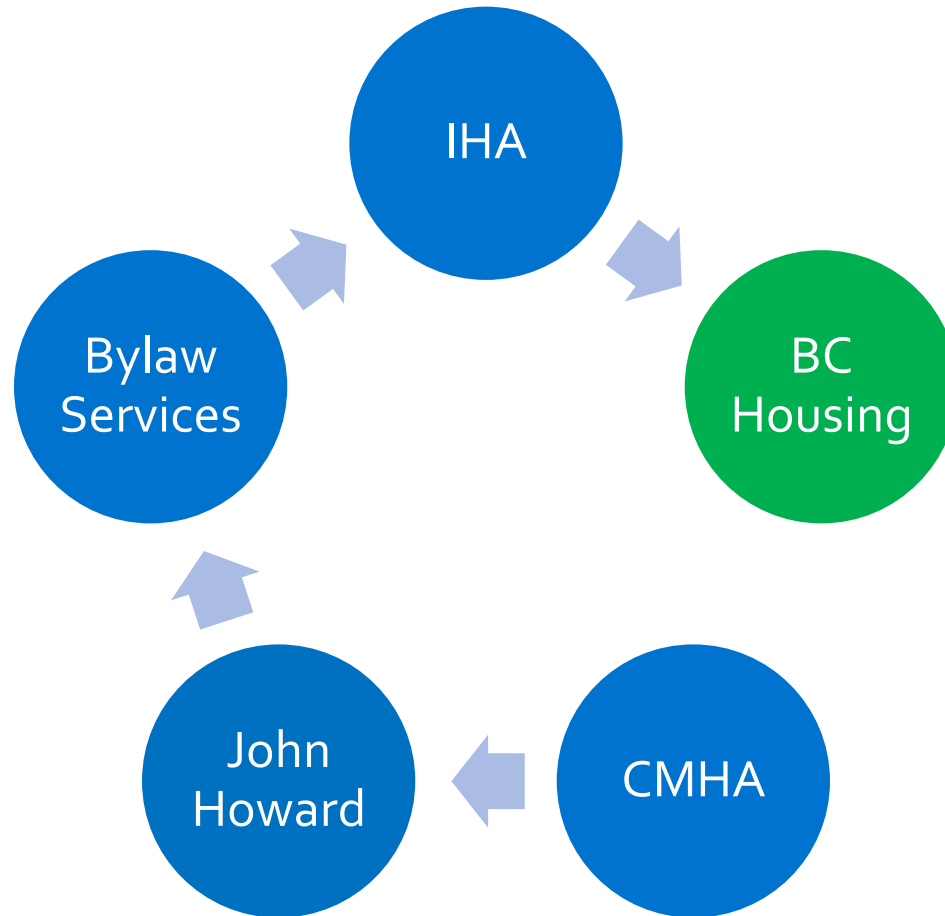
# Moving Forward Community Partnerships



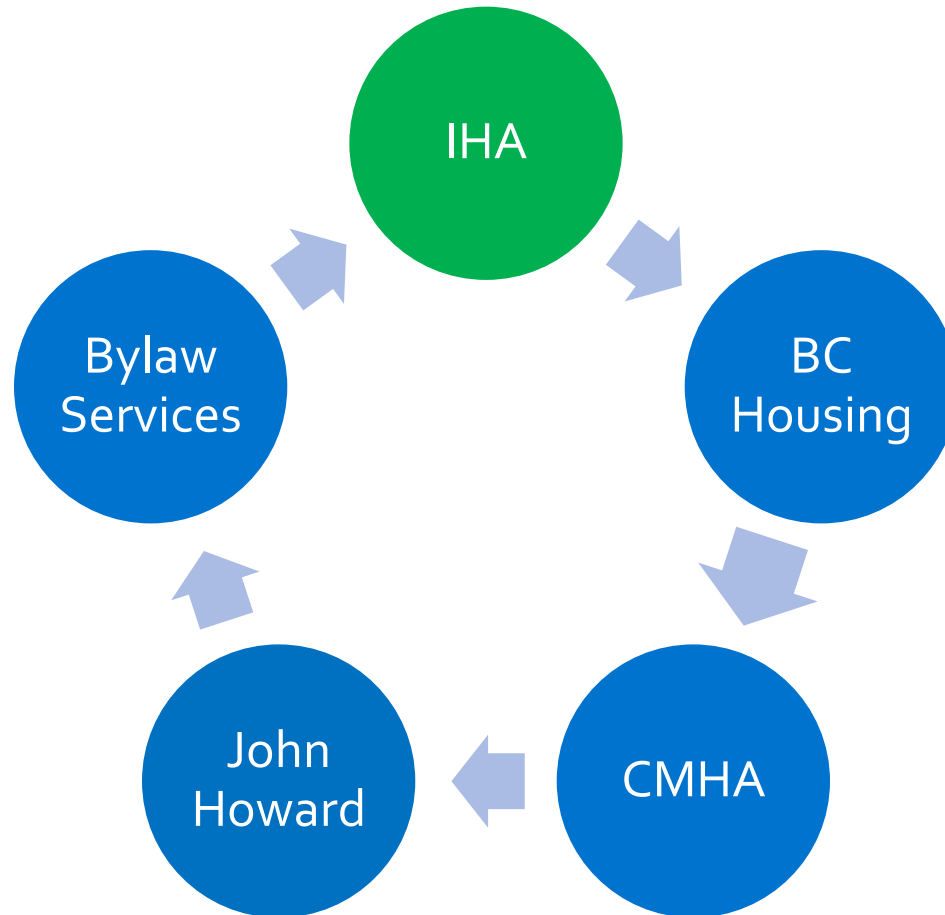
# Community Partnerships - Alternative Compliance



# Community Partnerships - Outreach



# Community Partnerships - Harm Reduction



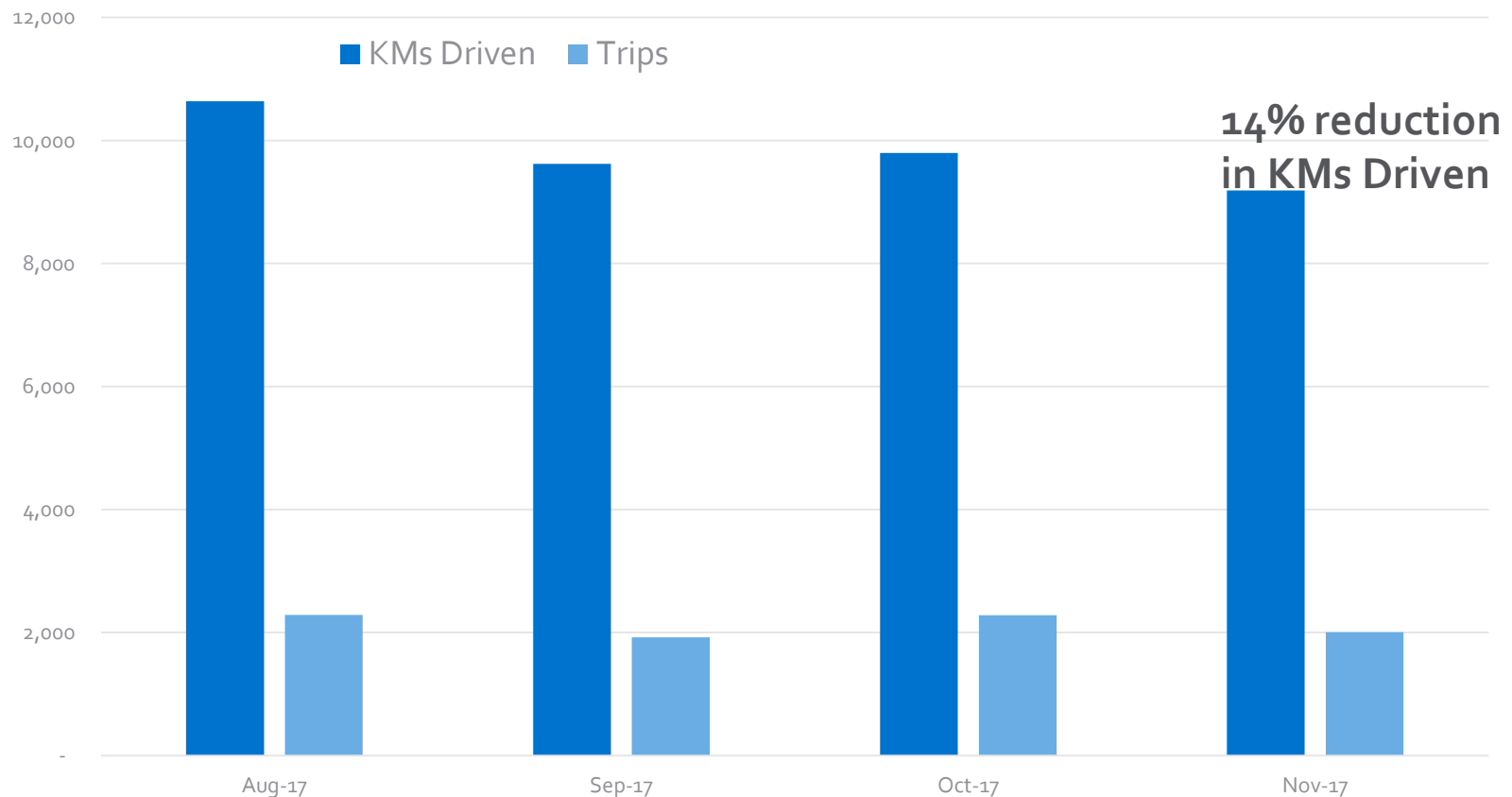


# Community Partnerships - Public Safety



- ▶ DKA – On Call
- ▶ BC Transit
- ▶ Paladin Security
- ▶ Kelowna Parking
- ▶ RCMP - DEU

# Moving Forward Zone Enforcement



# Moving Forward Root Causation

- ▶ Data analytics
- ▶ File review and analysis
- ▶ Managing resources

# Moving Forward – Summary

- ▶ Partnerships
- ▶ Alternative Compliance or Enforcement Methods
- ▶ Zone Enforcement
- ▶ Root Causation for Success
- ▶ 5 E's of Compliance
  - ▶ Education, Engagement, Engineering, Enforcement, Evaluation

# 2018 Priorities

- ▶ Agriculture Enforcement – Sexsmith / Appaloosa / Glenmore Road
- ▶ Good Neighbour Bylaw
  - ▶ Amendments – Panhandler / Street Entertainment
- ▶ High Impact Problem Properties
- ▶ Sign Bylaw





*Questions?*

# Report to Council



**Date:** February 19, 2018

**File:** 1846-01

**To:** City Manager

**From:** Kevin Van Vliet, Utility Services Manager

**Subject:** Amendment to Solid Waste Management Bylaw No. 10106

Report Prepared by: Clint McKenzie, Performance Improvement Consultant

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## **Recommendation:**

THAT Council receives, for information, the Report from the Utility Services Manager dated February 19, 2018, regarding the amendment to the Solid Waste Management Regulation Bylaw No. 10106;

AND THAT Bylaw No. 11548, Amendment No. 10 to the Solid Waste Management Regulation Bylaw, No. 10106, be forwarded for reading consideration.

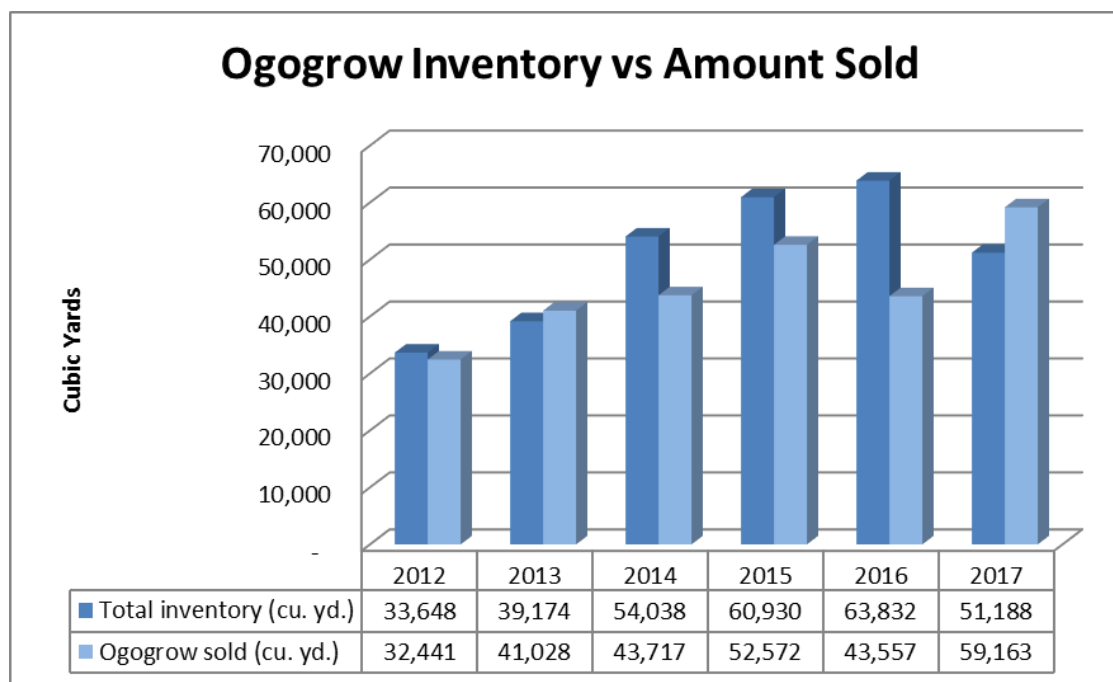
## **Purpose:**

To seek Council's approval to amend the Solid Waste Management Regulation Bylaw to help further reduce compost inventory, establish new wholesale customers, and to amend the fee schedule for collection carts.

## **Background:**

In 2015 the City commissioned a marketing study by Ference Weicker & Company to provide recommendations on increasing compost sales with a goal to eliminate excess inventory. The report identifies the need to focus efforts on wholesale customers who purchase the majority of the product, and enhance relationships between the City and potential wholesale customers.

An amendment in September 2017 to the Solid Waste Bylaw No. 10106 was approved by Council to allow the City to periodically amend rates on a short-term basis for sales outside the Central Okanagan Regional District and the City of Vernon when surplus inventory exceeds 25% of the annual production of compost. This initiative has proven to be effective as an additional 6000 cubic yards was sold in the last quarter of 2017. This represented 14% of 2017 OgoGrow sales.



The new Glenmore Landfill Plan adopted by Council in 2017 identifies a number of projects over the next 8-10 years to allow for continued operation. Capital improvements will begin in 2018 to restructure the non-organic/organic reprocessing area to support the plan. Over the next 8 years the current compost facility will see the construction of an aerated static pile compost facility, which uses much less land, and the relocation of organic receiving, grinding as well as inorganic materials receiving and processing. As a result, operations has changed the compost process for Glengrow, significantly reducing the area needed for processing (at an additional operating cost).

#### Wholesale sales

The City's compost storage facility at the Glenmore Landfill continues to exceed capacity for Ogogrow storage. In addition, there remains a need to continue to move significant quantities of Glengrow compost being processed and stored at the Glenmore Landfill site to accommodate the works associated with the relocation of organic and inorganic processing. Based on feedback staff have received since September from potential compost buyers located within the immediate market area, Utility Services is proposing to issue a Request for Expression of Interest (RFEOI) for bulk compost sales. This would allow further flexibility in the sale and pricing of the current surplus inventory. A bylaw amendment is required to allow staff to issue an RFEOI to provide fair flexibility in compost sales.

In addition to short term flexibility, staff are further developing relationships with potential wholesalers and retailers of compost products. In order to support these marketing initiatives, Utility Services is proposing to amend the compost wholesale pricing structure to provide lower wholesale prices to large volume purchasers.

#### Fee schedule - collection carts

A courtesy "change out" was originally introduced in 2009 when residential carts were introduced to assist residents in determining their appropriate cart size. The courtesy change out was intended to be

temporary as a customer service measure, and is no longer needed. Utility Billing is in the process of moving solid waste billing onto the new Tempest billing system. This has identified a very labour intensive process in monitoring past change outs of residential carts for garbage, recycling and yard trimmings collection. When the system was first implemented, and in response to user concern about the appropriate size cart for their use, the bylaw allows one free change out per property. This process has resulted in almost 10 years of tracking of change outs per property. Every change out request now requires extensive research into whether or not a property has received a change out in the past. Given the stability of the established program and the high administrative cost of managing the “one free” change out program, staff are recommending that all change outs be charged the \$25 fee. This fee recovers the cost paid to the contractor and a nominal amount for administrative costs.

**Internal Circulation:**

Divisional Director, Financial Services  
Revenue Supervisor  
Purchasing Manager  
Biosolids Supervisor  
Community Communications Manager

**External Agency/Public Comments:**

The report has been reviewed by the Director of Operations Services, Shirley Koenig, City of Vernon.

**Considerations not applicable to this report:**

**Legal/Statutory Authority:**

**Legal/Statutory Procedural Requirements:**

**Existing Policy:**

**Financial/Budgetary Considerations:**

**Personnel Implications:**

**Communications Comments:**

**Alternate Recommendation:**

Submitted by:

K. Van Vliet, Utility Services Manager

**Approved for inclusion:**



J. Creron, Deputy City Manager

cc:

Divisional Director, Financial Services  
Revenue Supervisor  
Purchasing Manager  
Biosolids Supervisor  
Community Communications Manager



# Solid Waste Management Regulation Bylaw

Proposed Amendments 2018

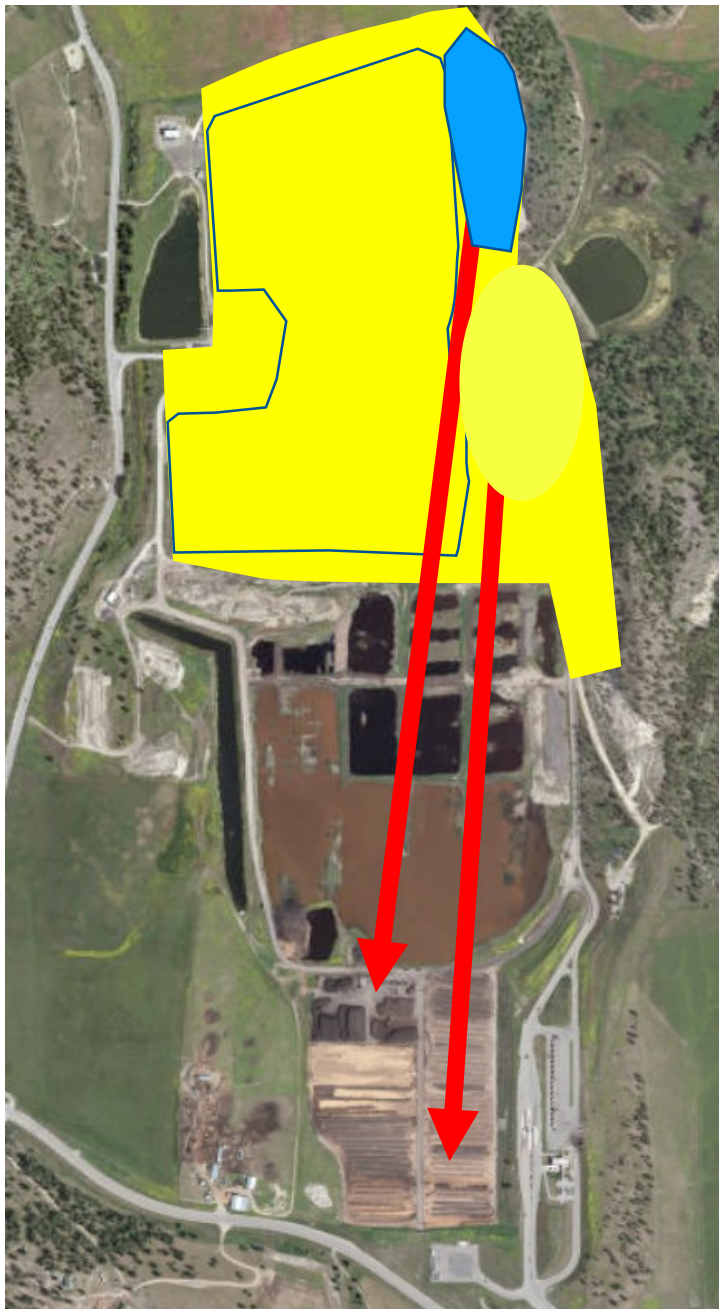


# Overview of Proposed Amendments

- ▶ Increase Compost Sales
  - ▶ Need
  - ▶ Alternate sales technique
  - ▶ Wholesale Pricing
- ▶ Collection Cart Change Out Fee

Need

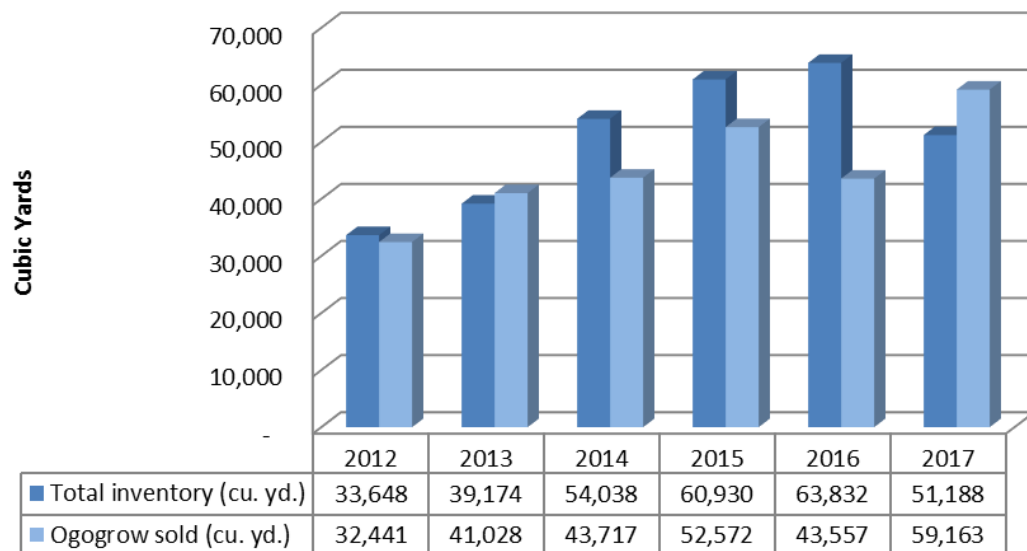
2018-2025



# Compost Sales

- ▶ Sep 2017
- ▶ \$0-\$7 per yd<sup>3</sup>
- ▶ Moved 6,000 yd<sup>3</sup>

**Ogogrow Inventory vs Amount Sold**



- ▶ Some success
- ▶ Interest from within market area

# Compost Sales

- ▶ Proposed Amendments
  - ▶ Only in effect when excess inventory
  - ▶ Allows for flexible proposals for purchase
    - ▶ E.g. Request for Expressions of Interest
  - ▶ Reduce pricing for large volume purchasers more quickly
    - ▶ Support wholesalers
    - ▶ Grow wholesaler market

# Compost Fees

## ► Proposed Rates

Yards purchased March 1 to February 28	Ogogrow at 551 Commonage Road	Ogogrow at Glenmore Landfill	Glengrow at Glenmore Landfill
Less than 50	\$21.43	\$21.43	\$21.43
50 to 249	\$16.07	\$16.07	\$16.07
250 to 999	\$13.39	\$13.39	\$13.39
1000 to 4999	\$8.00	\$8.00	\$8.00
5000 to 19,999	\$5.00	\$5.00	\$5.00
20,000 and up	\$2.50	\$2.50	\$2.50



# Collection Cart Fees

- ▶ Existing 1 free change out per property a challenge
  - ▶ Implemented when City started automated curbside collection
  - ▶ Tracking properties for 10 years
  - ▶ Does not address change in property ownership
  - ▶ Difficult to administer when properties subdivide
  - ▶ Cart use more stable and predictable
  - ▶ Current system requires manual tracking of change outs
- ▶ Proposal to eliminate “Free” change
  - ▶ Recover cost of change outs
  - ▶ More equitable for rate payers
  - ▶ Reduce costly tracking
  - ▶ Easier implementation with new software



*Questions?*

# CITY OF KELOWNA

## BYLAW NO. 11548

### Amendment No.10 to the Solid Waste Management Regulation Bylaw No. 10106

---

The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Solid Waste Management Regulation Bylaw No. 10106 be amended as follows:

1. THAT **SCHEDULE "B" CURBSIDE PICK UP LIMITS AND COLLECTION FEES**, be amended by deleting section 2.2 that reads:

"2.2 Each individual Residential Dwelling Premise will receive one free Garbage, Yard Waste or Recyclables Cart Change Out for different cart sizes as per sections 2.2.15 and 2.2.16. Additional cart size Change Outs will be assessed a Change Out Fee of \$25.00 plus applicable taxes per Change Out exchange and will be invoiced to the Owner of the Residential Dwelling Premise."

And replace it with:

"2.2 Cart size Change Outs will be assessed a Change Out Fee of \$25.00 plus applicable taxes per Change Out exchange and will be invoiced to the Owner of the Residential Dwelling Premise."

2. AND THAT **SCHEDULE "E" SANITARY LANDFILL / RECYCLING FEES**, be amended by deleting sections 5.a that reads:

"5.a The following rates plus applicable taxes shall be paid for all compost material sold at a wholesale level:

Yards purchased March 1 to February 28	Ogogrow at 551 Commonage Road	Ogogrow at Glenmore Landfill	Glengrow at Glenmore Landfill
Less than 50	\$21.43	\$21.43	\$21.43
50 to 249	\$16.07	\$16.07	\$16.07
250 to 999	\$13.39	\$13.39	\$13.39
1000 to 2999	\$10.45	\$10.45	\$10.45
3000 to 4999	\$9.08	\$9.08	\$9.08
5000 to 6999	\$8.48	\$8.48	\$8.48
7000 to 9999	\$7.63	\$7.63	\$7.63
10,000 to 19,999	\$6.87	\$6.87	\$6.87
20,000 and up	\$5.00	\$5.00	\$5.00

And replace it with:

- “5.a The following rates plus applicable taxes shall be paid for all compost material sold at a wholesale level:

Yards purchased March 1 to February 28	Ogogrow at 551 Commonage Road	Ogogrow at Glenmore Landfill	Glengrow at Glenmore Landfill
Less than 50	\$21.43	\$21.43	\$21.43
50 to 249	\$16.07	\$16.07	\$16.07
250 to 999	\$13.39	\$13.39	\$13.39
1000 to 4999	\$8.00	\$8.00	\$8.00
5000 to 19,999	\$5.00	\$5.00	\$5.00
20,000 and up	\$2.50	\$2.50	\$2.50

3. AND THAT **SCHEDULE “E” SANITARY LANDFILL / RECYCLING FEES**, be amended by deleting sections 6 that reads:

- “6. The Director of Civic Operations or designate is authorized to periodically amend rates on a short term basis when the total quantity of compost in inventory exceeds 25% of the City’s annual production of compost through:
- a. The sale of compost to buyers outside of the Central Okanagan Regional District and the City of Vernon; and
  - b. At a negotiated rate between \$0.00 and \$7.00 per cubic yard.”

And replace it with:

- “6. The Director of Civic Operations or designate is authorized to periodically amend rates on a short term basis when the total quantity of compost in inventory exceeds 25% of the City’s annual production of compost through:
- a. The sale of compost to buyers outside of the Central Okanagan Regional District and the City of Vernon at a negotiated rate between \$0.00 and \$7.00 per cubic yard; and
  - b. The sale of compost to proponents through the established City of Kelowna procurement process.”
4. This bylaw may be cited for all purposes as “Bylaw No. 11548 being Amendment No. 10 to the Solid Waste Management Regulation Bylaw No. 10106.”

Read a first, second and third time this by the Municipal Council of the City of Kelowna

Adopted by the Municipal Council of the City of Kelowna this

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk

# Report to Council



**Date:** February 19, 2018

**File:** 1880 – 15 Wastewater Planning

**To:** City Manager

**From:** Kevin Van Vliet, Utility Services Manager

**Subject:** Results of Strategic Review - Biosolids Management and the related Community Engagement Process

---

## **Recommendation:**

THAT Council receive for information the report from the Utility Services Manager dated February 19, 2018 regarding the results of the Strategic Review for Biosolids Management including the results of the related Community Engagement Process.

## **Purpose:**

**To inform Council on the status of long term planning for biosolids management, the results of the community engagement process on biosolids management and next steps.**

## **Background:**

The City of Kelowna, in partnership with the City of Vernon, compost wastewater solids at the Regional Biosolids Compost Facility located in the Regional District of North Okanagan. That facility is operating at capacity, necessitating decisions on the long term management of our wastewater solids. The City, on behalf of the partnership, commissioned Opus Dayton Knight (later Opus International) to conduct a strategic review of long term options available to the partnership along with a parallel public engagement process to help inform the partners on the best overall solution for our communities.

On April 10, 2017 Council last received an update on the Strategic Review – Biosolids Management Project which included an overview of the pending community engagement process and a summary of the technical work done to date. Unfortunately, due to staff turnover and spring flooding, staff were unable to complete this project until late 2017.

The community engagement was conducted in the spring of 2017 which consisted of a mix of targeted communications and engagement techniques including online and paper-based surveys, meetings with key stakeholders and a community meeting with residents living near the existing compost facility. The



process was well received and a copy of the Strategic Review of Wastewater Solids Management: Engagement Summary report that highlights the results of feedback is attached to this report.

In November 2017, Opus completed the Strategic Review Biosolids Management Summary Report which provided the overall conclusions of the strategic review process. The report summarizes the results of all of the technical work done to date as well as the results of the multiple bottom line analysis and is also attached to this report. Section 6 provides the consultants Conclusions and Recommendations.

The report recommends that the City of Kelowna proceed with preliminary design of biosolids digestion over simply expanding the existing composting facility to accommodate more throughput. The main advantages to this approach include:

1. Significantly reducing the amount of biosolids that leave Kelowna for composting, thereby extending the life of the existing compost facility;
2. Reducing odour at the composting facility as digested biosolids produce significantly less odour;
3. Creating a second processing or disposal outlet option in addition to composting. Digested biosolids can be directly land applied with the appropriate permits. Having a second final processing option (in addition to composting) reduces risks for the municipal owners in the event of problems or downtime at the compost facility.

The digestion process comes at a significant financial cost, estimated between \$30 and \$50 million dollars for the City of Kelowna wastewater treatment plant, depending on the technical details such as location and process. In addition, there is some odour risk potential in digesting biosolids within the City of Kelowna. Expanding the composting facility would also be in the tens of millions of dollars, especially if we are not to increase our generation of odour leaving the site.

The following activities are planned for 2018:

1. Develop a conceptual design and cost estimate for wastewater solids digestion consistent with the report's recommendations. The 2018 capital budget includes \$300,000 for this work;
2. Review and evaluate the potential for a plantation in the Vernon area, possibly using City of Vernon lands, to grow our own wood for both the use of finished compost (to promote growth) as well as potentially growing feedstock for the composting process. This would reduce our reliance on purchased hog fuel and reduce operational risk of losing hog fuel supply. This work will be funded from our existing Biosolids Management budget;
3. Work with the MoE, IHA, the RDCO and our consultant to better understand provincial plans, risks and potential of land application of Class A or Class B biosolids.

A reduction in Biosolids from Kelowna delivered to the regional compost facility will change the ratio of facility funding which would decrease Kelowna's share and increase Vernon's share of facility operating costs. This impact was discussed at the Biosolids Advisory Committee. This report was provided to the City of Vernon for their information.

**Internal Circulation:**

Division Director Infrastructure  
Infrastructure Engineering Manager  
Utility Planning Manager  
Financial Planning Manager

Community Engagement Manager  
Biosolids Supervisor  
Wastewater Treatment Supervisor

**Financial/Budgetary Considerations:**

The 2030 Infrastructure Plan has approximately \$7.8 million allocated in 2020 for expansion of compost capacity. This is a significant shortfall that will have to be addressed once we better understand the scope and options available to us and in any event before wastewater utility rates are set in early 2019.

**Considerations not applicable to this report:**

**Legal/Statutory Authority:**

**Legal/Statutory Procedural Requirements:**

**Existing Policy:**

**Communications Comments:**

**External Agency/Public Comments:**

**Personnel Implications:**

**Alternate Recommendation:**

Submitted by:

K. Van Vliet, Utility Services Manager

Approved for inclusion:

A square box containing a handwritten signature in purple ink, which appears to be 'J. Creron'.

J. Creron, Deputy City Manager

cc:

Division Director Infrastructure  
Infrastructure Engineering Manager  
Utility Planning Manager  
Financial Planning Manager  
Community Engagement Manager  
Biosolids Supervisor

# **E N G A G E M E N T S U M M A R Y**

## **Strategic Review of Wastewater Solids Management**



**Document prepared for Opus International  
by James Laurence Group** [www.jameslaurence.com](http://www.jameslaurence.com)

June 14th, 2017

# Table of Contents

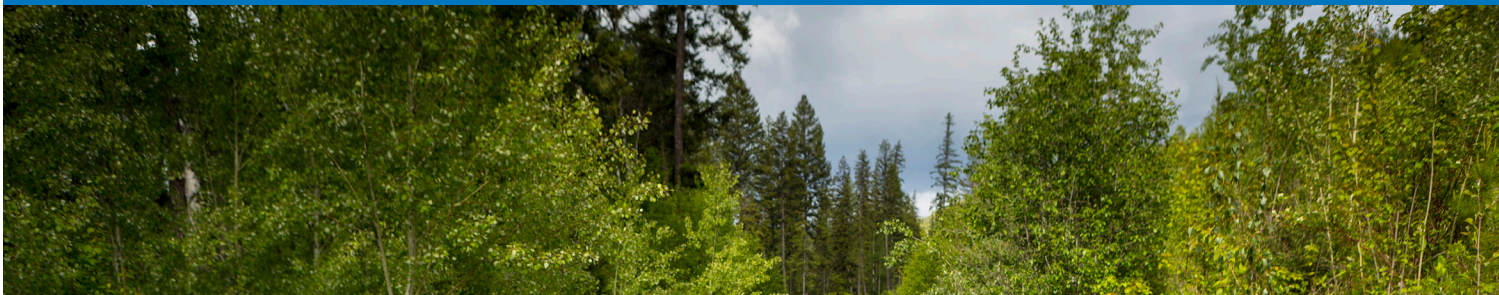
**Page 4 - 1 Introduction**

**Page 6 - 2 Community Engagement Program**

**Page 12 - 3 Evaluation**

**Page 12 - 4 Next Steps**

**Page 13 - Appendices**





# 1 Introduction

The cities of Kelowna and Vernon are reviewing options for the economical and environmentally responsible long-term management of wastewater solids. As populations in and around both centres grow, the cities are seeking to identify sustainable ways to manage an increasing supply of wastewater solids. This is an early planning process, and the next steps in the process will be determined by Kelowna and Vernon City Councils following the strategic review.

This report outlines the community and stakeholder engagement program conducted by the cities of Kelowna and Vernon between April 10 and May 19, 2017 and summarizes comments received from the community.

## 1.1 Background

Currently, the region's treated wastewater solids are mixed with wood chips and composted at the Regional Biosolids Compost Facility to produce a valued organic soil amendment called OgoGrow. Popular with Okanagan gardeners, landscaping companies, and construction contractors, OgoGrow generates important revenue for the cities and helps keep treated wastewater out of local landfills.

Space limitations at the compost facility, the availability of an affordable supply of wood chips, and the region's increased production of wastewater solids have created a need for the cities to research and evaluate a more diversified and sustainable approach, including examining new processing methods, new beneficial use options and potential new markets.

Following a six-month review to identify the most technically, environmentally and economically viable options, technical consultants, Opus International, identified three processing methods for further consideration. These methods are expected to improve performance at the Regional Biosolids Composting Facility, decrease the number of trucks on the road, reduce production volume, and shorten compost time.



### Digestion

Reduces the volume of wastewater solids by about 45% and converts a portion of the treated wastewater solids to environmentally friendly biogas that can be used for heating and electricity



### Thermal drying

Reduces the volume of wastewater solids by about 90% with minimal impact on nutrient quality



### Chemical treatment

Shortens the time required to compost wastewater solids

Products processed using these methods could be sold as a nutrient-rich composting product like OgoGrow or as a product that could potentially be used as a soil amendment for forestry, agriculture, landfill closure or mine reclamation.

## 1.2 Goals and Objectives

The goal of the community and stakeholder engagement program is:



To provide councils with community and stakeholder feedback to inform their decision-making related to next steps in strategic wastewater solids management planning

This goal is supported by the following objectives:



To inform the community and stakeholders that:

- There is a strategic planning process underway
- A decision about next steps in the planning process will be made by councils



To increase community and stakeholder recognition of the complexity of managing wastewater solids, particularly relative to population growth, economic and environmental responsibility and sustainability, and create awareness of the alternative pre-treatment and beneficial end use methods that are under consideration



To engage the community and stakeholders in reviewing and commenting on key planning considerations related to economic, environmental and technical considerations

# 2 Community Engagement Program

## 2.1 Approach

Community engagement is an important part of the strategic planning process. The community engagement program conducted by the cities of Kelowna and Vernon followed the approach outlined below:

1

Inform community and stakeholder groups that a planning process is underway and build awareness of the complexity of waste solid management planning and decision-making

2

Ask the community and stakeholders to share their interests and values relative to key planning considerations, including:

- A. The importance of having an economically and environmentally responsible long-term management plan for wastewater solids
- B. The concept of economically responsible and what that means in terms of considering marketable beneficial use options
- C. Key factors that will inform decision-making, including:
  - Quality of life considerations (odour, traffic, dust, convenience)
  - Environmental sustainability (air, water, soil)
  - Financial sustainability
  - Operational viability (will it accommodate future population growth?)

3

Employ a mix of targeted communications and engagement techniques, including:

- A. Web content, presentations, a fact sheet, and a news release\* to inform people about the management planning process and notify them of engagement opportunities
- B. A survey (online and paper-based) and stakeholder meetings to gather community and stakeholder input
- C. A direct phone and email line to answer questions from the public

4

Track community and stakeholder input and provide a report to Kelowna and Vernon City Councils

\*The project fact sheet and news release can be found in Appendix A and B

## 2.2 Feedback

Community feedback was gathered through:

- An online and paper-based survey
- Meetings with key stakeholders
- A community meeting with residents living near the existing compost facility

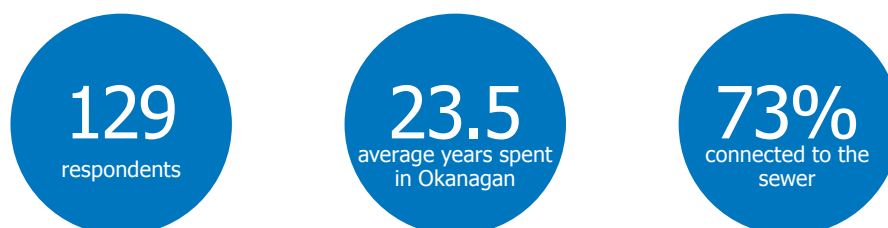
To ensure widespread awareness of the engagement opportunities, the cities:

- Distributed a news release to local media
- Posted content describing the engagement process on the Vernon and Kelowna websites
- Promoted the engagement program and online survey through social media posts and via the City of Kelowna's new engagement site ([getinvolved.kelowna.ca](http://getinvolved.kelowna.ca))
- Provided a link to the online survey on city websites and provided a paper-based survey at city facilities
- Distributed fact sheets describing the engagement process at all engagement events
- Sent direct email and mail invitations to residents living near the existing compost facility to participate in the community meeting at Predator Ridge

### 2.2.1 The Wastewater Solids Management Survey

The Wastewater Solids Management Survey was posted from April 10 to May 19, 2017 to the City of Kelowna's Get Involved web page ([getinvolved.ca](http://getinvolved.ca)) and a link was provided on the City of Vernon website ([vernon.ca](http://vernon.ca)). During that period, a paper-based version of the survey was also available at city facilities.

### Summary of Respondents



### Summary of Respondents

**98%** of respondents indicated a long-term plan to manage the growing volume of wastewater solids is very or somewhat important. 2% indicated this is not important.

**84%** said they are aware or very aware that treated wastewater solids are currently used for beneficial purposes, such as a fertilizer or soil amendment product.

**75%** indicated revenue generation from the sale of soil amendment products made from wastewater solids is very or somewhat important. 25% said this is not very or not at all important.

**54%** indicated they wish to see the cities' increase their revenue from wastewater solids by creating and selling more soil amendment products. 18% said they don't want the cities to increase their revenue. The remainder were unsure or did not respond.

**89%** indicated it is very or somewhat important to continue to divert wastewater solids from local landfills. 11% indicated it is not very or not at all important.

**90%** said they see high or some value in continuing to produce and sell compost for gardeners, landscapers and construction contractors through OgoGrow and similar products. 10% said they see low or no value.

Respondents were asked to indicate the value they placed on the following potential uses for treated wastewater solids:

**Fertilize and grow trees for compost operations**

56% - high value  
29% - some value  
9% - low value  
6% - no value

**Fertilize and develop existing forest areas to produce wood for local economy**

55% - high value  
30% - some value  
9% - low value  
6% - no value

**Reclaim mine sites**

58% - high value  
31% - some value  
7% - low value  
5% - no value

The survey included two open-ended questions:

1

**What would you like the cities to take into consideration when determining next steps in wastewater solids management?**

This question was addressed by 94 survey respondents, many of whom provided multiple comments. The following list captures the themes mentioned by respondents:

- Look for ways to increase demand for OgoGrow; this could include reducing the cost to consumers, extending the marketing area, making the produce more accessible by encouraging neighbourhoods to sign-up for a truckload delivery, or supplying it free to seniors, community gardens and low income persons (25 mentions)
- Consider potential impacts to the environment, including drainage or seepage into lakes and impacts on soil quality (13 mentions)
- Ensure the product produced from wastewater solids is thoroughly tested and safe; this includes free from pharmaceutical and factory waste and takes into consideration how it could affect food grown with it and water sources. (10 mentions)
- Consider the highest and most beneficial use for wastewater solids; respondents suggested harvesting wastewater products into biofuel, harnessing the energy to self-power the treatment plant, using it to regenerate forests rather than to support forestry, using it to create environmental benefits, and exploring best practices from around the world (9 mentions)



**What we heard:**

"OgoGrow is a wonderful product to be used in landscaping. However, it can be rather expensive. Lower the price and sell more. I would double or triple my use if it was more affordable."

- Respondent

- Consider the quality of life for those living near the facilities, including impacts from odour (8 mentions); two respondents indicated the Regional Biosolids Compost Facility should be moved
- Consider potential impacts on public health, including the effects of drugs on the water cycle (8 mentions)

Other comments include consider the sustainability of the solution, the potential for revenue generation, the long-term vision for the cities, and other options such as incineration, biochar and turning biosolids directly into refined products, or providing for at-home compost toilets.

## 2

### What do the cities need to consider when evaluating potentials uses for wastewater solids?

This question was addressed by 96 survey respondents, many of whom provided multiple comments. The following list captures the themes mentioned by respondents:

- Conduct a cost-benefit analysis and identify potential for revenue generation, including looking at return on investment for different options (25 mentions)
- Consider potential impacts on the environment including air and water quality (22 mentions)
- Consider potential impacts on public health (14 mentions)
- Identify ways to increase demand for OgoGrow; considerations include reducing cost for users, increasing public awareness of the benefits, and identifying improved distribution (12 mentions)
- Ensure products produced are thoroughly tested and safe and free of contaminants (11 mentions)
- Consider quality of life for residents living near facilities, including impacts from odour and potential groundwater and lake contamination (10 mentions)

A few respondents said the cities should consider wastewater solids as a valuable resource that can be used to generate energy and reduce operational costs, others stressed the importance of identifying a sustainable, long-term approach and mentioned the importance of keeping wastewater solids out of the landfill.

Responses to the survey came from throughout the Okanagan.



#### What we heard:

"It should not be located close to an area where smell will disturb residents, but shouldn't be too far away to discourage residents from purchasing the final product."

- Respondent



### 2.2.3 Meetings with Stakeholders

A PowerPoint presentation was made at each meeting, followed by an opportunity for participants to ask questions directly to City staff and technical consultants.

The project team met with the following stakeholder groups throughout April and May:

- Kelowna/Vernon Joint Biosolids Advisory Committee (April 4, 2017)
- Vernon City Council (April 10, 2017)
- Kelowna City Council (April 10, 2017)
- Okanagan Water Stewardship Council (April 13, 2017)
- Regional District of North Okanagan staff (May 3, 2017)
- Regional District of North Okanagan Electoral Area Advisory Committee (May 4, 2017)
- Interior Health Authority (May 18, 2017)

The themes that emerged from these meetings include:

- Ensure all decisions consider odour and the potential effects on soil, groundwater, drinking water, and public health
- Monitor before, after, and during operations
- Help increase public understanding of wastewater solid's value as a resource rich in essential plant nutrients, and OgoGrow's value as a soil amendment
- Continue public education on how other communities manage wastewater solids as well as the regulations that promote public safety, health, community values, and the environment
- Continue to engage with key stakeholders as this process continues
- Continue to address interests of residents living near the existing facility

## Staff and technical consultants provided information through a PowerPoint presentation, project fact sheet, and a series of information panels.



**Strategic Review of Wastewater Solids Management**  
Evaluating options for the economic and environmentally responsible management of wastewater solids

# Welcome!

The cities of Kelowna and Vernon are looking for new ways to manage wastewater solids and we want to hear from you!

Please take a look around, ask questions of the team and let us know what you think.

There will be a short presentation at 4:15 and again at 5:15.

### Evaluating options for the economic and environmentally responsible management of wastewater solids

#### Identifying sustainable options

To meet the demands of a growing population, the Cities of Kelowna and Vernon are evaluating options for the economic, socially and environmentally responsible long-term management of wastewater solids.

#### Rich in essential plant nutrients

Currently, wastewater solids are mixed with wood chips and composted at the Regional Biosolids Composting Facility to produce a valued organic soil amendment called OgoGrow.

#### A valuable resource

The sale of OgoGrow to gardeners, landscaping companies and construction contractors generates important revenue for the Cities and helps keep treated wastewater solids out of the landfills.

#### A more diversified and sustainable approach

Due to space limitations at the compost facility, a shortage of wood chips, and the region's increased production of wastewater solids, the Cities are looking for a more diversified and sustainable approach.




#### Maximizing value and minimizing community impacts

The Cities are committed to working together with the community to maximize the value of the nutrient-rich resource and minimize potential impacts to residents and the environment.



### Reducing truck traffic and odours

The cities are evaluating three new processing methods that would improve performance at the Regional Biosolids Composting Facility, decrease the number of trucks on the road, reduce production volume and shorten compost time.

Method	Reduces volume	Reduces odour	Reduces traffic	Other considerations
 <b>Digestion</b> Reduces the volume of wastewater solids by about 45%. Converts a portion of the treated wastewater solids to environmentally friendly biogas that can be used for heating and electricity.	✓	✓	✓	Requires additional systems at the wastewater treatment plant or other location to remove nutrients.
 <b>Thermal drying</b> Reduces the volume of wastewater solids by about 90% with minimal impact on nutrient quality.	✓	✓	✓	Requires additional facilities and careful management to ensure safe and dry winter storage of the finished product.
 <b>Chemical treatment</b> Shortens the time required to compost wastewater solids.	✗	✓	✗	

Products processed using these methods could be sold as a nutrient-rich composting product like OgoGrow or as a product that could potentially be used as a soil amendment for forestry, agriculture, landfill closure or mine reclamation.



## 2.2.4 Community Meeting

Recognizing residents living near the existing Regional Biosolids Composting Facility on Commonage Road in Vernon have a unique interest in the strategic review process, the cities invited residents living near the existing facility to a community meeting May 17, 2017 in the Peregrine Room at Predator Ridge Golf Course.

The meeting was attended by 14 members of the community and provided an opportunity for residents to get valuable information, provide feedback, and ask questions directly to the city staff and technical consultants.

Themes that emerged from these conversations include:

- Concern about odour and its impact on quality of life, property value, tourism and lake users
- Recognition that the odour has improved in the last few years but remains a problem in specific areas
- Recognition that wastewater solids need to be managed in a beneficial way
- Desire for the facility to be relocated, closed, or not expanded at its current location
- Concern for potential effects on groundwater, drinking water, and Kalamalka Lake and a request for independent and transparent water monitoring
- Support for improved visual screening as a low-cost, high-value improvement
- Concern about the potential for pharmaceuticals, metals, and wood fibres in the OgoGrow product
- Concern that the City of Vernon is accepting the City of Kelowna's wastewater solids
- Request for more information about why incineration is not being considered
- Desire for engagement with the broader community and better communication from the cities to the public

### We're listening and taking action

You have told us about your priorities related to the Regional Biosolids Composting Facility. They include:

- Odour reduction
- Protection of groundwater, ponds and creeks
- Truck traffic
- Safe transport
- Buffering private property from the facility

In response to your priorities and our commitment to environmental and social responsibility, we have:

- Installed specialized equipment that helps manage odours by predicting odour levels as they relate to changes in the weather
- Implemented a comprehensive odour management program
- Committed to ensure that any drainage received from the Regional Biosolids Composting Facility is contained and managed in such a manner as to meet or exceed all environmental standards
- Invested in trailers with sealed rear gates and closed covers to reduce odours during transport (biosolids are not classified as a hazardous material for transport)

We are committed to continuous improvement and to the economically, socially and environmentally responsible management of wastewater solids.

Quality of life is a key consideration in our evaluation of potential options. Our strategic review is grounded in the following key principles:

- No increase in odour
- No increase in truck traffic
- Continued commitment to safeguard the environment and public health



### Key factors that will inform evaluation

The cities of Kelowna and Vernon are working to balance the beneficial use of the nutrient-rich organic material with continued environmental and public health safeguards.

Key factors that will inform the evaluation process include:

- Quality of life considerations such as odour, traffic, dust and convenience
- Environmental sustainability
- Financial sustainability
- Operational and technical viability



### Your opinion matters!

Your comments will be included in a summary report for Kelowna and Vernon City Councils. Councils will use your input, as well as technical and market reviews, to determine next steps in the planning process.



Please make sure you complete a short questionnaire before you leave.



You can also complete the full survey on the City of Kelowna and City of Vernon websites:  
[getinvolved.kelowna.ca](http://getinvolved.kelowna.ca)  
[vernon.ca](http://vernon.ca)

Thank you for  
coming today!

If you have any further questions or comments, please contact:



Andrew Reeder,  
Utility Planning Manager  
City of Kelowna  
[areeder@kelowna.ca](mailto:areeder@kelowna.ca)  
250-469-8938

## 3 Evaluation

Participants who attended the stakeholder meetings indicated they found the presentations informative and valued the opportunity to be engaged in the strategic review process. Participants to the community meeting said they appreciated the format and having access to city staff and technical consultants. A few participants asked that the outreach be expanded to include Kalamalka Lake users and other area residents. Some said they would like to see more information about the processing methods and uses under consideration.

Survey promotion was effective, encouraging 126 survey responses. Social media posts promoting this engagement reached 819 people on Facebook and made 689 Twitter impressions. There were 393 page views on the wastewater management project page at [getinvolved.kelowna.ca](http://getinvolved.kelowna.ca).

## 4 Next Steps

Managing wastewater solids in a way that is socially, economically environmentally responsible is an important issue for the cities and its residents. Throughout the engagement process, participants encouraged the cities to continue the dialogue and help build widespread understanding of the challenges and opportunities of wastewater solids management.

This summary report, along with the results of the technical and market review prepared by Opus International, will be presented to Council to inform their decision-making about the next steps in the planning process.




# 5 Appendices



- 5.1 - Appendix A: Project Fact Sheet
- 5.2 - Appendix B: News Release
- 5.3 - Appendix C: Community Meeting Panels
- 5.4 - Appendix D: Stakeholder Meeting Presentation
- 5.5 - Appendix E: Community Meeting Invitation
- 5.6 - Appendix F: The Wastewater Solids Management Survey



## 5.1 Appendix A: Project Fact Sheet



# Strategic Review of Wastewater Solids Management

Evaluating options for the economic and environmentally responsible management of wastewater solids

### Identifying sustainable ways to manage wastewater solids


To meet the demands of a growing population, the cities of Kelowna and Vernon are evaluating options for the economically, socially and environmentally responsible long-term management of wastewater solids.

The cities are committed to achieving a sustainable balance that maximizes the economic value of a resource that is rich in essential plant nutrients and minimizes potential impacts to communities and the environment.

### Wastewater solids are a valuable resource


In 2016, the region's three wastewater treatment plants processed about 18 billion litres of wastewater from homes and businesses in Vernon, Kelowna and the surrounding communities. During wastewater treatment, solids are settled out of the wastewater stream. Treated wastewater solids, also called biosolids, are recognized as a valuable source of nutrient-rich organic matter and used across B.C. as a soil amendment for land reclamation, parks, forests, tree farms and residential and business landscaping.

Currently, the region's treated wastewater solids are mixed with wood chips and composted at the Regional Biosolids Compost Facility to produce a valued organic soil amendment called OgoGrow. Popular with Okanagan gardeners, landscaping companies and construction contractors, OgoGrow generates important revenue for the cities and helps keep treated wastewater solids out of local landfills.





Year	Wastewater Solids (wet tonnes)
2015	28,000
2035	37,000

In 2015, residents and businesses in Kelowna and Vernon produced more than 28,000 wet tonnes of wastewater solids. By 2035, that number is expected to increase to 37,000.



### Diversifying options

Space limitations at the compost facility, the availability of an affordable supply of wood chips, and the region's increased production of wastewater solids have created a need for the cities to research and evaluate a more diversified and sustainable approach, including examining new processing methods, new beneficial use options and potential new markets.

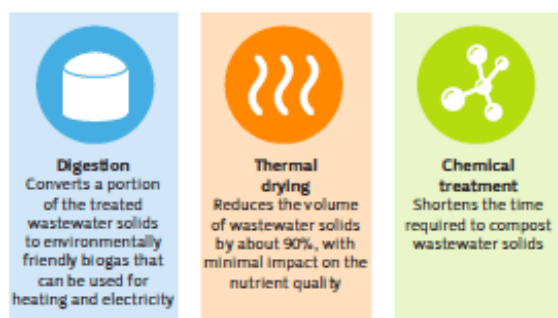



## Strategic Review of Wastewater Solids Management

### Evaluating technical, economic and environmental viability

Following a six-month review to identify the most technically, environmentally and economically viable options, three processing methods and two beneficial use options have been identified for further consideration.

The three processing methods under consideration are digestion, thermal drying and chemical treatment.



The two beneficial use options under consideration are to continue to produce and sell nutrient-rich compost through products like OgoGrow, and to produce a product that could potentially be used as a soil amendment for forestry, agriculture, landfill closure or mine reclamation.

Further study is required into the market potential and technical considerations for soil amendment products produced through these methods.

Other options evaluated were not shown to be technically, environmentally or economically viable.

### Committed to protecting human health and the environment

Each option must be considered within the current and future regulatory framework. The Organic Matter Recycling Regulation of B.C. (OMRR) governs the production, quality and use of certain types of organic matter and provides guidance for local governments on how to use organic material while protecting human health and the environment. To help align management practices with the interests of communities and First Nations and ensure best environmental practices, the Province of B.C. is completing a scientific and technical review and is taking steps to amend the Organic Matter Recycling Regulation.

The B.C. Organic Matter Recycling Regulation can be found at [www2.gov.bc.ca/gov/content/environment/waste-management/recycling/organics/regulations-guidelines](http://www2.gov.bc.ca/gov/content/environment/waste-management/recycling/organics/regulations-guidelines)

### Key factors that will inform decision-making

The cities of Kelowna and Vernon are committed to wastewater solids planning that balances the beneficial use of the nutrient-rich organic material with continued environmental and public health safeguards.

Key factors that will inform the evaluation process include:

- Quality of life considerations such as odour, traffic, dust and convenience
- Environmental sustainability
- Financial sustainability
- Operational and technical viability

### We want to hear from you

Community engagement is an important part of the planning process. Check out the City of Kelowna and the City of Vernon websites to learn more and complete the Wastewater Solids Management Survey to add your voice to the evaluation process. We will be meeting with community groups and combining all the input we receive into a summary report for Kelowna and Vernon City Councils. The Councils will use your comments, as well as the technical and market review, to determine the next steps in the planning process.



For more information, please contact:

Andrew Reeder, Utility Planning Manager,  
City of Kelowna  
Email: [areeder@kelowna.ca](mailto:areeder@kelowna.ca)  
Phone: 250-469-8876



## 5.2 Appendix B: News Release



April 10, 2017

For Immediate Release

### Cities look for new ways to manage wastewater solids

As the population in the region increases, the cities of Kelowna and Vernon are working together to identify sustainable ways to manage the region's growing supply of treated wastewater solids – and they want to hear from you.

"We are committed to finding a socially, economically and environmentally responsible long-term solution," said City of Kelowna Utilities Planning Manager Andrew Reeder. "We are looking for a sustainable balance that maximizes the value of a nutrient-rich resource and minimizes potential impacts to communities and the environment."

Currently, the region's 28,000 wet tonnes of treated wastewater solids are mixed with wood chips and composted at the Regional Biosolids Compost Facility to produce an organic soil amendment called OgoGrow. The product, which is purchased by Okanagan gardeners, landscaping companies and construction contractors, generates important revenue for the cities and helps keep treated solid waste out of local landfills.

Space limitations at the facility, wood chip supply challenges and the region's increased production of wastewater solids have created a need for the cities to consider new processing methods, new beneficial end-use options and potential new markets.

The cities are looking for community input to the wastewater solids management planning process through stakeholder meetings and a survey that can be completed on the City of Kelowna and the City of Vernon websites and at the region's three wastewater treatment facilities.

"We want to hear the interests and values of the community," said City of Vernon Communications Officer Tanya Laing Gahr. "How we manage wastewater solids is an important part of sustainability planning for the region."


You can learn more about the options that are being considered and complete the Wastewater Solids Management Survey by visiting the cities' websites at:

[www.kelowna.ca](http://www.kelowna.ca)

[www.vernon.ca](http://www.vernon.ca)



## 5.3 Appendix C: Community Meeting Panels



**Strategic Review of Wastewater Solids Management**



Evaluating options for the economic and environmentally responsible management of wastewater solids

# Welcome!

The cities of Kelowna and Vernon  
are looking for new ways to manage  
wastewater solids  
and we want to hear from you!

Please take a look around, ask questions  
of the team and let us know what you think.

There will be a short presentation at 4:15  
and again at 5:15.



## Evaluating options for the economic and environmentally responsible management of wastewater solids

### Identifying sustainable options

To meet the demands of a growing population, the cities of Kelowna and Vernon are evaluating options for the economically, socially and environmentally responsible long-term management of wastewater solids.

### Rich in essential plant nutrients

Currently, wastewater solids are mixed with wood chips and composted at the Regional Biosolids Composting Facility to produce a valued organic soil amendment called OgoGrow.

### A valuable resource

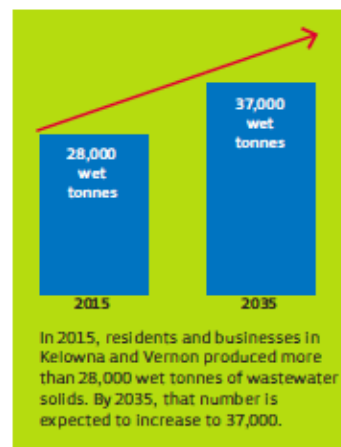
The sale of OgoGrow to gardeners, landscaping companies and construction contractors generates important revenue for the cities and helps keep treated wastewater solids out of the landfills.

### A more diversified and sustainable approach

Due to space limitations at the compost facility, a shortage of wood chips, and the region's increased production of wastewater solids, the cities are looking for a more diversified and sustainable approach.





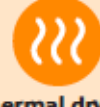

### Maximizing value and minimizing community impacts

The cities are committed to working together with the community to maximize the value of the nutrient-rich resource and minimize potential impacts to residents and the environment.



## Reducing truck traffic and odours

The cities are evaluating three new processing methods that would improve performance at the Regional Biosolids Composting Facility, decrease the number of trucks on the road, reduce production volume and shorten compost time.

Method	Reduces volume 	Reduces odour 	Reduces traffic 	Other considerations
 <b>Digestion</b> Reduces the volume of wastewater solids by about 45%. Converts a portion of the treated wastewater solids to environmentally friendly biogas that can be used for heating and electricity.	✓	✓	✓	Requires additional systems at the wastewater treatment plant or other location to remove nutrients.
 <b>Thermal drying</b> Reduces the volume of wastewater solids by about 90% with minimal impact on nutrient quality.	✓	✓	✓	Requires additional facilities and careful management to ensure safe and dry winter storage of the finished product.
 <b>Chemical treatment</b> Shortens the time required to compost wastewater solids.	✗	✓	✗	

Products processed using these methods could be sold as a nutrient-rich composting product like OgoGrow or as a product that could potentially be used as a soil amendment for forestry, agriculture, landfill closure or mine reclamation.



### Strategic Review of Wastewater Solids Management



## We're listening and taking action

You have told us about your priorities related to the Regional Biosolids Composting Facility. They include:

- Odour reduction
- Protection of groundwater, ponds and creeks
- Truck traffic
- Safe transport
- Buffering private property from the facility

In response to your priorities and our commitment to environmental and social responsibility, we have:

- Installed specialized equipment that helps manage odours by predicting odour levels as they relate to changes in the weather
- Implemented a Comprehensive odour management program
- Committed to ensure that any drainage received from the Regional Biosolids Composting Facility is contained and managed in such a manner as to meet or exceed all environmental standards
- Invested in trailers with sealed rear gates and closed covers to reduce odours during transport (biosolids are not classified as a hazardous material for transport)

Quality of life is a key consideration in our evaluation of potential options. Our strategic review is grounded in the following key principles:

- No increase in odour
- No increase in truck traffic
- Continued commitment to safeguard the environment and public health



**We are committed to continuous improvement and to the economically, socially and environmentally responsible management of wastewater solids.**

Strategic Review of  
Wastewater Solids Management



## Key factors that will inform evaluation

The cities of Kelowna and Vernon are working to balance the beneficial use of the nutrient-rich organic material with continued environmental and public health safeguards.

Key factors that will inform the evaluation process include:

- Quality of life considerations such as odour, traffic, dust and convenience
- Environmental sustainability
- Financial sustainability
- Operational and technical viability



Strategic Review of  
Wastewater Solids Management





## Your opinion matters!

Your comments will be included in a summary report for Kelowna and Vernon City Councils. Councils will use your input, as well as technical and market reviews, to determine next steps in the planning process.



Please make sure you complete a short questionnaire before you leave.



You can also complete the full survey on the City of Kelowna and City of Vernon websites:

[getinvolved.kelowna.ca](http://getinvolved.kelowna.ca)  
[vernon.ca](http://vernon.ca)

## Thank you for coming today!

If you have any further questions or comments,  
please contact:



Andrew Reeder,  
Utility Planning Manager  
City of Kelowna  
[areeder@kelowna.ca](mailto:areeder@kelowna.ca)  
250-469-8938

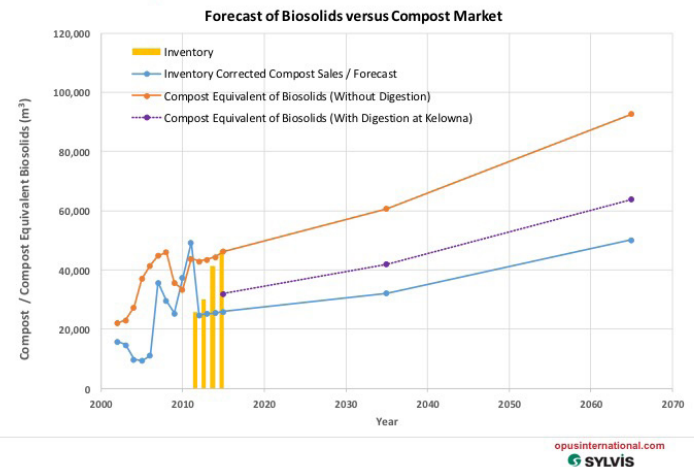
Strategic Review of  
Wastewater Solids Management



## 5.4 Appendix D: Stakeholder Meeting Presentation



### Example Result



### “Why”

- Commonage Facility is near or at capacity
- OgoGrow® inventory is increasing
- Kelowna and Vernon are continuing to grow
- Cities are planning for growth

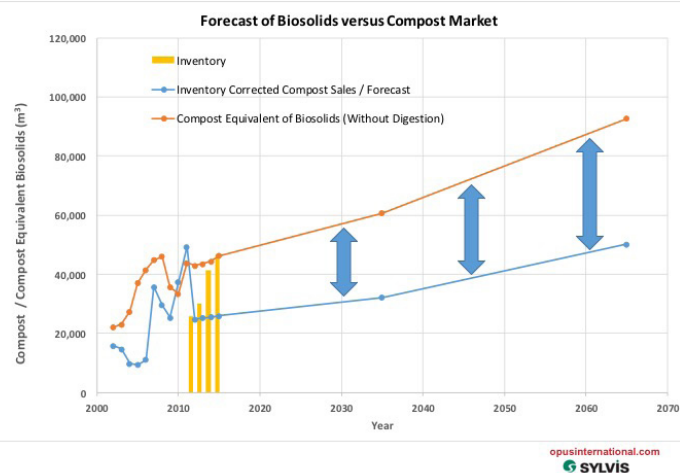
opusinternational.com  
SYLVIS

### Project Objective

- Look at ALL Options
- Identify and Assess RISKS
- Present defensible recommendation for next steps

opusinternational.com  
SYLVIS

### Market versus Production



### Where We Are At

- Still in the planning/evaluation stages
- All considerations will be undergoing an evaluation process

opusinternational.com  
SYLVIS



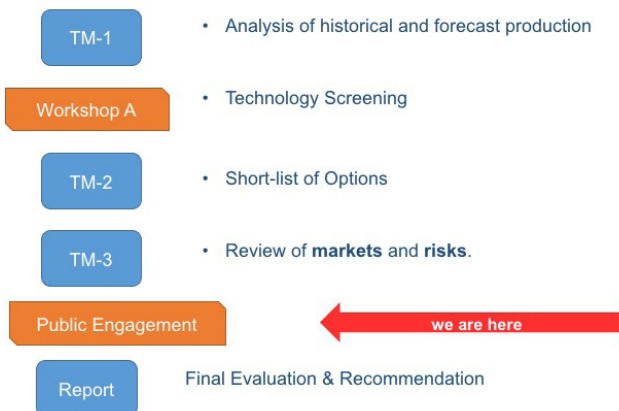
## TM-1 Technology Summary

### Workshop A

- Who?
  - City of Kelowna Staff
  - City of Vernon Staff
  - Technology Experts
- What?
  - Review Indicative **Costs**
  - Review of Market **Risks**

opusinternational.com  
SYLVIS

### Biosolids Management Study – Work Plan



## TM-2 Evaluation Results

### Management Options Reviewed

- **Pre-treatment** – 4 methods considered
  - Digestion - 45% reduction in mass
  - Thermal drying - 90% reduction in volume
  - Lime stabilization - 0% reduction in mass
  - Chemical (Chlorine Dioxide) - 0% reduction in mass
- **Final Disposal** – 3 methods considered:
  - Compost Sales (i.e. OgoGrow);
  - Soil Amendment;
  - Thermal Destruction:
    - Incineration, Gasification, Pyrolysis.

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SYLVIS

### Wastewater Solids Short-List

- Five schematics involving a combination of:
  - **3 pre-treatment options:**
    - *Digestion (at Kelowna WWTP)*
    - *Thermal Drying*
    - *Chemical Pre-Treatment*
  - **2 outlet options:**
    - *Soil Amendment*
    - *Composting*
- Technologies Dropped
  - Incineration
  - Gasification
  - Pyrolysis
  - Digestion at Vernon (*to be confirmed*)

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SYLVIS

## • Anaerobic Digestion



- Pre-dewatering.
- 45% mass destruction.
- Generates biogas

opusinternational.com

## • Evaluation Criteria

- 17 evaluation criteria were aggregated to 7



Group	Criteria
Cost	Capital 20 Year Present Worth Operation and Maintenance Total Lifecycle
Environmental	Air Quality/Odour Greenhouse Gas Emissions Soil Quality Water Quality Spillage Potential Waste Streams
Social Risk	Public Acceptance and Perception Market Regulatory Integration and Zoning Funding/Economic
Operation	Operability / Ease of Operation Synergy Potential Longevity Flexibility Expandability Staffing

- Odour
- Environmental Quality - Air, Water, and Soil
- **Social (Public Acceptance and Perception)**
- Market Risks - Supply and Demand
- Regulatory and Bylaw Risk
- Environmental Risks
- Operations

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## • Thermal Drying



- 90% reduction in volume
- Burns biogas or natural gas
- Finished product can be used as fertilizer or manufactured soil

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## • Evaluation Criteria

- 17 evaluation criteria were aggregated to 7



Group	Criteria
Cost	Capital 20 Year Present Worth Operation and Maintenance Total Lifecycle
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- Market Risks - Supply and Demand
- Regulatory and Bylaw Risk
- Environmental Risks
- Operations

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## • Chemical Stabilization (Chlorine Dioxide)



- 0% reduction in mass
- Injected at point of dewatering
- Shortens time required to compost wastewater solids
- Helps manage odour

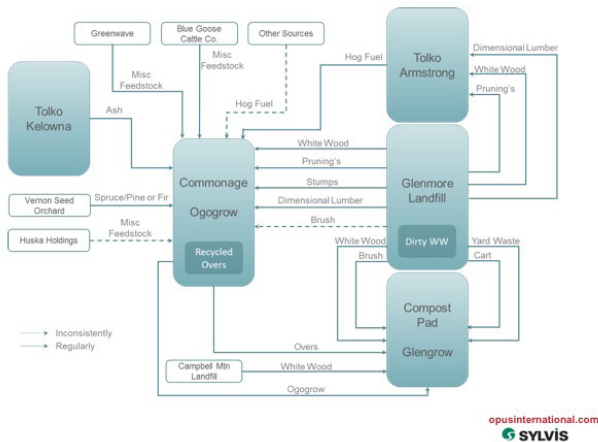
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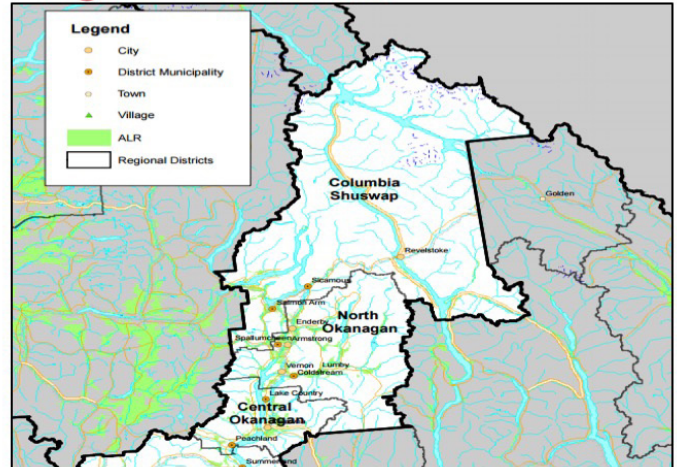
## • TM-3 Market Review



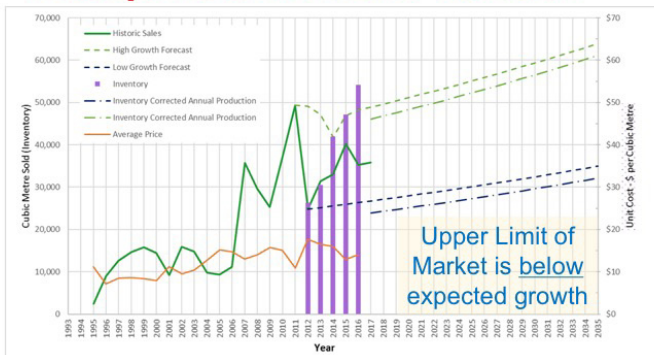
## Wood Chip Suppliers



## Agricultural Land

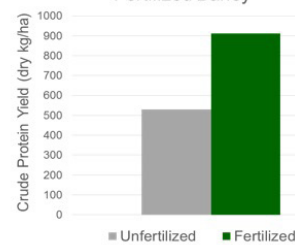


## Compost Consumer Market



## Agricultural Land

Crude Protein Yield in Biosolids Fertilized Barley



Biosolids applied to agricultural land (above). Biosolids fertilized barley has a very significant increase in crude protein in comparison to unfertilized barley (left).

## Soil Amendment Markets

- Example markets suitable for Kelowna

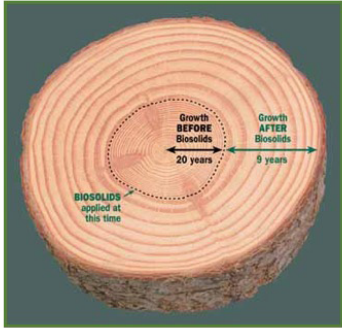
Market	Description
Agriculture	Fertilization – 400 km radius
Forestry	Fertilization – 150 km radius
Reclamation	Mine/Gravel Pits – 200 km radius
Landfill Covers	Landfill closure – <b>Opportunistic Only</b>
Biomass Wood Lot	Purpose grown woody biomass

## Forestry





## Forestry



Biosolids forest fertilization (above). Significant increase in tree diameter can be seen in the tree rings after biosolids fertilization (left).

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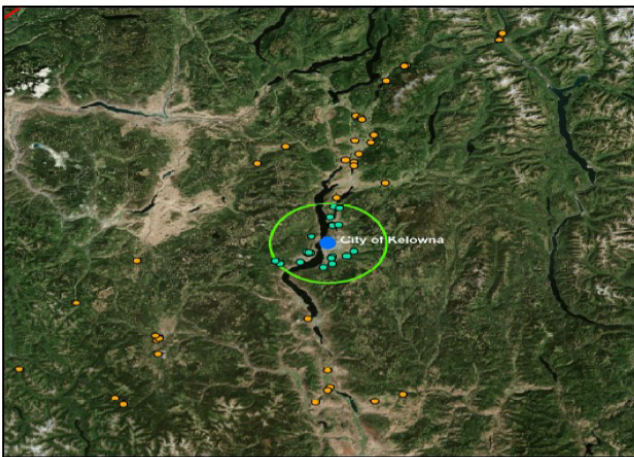
## Biomass Woodlot



Biosolids fertilize woody biomass plantations on a short rotation to provide carbon feedstock for composting

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## Reclamation



## Biomass Woodlot



Each coppice results in additional woody biomass (left), tree growth starts from rootless cuttings planted in rows (right)

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## Reclamation



Aggregate pit reclamation near 97C Highway, BC. Biosolids add organic matter and nutrients to initiate soil formation. Before biosolids applications photo (left) to the photo taken following biosolids application (right)

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Application Type	Application Area Available (ha)	Biosolids Required (dt)	Biosolids Production <sup>a</sup> (dt/yr)	Return Interval (years)
Agricultural	420,126	4,201,260	3,650	1,151
			9,125	460
Forestry	30,056	450,840	3,650	123
			9,125	49
Reclamation	130	39,000	3,650	11
			9,125	4
Biomass Woodlot	150	scalable	3,650	20
	365		9,125	20

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## Engagement Goal

- Provide Councils with community and stakeholder feedback to inform decision-making related to wastewater solids management planning

## Landfill Closure



Biosolids are used in landfill closures. Biosolids-based "biocovers" treat methane produced by landfills reducing GHG emissions.

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## TM-4 Final Evaluation



## Public Engagement



## Management Recommendation

- Summary of Final 5 Options / Combinations**
  - Capital and Operating Costs
  - Triple-bottom-line Comparison using Criteria
  - Relative Risk Analysis
- Financial Model**
  - How costs will be shared between Kelowna Vernon
- Staged Approach**
  - Recommendation will be a staged approach
  - Options requiring further study will be identified

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## 5.5 Appendix E: Community Meeting Invitation



**Please drop by on Wednesday May 17<sup>th</sup> to provide input to the region's wastewater solids planning**

Dear [Insert name],

To meet the demands of the region's growing population, the cities of Kelowna and Vernon are evaluating options for the economically, socially and environmentally responsible long-term management of wastewater solids.

Community engagement is an important part of the planning process and the cities would like to make sure you, a resident living near the Regional Biosolids Compost Facility, have the opportunity to share your interests and values with the planning team.

Currently, treated wastewater solids are mixed with wood chips and composted at the Regional Biosolids Compost Facility to create an organic soil amendment called OgoGrow. Space limitations at the facility, the availability of an affordable supply of wood chips and the region's increased production of wastewater solids have created a need for the cities to research and evaluate a more diversified and sustainable approach to managing wastewater solids.

The cities are committed to achieving a sustainable balance that maximizes the economic value of a resource that is rich in essential plant nutrients and minimizes potential impacts to communities and the environment.

Please drop by the Peregrine Room at the Predator Ridge Golf Resort anytime from 4:00 to 6:00 p.m. on Wednesday May 17, 2017 to provide your input to the planning and options evaluation process. Staff from the City of Kelowna and the City of Vernon will be there, along with representatives from Opus International, the engineering firm leading the strategic review.

Date	Location	Time
Wednesday, May 17, 2017	Peregrine Room, Predator Ridge Golf Resort 301 Village Centre Place Vernon, BC	Drop by any time from 4:00 to 6:00 p.m.  A short presentation will be offered at 4:15 p.m. and repeated at 5:15 p.m.

Light refreshments will be served. If you are planning to attend, please RSVP to [areeder@kelowna.ca](mailto:areeder@kelowna.ca) before Monday, May, 15.

This meeting is for residents living near the Regional Biosolids Compost Facility on Commonage Road and will focus on options specific to the compost facility operations as well as regional wastewater solids management.

You can also complete the Wastewater Solids Management Survey at [Vernon.ca](http://Vernon.ca) or [Getinvolved.kelowna.ca](http://Getinvolved.kelowna.ca).

I look forward to seeing you at the meeting.

Sincerely,

Andrew Reeder  
Utility Planning Manager, City of Kelowna  
Email: [areeder@kelowna.ca](mailto:areeder@kelowna.ca)  
Phone: 250-469-8876





Attached: Strategic Review of Wastewater Solids Management - Fact Sheet



## 5.6 Appendix F: The Wastewater Solids Management Survey





**Question 1:** To meet the demands of a growing population, the cities of Kelowna and Vernon are evaluating options for the economically, socially and environmentally responsible long-term management of wastewater solids. Space limitations at the current compost facility, the availability of an affordable supply of wood chips, and the region's increased production of wastewater solids have created a need for the cities to research and evaluate a more diversified and sustainable approach, including examining new processing methods, new beneficial use options and potential new markets.

How important do you think it is for the cities of Kelowna and Vernon to have a long-term plan in place to manage the growing volume of wastewater solids?





Response	Chart	Percentage	Count
Not at all important		0.8%	1
Not very important		1.6%	2
Somewhat important		11.6%	15
Very important		86.0%	111
		Total Responses	129

**Question 2:** The cities of Kelowna and Vernon currently compost wastewater solids at the Regional Biosolids Compost Facility and sell it to gardeners, landscapers and construction companies as a nutrient-rich soil amendment product called OgoGrow. This generates up to \$700,000 in direct revenue to the cities each year. Expanding the market by creating and selling other soil amendment products could potentially increase revenue to the cities. This revenue would be used to help offset the cost of managing wastewater solids.





A) How aware are you that a nutrient value of treated wastewater solids is currently captured and used for a beneficial purpose, such as a fertilizer or soil amendment product?

Response	Chart	Percentage	Count
Not at all aware		6.2%	8
Not very aware		10.1%	13
Somewhat aware		24.8%	32
Very aware		58.9%	76
		Total Responses	129

B) How important do you think it is for the cities of Kelowna and Vernon to generate revenue from the sale of soil amendment products made from wastewater solids?





Response	Chart	Percentage	Count
Not at all important		7.0%	9
Not very important		17.8%	23
Somewhat important		41.9%	54
Very important		33.3%	43
		Total Responses	129

- C) Would you like to see the cities increase their revenue and offset costs by creating and selling more soil amendment products?

Response	Chart	Percentage	Count
Yes		53.5%	69
No		17.8%	23
Not sure		17.8%	23
Please explain		10.9%	14
		Total Responses	129





**Question 3:** Currently all treated wastewater solids from Kelowna and Vernon are composted and sold to gardeners, landscapers and construction companies as a nutrient-rich soil amendment. This keeps it out of the landfill and reduces greenhouse gas production.

How important is it to you to continue to divert wastewater solids from local landfills?





Response	Chart	Percentage	Count
Not at all important		4.7%	6
Not very important		6.2%	8
Somewhat important		14.1%	18
Very important		75.0%	96
		Total Responses	128

**Question 4:** The two beneficial use options under consideration are: to continue to produce and sell nutrient-rich compost through products like OgoGrow; and to produce a new product that could potentially be used as a soil amendment for forestry, agriculture, landfill closure or mine reclamation. Please indicate the value you place on the following potential uses for treated wastewater solids:





- A) Continue to produce and sell compost for gardeners, landscapers and construction contractors through OgoGrow and similar products

Response	Chart	Percentage	Count
No value		4.7%	6
Low value		5.5%	7
Some value		32.3%	41
High value		57.5%	73
		Total Responses	127





B) Use treated wastewater solids to fertilize and grow trees on tree plantations so you can harvest the wood to support the existing compost operation

Response	Chart	Percentage	Count
No value		5.6%	7
Low value		8.7%	11
Some value		29.4%	37
High value		56.3%	71
		Total Responses	126

C) Use treated wastewater solids to fertilize and develop existing forest areas to produce wood for the local economy

Response	Chart	Percentage	Count
No value		6.3%	8
Low value		8.7%	11
Some value		29.9%	38
High value		55.1%	70
		Total Responses	127

D) Use treated wastewater solids to reclaim mine sites where soils have been depleted of organic matter

Response	Chart	Percentage	Count
No value		4.7%	6
Low value		7.1%	9
Some value		30.7%	39
High value		57.5%	73
		Total Responses	127



Question 5: The 94 response(s) to this question can be found in the appendix.

Question 6: The 96 response(s) to this question can be found in the appendix.

Question 7: What is your postal code? Not included

Question 8: How long have you lived in the Okanagan? (number of years) Not included

Question 9: Are you connected to the sanitary sewer system in your area?

Response	Chart	Percentage	Count
Yes		73.0%	92
No		27.0%	34
		Total Responses	126

## Appendix

**Question 5:** The cities of Kelowna and Vernon are committed to wastewater solids planning that balances the beneficial use of the nutrient-rich organic material with continued environmental, public health and quality of life considerations.

What would you like the cities to take into consideration when determining next steps in wastewater solids management?



#	Response
1.	Get rid of all the septic systems that are leaching into the water supply. Forget the OGOGROW get rid of septic!
2.	The location of the compost facility should not continue in the current location, Smell, groundwater contamination are issues with the current location.
3.	Ongoing research in the implications to the food and water cycle with the affect of prescription drugs and hormone replacements.
4.	That there are far better uses for this material than mines and forestry. This does not represent the highest and best use of this resource. For example, what about the energy value in these materials that could be harnessed to help self power the treatment plant?
5.	This questionnaire is flawed as it does not even talk about some of the most beneficial solutions available, such as reducing the volume of material at the source and/or the potential to create additional energy to help power the plant and save \$\$\$
6.	That it stinks and people have to live by this new proposed location and it needs to end
7.	Public Health. Keep the product as organic as possible by limiting chemical composting
8.	Consider the neighboring communities like West Kelowna so the solution can be used by the entire region.
9.	Trio Renewable Gas fpsconsulting@verizon.net
10.	not sure
11.	Economic benefits re maximize volume of product <u>usage and</u> revenue.
12.	lower cost per yard to encourage residential use
13.	burn it
14.	You need to lower the price to get rid of your excess!! Spring sale, half price and it will go !!
15.	Accessibility of product for those without trucks could be improved. <u>Perhaps neighbourhood</u> sign ups with delivery to the property by one large truck. Also, areas of the city that need water/soil improvement could have free access like the project a few years ago in Crawford.
16.	The expense and revenue involved as well any green factor.
17.	City dump already produces biogas, how difficult would it be to harvest wastewater products into <u>biofuel</u> ? Plants (mechanical not organic) that will produce electricity and or methane for natural gas
18.	If you are really committed to the environment, then use it to fertilise trees, not for logging, just to regenerate forests. That determines quality of life far more than lining a few people's pockets.
19.	The cities should institute a geared system to reduce the amount of wastes that are produced. A couple could be allowed a pound per day at a monthly rate and the amounts above the one pound up to two pounds would cost 50% more and amounts over three pounds would be at a triple rate. Maybe the revenue from the excess amounts could be given to Fortis.
20.	Costs & Environment
21.	Ogogrow should NOT be sold to gardeners. Vegetables grown in Ogogrow are tainted with drug and chemical residues (both found in Ogogrow) and are unfit for human consumption.



22.	recover the costs and at no increase to the taxpayer
23.	Ogogrow is a wonderful product to be used in landscaping. However, it can be rather expensive. Lower the price and sell more! I would double or triple my use if it was more affordable.
24.	Start letting us people use Composting toilet so we can make our own compost
25.	Possibly sell to public?
26.	Do not waste the ogo-grow.
27.	reduce costs to users
28.	sustainability
29.	cost
30.	Sustainability and environmental impact.
31.	extend the marketing area of Ogogrow and the increased production costs/facilities will pay for themselves
32.	Safety for the environment and organisms in the existing soil.
33.	best practices from cities around the world. Uses that minimize the final environmental impact of waste solids.
34.	Encourage composting toilets at home for those who are willing.
35.	That tax dollars are not subsidizing this effort, but that this effort is generating revenues / profits. Environmental concerns.
36.	Pass it on to local residents really cheap to eliminate the extra abundance
37.	Trio Renewable Gas fpsconsulting@verizon.net
38.	Slow down the population growth until water and waste water issues are resolved.
39.	new bylaws allowing residential composting toilets
40.	Can the City maximize returns but simply selling the solids to private organizations to create and sell the soil amendment products?
41.	public health
42.	product is over priced needs to be affordable to the public only covering costs
43.	Sell the stuff locally @ cost of production/ to keep supply balanced.
44.	Returning the compost to the soil, have a low cost program for local agriculture to allow farmers to use less fertilizer
45.	Ogo-grow seems to have been a great success. Continuing in this direction is a good idea.
46.	Too many building permits. The valley has to be self sustaining.
47.	Public health; environmental care; quality of life for those living need facilities.
48.	Growing population, long term vision.
49.	Reducing the cost of OGO-Grow would certainly reduce the stockpile. I and many others just can't afford to use it. We have to settle for cheaper soils. It would be win/win as seniors and low income persons could grow more and better veggies and flowers and reduce the cost of living in the long run for them. They could also eat better quality home products. How about supplying it to some of those community gardens free if you are not already doing so.
50.	Consider also what St. Petersburg Florida has done with their waste for over 50 years. They treat it and then use it ONLY for lawn watering throughout the city, private and public lands. There is an extra piping system which is separate from drinking water, obviously. But the grass in St. Petersburg where my parents live grows terrific.

51.	it needs to be thoroughly tested to see if pharmaceuticals, etc. are present in the product. when it is determined completely safe this needs to be advertised that it is safe and available. it needs to be the cheapest alternative in order to get people to try it.
52.	competitive pricing
53.	Drainage/ seepage into Okanagan Lake, not using product on naturally forested areas, utilizing what you are producing avoiding stock piles ( how about a free day), the continued growth of the city with a plan in hand for expansion
54.	Make it more readily available to local gardeners. Currently, I have to pay a considerable fee for OgoGrow from Art Knapp's or drive a considerable distance to purchase it for a lesser fee from the Glenmore Landfill. I would like to use it more in my organic garden and flowerbeds but the logistics of obtaining it are challenging so I rarely get any. I don't have a truck so I have to bag it and transport it in my vehicle trunk. If you could make it more available (and cheaper) for local gardeners, you'd get rid of more and our gardens would benefit.
55.	lower price or no charge
56.	more research on heavy metals, persistent pollutants, CoC's and effects on the environment, public health and quality of life of neighbours.
57.	Consider the use of waste as a biofuel, either via gas generation, direct incineration or various other conversion technologies.
58.	Beneficial use, extending the life of the landfill by diverting water streams, consider cost to consumer for the product (ie if a reduced price point will make it more competitive with other commercial products on the market even if at a slight operating loss)
59.	Environmental protection
60.	apply the most efficient and productive use of all materials and resources, waste or otherwise
61.	saving money by hiring private compost operations to take overflow of sewage waste to process
62.	Stop selling pharmaceutical and metal laced products as "beneficial". They are not.
63.	Availability of OgoGrow to gardeners, seniors, those with no truck/trailer to pick up. Would love a truck to come to neighbourhoods and dump a load on the lawn. I would pay. Just cannot come and get it..
64.	Make the shit cheaper. It's good but too expensive in bulk
65.	Houses and or parts of the city that are still on septic. Get us on the sewer systems!
66.	Selling the product to cover costs rather than make a profit would ensure costs are being offset, however, making it affordable for homeowners to use it to beautify their yards. I would also suggest partnering up with West Kelowna, Peachland, Summerland to set up a seasonal deposit in those communities.
67.	making analysis results transparent to the public. Explores adding microbials to the compost process that could break down metals or other emerging elements of concern.
68.	ROI. Making sure that we aren't losing money
69.	Cost, environmental impact
70.	Used for re forstation
71.	Relocation of the existing facility to somewhere where it does not affect the quality of life for the local residents living near the facility
72.	Cost
73.	The current OgoGrow facility was located adjacent to my house without my prior knowledge or input. In the years that it has been in production my family and I have been subjected to intense and unpleasant odours and I have serious concerns about the effect of this plant on the quality of the water in Kal Lake. The plant was located here for political reasons and convenience with very little attention paid to applicable regulation or recommendations. The end product likely poisons the land and the process to produce it has undesirable impacts on the local environment and the plants

	neighbours. I find it laughable that the City of Kelowna is making such a big deal about being environmentally sensitive but won't locate this plant within its own boundaries.
74.	sustainability, environmental health, public health.
75.	Seriously consider and research biochar from agricultural, gardening and forestry waste. The additional benefit is that burying biochar as a soil amendment is a long term CO2 sink that will attract green house gas credits.
76.	I like ice cream
77.	I have heard that there is an abundance of ogogrow, why don't you lower the price or even give smaller amounts away if you can't get rid of it
78.	How many people are not even on a municipal sewer system yet
79.	The solids should be tested for Endocrine Disrupting Compounds to ensure they are <u>do</u> not contain potentially harmful chemicals that would be introduced into those environments.
80.	Cost effectiveness, diverting from the landfill, and reducing/eliminating negative impact on surroundings
81.	Consider odours, effect on rivers and lakes & fact that ogogrow is full of drugs metals etc which are harmful
82.	Public safety with regards to the accumulation of pharmaceuticals and factory waste. By creating a marketable product it's easy to lose sight of the goals of health, safety, and environmental impact when it's possible to make 100,000s of dollars from an uneducated public.
83.	Public health, and education of the product. Go into detail on all possible repercussions of using the product. Extensive testing on how it could affect the food being grown in it, and how it might affect nearby water sources.
84.	Smell! It can get a bit high in some areas of Sunset properties
85.	Long term sustainability and cost certainty of the selected option(s)
86.	Turning biosolids into different or refined products directly
87.	cities have a footprint in development of nutrient lands, need to assist creating nutrient rich soils to offset development
88.	set the price low for city residents so that it helps recover the cost but not make a profit of the sale of OGOgrow
89.	All products must be safe for people to use and handle.
90.	Regional facilities for surrounding communities
91.	Safety of final product including presence of pesticides, pharmaceuticals and heavy metals including full disclosure of analyses.
92.	Long term and public impact - land application is not popular anywhere!
93.	Environmental benefit
94.	Consider population growth

**Question 6:** What do the cities need to consider when evaluating potential uses for wastewater solids?

#	Response
1.	Cost vs benefit.
2.	Smell, groundwater contamination, compensation should relate to how close the facility is to a community. Vernon should get more revenue if it is closer to vernon, likewise, Kelowna should get more revenue if it is closer to Kelowna
3.	Health implications to our ecosystem.



4.	That this valuable resource be directed to highest and best use to maximize value for both beneficial use and to generate energy to help power the plant and reduce operational costs.
5.	Highest and best use, maximization of the material via robust, resource recovery, landfill diversion and being part of the "circular economy"
6.	How it affects home and their property values in the area due to the nasty smell
7.	location of compost facility. It should not be located close to an area where smell will disturb residents, but shouldn't be too far away to discourage residents from purchasing the final product.
8.	public safety and protection of the environment.
9.	Energy production options
10.	not sure
11.	What uses best reflect previous comments.
12.	environmental impact and public health such as making products that are safe for gardening for food cheaper. perhaps an educational campaign touting benefits
13.	of course toxins in the waste and into eco system
14.	cost
15.	You may operate at a loss in the process but the environmental gain is worth it.
16.	Benefit beyond the income generated.
17.	The economy and eco factor
18.	Current costs of shipping to other markets and long term reduction of costs associated. Look at issues Vancouver is having
19.	Sustainability is key. Use human waste to generate electricity or LNG and get off fossil fuels. See <a href="https://www.engineeringforchange.org/10-ways-to-put-human-waste-to-use/">https://www.engineeringforchange.org/10-ways-to-put-human-waste-to-use/</a>
20.	Odour.
21.	Environmental, Health and Cost Risks. All things you are already considering thankfully.
22.	Ogogrow should NOT be sold to gardeners. Vegetables grown in Ogogrow are tainted with drug and chemical residues (both found in Ogogrow) and are unfit for human consumption.
23.	how much growth in the future
24.	Composting toilets
25.	The ability of residential delivery of ogogrow for those that have no means of pick up .
26.	What individual city needs are
27.	Possibly reduce the price for "local" gardeners: The current price is reasonable but a bit less may encourage more sales
28.	reduce cost to users
29.	avoid putting in landfill
30.	not use a lot of tax money lol
31.	public health and environmental impact.
32.	public health, production costs covered by sales rather than City subsidies, increased capacity/production creating more job opportunities here in Valley
33.	How to deal with the wastewater solids in a way that promotes the agriculture and forestry industries safely.



34.	Issues related to compounds not broken down in the composting process (i.e. pharmaceuticals) and the impact of the concentrating of heavy metals in the waste and other pollutants
35.	Create even more garden space in the city to fertilize with ogogrow
36.	Profit generation / self-sustaining. Be creative. Sell to other communities?
37.	If it is used to the best potential
38.	Energy production options
39.	Request citizens to avoid dumping undesirable materials such as chemicals and toxins into the sewage system.
40.	potential risks and their management
41.	How to maximize returns on the sale of the waste while minimizing infrastructure investment
42.	not sure
43.	cost to public
44.	Better marketing/ make it more consumer friendly.
45.	safety, the environment , water quality
46.	Bringing wastewater solids into a natural environment should be looked into for any possible negative impacts to the natural environment.
47.	Potential health hazards to its citizens
48.	a priority for me would be to find a revenue generating solution
49.	Safety/health. Long-term sustainability. Cost to taxpayers.
50.	Human, environmental and economic impacts
51.	Impact on human health, impact on environment
52.	Consider offering this product to other smaller communities at a reduced cost at the very least. Small cities are hampered by lack of sewage treatment plants to offer such a product to the public.
53.	Check out all options such as above. And I am totally in favour of using this waste to rehabilitate mines such as what we have out here near Lake Windermere BC.
54.	environmental impact
55.	impact on human use. Impact on the environment. potential odor.
56.	Increase public awareness
57.	When utilizing bio solids outside of city, natural areas, you are changing the compositions of the soil, less interference in natural areas should be a mandate.
58.	The cost of producing it and the cost to the citizen to purchase it.
59.	open more centrally located outlets for free pickup
60.	Environmental issues and costs
61.	the risks and benefits to society and how they are unequally distributed...see this 2016 paper, "Biosolids are wicked to manage: Land application regulations in Sweden and Canada",
62.	<u>Minimizing volumetric</u> amount of waste, generating revenue to offset processing costs. Environmental impact.
63.	See above. Reducing environmental footprint, extending life of landfills by diverting waste streams, creating recycling options for wastes, etc
64.	Environmental protection

65.	lack of public understanding
66.	only allow class A compost to control smell and public fear of the end product
67.	Stop polluting the valley and our ground water.
68.	Distribution and availability
69.	Offer it as free options for residential use, it's our pool
70.	Health safety
71.	distance to need for residuals
72.	how can the public access this gold mine of compost bring up a bucket? how much does it cost?
73.	ROI
74.	Effect on human health, cost
75.	Common sense!
76.	The direct impact the facilities have on the residents near them
77.	Community needs ,cost of business
78.	Environment, public health, return on investment
79.	The effect of the plant on its neighbours and Kal Lake.
80.	the health impact upon people and the environment.
81.	Use of vegetation wastes to generate long term carbon sinks for greenhouse gas credits. Talk to Kelowna Councillor Charlie Hodge whom I have briefed. michaelirwin @shaw.ca
82.	Contamination
83.	Contaminants in it from heavy metals to drugs
84.	Cost & environmental impact
85.	Cost and sustainability
86.	How to dispose of without puluting lakes and rivers and air
87.	Public safety especially with the accumulation of of pharmaceuticals, fire retardants and other hard to detect properties of the biosolids building up in crops or livestock that are for human consumption
88.	Public health, and education of the product. Go into detail on all possible repercussions of using the product. Extensive testing on how it could affect the food being grown in it, and how it might affect nearby water sources.
89.	Cost effectiveness
90.	Positive public perception and acceptance of selected option(s). Minimize impact on residents in area(s) where processing of biosolids occurs.
91.	poor public acceptance of Ogogrow product - need to convert into something else or new
92.	Ensuring the products produced are completely safe for people to use and handle.
93.	Cost-benefit analysis, class of biosolids produced
94.	See previous response. Use on food source soils should be limited. Commercial sales opportunities should be used to generate revenue however products for residents should be available at lower or discounted rates as we are already paying for sewage treatment.
95.	needs to be long term, sustainable and publically acceptable - Not all land use applications are.
96.	Is there any negative environmental impact





*City of Kelowna*

# **Strategic Review Biosolids Management**

**Summary Report**

**November 6, 2017**





*City of Kelowna*

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# **Strategic Review**

## **Biosolids Management**

**Summary Report – Rev. 3.0**

**November 6, 2017**

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## Executive Summary

The cities of Kelowna and City commissioned this project to evaluate options for the economically, socially and environmentally responsible long-term management of wastewater solids. Currently, the region's treated wastewater solids are mixed with wood chips and composted at the Regional Biosolids Compost Facility (RBCF) to produce a valued organic soil amendment called OgoGrow.

The RBCF has reached its design capacity for managing the solids. Further, and the amount of OgoGrow produced presently is more than the compost market demand – there is approximately one to two years of inventory stored.

This summary report presents findings from three earlier technical memoranda (TM's) and a stakeholder engagement program (included as appendices to this report). In those, several management options were investigated both as pre-treatment of the solids and as final disposal of the solids. Market conditions for the current operation and alternative operations were also considered. Available opportunities were screened and then presented to both city councils as well as selected stakeholders.

### Conclusions

Digestion is necessary by 2019 to meet the project objectives for any biosolids management options. Digestion would both enable opportunities to divert solids from the RBCF (through land application) and reduce OgoGrow volume produced. Communication with regulators, stakeholders and public is essential for all the management scenarios considered.

### Recommendations

There are eight recommendations made in this report for next steps and further work. The most important and urgent recommendations include developing preliminary design for digestion of Kelowna waste solids and implementing a public education program.

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# 1 Project Overview

## 1.1 Background

The City of Kelowna and the City of Vernon jointly use the Regional Biosolids Compost Facility (RBCF), which receives dewatered waste solids from the wastewater treatment facilities within the study area including the City of Kelowna, the City of Vernon, the District of Lake Country, and the Regional District of North Okanagan (RDNO).

The facility processes up to 30,000 wet tonnes of dewatered waste solids per year, which is delivered by truck to the RBCF and mixed with wood chips to create Class A compost. The compost is marketed as “OgoGrow” - a valued soil amendment in the Okanagan region. Space limitations at the active 9-hectare composting site affect both processing and storage operations, where compost inventory has been increasing and processing capacity has reached its limit.

This report summarizes the team’s technical work, incorporates findings from the stakeholder engagement process provides recommendations for next steps and further investigations.

## 1.2 Project Approach

The City of Kelowna retained the services of Opus International Consultants (Opus), Sylvis, and Black & Veatch in July 2016 to undertake a strategic review of Kelowna and Vernon’s biosolids management program, and to provide recommendations for both short term and long term options for sustainably and affordably managing their biosolids. The objective was to consider all available technology options with attention to risks from regulatory, social, and economic/market perspectives.

At the commencement of the project, representatives from the City of Kelowna, the City of Vernon, and technical experts in the fields of wastewater and biosolids management reviewed the key project objectives as well as wider perspectives such as changing regulatory landscape, recent objections by other BC communities on certain biosolids management practices, as well as historical and current technology trends. A preliminary list of evaluation criteria was developed at that meeting. Three technical memoranda (TM) and one workshop developed the work.

Following the completion of these TM’s, the cities identified the need to engage key public and regulatory stakeholders to communicate the findings and receive input on the project.

A formal stakeholder engagement program was initiated in February 2017 and resulted in information sessions with local governments, regional stakeholder boards, and selected groups from the public. The results and findings from the stakeholder engagement program were summarized in an Engagement Summary Report. Informal meetings were also held with the Ministry of Environment and Westbank First Nation staff. Feedback from those stakeholder engagement meetings has been considered when preparing this report.



### 1.2.1 Technology Review and Screening TM's

TM-1 established the capacity and operating conditions of municipal sources of waste solids<sup>1</sup> as well as the RBCF. It then assessed a total of four pre-treatment options and three outlet options for their technical, financial, environmental, and geographical viability. These options are not standalone or exclusive, but each contributes to the objectives.

Workshop A “Technology Screening” followed TM-1 to review and discuss all available technologies and to screen only those most suitable technologies.

TM-2 summarized the screened technologies. Pre-treatment technologies included digestion, chemical pre-treatment, and thermal drying. Lime stabilization was eliminated as a pre-treatment option. Two outlet options were carried forward, namely the existing composting operation and land application of digested biosolids. Thermal destruction was eliminated as an outlet option. TM-2 also established and defined non-financial seven criteria for further screening the management options:

- Odour
- Environmental Quality (Air, Water, and Soil)
- Social (Public Acceptance and Perception)
- Market Risks (Supply and Demand)
- Regulatory and Bylaw Risk
- Environmental Risks
- Operations

TM-3 considered the market conditions and market pressures (markets for both the input materials and the output opportunities). It considered risks related to demand for (or public resistance to) the outlet option as well as risks related to the supply of materials for the composting operation. TM-3 Appendix A also provided a detailed review of land application opportunities, energy recovery, and the regulatory landscape.

Following the completion of the technical work, the cities initiated a stakeholder engagement program. The program was designed:

- a. "To provide city councils with community and stakeholder feedback to inform their decision-making related to next steps in strategic wastewater solids management planning"; and
- b. "To engage the community and stakeholders in reviewing and commenting on key planning considerations related to economic, environmental and technical considerations."

The stakeholder engagement program validated expectations related to the composting facility operation as well as land application, and resulted in a recommendation for more public education about the challenges and opportunities related to wastewater solids management.

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<sup>1</sup> In this report, the terms “waste solids” and “solids” are used interchangeably to refer to untreated solids from wastewater facilities. Waste solids is meant to differentiate from “biosolids” which are solids which have undergone further treatment.

## 2 Biosolids Management Objectives

The overall management strategy must achieve the following key objectives, which are informed by the technical, economic and environmental constraints but also by social impacts and constraints echoed during the stakeholder engagement.

- **Objective 1: Increase capacity to treat wastewater solids to support growth in the Cities.**
  - » The RBCF is operating at, or near the installed compost production capacity (TM-1).
- **Objective 2: Align RBCF operations with compost market.**
  - » OgoGrow is a quality product meeting the demand of an established compost market size of approximately 35,000 m<sup>3</sup>/year (TM-3).
  - » Compost production exceeds the market demand and inventory is growing, year over year, since 2012 (TM-3).
  - » As of 2016, there is about 1 to 2 years of OgoGrow inventory stored at the RBCF and Glenmore landfill based on historical sales.
- **Objective 3: Address long term market risks.**
  - » Operation of the RBCF relies on a single source of hog fuel to meet the carbon feedstock requirements (TM-3). Additionally, the RBCF is the sole outlet for beneficial use of the waste solids.
  - » Alternative beneficial use outlet such as land application have their own non-financial risks.
- **Objective 4: Ensure end products are safe for the public and the environment (air, soil and water).**
  - » Anticipated regulatory changes for the land application of biosolids in the Province need to be considered in future overall management strategies.
  - » Feedback received through the public engagement process placed a high importance on environmental stewardship and the need to preserve the integrity of land, air, and water.
- **Objective 5: Implement financially sustainable solutions that consider highest and most beneficial use of wastewater solids.**
  - » Appendix A of TM-3 identified the opportunities for beneficial reuse of the various wastewater solids management options.
  - » Feedback received through the public engagement process identified the need to consider the highest and most beneficial use of the cities' wastewater solids.

### 3 Final Management Measures

This section presents further refinements to alternatives and technologies advanced under TM-2. Information from TM-3 and public engagement allowed further screening of options, and also resulted in reconsidering digestion for the City of Vernon, which had been initially rejected.

#### 3.1 Further Technology Screening

Options identified in TM-2 were re-visited following the completion of TM-3, with a focus on the findings from the public engagement program.

##### 3.1.1 Digestion at Vernon

Digestion at the City of Vernon's Water Reclamation Centre (WRC) was reconsidered for three reasons. First, operations staff re-visited the original plant expansion plan and identified the possible availability of land if one redundant bioreactor were shared between trains. Secondly, the option of digesting only the fermented primary solids (FPS) requires less space than full digestion of FPS and thickened activated sludge (TWAS). Lastly, Vernon's plan for managing their high-strength industrial wastewater source<sup>2</sup> has matured and may result in treatment facilities at the WRC that may be complimentary to digestion or include a digestion component.

Therefore, digestion at Vernon's WRC can be considered again as part of the overall management plan. Alternatives 1 to 4 in TM-2 were modified to include possible digestion at the Vernon WRC of FPS and TWAS. Evaluation of how digestion would be added at the facility should be deferred until the City of Vernon decides on what measures<sup>3</sup> are taken to address the high strength industrial wastewater conditions.

##### 3.1.2 Chemical Pre-Treatment

BCR pre-treatment of waste solids was reported to decrease the composting time, therefore potentially increase RBCF capacity. This option was eliminated as a part of the overall management plan because it will not reduce the volume of OgoGrow produced and therefore does not address the key limitation of the compost market demand identified in TM-3 and highlighted in the public engagement work.

##### 3.1.3 Landfill Disposal

Landfill disposal following digestion was not considered a favourable option based on the evaluation criteria in TM-2, specifically environmental and operational criteria. It was also not supported by stakeholders from the engagement program. Therefore, this option was eliminated as a part of the overall management plan.

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<sup>2</sup> An industrial operation within City of Vernon discharges an elevated BOD liquid stream to City of Vernon's collection system.

<sup>3</sup> City is completing a parallel study which includes collection and treatment changes. Report from that study is not available at time of writing.

### 3.1.4 Biosolids Growing Medium

If Class A Biosolids were produced directly at Vernon's WRC or Kelowna's Wastewater Treatment Facility (WWTF), soil blending and production of biosolids growing medium (BGM) would be possible. This option was eliminated as a part of the overall management plan for two reasons. Firstly, the creation of a new product for the landscape market would directly compete with OgoGrow, affecting pricing and consumer product identity. Secondly, using digestion to create Class A Biosolids will increase metal concentrations because of the mass destruction. Maximum concentration limits (mg/kg) for BGM are lower than for Class A Compost with respect to cadmium (1.5 versus 3 mg/kg), copper (150 versus 400 mg/kg), mercury (0.8 versus 2.0 mg/kg), and zinc (150 versus 500 mg/kg). Based on actual metal levels for cadmium, copper, mercury, molybdenum, selenium, and zinc in solids at both the Kelowna and Vernon facilities, the use of digested solids as feed stock for use as BGM would be problematic in terms of meeting the final metal concentrations.

### 3.1.5 Thermal Drying

Thermal drying of TWAS solids is deferred from consideration until the optimal digestion approach can be identified. While its resulting volume and mass reduction of 90% would be favourable for transport costs, the degree that reduced transport costs offset the capital expenditure depend on the location for land application. Further, digestion of FPS alone may not be favoured.

## 3.2 Final Management Options

Table 3-1 relists the solid production forecasts from TM-1.

**Table 3-1: Summary of Average and Maximum Month Solids Production**

Year		Without Digestion			With Digestion		
		2015	2035	2065	2015	2035	2065
<b>Average Annual Production (Design Basis)</b>							
Kelowna	dry tonnes/day	10	13	21	5	7	11
	wet tonnes/day	51	69	109	28	38	60
Vernon	dry tonnes/day	5	6	8	3	3	4
	wet tonnes/day	22	27	39	12	15	21
Lake Country	dry tonnes/day	1	1	2	0.5	1	1
	wet tonnes/day	4	6	9	2	3	5
<b>Total</b>	dry tonnes/day	15	20	31	8	11	17
	wet tonnes/day	78	103	157	43	56	86
	wet tonnes/year	28,466	37,455	57,236	15,700	20,600	31,480
<b>Maximum Month Production (Based on 1.3 times average annual)</b>							
Kelowna	dry tonnes/day	13	17	27	7	9	15
	wet tonnes/day	67	90	142	37	50	78
Vernon <sup>a</sup>	dry tonnes/day	6	7	10	3	4	6
	wet tonnes/day	29	36	50	16	20	28
Lake Country <sup>a</sup>	dry tonnes/day	1	2	2	1	1	1
	wet tonnes/day	6	8	12	3	4	6
<b>Total</b>	dry tonnes/day	20	26	40	11	14	22
	wet tonnes/day	101	133	204	56	73	112

Notes:

a) Digestion at Vernon is to be confirmed. Digestion at Lake Country is not feasible – but values are indicative if it were.

From the final screening herein, the only remaining pre-treatment option was digestion. Outlet options include continued composting at the RBCF and land application – the latter having up to four different potential strategies.



Digestion is a requirement for both outlet options since land application requires it and since expansion of the RBCF (i.e. the no-digestion scenario) is not supported by compost market limits. Table 3-2 summarizes the types of digestion approaches from TM-2.

**Table 3-2: Management Alternatives**

TM-2 Alternative	Pre-treatment	Final Disposal
1	Digestion (Class B) of all solids.	Combination of RBCF and land application.
2	Digestion (Class A) of all solids.	Combination of RBCF and land application.
3	Digestion of FPS only (Class B).	Combination of RBCF and land application.

**Notes:**

- (a) Applied to City of Kelowna. For each alternative, digestion at Vernon can be considered, but after industrial high-strength source management is in place.
- (b) Land application remains a viable option for further study with probable implementation solution by year 2028 per Table 5-1.

### 3.3 Metals Management Considerations

OgoGrow is produced using undigested solids and trace metal concentrations in OgoGrow are consistently below OMRR limits for Class A Compost<sup>4</sup>. If digestion is implemented, trace metal concentration in the digested solids is expected to increase because of the mass destruction that takes place in the digestion process. Therefore, changes in trace metal concentration in the feedstock to the composting operation were studied to assess those concentrations in the final compost product.

Historical trace metal concentrations from the City of Kelowna WWTF<sup>5</sup> and City of Vernon WPC<sup>6</sup> were reviewed. Table 3-2 shows average metal concentrations in centrifuge solids measured monthly (from 2003 to 2017 for Kelowna and 2016 to 2017 for Vernon), including an estimate of blend based on the same 70% Kelowna and 30% Vernon solids production ratio (excludes Lake County). These values are before blending with other materials at the RBCF. Existing OgoGrow metals content is also shown. Table 3-2 also shows the expected changes in trace metals concentrations if digestion were implemented (FPS and TWAS) assuming 45 percent overall mass destruction, as well as an estimate of the increased metal concentrations in OgoGrow if all solids used at the RBCF are digested.

Based on this initial analysis, none of the metal limits are expected to be an issue for land application (Class A or B biosolids). Depending on the what digestion scenario is used and whether any changes are made in the mix ratios used at the RBCF, limits for Class A compost may be an issue for selenium. Copper and molybdenum are near the limit for Class A compost but appear to be gradually decreasing. Selenium levels are higher in Vernon than in Kelowna.

Further characterization of the metals in the FPS versus the TWAS and investigation of the sources of these metals is recommended and the estimates should be updated both to account for Lake Country (no metal data obtained) and for the final digestion scenario adopted.

<sup>4</sup> Tables 2-2 and 3-7 of TM-1.

<sup>5</sup> Monthly data from January 2003 to June 2017 were included. While some metals have decreased year to year (including Cadmium, Copper, and Molybdenum), all years were included.

<sup>6</sup> Monthly data from January 2016 to October 2017 were included.

Table 3-2: Trace Metals Concentrations – With and Without Digestion (mg/kg)

Trace Metal	Existing Operation				Estimate After Digestion <sup>b</sup>	
	Kelowna Solids (Average)	Vernon Solids (Average)	Kelowna to Vernon Blended Solids	OgoGrow Current Conditions	Blended Biosolids	OgoGrow Estimated <sup>a</sup> New Conditions
Arsenic	1.51	1.50	1.51	4.2	2.8	4.2 – 4.7
Cadmium	0.89	0.71	0.84	1.5	1.5	1.6 – 1.8
Chromium	17.08	9.20	14.71	12.9	26.8	15.9 – 17.7
Cobalt	2.01	1.41	1.83	2.2	3.3	2.5 – 2.8
Copper	546	278	466	233	850	350 – 390
Lead	14.15	6.55	11.87	10.0	21.6	12.5 – 13.9
Mercury	0.93	0.40	0.77	0.35	1.4	0.5 – 0.6
Molybdenum	5.73	5.37	5.62	3.5	10.2	4.8 – 5.3
Nickel	11.71	7.60	10.48	7.8	19.1	10.1 – 11.2
Selenium	2.95	4.38	3.38	1.6	6.1	2.4 – 2.7
Zinc	271	285	276	333	500	381 – 423

**Notes:**

- a) Based on current metal concentrations of centrifuge cake, estimated metal concentrations after digestion, and same mix ratio of solids to wood mix, ash, and water. If the amount of wood is changed, there would be a resulting change. Calculated mix ratio of input solids to compost mix is 0.4 by weight based on TM-1 section 2.4.1 but is plus / minus 10 percent.
- b) Assuming 45% overall mass destruction

Five of the above trace metals after digestion are important for applicable regulatory limits depending on the final outlet market. Table 3-3 compares those five to various regulation limits. Land application of biosolids will not be limited, but compost quality could be depending on which regulatory limits are applied.

Table 3-3: Trace Metals Conditions after Digestion (mg/kg)

Trace Metal	Biosolids Land Application			OgoGrow Estimated Conditions	Compost Markets		
	Blended Digested Biosolids	OMRR Limits Class A - Biosolids	OMRR Limits Class B - Biosolids		OMRR Class A Compost Limits	CCME Class A Compost Limits	OMRR BGM Limits
Copper	850	-	2200	350 – 390	400	100	150
Mercury	1.4	5	5	0.5 – 0.6	2	0.8	0.8
Molybdenum	10.2	20	20	4.8 – 5.3	5	5	5
Selenium	6.1	14	14	2.4 – 2.7	2	2	2
Zinc	500	1850	1850	381 – 423	500	500	100

**Notes:**

- a) Based on current metal concentrations of centrifuge cake, estimated metal concentrations after digestion, and ratio of input solids

Selenium appears to be a potentially limiting trace metal. Either deferring digestion of some streams, reformulation with more wood waste, or a combination would be effective at managing trace metal levels. Canadian Food Inspection Agency (CFIA) guideline T-4-93 and Canadian Council of Ministers of the Environment (CCME) have limits to maximum application rates (e.g. kilogram of metal per year) as well as cumulative metals applied. CFIA currently requires OgoGrow labelling include a maximum application rate. If digestion is implemented and the metal concentrations increase, the application rate for OgoGrow may be reduced – which is a potential marketing negative.

## 4 Management Alternatives

### 4.1 Methodology

For comparison, a baseline “status-quo” scenario was assumed, namely expansion of the current RBCF operations with no other treatment or pre-treatment changes either at the Kelowna WWTF or at the Vernon WRC. Alternatives were sized for design year 2035 conditions, but tested whether they achieved the project objectives based on average annual conditions in the future. The following assumptions were made in analysing the possible management alternatives:

- a. Facility Sizing Design Criteria
  - i. Design year is 2035.
  - ii. Processing capacity at the existing RBCF is 16 dry tonnes per day (dt/d).
  - iii. Design year undigested solids production projection is 26 dt/d.
  - iv. Compost market capacity in 2035 is estimated at 35,000 m<sup>3</sup>/yr.
- b. Digestion Pre-treatment
  - i. Class B digestion for Kelowna would be at a new site location within 1.6 km of the existing WWTF and the feed and return stream would be pumped to and from the existing WWTF.
  - ii. Class B digestion at Vernon would be at the existing WRC.
  - iii. 45% overall mass destruction
  - iv. Mesophilic digestion with mean cell residence time of 15 days at maximum month.
  - v. Ratio of FPS to TWAS solids is 45% to 55%.
- c. Land application of Class A or Class B
  - i. Potential sites for future analysis would be within 100 to 200 km of the Kelowna WWTF or the Vernon WRC for the respective biosolids source.
- d. Capital costs are inclusive of 50% contingency and 25% engineering fees. All costs are in 2017 dollars.

#### 4.1.1 Balance of Solids and Compost Production

With no pre-treatment of the solids, there is an immediate need to divert solids from the RBCF since compost production exceeds demand. With digestion, diversion can be initially deferred. Therefore, to evaluate at which year the City would need to divert pre-treated solids from the RBCF, the projected annual solids production for each pre-treatment scenario (and its related compost production) was compared to the projected market demand for the period 2017-2035.

Using a projected growth rate of 1.51%, the population for the three municipalities (Kelowna, Vernon, and Lake Country) was calculated. Using the ratio of the population at any given year to the population at year 2015, the projected solids produced was calculated and four pre-treatment scenarios were defined.

### 4.1.2 OgoGrow Market Demand

The annual market demand for OgoGrow was corrected to account for reducing the existing two year inventory by year 2035 in addition to using all the new OgoGrow produced – providing an “inventory corrected demand”. Inventory corrected market demand in 2017 was 25,000 m<sup>3</sup>/yr of OgoGrow growing to 35,000 m<sup>3</sup>/yr of OgoGrow.

### 4.1.3 Land Application Potential

As discussed in the TM-3 Appendix A, multiple land area types were identified that could potentially be used for this purpose. Should land application be pursued as an outlet option, the availability and suitability of land would have to be assessed on a case by case basis.

Further evaluation of social impacts around quality of life and public health considerations as well as assessment of environmental sustainability, financial sustainability, and operational/technical viability for a specific application opportunity are required.

## 4.2 Scenario Development

A total of nine scenarios were developed. Rather than separate alternatives, they are operating scenarios made possible with digestion and are not mutually non-exclusive. Together they provide boundary conditions of all options. Alternative outlets to the RBCF will take time to develop and will have variable costs and variable benefits. Therefore, the purpose of these scenarios is to determine the minimum degree of digestion required and the amounts of diversion from the RBCF to achieve the project objectives. Table 4-1 presents three groups of digestion scenarios having different outlet combinations. Scenario groups 2, 3, and 4 assume that the capacity of the RBCF will remain the same as the current capacity.

**Table 4-1: Biosolids Management Scenarios**

No.	Digestion	Land Application		RBCF Feed
		General	Biomass Plantation	
1	None – “Status Quo”	None	None	All solids
2a	Kelowna FPS	No	No	All solids
2b	Kelowna FPS	All Digested Solids	No	All remaining solids
2c	Kelowna FPS	No	All Digested Solids	All remaining solids
3a	All Kelowna Solids	No	No	All Solids
3b	All Kelowna Solids	X% of Digested Solids	No	All remaining solids
3c	All Kelowna Solids	No	All Digested Solids	All remaining solids
4a	All Kelowna and Vernon Solids	No	No	All Solids
4b	All Kelowna and Vernon Solids	No	X% of Digested Solids	All remaining solids

### 4.2.1 Scenario 1 - Expand Composting Facility (“Status Quo”)

Figure 4-1 shows the RBCF would be expanded to meet the 2035 waste solids projections at 26 dt/d. This would include the addition of approximately 10 aeration zones (5 primary and 5 secondary) and two new biofilters for odour control. This expansion is considered technically feasible as the City owns the land adjacent to the RBCF. However, this scenario is not generally supported by the nearby residents and is for comparison only. Odour management and lack of acceptance by the neighbouring citizens would make expansion of the RBCF problematic.



#### 4.2.2 Scenario Group 2 - Digest Kelowna FPS

Figure 4-2 shows FPS would be pumped from the Kelowna WWTF to a new digester in Kelowna. Solids would be sent to one of the following outlets:

- a. Kelowna TWAS, digested FPS, and the Vernon and Lake Country solids (FPS and TWAS) would be transported to the RBCF for composting.
- b. Kelowna TWAS, and Vernon and Lake Country solids would be transported to the RBCF for composting, and the digested FPS from Kelowna would be either transported to the RBCF for composting or land applied. In this option, the solids diverted to land application equals the full amount of digested solids produced.
- c. Kelowna TWAS and the Vernon and Lake Country solids would be composted, with the digested FPS composted or diverted for land application. For this option, the land application would be specifically for establishing a biomass plantation where the harvested woody debris would be used as carbon feed for the composting operation. In this option, the solids diverted to land application equals the full amount of digested solids produced.

#### 4.2.3 Scenario Group 3 - Digest all Kelowna Solids

Figure 4-3 shows Kelowna solids (FPS and TWAS) would be pumped to a new digester in Kelowna. After digestion, the digested solids would be sent to one of the following outlets:

- a. Digested solids from Kelowna, and the Vernon and Lake Country solids would be transported to the RBCF for composting.
- b. Vernon and Lake Country solids would be transported to the RBCF for composting. Digested solids from Kelowna would either be transported to the RBCF for composting or land applied, where the amount of solids diverted to land application has been minimized such that annual OgoGrow production equals market capacity in the year 2035.
- c. Vernon and Lake Country solids would be composted and the digested solids from Kelowna would be composted or diverted for land application. For this option, the land application would be specifically for establishing a biomass plantation, where the harvested woody debris would be used as carbon feed for the composting operation. In this option, the solids diverted to land application equates the full amount of digested solids.

#### 4.2.4 Scenario Group 4 - Digest all Kelowna and Vernon Solids

Figure 4-4, shows the Kelowna FPS and TWAS would be pumped to a new digester in Kelowna. The Vernon FPS and TWAS would be digested at the WRC. Solids would be sent to one of the following outlets:

- a. The digested solids from Kelowna and Vernon, and the Lake Country solids would be transported to the RBCF for composting.
- b. Lake Country solids would be transported to the RBCF for composting and the digested solids from Kelowna and Vernon would be either transported to the RBCF for composting or land applied to establish a biomass plantation which would produce woody biomass used as carbon feed for the composting operation. In this option, the solids diverted to land application is the quantity necessary so that carbon produced by the woody biomass plantation equals the total carbon feedstock demand at the RBCF.



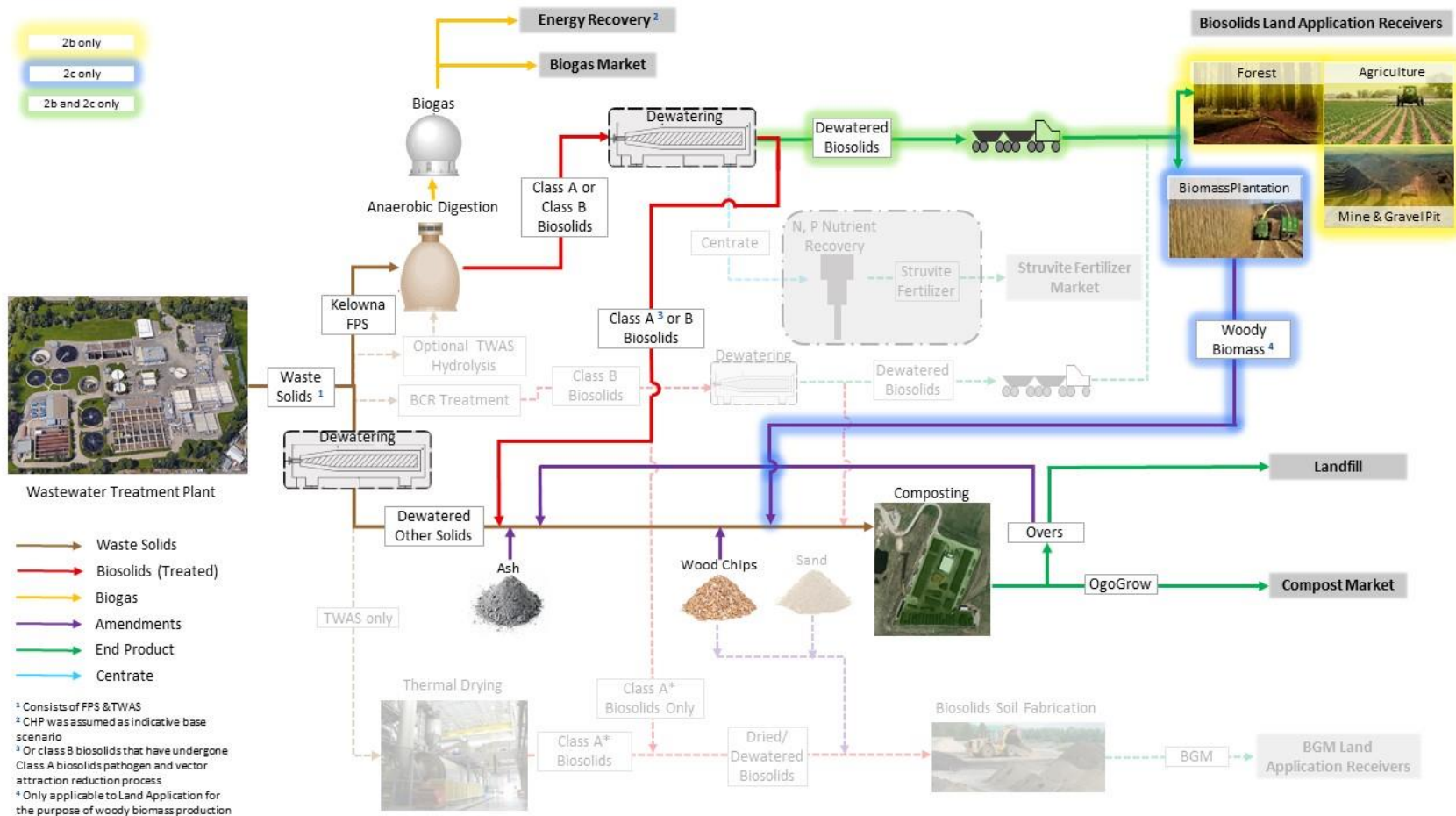


Figure 4-2: Scenario 2





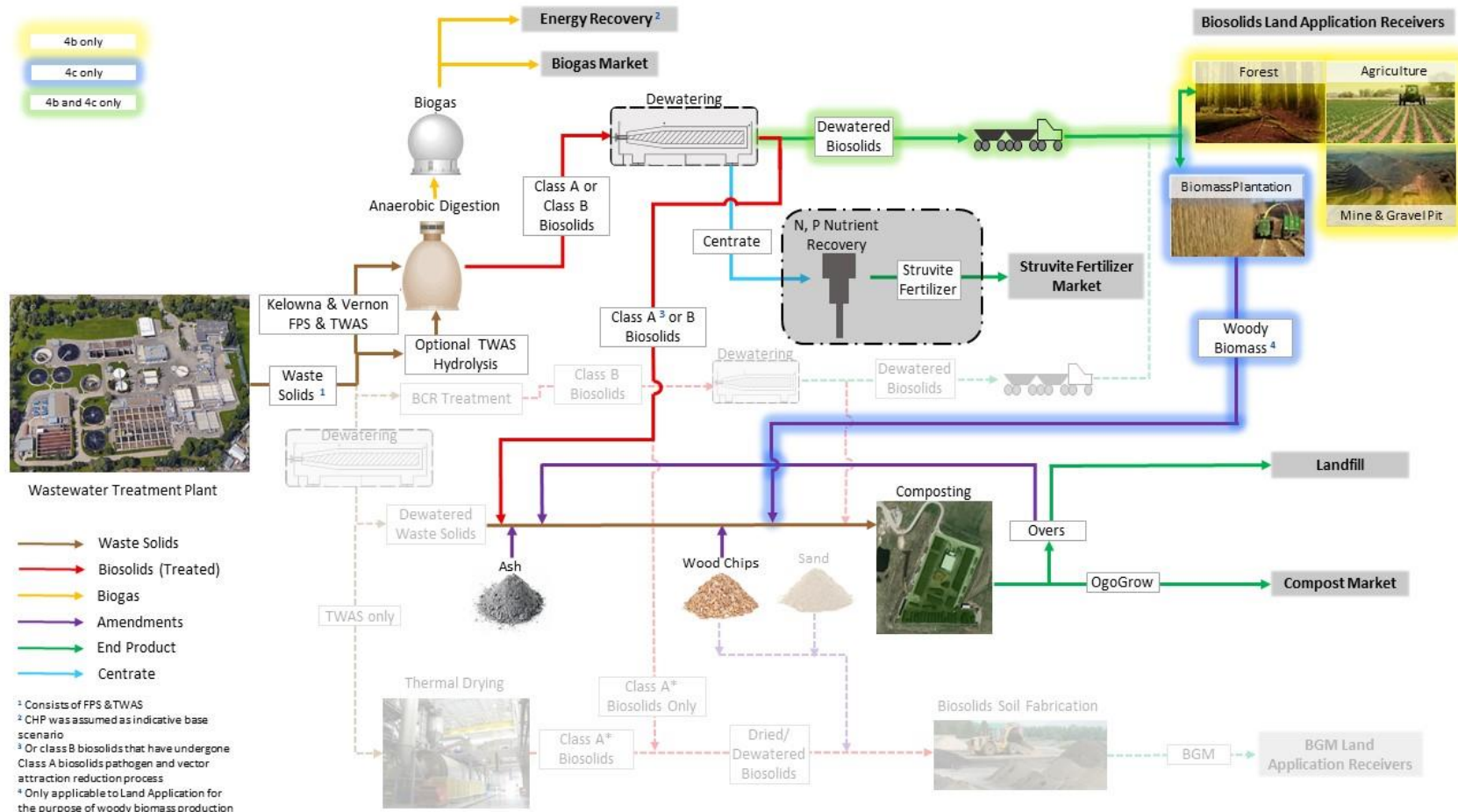


Figure 4-4: Scenario 4

Note: Struvite Recovery is only applicable to the Kelowna waste solids

## 5 Analysis Summary

Table 5-1 provides an overview of the analysis for the defined management scenarios. All values correspond to average monthly conditions at design year 2035. The diversion ratio of the solids to the RBCF versus land application is dictated by either reducing OgoGrow inventory or meeting compost operating demand for woody carbon.

Only scenarios 3b, 3c, and 4b achieve the objective of reducing OgoGrow inventory. For scenario 3b, it was assumed that the solids corresponding to the market cap in 2035 would be transported to the RBCF with the remainder of the solids diverted to land application. The volume of compost produced in scenarios 3c and 4b fall below the market demand in 2035. This would provide an opportunity for optimization of diversion for these two alternatives.

The woody biomass option under land application was well received in the public engagement program and it specifically addressed the risk of interrupts to the carbon feed stock at the RBCF. Therefore, the intent of scenarios 2c, 3c, and 4b was to estimate the capacity and break-even point where land application can sustain the composting operation. Scenario 4b shows that a woody biomass plantation could meet between 69 % - 100% of the carbon feedstock demand at the RBCF in 2035.

Again, variations to these base scenarios are possible which could also achieve the project outcomes – all depending on the degree of digestion and the extent of land application opportunities pursued.

Table 5-1: Management Alternatives' Analysis – 2035 Design Year

Scenario	Digestion Design Capacity (Max Month) dt/d	Digested Solids (Avg. Month) dt/y	Un-Digested Solids (Ave. Month) dt/d	Solids Sent to RBCF <sup>f</sup> dt/d	Solids Land Applied dt/d	Compost Produced <sup>e</sup> at RBCF m <sup>3</sup> /yr	Compost Inventory Annual Change m <sup>3</sup> /yr	Year to reach RBCF Capacity Year	Carbon Feedstock Demand at RBCF m <sup>3</sup> /yr	Carbon Feedstock Demand Met by Biomass Plantation %	Indicative Land Application Area <sup>d</sup> ha/yr (Total Area, ha)
1	0		20	20.0	-	59,300	24,300	2035	165,000		-
2a	7.7	3.3	14.0	17.3	-	51,300	16,300	2028	143,000		-
2b	7.7	3.3	14.0	14.0	3.3 <sup>b</sup>	41,500	6,500	2043	116,000		60 to 80 (300 to 400)
2c	7.7	3.3	14.0	14.0	3.3 <sup>b</sup>	41,500	6,500	2043	116,000	3% - 5%	105 (315)
3a	17	7.2	7.0	14.2	-	42,100	7,100	2043	117,000		-
3b	17	7.2	7.0	11.8	2.4 <sup>a</sup>	35,000	-	>2065	98,000		40 to 60 (200 – 300)
3c	17	7.2	7.0	7.0	7.2 <sup>b</sup>	20,700	(14,300)	>2065	58,000	15% - 22%	180 (540)
4a	26	10.5	1.0	11.5	-	34,100	(900)	2057	95,000		-
4b	26	10.5	1.0	2.0	9.5 <sup>c</sup>	5,900	(29,100)	>2065	17,000	69% - 100%	230 (690)

**Notes:**

- a) Amount that results in zero accumulation change (i.e. no increase to inventory). Land applying more would decrease inventory.
- b) Equals the total digested amount.
- c) Amount applied to woody biomass plantation to supply full demand of woody debris carbon supply needed for composting.
- d) Land application area is hectares per year. Total area represents the sustainable land application for the period of analysis (2035 design year).
- e) Based on 1 dt/yr = 8.12 m<sup>3</sup> OgoGrow – from 28,000 wt/yr (at 20% solids) producing 45,465 m<sup>3</sup> OgoGrow (Year 2015, TM-1).

Table 5-2: Management Alternatives' Analysis – 2035 Design Year

Scenario	Achieves All Project Objectives Yes/ No	Capital Cost			Annual Cost			Total Annual Cost \$M/yr	Total Lifecycle <sup>d</sup> Cost \$M
		Compost Capital Cost \$M	Digestion Capital Cost <sup>a</sup> \$M	Willow Plantation Capital Cost <sup>c</sup>	Compost O&M Cost \$M/yr	Digester O&M Cost \$M/yr	Indicative Land Application Annual Cost <sup>b</sup> \$M/yr		
1	No	5.8 - 6.6	-		3.4	-	-	3.4	48 – 49
2a	No	-	29.0		2.3	0.40	-	2.7	63
2b	No	-	29.0		1.9	0.40	0.32	2.6	62
2c	No	-	29.0	1.88	1.9	0.40	0.38	2.7	64
3a	No	-	48.0		1.9	1.0	-	2.9	84
3b	No	-	48.0		1.6	1.0	0.23	2.8	83
<b>3c</b>	Yes	-	48.0	3.17	1.2	1.0	0.82	3.0	<b>89</b>
<b>4a</b>	Yes	-	59.0		1.9	1.4	-	2.3	<b>100</b>
<b>4b</b>	Yes	-	59.0	3.82	0.4	1.4	1.08	2.9	<b>99</b>

Notes:

- a) Mesophilic digestion (Class B). Location is a new location near the Kelowna WWTF. Inclusive of replacement costs required before 2035.
- b) Inclusive of assessment of site suitability and development of land application plan as per OMRR, biosolids transportation within 100 km, supervision of biosolids management and post application inspection
- c) Does not include the cost of land acquisition.
- d) Capital plus 20 year present worth of annual cost at 3% (14.8775 factor).



## 6 Conclusions and Recommendations

### 6.1 Conclusions

- a. Digestion is necessary by 2019 for any biosolids management options to meet the project objectives.
- b. Digestion of both fermented primary sludge (FPS) and thickened waste activated sludge (TWAS) of Kelowna's solids will be necessary to avoid increasing OgoGrow inventory.
- c. Digestion of FPS alone at Kelowna will extend the operational horizon of the RBCF (without expansion) until the year 2028 or further if some form of land application is also implemented.

### 6.2 Recommendations

The City of Kelowna and the City of Vernon should:

- a. Continue to consider the following key factors when selecting final disposal options:
  - i. Quality of life considerations such as odour, traffic, dust and convenience
  - ii. Environmental sustainability
  - iii. Financial sustainability
  - iv. Operational and technical viability
- b. Develop a comprehensive public education and public engagement program for the overall biosolids management plan to build widespread understanding of the challenges and opportunities for beneficial reuse.
- c. Engage the Ministry of Health (Interior Health Authority) and the Ministry of Environment as soon as possible and keep both informed of their plans and what further specific studies are being carried forward with respect to land application potential.
- d. Measure metals concentration separately in the FPS and the TWAS in addition to monitoring metals for compliance monitoring.
- e. Proceed with feasibility and conceptual design of digestion at the Kelowna WWTF including:
  - i. Siting for digestion facility;
  - ii. Type of digestion;
  - iii. Decision on whether to digest FPS and TWAS or to digest FPS only;
  - iv. Selection of Class A versus Class B biosolids digestion;
  - v. Evaluation of hydrolysis of the TWAS for increased mass destruction, struvite recovery, production of volatile fatty acids, biogas production, and heat recovery.
- f. Defer preliminary design of digestion at Vernon WRC only after recommendations and decisions are complete related to the process treatment review of high strength industrial wastewater management.
- g. Undertake further study on land application potential – especially potential for a potential woody biomass plantation, and include key factors from the stakeholder engagement work in the further development of a biosolids land application study.
- h. Consider using linear programming analysis for on-going analysis and comparison of multiple outlet scenarios.



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# Report to Council



**Date:** February 19<sup>th</sup>, 2018  
**File:** 1890-15  
**To:** City Manager  
**From:** Ed Hoppe, Water Quality and Customer Care Supervisor  
Ted Sophonow, Parks, Beaches & Sportsfields Supervisor  
**Subject:** Okanagan Basin Water Board Grant Application

---

## **Recommendation:**

That Council receives, for information, the report from the Water Quality and Customer Care Supervisor and the Parks, Beaches & Sportsfields Supervisor with respect to two 2018-2019 Okanagan Basin Water Board (OBWB) Water Quality and Conservation Grants,

AND THAT Council authorizes staff to apply for a 2018-2019 OBWB – Water Conservation and Quality Project Grant for 'Source Water Protection Plan' and also for 'Irrigation Communication Retro-fit Project',

AND THAT Council authorizes the Mayor and City Clerk to execute the 2018-2019 OBWB – Water Conservation and Quality Project Grants on behalf of City Council, if the application(s) is successful,

AND FURTHER THAT the 2018 Financial Plan be amended to include the grant funding for the "Source Water Protection Plan" and "Irrigation Communication Retro-fit Project" if the application(s) is successful.

## **Purpose:**

To consider staff's recommendation to apply for two 2018-2019 OBWB Water Protection, Conservation and Supply Grants.

## **Background:**

The purpose of the Okanagan Basin Water Board's Water Conservation and Quality Improvement Grant Initiative is to assist local government in addressing issues that enhance the valley-wide sustainable use of water. This year the board is putting a special focus on projects which address: Drought and Flood Preparedness, Mapping, Source Water Protection, and Water Quality.

As part of the application process, all applications must be accompanied by a Board or Council resolution from the respective Regional District Board and/or Municipal Council. This includes applications from local governments and all non-profit/community groups or improvement districts. Staff are proposing the following applications to the Okanagan Basin Water Board be submitted for the February 16th, 2018 deadline with the understanding that Council support will be accepted by the Okanagan Basin Water Board post-date;

#### **'Source Water Protection Plan'**

In 2011, Kelowna contracted a consultant to develop an Interior Health Authority (IHA) mandated Source Water Protection Assessment, which highlighted a number of risks and deficiencies in the current protection of water quality and supply in the Okanagan Watershed. The resulting recommendations from the assessment were to be evaluated and developed into a formal action plan referred to as a Source Water Protection Plan.

Once developed, the Source Water Protection Plan would serve as a blueprint for the protection of source and subsequent drinking water for residents of the Kelowna Water Utility. Actions from the plan would effectively minimize the water quality impacts of agricultural practices, range practices, encroaching development, environmental spills, forestry practices, discharge of wastewater effluent, and other emerging water quality threats by working with various stakeholders.

This long range plan is designed to be an on-going and "living" document that, once developed, will be maintained, revised and updated by staff. It will be utilized by both Utility Operations for maintaining the annual IHA filtration deferral exemption and by the Utility Planning department for consideration of infrastructure needs and addressing water protection concerns in future plans.

#### **'Irrigation Communication Retro-Fit Project'**

The City of Kelowna has approximately 350 irrigation points of connection with a variety of methods to control the flow of water. In 2017 the City of Kelowna, Park Services received a \$30,000 grant from the Okanagan Basin Water Board to investigate solutions to flow monitoring issues at City irrigated sites. Through this grant, the City will increase the number of sites with dependable, accurate flow monitoring.

Flow monitoring mitigates property damage and liabilities by means of early detection of excess or unexpected flow and raises water conservation awareness through historical usage reports and live use data. During our investigation, approximately 10 sites were tested and groundbreaking results for Park Services and the irrigation industry were made with products that are compatible in flow monitoring.

#### **Internal Circulation:**

Divisional Director, Infrastructure Planning  
Divisional Director, Civic Operations  
Parks and Buildings Planning Manager  
Park Services Manager  
Utility Services Manager  
Infrastructure Delivery Manager  
Grants and Partnerships Manager



Community Communications Manager  
Budget Supervisor

**Existing Policy:**

**OCP Policy 7.17.2 Water Conservation:** Conserve water by improving the efficiency of existing irrigation systems, improving park construction standards, designing for water conservation, using non-potable water and converting park and civic building landscapes to reduce the amount of irrigated turf where appropriate.

**OCP Policy 7.21.1 Best Practices:** Minimize water consumption by following best practices for water conservation including metering, public education and equitable rate structures, toward increased resilience to drought.

**OCP Policy 7.23.1 Run-off Volumes:** Manage runoff volumes generated by urban development to minimize changes in water flow and impacts to watershed health.

**Financial/Budgetary Considerations:**

The Civic Operations Division is requesting a \$30,000 OBWB grant for the development of the Source Water Protection Plan. A budget of \$28,000 has already been approved for 2018, which will form all of the funding for the project in the event that grant funding is not approved through OBWB.

The Civic Operations Division is also requesting a \$30,000 OBWB grant towards the Irrigation Communication Retro-Fit Project. The amount of funding received will determine the extent of the project that can be carried and may be supplemented by up to \$10,000 from the Parks department 2018 budget.

**Considerations not applicable to this report:**

**Legal/Statutory Authority:**

**Legal/Statutory Procedural Requirements:**

**Personnel Implications:**

**External Agency/Public Comments:**

**Communications Comments:**

**Alternate Recommendation:**

Submitted by:

Ed Hoppe, Water Quality and Customer Care Supervisor

**Approved for inclusion:**



(Joe Creron, Deputy City Manager)

cc:

Divisional Director, Infrastructure Planning

Divisional Director, Civic Operations

Parks and Buildings Planning Manager

Park Services Manager

Utility Services Manager

Infrastructure Delivery Manager  
Grants and Partnerships Manager  
Community Communications Manager  
Financial Planning Manager  
Parks, Beaches & Sportsfields Supervisor

# Report to Council



**Date:** February 26, 2018  
**File:** 0710-20  
**To:** City Manager  
**From:** Melanie Steppuhn, Planner II, Policy and Planning  
**Subject:** City of Kelowna Heritage Grants Program

---

## **Recommendation:**

THAT Council authorizes the City to enter into a Grant Administration Agreement for the Heritage Grants Program with the Central Okanagan Heritage Society in the form attached to the Report from the Planner II dated February 26, 2018;

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

## **Purpose:**

To consider executing a Grant Agreement with the Central Okanagan Heritage Society to administer and adjudicate the 2018 Heritage Grant Program on behalf of the City of Kelowna.

## **Background:**

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

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

Since 2008, the CoKHGP has been administered by the Central Okanagan Heritage Society (COHS). The annual funds available for the CoKHGP is \$35,000. The maximum grant per property per year is \$7,500, to be allocated to a maximum of 50% of the project cost. The contract to administer the program is

\$9,500.

COHS prepares an annual report summarizing the program activities over the past year. Staff reviewed the 2018 City of Kelowna Heritage Grants Program Annual Report and recommend continuing the partnership with COHS to administer the CoKHGP. The knowledge and skills offered by COHS staff add value to the program administration.

The attached 2018 Grant Administration Agreement itemizes roles and responsibilities of both the COHS and the City of Kelowna to ensure the highest value is delivered back to the community with the grant funding of the CoKHGP. The term of this Agreement is for one year.

Staff notes that the terms and conditions of appointing committee members is due to be reviewed through the 2018 calendar year.

**Existing Policy:**

*Official Community Plan – 2030*

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

*Heritage Strategy 2007, Updated July 2015*

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

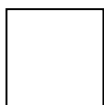
**Financial/Budgetary Considerations:**

\$35,000 plus \$9,500 for grant administration (within an existing approved budget).

Submitted by:

M. Steppuhn, Planner II, Policy and Planning

**Approved for inclusion:**



James Moore, Long Range Policy Planning Manager

**Attachments:**

Heritage Grants Program Administration Agreement (2018)

Heritage Grants Program Terms of Reference (2018)

Central Okanagan Heritage Society – Policy Statement

Heritage Grants Program – Grant Application Evaluation Matrix

cc:

Cultural Services Manager



## Heritage Grants Program Administration Agreement



This Agreement dated for reference February 7, 2018, is

### BETWEEN:

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

(the "City")

### AND:

**Central Okanagan Heritage Society** a registered charity, incorporated in 1982 in the Province of British Columbia, and having its office located at 3-537 Bernard Avenue, Kelowna, British Columbia, V1Y 6N9. Note: mailing address is 1060 Cameron Avenue, Kelowna BC V1Y 8V3.

(the "COHS")

To adjudicate and administer the:

City of Kelowna 2018 Heritage Grants Program - \$35, 000;

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

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

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

1. The term of this agreement will be for one year, commencing January 1, 2018 and ending December 31, 2018.
2. The mandate for COHS will drive its governance and operations for the administration of the Heritage Grants Program.

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

3. The City of Kelowna Heritage Grants Program Committee (hereafter referred to as the Committee) will evaluate requests for heritage grants from property owners with properties listed on the Kelowna Heritage Register. The program will be administered by COHS as per the City of Kelowna's guidelines (Appendix A). In particular, COHS will:
  - a) Be the primary point of contact for inquiries from grant applicants for the Heritage Grants Program.
  - b) Distribute grant application forms to eligible property owners.
  - c) After the grant application deadlines, March 27, 2018, June 5, 2018, September 4, 2018, and October 30, 2018, review submitted grant applications to determine eligibility and comprehensiveness of the application to ensure the Committee can make an informed

- and responsible decision. If minor gaps are identified, COHS will contact applicant to offer them an opportunity to fill in the gaps / answer questions.
- d) Evaluate requests, advise the Committee and make recommendations. COHS agrees that it will apply the criteria set out in the Terms of Reference (Appendix A) for the approval and distribution of grants.
  - e) Convene and facilitate a meeting of the Committee to review each grant application as a group and to formulate recommendations for grant awards. These meetings are scheduled for April 10, 2018, June 19, 2018, September 18, 2018 and November 13, 2018. Costs and expenses associated with the heritage grants committee meetings are to be paid by the COHS.
  - f) Ensure that comprehensive minutes are recorded by a qualified minute taker / transcriber at the Committee meeting, documenting the discussion and rationale for recommendations. Any costs associated with recording of minutes are to be paid by the COHS.
  - g) Prepare minutes from the Committee for distribution to and approval by the Committee members. Upon approval by the Committee, the minutes will be provided to the City.
  - h) Facilitate payment of grant awards to successful applicants.
  - i) Provide staff with a draft summary report containing the Committee's decisions for awarding grants, with summary information about each of the successful applicants / projects for the year. The report is due in the 4<sup>th</sup> quarter of 2018.
  - j) Write and present a year-end report to City Council containing the Committee's decisions for awarding grants, with summary information about each of the successful applicants / projects. The Council presentation is tentatively scheduled for February, 2018, during Heritage week, and will be presented by COHS.
  - k) Upon request or if concerns arise, provide the City with all the property owner's information including, but not limited to application forms, supplementary materials, and final reports on the use of grant funds.
4. COHS will write and present an annual report to City Council.
- a) The Council presentation and annual report is tentatively scheduled for February, 2018, during Heritage week, and will be presented by COHS.
  - b) The presentation will be consistent with *'Council Presentations by Community Stakeholders'*.<sup>1</sup>
  - c) The presentation and annual report will include the Committees' decisions for awarding grants with an overview of the tool used to determine the successful recipients.
  - d) The presentation and annual report will also include the summary information about each of the successful applicants / projects that were selected for 2018.
  - e) The presentation and annual report will also include the summary information about projects that were rescinded, incomplete or delayed for 2018.
  - f) The annual report will include a breakdown of the administration fees, in addition to the breakdown of the grant money.
  - g) The presentation will include a breakdown of the grant money.
5. The administration costs for COHS will include:
- a) Staffing costs related to administration of the Heritage Grants Program.
  - b) Office supplies and photocopying related to administration of the grant program
  - c) On-going file management of all inquiries to the COHS to the program.
  - d) A portion of overhead.
  - e) Volunteer recognition including refreshments for meetings.

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

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

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<sup>1</sup> To be provided by City staff.

6. The City will:
  - a) Pay \$9,500 inclusive of any applicable taxes to COHS for review and administration services, and to adjudicate the 2018 Heritage Grants Program.
  - b) Advertise the City's Heritage Grants Program.
  - c) Print out the mail out letters for the Heritage Grants Program and provide the corresponding envelopes.
  - d) Provide COHS with disbursement of funds for the Heritage Grants Program, upon City Council funding approval.
7. All communication for the City of Kelowna's Heritage Grants Program will recognize that the City provides all of the funding for the program. City recognition requires that all communication be on City of Kelowna letterhead & envelopes, and all 'Thank You' letters will be forwarded to the Policy and Planning Department at the City of Kelowna. Policy and Planning can be contacted for letterhead and envelopes (250.469.8419 or msteppuhn@kelowna.ca).
8. Communications between the COHS and the City of Kelowna will, in most instances be between Lorri Dauncey, CoKHGP manager, and the Planner II in the Policy and Planning Department. Communications regarding budget and/or administration will in most instance be between Shannon Jorgenson, Managing Director for COHS, and the Planner II in the Policy and Planning Department.
9. No COHS documentation will be attached to any mail outs regarding the program.
10. COHS will:
  - a) Deliver demonstrable public benefit;
  - b) Use sound governance and management practices;
  - c) Maintain financial sustainability;
  - d) Ensure transparency in operations and reporting; and
  - e) Commit to a public service mindset.
11. Upon request, or if concerns arise, provide the City with all the Organization's information with regard to administering the Heritage Grant Program including, but not limited to, final reports on the use of grant funds.
12. Both parties agree that it is their intention to receive, review and adjudicate applications and disburse the Heritage Grants Program and will cooperate to this end.
13. CoHS and the City of Kelowna agree that for the term of this contract, the CoHS will not apply for a Heritage Grant, but will carry forward a grant amount from File # H15-809: 2279 Benvoulin Road, The Mclver House, max. grant of \$5,000, approved in 2015 for conservation work on the exterior of the Mclver House.
14. This agreement may be renewed, with amendments as needed, for future years.

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

THE CORPORATE SEAL OF  
**THE CITY OF KELOWNA**

Was hereunto affixed in the presence of:

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
City Clerk

THE CORPORATE SEAL OF  
**THE CENTRAL OKANAGAN HERITAGE SOCIETY**  
Was affixed in the presence of:

\_\_\_\_\_  
Authorized Signatory

\_\_\_\_\_  
Authorized Signatory



# Terms of Reference

## Heritage Grants Program

Updated 2018

### 1.0 INTRODUCTION

The Heritage Grants Program was established in 1991 and was administered by City staff with applications reviewed by a volunteer board. In 2008, the Central Okanagan Heritage Society (COHS) was awarded the contract to administer the grants program.

The intent of the program is to recognize the value of Kelowna's built heritage. Through the granting process, financial support is extended to assist with the upkeep of properties listed on the City of Kelowna's Heritage Register.

### 2.0 PURPOSE

The City of Kelowna's Heritage Grants Program promotes the conservation of residential, commercial, industrial, institutional and agricultural heritage buildings by assisting owners with grants for a portion of the costs incurred in conservation work.

### 3.0 AMOUNT OF MONEY AVAILABLE

Approximately \$35,000 in total is available for distribution annually from the City.

### 4.0 ELIGIBLE APPLICANTS

Any property listed on the Kelowna Heritage Register is eligible for this grants program. This program is limited to exterior and building foundation (stabilization) work.

The conservation work should recognize the importance of "Character-defining Elements" as documented in the Heritage Register Record for the property. This Record can be accessed at <https://www.kelowna.ca/our-community/arts-culture-heritage/heritage>

- Residential properties listed on the Kelowna Heritage Register and Heritage Designated properties will be given first priority in the granting program.
- Grants will not be given for work undertaken prior to a successful grant application.
- Municipal property taxes must be fully paid (if applicable).

### 5.0 2017 APPLICATION DEADLINE

Application deadlines: **March 27; June 5; Sept. 4; and Oct. 30.** Please note: there is limited funding.

Grants applied for later in the year *may* have to wait for the next funding cycle.

### 6.0 GRANTS

Buildings "Designated" heritage are eligible for grants to a maximum of \$12,500/ 3 year period.

Buildings listed on the Kelowna Heritage Register are eligible for grants to a maximum of \$7,500/ 3 year period.

**Grants for Exterior Conservation Work** including: reroofing; prep & new paint\*; window, door, siding and porch conservation, will not exceed 50% of the cost of the work to be done, to a maximum of \$7,500 (Heritage Register) or \$12,500 (Designated) per 3 year period.

# Terms of Reference

## Heritage Grants Program

Updated 2018

*\*Heritage paint colour schemes, such as Benjamin Moore's "Historical True Colours for Western Canada" collection, are strongly recommended by this program.*

**Grants for Foundation Work** will not exceed 50% of the cost of work to be done, to a maximum of \$7,500 (Heritage Register) or \$12,500 (Designated) per 3 year period.

***Except for special circumstances, original materials are to be used. Compatible adaptation of modern materials will be considered on a case by case basis.***

### 7.0 DOCUMENTATION

#### For All Applications:

1. All applicants need to include current photographs of the heritage property, and specifically of the area where the work is to be done, in their application.
2. All applicants need to complete the attached application form.
3. At the completion of the work, the grant money will be allocated when the attached "Declaration of Project Completion" form and detailed requirements are submitted by the application deadline and the work is approved by the committee.

#### Grants for Exterior Painting:

As well as the required documents for all applications (1, 2 & 3 listed above), applicants applying for a grant for exterior painting of a heritage property need to include in their application:

- Colour scheme and paint colour samples. \*Benjamin Moore Historical True Colour Palette is highly recommended.
- Estimate for cost if work is to be done by the owner (up to 100% for materials only).
- Two estimates if work is to be done by a contractor.

#### Grants for Reroofing:

As well as the required documents for all applications (1, 2 & 3 listed above), applicants applying for a grant for reroofing of a heritage property need to include in their application:

- Proposed colour and roofing material
- Estimates for cost from two contractors
- One year guarantee for labour and materials; a written copy needs to be provided with the "Declaration of Project Completion." \*Roof inspection is highly recommended.

#### Grants for Exterior & Foundation Work:

As well as the required documents for all applications (1, 2 & 3 listed above), applicants applying for a grant for exterior and foundation work of a heritage property need to include in their application:

- Estimates for cost from two contractors
- One year guarantee for labour and materials MAY be required; a written copy may need to be provided with the "Declaration of Project Completion." If a guarantee for labour and/or materials is needed, this will be stipulated in the grant approval letter.

# Terms of Reference

## Heritage Grants Program

Updated 2018

### 8.0 TIMELINE & PROCEDURES

1. Once an application has been received, it will be screened by the City of Kelowna Heritage Grant Program manager (COHS) to ensure the application is complete.
2. The application will be reviewed by the City of Kelowna Heritage Grants Committee using an evaluation tool.
3. When an application is approved or declined by the Committee, the applicant will be advised in writing.
4. Prior to the commencement of work, any required municipal building permits must be applied for. A building permit is not required for exterior painting work or reroofing. A building permit may be required for other exterior conservation work.
5. The successful applicant must have the work completed within one year of the grant being awarded. An applicant can ask for an extension in the case of unforeseen circumstances.
6. Upon the completion of the heritage building conservation project, the following is required by the committee before the grant will be paid out:

***\*Completion documentation must be received by the Application Deadline.***

- a) Photographs showing the completed project.
- b) Submission of all bills showing 'paid in full' with an authorized signature or showing a \$0 balance. Costs of plans and related expenses may be included.
- c) The attached "Declaration of Project Completion" form must be submitted to the Committee.
- d) Site Inspection by Committee member or as required by the City of Kelowna.
- e) Written warranties as required for reroofing, foundation and exterior restoration work.

7. No application may, in any manner, be considered to form a contractual or other obligation on the part of the Committee.

### 9.0 PROGRAM CLAUSES

#### 9.1 CONFIDENTIALITY OF INFORMATION

The COHS shall keep strictly confidential all information which in any way reveals the City's confidential business, financial or investment details, programs, strategies or plans, learned through the term of the Agreement. Information pertaining to the City obtained by the COHS as a result of participation in this Agreement is confidential and must not be disclosed without written authorization from the City.

#### 9.2 CONFLICT OF INTEREST

As per the Central Okanagan Heritage Society Policy Statement, and as noted in the COHS Heritage Grants Program Administration Agreement.

# Terms of Reference

## Heritage Grants Program

Updated 2018

### 9.3 OWNERSHIP OF DOCUMENTS AND FREEDOM OF INFORMATION

All documents, submitted to the City become the property of the City. They will be received by the City and are subject to the provisions of the Freedom of Information and Protection of Privacy Act. For additional information, please go to:

[http://www.cio.gov.bc.ca/cio/priv\\_leg/foippa/contracting/ppsindex.page](http://www.cio.gov.bc.ca/cio/priv_leg/foippa/contracting/ppsindex.page)

### 9.4 COHS PERFORMANCE RECORD

The City conducts a mid-point check-in and a year-end Performance Record for COHS which are part of the contract administration.

The Application form, Terms of Reference for the Heritage Grants Program, and other grant-related documents may be obtained online at [www.okheritagesociety.com](http://www.okheritagesociety.com) or contact Lorri Dauncey, Central Okanagan Heritage Society at 250-861-7188 or [ldauncey.cohs@telus.net](mailto:ldauncey.cohs@telus.net)



## Policy Statement

### Central Okanagan Heritage Society

**SUBJECT:** *Conflict of Interest* for Directors and Committee Members

**STATEMENT:** The ability to make good decisions may sometimes be affected by other interests-personal and professional – of individual board or committee members. It must be said that there is nothing inherently wrong with a *conflict of interest* providing, that appropriate steps are taken to manage *conflicts of interest* successfully when they do occur. In doing so we ensure the highest standards of fairness and accountability are met.

**INTERPRETATION:** A *conflict of interest* arises when a person able to influence a decision whether by official vote or moral and /or intellectual persuasion, is liable to gain; Some advantage from the outcome of the decision in which they are involved and/or some advantage for an organization with which the individual is directly involved.

- This policy is in effect for COHS directors and committee members only. A separate policy will govern staff.

**IMPLEMENTATION:**

- Each properly constituted meeting will contain a standing provision for declarations of *conflict of interest*.
- Any actual, perceived or potential *conflict of interest* will be fully disclosed to the President or Committee Chair and where appropriate to all board or committee members.
- If it is determined that a board or committee member has an actual *conflict of interest* he or she shall not participate in discussion of the issue, but may answer pertinent questions since personal knowledge may be of assistance to the other members in reaching a decision. The director or committee member will leave the room when discussion and voting takes place on the issue.
- When a **possible** *conflict of interest* is declared, the President or Committee Chair may call for a vote on the possible conflict during which time the individual will leave the room.
- If an **actual** *conflict of interest* does not exist, but a director or committee member feels there may be the **perception** of a *conflict of interest*, he or she shall disclose the matter

and refrain from participating in discussions and from voting, if the individual considers such actions inappropriate in light of the circumstances.

- When an individual abstains from voting, he or she shall not be included in the count for quorum on the matter.
- The minutes will reflect all disclosures (actual, perceived, or potential) as well as abstentions from discussions and voting and any other actions or decisions taken to prevent or resolve the *conflict of interest*.
- The President shall assess the circumstances surrounding any non-compliance with this policy and shall make a recommendation to the Board of directors.

**MONITORING:** This policy will be reviewed ~~biennially~~ *every two-years*.

Policy adopted by COHS board of directors *at regular meeting: April 1, 2008*

## CoKHGP Grant Application Evaluation MATRIX

*To determine if the project qualifies for a Heritage Grant and strength of application*

<b>Application File #:</b>	<b>Project Type:</b>
<b>Address:</b>	<b>Name of Building:</b>
<b>Kelowna Heritage Register:</b> YES / NO <b>Designated:</b> YES / NO <b>Attach SOS</b> <b>Conservation Plan:</b> YES / NO	<b>Has the project been started:</b> YES / NO / Partial <b>Justification:</b> <i>Note: Guidelines state project must not start until approved. Exceptions may be considered.</i>
<b>Property Type:</b> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional/School <input type="checkbox"/> Religious/Church <input type="checkbox"/> Rural/Barn <input type="checkbox"/> Other _____	
<b>Number of quotes provided:</b> _____ <b>If only 1, provide justification:</b> Quote#1: \$ _____    Quote #2: \$ _____    Quote #3: \$ _____ (\$ amount before taxes)	
TOTAL Project Cost: \$ _____    MAXIMUM Grant Approved: \$ _____    % _____ 1 <sup>st</sup> : _____    2 <sup>nd</sup> : _____    Carried – date: _____ (25% to 50% \$5,000 max or \$10,000 for designated heritage)	

**Summary of Scope of Project:**

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Project Scope	YES	NO	N/A	Justification/Explanation		Additional Notes
<b>Exterior Maintenance:</b> <b>New Paint</b> -Prep (scrapping & sanding) -NO Power Washing -Material Repair -Heritage Colour Scheme -True Colours Palette -Existing Colour Scheme -High Quality Paint -Impact on CDE						

Project Scope	YES	NO	N/A	Justification/Explanation	Additional Notes	
<b>Exterior Maintenance:</b> <b>Roof</b> -Replacement/Repair -Materials (original or compatible new materials) -Appropriate Colour -High Quality Roof Materials -Impact on CDE -Roof Inspection when completed (proposed) -Labour & Material Warranty						
<b>Conservation of Exterior Bldg Elements (i.e windows, chimney)</b> -Material repair (replacement only if not repairable) -Impact on CDE - Use of original materials -Compatible new materials -Level of Intervention						
<b>Stabilization/Foundation Repairs/Replacement</b> <b>Material repair (replacement only if not repairable)</b> -Impact on CDE -Use of original materials -Compatible new materials -Level of Intervention						
<b>Is this project part of a larger project (either at this time or in future)</b>						
<b>Does the project entail a Community Benefit</b>						
<b>Quotes submitted:</b> -Are quotes on similar work -Are quotes similar in cost?						<i><b>Note:</b> Generally the grant is based on the low bid, unless there is a reason for basing it on a higher quote.</i>
<b>Does Proposed Project qualify for Grant?</b>						
<b>General Comments/Notes</b>						<i>Recorder:</i>



# Report to Council



**Date:** February 26, 2018  
**File:** 0710-40  
**To:** City Manager  
**From:** Ross Soward, Planner Specialist  
**Subject:** Okanagan Metis & Aboriginal Housing Society - Rental Housing Grant Extension

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## **Recommendation:**

THAT Council receives the report from the Planner Specialist, dated February 26, 2018 regarding a rental housing grant extension.

AND THAT Council approves the extension on the Rental Housing Grant for the Okanagan Metis and Aboriginal Housing Society affordable rental project at 1170 Highway 33 West as identified in the report from the Planner Specialist, dated February 26, 2018.

AND THAT Council approves a budget amendment to the 2018 Financial Plan for funding of \$75,866 from the Housing Opportunities Reserve for the deferred rental housing grant.

## **Purpose:**

To consider the extension of a 2016 rental housing grant for the Okanagan Metis and Aboriginal Housing Society for an affordable rental project at 1170 Highway 33 West due to delays associated with Ministry of Transportation and Infrastructure approvals.

## **Background:**

On November 6, 2015 Council approved six rental housing projects for the 2016 Rental Housing Grants intake. One of the projects that was approved was the Okanagan Metis and Aboriginal Housing Society's (OMAHS) 78-unit affordable rental project. The project received council approval for a rental housing grant of \$75,866 to offset the Development Cost Charges (DCCs) for the project. Over the course of 2016, the project ran into several barriers in the process of receiving subdivision approval due to Ministry of Transportation and Infrastructure (MoTI) requirements for road dedications at Kneller Road and Highway 33. Based on the delays in finalizing the plan, OMAHS received staff approval to

defer the rental housing grant for one year to 2017 as per the City's Rental Housing Grants Council Policy.

In 2017 the Okanagan Metis and Aboriginal Housing Society's project team continued to work toward final approval from MoTI with numerous submissions and meetings (see Attachment A) to address MoTI requirements for final subdivision. On the first week of December 2017 the final subdivision plan was submitted for legal processing. On January 16, 2018 the subdivision was registered on title and now Okanagan Metis Aboriginal Housing Society is working toward approval of zoning, development permit and issuance of building permit within the next two months.

Based on the added complexity and delays associated with the road closure and purchase agreement that OMAHS have experienced and the importance of adding new affordable rental housing, staff are recommending the rental housing grant be extended an additional year to 2018.

### **Attachments**

Attachment A - Development Timeline: Okanagan Metis & Aboriginal Housing Society

### **Internal Circulation:**

Divisional Director, Community Planning and Real Estate  
Manager, Long Range Policy Planning  
Manager, Urban Planning  
Department Manager, Policy & Planning  
Divisional Director, Financial Services  
Manager, Accounting Operations

### **Legal/Statutory Authority:**

Local Government Act, Section 563

### **Legal/Statutory Procedural Requirements:**

Housing Opportunities Reserve Fund By-law No. 8593

### **Existing Policy:**

2030 Official Community Plan

Objective 10.3 Support the creation of affordable and safe rental, non-market and /or special needs housing

**Council Policy no. 355 – Rental Housing Grants**

**Financial/Budgetary Considerations:**

2018 Budget Amendment

The Housing Opportunities Reserve will fund the deferred Rental Housing grant. A Budget Amendment must be processed within work order 1070-16 for the value of \$75,866. The Okanagan Metis & Aboriginal Housing Society are able to redeem the grant at the time of Development Cost Charge payment.

Submitted by:

R. Soward, Planner Specialist

**Approved for inclusion:**



James Moore, Manager of Long Range Policy Planning



**OKANAGAN MÉTIS & ABORIGINAL  
HOUSING SOCIETY**

**#240 – 1855 Kirschner Road**

**KELOWNA, B.C. V1Y 4N7**

**Phone: (250) 763-7747 Fax: (250) 763-0112**

January 24, 2018

City of Kelowna  
1435 Water Street  
Kelowna, BC  
V1Y 1J4

**Attention: Mr. Ross Soward**

**RE: Nissen Crossing – 1170 Hwy 33 W, Kelowna**

Mr. Soward:

As per correspondence, we are requesting an extension to the housing grant we were awarded in 2016.

This project received its third reading in February 2016. Since then we have experienced several delays due to the complexity of this project. Getting MOTI approval took much longer than expected along with the road closure and purchase agreement which was required for subdivision.

We have attached a copy of the itemized timelines which clearly shows the process we needed to undertake along with anticipated project approval dates. This project was very complex, having to deal with all the various agencies and response times caused us significant delays.

As a Society we develop and operate low to mid-income housing in our community. This delay has cost us significantly in higher construction costs, which is challenging our budget. We relied on the grant to help us meet the project budget, so without it we would be unable to meet our projected budget

Thank you for your consideration, we would be pleased to provide any additional information, if required.

Yours truly,  
**OKANAGAN MÉTIS & ABORIGINAL HOUSING SOCIETY**

Susan Walker  
Administrator



**February 2016 – Zoning Third Reading - final adoption pending subdivision and MOTI sign-off**

March/April 2016 – ongoing correspondence between CoK Planners and MOTI regarding MOTI requirements for Kneller Road intersection at Hwy 33

**July 18, 2016 – PLR issued by CoK – final approval pending MOTI approval of associated highway improvements**

July-August 2016 - Ongoing coordination with MOTI to confirm technical requirements/process for drawing submission (templates, Design Criteria sheet etc)

September 29, 2016 - Pilling Engineers met with MOTI to review proposed design and obtain initial (verbal) comments

November 10, 2016 - Formal submission to MOTI (design drawings and cost estimates)

November 29, 2016 - project meeting with CoK and MOTI – MOTI confirmed November 23 as drawing receipt date and advised 4-6 week review process – confirmed comments would be received within next 4 weeks

January 2017 – ongoing liaison with City staff and MOTI regarding transit requirements (MOTI pushing for ibus standards that City confirmed not needed in this area)

**January 27, 2017 – Submission for Building Permit**

February 22, 2017 – preliminary MOTI comments received

March/April 2017 – discussions with City staff and pushback to MOTI regarding ongoing comments with respect to garbage collection and vehicle access at Kneller Road/Hwy 33

March 23, 2017 – resubmission to MOTI

March 30, 2017 – City meeting with MOTI – indicated all was in good order

April 10, 2017 – further comment from MOTI – garbage collection on Hwy 33 not acceptable – more revisions needed

April 24, 2017 – City agreed to support our position and provide written confirmation to MOTI

May 2, 2017 – MOTI advised City staff they would back down on requirements related to garbage collection – cleared to proceed with electrical designs

May 10, 2017 – resubmission to City and MOTI

May 26, 2017 – electrical Traffic Engineering Checklist (TEC) submitted to City and MOTI

June 7, 2017 – MOTI approval of TEC – cleared for electrical design submission

June 15, 2017 – electrical design submission to MOTI

June 26, 2017 – preliminary MOTI approval received

July 12, 2017 – MOTI approval of electrical cost estimate pending receipt of sealed electrical drawings

July 13, 2017 – sealed electrical drawings provided to MOTI via overnight courier

July 25, 2017 – MOTI confirms acceptance of all designs and cost estimates and requests Letter of Credit for works

September 26, 2017 – MOTI rejected Scotiabank Letter of Credit (LOC) as presented

October 3, 2017 – after some revisions and pushback from Scotiabank, MOTI staff agreed to forward LOC to Insurance & Bonds department for review

October 5, 2017 – Insurance & Bonds department confirmed LOC acceptable in proposed format

October 23, 2017 – LOC delivered to MOTI offices

November 10, 2017 – MOTI provide formal sign-off and confirm same with City of Kelowna

Sometime between November 30 and December 7, 2017 – plans signed by MOTI arrive at City of Kelowna for legal processing

December 19, 2017 – Subdivision registered with Land Titles Office (LTO)

January 16, 2018 – LTO completion of registration

Est. February 20, 2018 - Final Adoption of Zoning/DP

Est. February 28, 2018 – Issuance of Building Permit

# Report to Council



**Date:** February 19, 2018  
**File:** 1405-01  
**To:** City Manager  
**From:** Jerry Dombowsky, Transit and Programs Manager  
**Subject:** handyDART Transit Fare Equalization

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## **Recommendation:**

THAT Council receives, for information, the report from the Transit and Programs Manager dated February 19, 2018, with respect to the handyDART Transit Fare Equalization;

AND THAT Council approve an adjustment in the monthly transit fare, and bulk ticket rate for handyDART service in order to harmonize with the rate charged for conventional transit service;

AND FURTHER THAT Council authorize staff to approach other Kelowna Regional Transit partners who participate in handyDART to receive approval from their respective Councils.

## **Purpose:**

**To harmonize handyDART fares with conventional transit service fares.**

## **Background:**

Custom transit service (handyDART) is provided in Kelowna, West Kelowna and Lake Country. The current fare structure allows both cash or ticket fare of \$2.50 (one way), and unlimited travel via a monthly pass for \$75.00.

Current fare structure for Conventional transit service is \$2.50 cash fare with an adult monthly pass at \$70.00 and monthly seniors passes at \$45.00. A sheet of 10 adult tickets is \$22.50 and \$20.25 for senior tickets.

For the monthly handyDART pass to be a better value than cash or ticket fare, a rider has to make more than 30 one-way trips or 15 two-way trips per month e.g., travel two-way 4 times per week or more. The number of monthly pass purchasers is small as a result, as the vast majority of handyDART clients use the service more incidentally or less regularly and would not gain any value other than convenience.

Based on feedback received from members of the Kelowna regional Accessible Transit Advisory Group (informal committee created by staff and BC Transit), there should be no different fare treatment for persons with disabilities than the rest of society.

Currently, approximately 1,250 monthly handyPASSES are sold per year achieving \$93,750 in revenue which equates to approximately 18% of total Custom Transit revenue. A \$5.00 reduction per pass would reduce annual revenue by \$6,250 or 1.2% of total Custom transit revenue. This percentage is much smaller if considering total transit revenue. We do not have a current count of seniors who have purchased the pass, but believe this is minimal.

With respect to bulk ticket purchase, on Conventional ticket sales, a book of 10 is offered at \$22.50 or \$2.25 per ticket, while handyDART tickets are sold in sheets of 5 with no discount. This discount is proposed to be equalized as well.

	Current Conventional Fare	Current handyDART Fare	Proposed New handyDART Fare
Monthly Adult Pass	\$70.00	\$75.00	\$70.00
Monthly Senior Pass	\$45.00	\$75.00	\$45.00
Sheet of tickets*	\$22.50 (sheet of 10)	\$12.50 (sheet of 5) \$25.00 (2 sheets)	\$11.25 (sheet of 5) \$22.50 (2 sheets)
Sheet of senior tickets*	\$20.25 (sheet of 10)	\$12.50 (sheet of 5) \$25.00 (2 sheets)	\$10.00 (sheet of 5) \$20.00 (2 sheets)

\*handyDART tickets are sold in sheets of 5 for users' convenience

If approved by Kelowna Council, staff would request both West Kelowna and Lake Country staff bring forward a corresponding report to approve this fare harmonization action, to be put into effect immediately once all partner approval is received.

A complete, system wide fare review is anticipated to be initiated in 2019, at which time these inequities can be better addressed.

#### **Internal Circulation:**

Communications Advisor  
Financial Analyst, Infrastructure  
Revenue Supervisor

#### **Considerations not applicable to this report:**

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

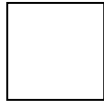


Submitted by:

J. Dombowsky, Transit and Programs Manager

Approved by: R. Villarreal, Manager, Integrated Transportation

**Approved for inclusion:**



A. Newcombe, Divisional Director, Infrastructure

cc: Divisional Director, Infrastructure  
Divisional Director, Corporate Strategic Services  
Divisional Director, Financial Services

# Report to Council



**Date:** February 26, 2018  
**File:** 1850-09  
**To:** City Manager  
**From:** Divisional Director, Infrastructure  
**Subject:** Highway 97 Six Laning – Funding Agreement  
Report Prepared by: Andrew Albiston, Project Manager

---

## **Recommendation:**

THAT Council receives for information, the report from the Divisional Director as prepared by the Project Manager, dated February 26, 2018, with respect to the Highway 97 Six Laning – Funding Agreement;

AND THAT Council approves the City entering into a Funding Agreement, with the Ministry of Transportation & Infrastructure, for the funding of municipal works undertaken by the Ministry;  
AND THAT the Mayor and City Clerk be authorized to execute the attached Funding Agreement;

AND FURTHER THAT the 2018 Financial Plan be amended to include up to \$55,815 in reserve funding for Jenkins Road Sanitary Sewer Services, 2690 Hwy 97N and McCurdy Road Future Sanitary Sewer as outlined in the Financial/Budgetary Considerations section of this report.

## **Purpose:**

**To enter into a funding agreement with the Province of BC for the delivery of City infrastructure works as part of the Ministry of Transportation and Infrastructure road improvement project on Highway 97 between Highway 33 and Edwards Road.**

## **Background:**

The Provincial Government announced six-laning of Highway 97 in 2013 and it was tendered early 2016 followed shortly with construction. The City and the Ministry worked together towards the development of the design plans to meet forecast travel demand on the road network.

The widening of Highway 97 between Highway 33 and Edwards Road is led by the Ministry of Transportation and Infrastructure. In addition to providing additional capacity to the highway the project also includes storm water management enhancements, significant utility improvements and urbanization of the corridor as per **Appendix A drawings**.

Two public open houses were held at key milestone dates as the plan was being developed including consultation with adjacent property and business owners along the 4.5 kilometre stretch of urban arterial highway. Meetings were also held with several key stakeholders on all routes directly impacted by changes to the city road network. The final design was a collaborative effort between the agencies and in consultation with the community and affected property owners including regulatory agencies and First Nations.

The final design provides opportunity to build in capacity on both the highway corridor and on the City road network. In addition to increasing road capacity, the highway improvement project and its design features provided opportunities to address lack of urbanization along the corridor and address existing system deficiencies while the highway was under construction.

As part of the construction occurring on the highway right-of-way, related improvements delivered and funded by the province include;

- a) Rutland Road North realigned into Acland Road and Old Vernon Road by means of a roundabout.
- b) Operational and safety improvements on Old Vernon Road and Sexsmith Road intersection with Highway 97.
- c) Urbanization of the highway corridor to include street lighting, sidewalk and curb and gutter extending from Highway 33 northerly to Fenwick Road.
- d) Construction of new Rapid Bus station pair near Sexsmith Road.
- e) New signalized intersection at Findlay and Lloyd Roads, (future Hollywood Road North).
- f) Several upgrades and enhancements to the storm water management system.

Improvements included in the highway improvement project, requested by the City include;

- 1) Sanitary trunk sewer main replacement between Stremel and Fenwick Roads on sections within the highway right-of-way.
- 2) Missing sections of sidewalk outside of the Ministry's commitments and obligations.
- 3) Mayfair Road storm sewer extension and culvert replacement under the highway.
- 4) McCurdy Road multi-use pathway crossing, and related storm sewer upgrade.
- 5) McCurdy Road sanitary sewer connection into the trunk under the highway and stubbed for future connection.
- 6) Installation of communication conduit in joint trench resulting from overhead to underground conversion of Shaw, Telus and FortisBC and new street lighting conduit.

- 7) Credit for compensation for the replacement of the "Welcome to Kelowna" sign.

**Financial/Budgetary Considerations:**

The Ministry of Transportation and Infrastructure will, upon the execution of this funding agreement by the Mayor and City Clerk, submit invoices to the city for compensation. The table below provides the summary of estimated costs. A similar table is provided in the attached Funding Agreement, **Appendix B – Cost Contribution Breakdown**.

<i>Item No.</i>	<i>Description</i>	<i>Project Number</i>	<i>City Cost</i>	<i>Funding Source</i>
1	Stremel Rd to Fenwick Rd Sanitary Sewer	3259	\$361,345	2016 Accrual
2	Jenkins Rd sanitary sewer services		\$10,000	General Sewer Reserves <sup>1</sup>
3	Continuous sidewalk	3364	\$275,478	2018 Provisional Budget
4	2690 Hwy 97 N – commitment by agreement with the property owner		\$15,815	General Reserves <sup>1</sup>
5	Mayfair storm sewer extension	3379	\$146,740	2018 Provisional Budget
6	Communications conduit	3364	\$142,836	2018 Provisional Budget
7	McCurdy Rd – Future sanitary sewer		\$30,000	General Sewer Reserves <sup>1</sup>
8	McCurdy Rd – Multi use pathway crossing	3326	\$11,000	BikeBC Grant, Pending 2018 Carryover Approval
9	Engineering and design charges		\$33,185	Allocated across all items above
10	Welcome to Kelowna sign - Credit	3369	<b>(-\$100,000)</b>	
<b>Total</b>			<b>\$926,399</b>	

<sup>1</sup> 2018 budget amendment is required

Budget is available to cover all of the Ministry invoices for these infrastructure improvements in 2018.

The attached Funding Agreement sets out the scope of the project, roles and responsibilities and description of the work and payment structure.

**Internal Circulation:**

City Clerk  
 Budget Supervisor  
 Department Manager, Utilities Planning  
 Department Manager, Development Engineering

Department Manager, Infrastructure Administration

**Considerations not applicable to this report:**

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

Existing Policy:

Financial/Budgetary Considerations:

Personnel Implications:

External Agency/Public Comments:

Communications Comments:

Alternate Recommendation:

Submitted by:

Andrew Albiston, Project Manager

**Approved for inclusion:**



A. Newcombe, Divisional Director, Infrastructure

Attachment 1: Funding Agreement

Appendix A: Design Drawings

Appendix B: Cost Contribution Breakdown

cc: City Clerk  
Divisional Director, Financial Services  
Financial Planning Manager  
Department Manager, Utilities Planning  
Department Manager, Development Engineering  
Department Manager, Infrastructure Administration



This Agreement dated and effective as of the \_\_\_\_ day of \_\_\_\_\_, 2018.

Project Agreement Identification Number # 254OA0051

## **FUNDING AGREEMENT**

**23239-0000 Okanagan Highway No. 97 – Six Laning Highway 33 to Edwards Road**

### **BETWEEN:**

**Her Majesty the Queen in the Right of the Province of British Columbia,**  
as represented by **the MINISTER OF TRANSPORTATION & INFRASTRUCTURE**

342 - 447 Columbia Street  
Kamloops BC V2C 2T3  
(the “Ministry”)

### **AND:**

**City of Kelowna**  
1435 Water Street  
Kelowna BC V1Y 1J4  
(the “City”)

### **Background:**

- A. The Ministry and the City wish to complete widening of Highway 97 to six lanes between Highway 33 and Edwards Road, together with intersection improvements and related infrastructure improvements.
- B. The City is the owner of all other roads intersecting Highway 97 between Highway 33 and Edwards Road. The Ministry is the owner of Highway 97.
- C. The City wishes the Ministry to complete additional municipal works as part of the Work, at the City’s cost.
- D. The Ministry has entered into the Contract with the Contractor for construction of the Work, including but not limited to the following:
  - a. Approximately 4.5km of widening Highway 97 from four to six lanes between Highway 33 and Edwards Road including upgrades to four major intersections: Leathead Road, McCurdy Road, Findlay Road and Sexsmith Road;
  - b. Installation of a new traffic signal at the intersection of Findlay Road and Loyd Road;
  - c. Extension of Totom Avenue near Findlay/Hollywood intersection to the City standard two-lane road;

- d. Re-alignment of Rutland Road approximately 603 metres north, to align with Acland Road at Old Vernon Road by means of a new roundabout intersection;
- e. Completion of Jenkins Road from Commerce Avenue to Enterprise Road (approximately 270 metres) to the City standard two-lane road, including underground utilities and street lights, urbanization;
- f. Urbanization to City standards, including curb and gutter and concrete sidewalk installation along Highway 97 from Highway 33 to Fenwick Road;
- g. Relocation of the existing McCurdy southbound and northbound BC Transit Rapid Bus stops, and construction of a new BC Transit Rapid Bus stops at Sexsmith Road and new and relocated local bus stops as set out in the Design;
- h. Utility relocations and upgrades; and
- i. Relocation of the "Welcome to Kelowna" entrance sign
- j. Replacement landscaping or reasonable compensation for replacement landscaping.

#### **Agreement:**

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by each Party to the other, the Parties agree as follows:

#### **1. Definitions**

- 1.1. City** means the City of Kelowna;
- 1.2. City Work** means all portions of the Work related to the design and construction of upgrades and improvements to City infrastructure, as described in paragraph 2.1 and as identified in Appendix A and in the Design;
- 1.3. Contract** means the contract or contracts for the construction of the Work;
- 1.4. Contractor** means the party or parties with which the Ministry has entered into the Contract for construction of the Work;
- 1.5. Design** means the specifications for the Work as shown in Appendix B and as described herein;
- 1.6. Estimate** means the estimate of the cost of the City Works set out in paragraph 2.1;
- 1.7. Licence** means the licence of occupation granted by the City to the Ministry in paragraph 3.4;
- 1.8. Ministry** means Her Majesty the Queen in the Right of the Province of British Columbia, as represented by the Minister Of Transportation & Infrastructure; and
- 1.9. Work** means all work performed by the Contractor related to the widening of Highway 97 to six lanes between Highway 33 and Edwards Road, together with intersection improvements and related infrastructure improvements, including all work set out in the Design.

#### **2. Payment for the City Works**

- 2.1. The City agrees to pay the Ministry its actual incurred costs for the City Work, whether performed before or after the execution of this Agreement, including but not limited to costs related to the following:
- a) replacement of the City sanitary works between Fenwick Road and Stremel Road;
  - b) extension of sanitary sewer works along Jenkins Street;
  - c) construction of any sidewalk that is not replacement of existing sidewalk, and is not required by the Ministry;
  - d) Re-grading of property number P015, Chrysler Dealership, as identified on Drawing R2-924-103 of Appendix B;
  - e) extension of the Mayfair storm works;
  - f) any work related to communications conduits;
  - g) work related to the McCurdy Sanitary works;
  - h) work related to the McCurdy Storm works; and
  - i) costs incurred for engineering services, design consultants, and City utility relocation,
- minus a credit to the City for the cost of relocating its “Welcome to Kelowna” signage, in the amount of \$100,000.00. The parties estimate that such costs will amount to **\$926,398.42** net of the signage credit (the “**Estimate**”), but final amounts payable will be based on actual quantities, tender prices, and any other charges submitted by the Contractor for the Work.
- 2.2. The City will pay to the Ministry all amounts due hereunder for City Work as completed and accepted by the City, within 30 days of receipt of an invoice by the Ministry, unless otherwise agreed by the parties in writing.
- 2.3. If the costs for the City Work exceed the Estimate by more than 10%, then the City may confirm in writing to the Ministry that it wishes to consider a reduction in the scope of the City Works.
- 2.4. In the event the City provides written confirmation under clause 2.3, then any such reduction or amendments must first be agreed upon by the Ministry and the Ministry must reach agreement with the Contractor regarding the changes to the City Works before any such change is effected. If the Ministry does not agree to the changes, the City will be responsible for the costs of the City Work completed as per the original scope of work.
- 2.5. If the City wishes a change to be made to the scope of the City Works or the completion date for the Project described in the Contract, the City must make the request to the Ministry in writing with a full description of the proposed change. The City will provide sufficient

information in order for the Ministry to reasonably identify the components of the change and calculate the estimated additional costs (if any) thereto. Additional costs as a result of the changes requested will be paid for by the City.

### **3. City's Obligations**

- 3.1. The City represents that all required approvals and permits have been issued to proceed with the City Work.
- 3.2. The City agrees to execute a road dedication plan, without additional consideration, to dedicate as municipal road and arterial highway any City owned lands required for the Rutland Road realignment.
- 3.3. The City will be responsible for the maintenance of City Work from and after Substantial Completion (as defined in the Contract).
- 3.4. The City will appoint a City liaison for this project to coordinate all the City's reviews and approvals. The City will also provide any necessary staff time required to review and facilitate the design and construction processes.
- 3.5. The City grants to the Ministry a non-exclusive right to enter upon and occupy (the "**Licence**") lands owned by the City including municipal roads for the purposes of this Agreement on the following terms and conditions:
  - a) the Licence commences on the date construction commences on the Work, and terminates upon the end of the Contract's warranty period;
  - b) the Ministry is entitled to sub-licence the Licence on the same terms and conditions as the Licence to the Contractor or others working on the Work on behalf of the Ministry.

### **4. Ministry Obligations**

- 4.1 The Ministry will assign a Project Manager and Ministry personnel to the project team and provide contract administration, construction supervision and quality assurance services during construction.
- 4.2 The Ministry will liaise with the City on an ongoing basis during the project to ensure the City Works are delivered in accordance with the Design.

### **5. Dispute Resolution**

- 5.1 If any dispute arises under this Agreement, the Parties will attempt to resolve the dispute within 14 days of the dispute arising (or within such other time period agreed to by the Parties in writing) through amicable negotiations, failing which, the Parties will resolve the dispute as follows by referring the matter to the following representatives of the Ministry and the City for resolution:

- a) the City Infrastructure Divisional Director; and
- b) the Director, Major Projects of the Ministry of Transportation and Infrastructure,

and, subject to applicable laws, the Parties will provide candid and timely disclosure to each other of all relevant facts, information and documents to facilitate the resolution of the dispute.

- 5.2. If a dispute under this Agreement is not resolved under paragraph 5.1 within 7 days of the dispute being referred to the persons identified in paragraph 5.1, or within such other time period agreed to in writing by the Ministry and the City, a Party may refer the dispute to arbitration conducted by a sole arbitrator appointed under the *Arbitration Act*.
- 5.3. The cost of the arbitration referred to in paragraph 5.2 will be shared equally by both Parties and the arbitration will be governed by the laws of the Province of British Columbia.
- 5.4. The arbitration will be conducted at the location agreed upon by both Parties.
- 5.5. The Parties agree that nothing contained in this Agreement will constitute a precondition so as to preclude any Party from commencing legal proceedings in the Courts of British Columbia where such proceedings are necessary to preserve any applicable limitation period.

## **6. Miscellaneous**

- 6.1 All information, material and documentation relating to the Project that is in the custody or control of any Party is subject to the *Freedom of Information and Protection of Privacy Act* and, except where the disclosure is to be made to the other Party, each Party will provide the other with notice under the *Freedom of Information and Protection of Privacy Act* prior to any release of any such information, material or documentation.
- 6.2 Time is of the essence of this Agreement.
- 6.3 All notices, documents or communications among the Parties that are required or permitted to be given under this Agreement must be in writing and will be deemed to have been given on the first business date of the recipient following delivery by hand or facsimile to the Party to whom it is to be given as follows:
  - a) to the Ministry:  
Ministry of Transportation and Infrastructure  
300 – 1358 St Paul Street  
Kelowna, BC V1Y 2E1  
Attention: Lindsay Stringer  
Phone Number: (250) 712 - 3625  
Facsimile Number: (250) 712-3669
  - b) to the City:  
City of Kelowna



1435 Water Street  
Kelowna, BC V1Y 1J4  
Attention: Andrew Albiston  
Phone Number: (250) 469 - 8569

provided, however, that a Party may, by notice in writing to the other, specify another address for service of notices under this Agreement and, where another address is specified by a Party, notice must be delivered to that address in accordance with this Section.

- 6.4 Delivery of all material, documents and plans to be delivered to a Party in accordance with the terms of this Agreement will be effected by hand or courier to the address specified above, such deliveries to be effective only on actual receipt.
- 6.5 The warranties, representations and agreements contained in this Agreement will not be subject to merger but will survive the completion of the Project.
- 6.6 This Agreement constitutes the entire agreement between the Parties with respect to the completion of the Project and may not be modified except by subsequent agreement in writing.
- 6.7 No term, condition, covenant or other provision of this Agreement will be considered to have been waived by a Party unless such waiver is expressed in writing by the Party. The waiver by a Party of any breach by the other of any term, condition, covenant or other provision of this Agreement will not be construed as or constitute a waiver of any further or other breach of the same or any other term, condition, covenant or other provision and the consent or approval of a Party to any act by the other Party requiring the consent or approval of the Party will not be considered to waive or render unnecessary such consents or approvals to any subsequent same or similar act by the other Party.
- 6.8 No remedy conferred upon or reserved to any Party is exclusive of any other remedy in this Agreement or provided by law, but such remedy will be cumulative and will be in addition to any other remedy in this Agreement or now or hereafter existing at law, in equity or by statute.
- 6.9 This Agreement is binding upon and enures to the benefit of the Parties and their successors and permitted assigns.
- 6.10 The Parties will perform such further acts and execute such further documents as may reasonably be required to give effect to this Agreement.
- 6.11 The Schedules to this Agreement form part of this Agreement.
- 6.12 Wherever this Agreement provides that an action may be taken, a consent or approval must be obtained or a determination must be made, then such Party will act reasonably in taking such action, deciding whether to provide such consent or approval or making such determination; but where this Agreement states that a Party has sole discretion to take an action, provide a consent or approval or make a determination, there will be no requirement to show

reasonableness or to act reasonably in taking that action, providing that consent or approval or making that determination.

- 6.13 This Agreement will be interpreted according to the laws of the Province of British Columbia.
- 6.14 Nothing in this Agreement fetters or limits the exercise of discretionary authority as set out in applicable Laws.
- 6.15 In this Agreement, "person" includes a corporation, firm or association and wherever the singular or masculine form is used in this Agreement it will be construed as the plural or feminine or neuter form, as the case may be, and vice versa where the context or Parties so require.
- 6.16 Where there is a reference to an enactment of the Province of British Columbia or of Canada in this Agreement, that reference will include a reference to any subsequent enactment of the Province of British Columbia or Canada, as the case may be, of like effect and, unless the context otherwise requires, all statutes referred to in this Agreement are enactments of the Province of British Columbia.
- 6.17 If any section of this Agreement or any part of a section is found to be illegal or unenforceable, that part or section, as the case may be, will be considered separate and severable and the remaining parts or sections, as the case may be, will not be affected and will be enforceable to the fullest extent permitted by law.
- 6.18 The assignment, mortgage or transfer of this Agreement by any Party does not release such Party from its obligation to observe and perform all the provisions of this Agreement on its part to be observed and performed unless the other Parties specifically release such Party from such obligation in its consent to the assignment, mortgage or transfer of this Agreement.
- 6.19 If, due to a strike, lockout, labour dispute, act of God, inability to obtain labour or materials, law, ordinance, rule, regulation or order of a competent governmental authority, enemy or hostile action, civil commotion, fire or other casualty or any condition or cause beyond the Ministry's reasonable control, the Ministry is delayed in performing any of its obligations under this Agreement, the time for the performance of that obligation will be extended by a period of time equal to the period of time of the delay.
- 6.20 The Parties agree that nothing in this Agreement constitutes any of them as the agent, joint venturer or partner of the other Party or gives any of them any authority or power to bind the other Party in any way.
- 6.21 This Agreement may be executed in counterparts and when the counterparts have been executed by the Parties, each originally executed counterpart, whether a facsimile, photocopy or original, will be effective as if one original copy had been executed by the Parties to this Agreement.

**The Parties have executed this Agreement as of**

\_\_\_\_\_, 2018

Signed on behalf of Her Majesty the Queen  
in the right of the Province of British  
Columbia, as represented by the Minister  
of Transportation and Infrastructure on

\_\_\_\_\_, 2018

\_\_\_\_\_  
Murray Tekano, Director, Major Capital Projects

Signed on behalf of the City of Kelowna  
on

\_\_\_\_\_, 2018

\_\_\_\_\_  
Colin Basran, Mayor

\_\_\_\_\_  
Stephen Fleming, City Clerk



DATE: 2015-11-03 - 10:09pm (CHOWG3)  
 PATH: H:\DATA\615355 - Hwy 97 - H33 to Edwards Rd\41 - Civil Engineering\41DD - Drawings\R2-924-101 to 110.dwg

1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
2. UNLESS OTHERWISE NOTED, ALL EXISTING SIGNS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED AND DISPOSED OF.
3. FOR EXISTING CULVERT/DRAINAGE REMOVALS, REFER TO DRAINAGE AND UTILITY DRAWINGS R2-924-701 TO 719, 731 TO 740.
4. ALL UTILITY POLES TO BE RELOCATED BY OTHERS UNLESS NOTED OTHERWISE.

CITY OF KELOWNA WORKS

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

**KEY PLAN**  
N.T.S.

KEEHN ROAD

185



**LEGEND:**

- PAVEMENT REMOVAL
- REMOVE AND DISPOSE OF EXISTING BUILDING

**NOTES:**

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- ALL UTILITY POLES TO BE RELOCATED BY OTHERS UNLESS NOTED OTHERWISE.

**Annotations and Callouts:**

- REMOVE EXISTING CONCRETE BARRIER
- PROPOSED TOES (TYP.)
- CL & GR
- CLOSE
- HIGHWAY 97 "L100" LINE
- EXISTING TREE TO REMAIN (TYP.)
- REMOVE EXISTING FENCE
- 1.2m HIGH TYPE "B" FENCE AS PER SP741-01.01. TIE INTO EXISTING FENCE.
- LIMIT OF CONSTRUCTION
- P.O.T. 242+60.163 (L240)
- TIE-IN TO EXISTING
- REMOVE EXISTING CONCRETE BARRIER
- REMOVE EXISTING ISLAND AND CURB
- REMOVE EXISTING CURB AND SIDEWALK
- EXISTING TREE TO REMAIN (TYP.)
- PROPOSED ROW
- EXISTING MEDIAN AND CURB TO REMAIN
- RELOCATE EXISTING COMMERCIAL SIGN (BY OTHERS)
- END 0.6m HIGH ALLAN BLOCK FENCE AT EXISTING CURB
- REMOVE EXISTING IRRIGATION CONTROLLER
- REMOVE EXISTING CURB
- REMOVE EX. ALLAN BLOCK FENCE
- BEGIN 0.6m HIGH ALLAN BLOCK FENCE. TIE INTO EXISTING FENCE.

**Other Labels:**

- PLAN KAP77245
- PLAN KAP90858
- PLAN KAP84667
- PLAN KAP80563
- PLAN KAP46884
- PLAN KAP84970
- PLAN KAP78922
- PLAN KAP56105-RW
- PLAN KAP13914
- PLAN KAP13523
- PLAN KAP35604
- PLAN KAP16355A-RW
- PLAN KAP73825
- PLAN 7319
- PLAN 10902
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1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
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3. FOR EXISTING CULVERT/DRAINAGE REMOVALS, REFER TO DRAINAGE AND UTILITY DRAWINGS R2-924-701 TO 719, 731 TO 740.
4. ALL UTILITY POLES TO BE RELOCATED BY OTHERS UNLESS NOTED OTHERWISE.

PAVEMENT REMOVAL  
REMOVE AND DISPOSE  
OF EXISTING BUILDING

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

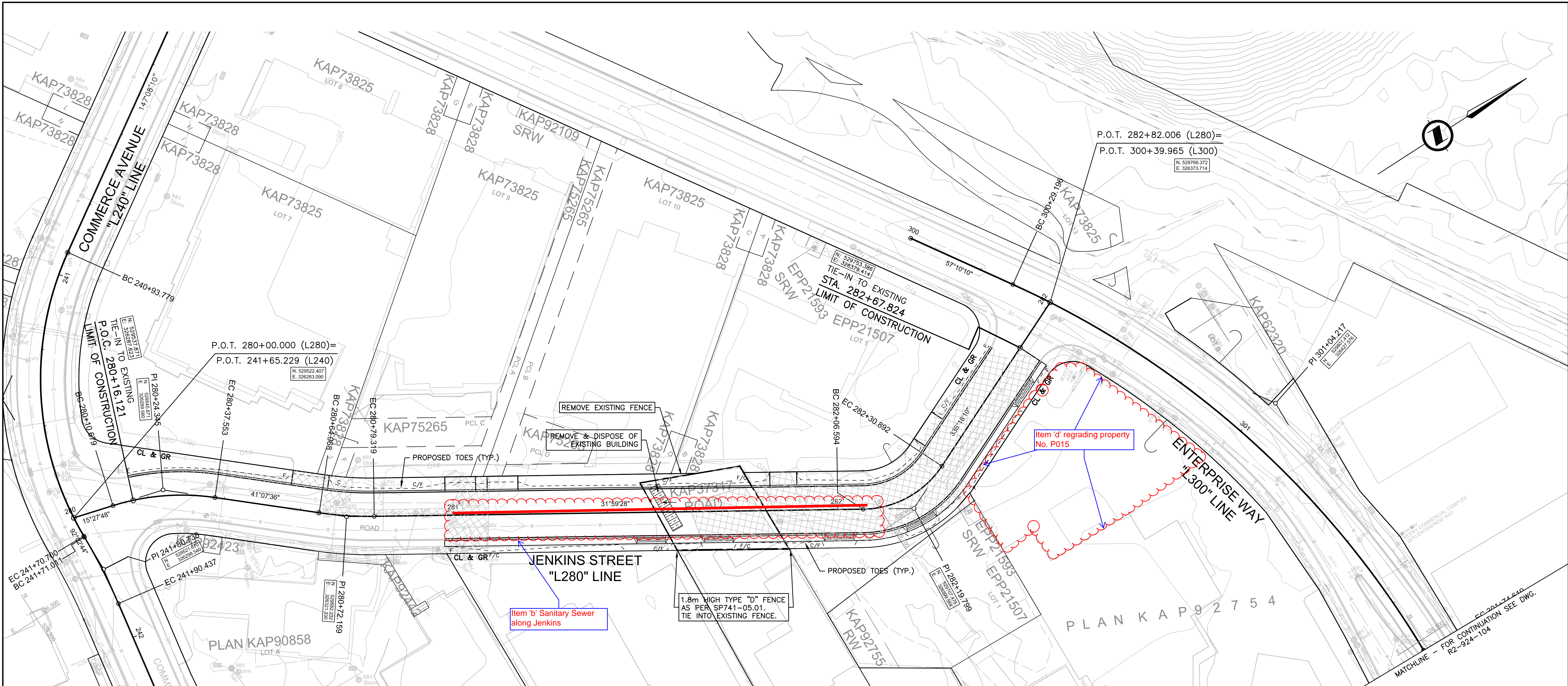
**KEY PLAN**

N.T.S.

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LAYOUT: 103



MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-102

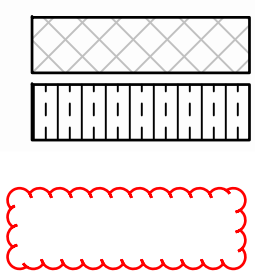
MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-104

NOTES:

1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
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LEGEND:

PAVEMENT REMOVAL  
REMOVE AND DISPOSE  
OF EXISTING BUILDING  
CITY OF KELOWNA WORKS



FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

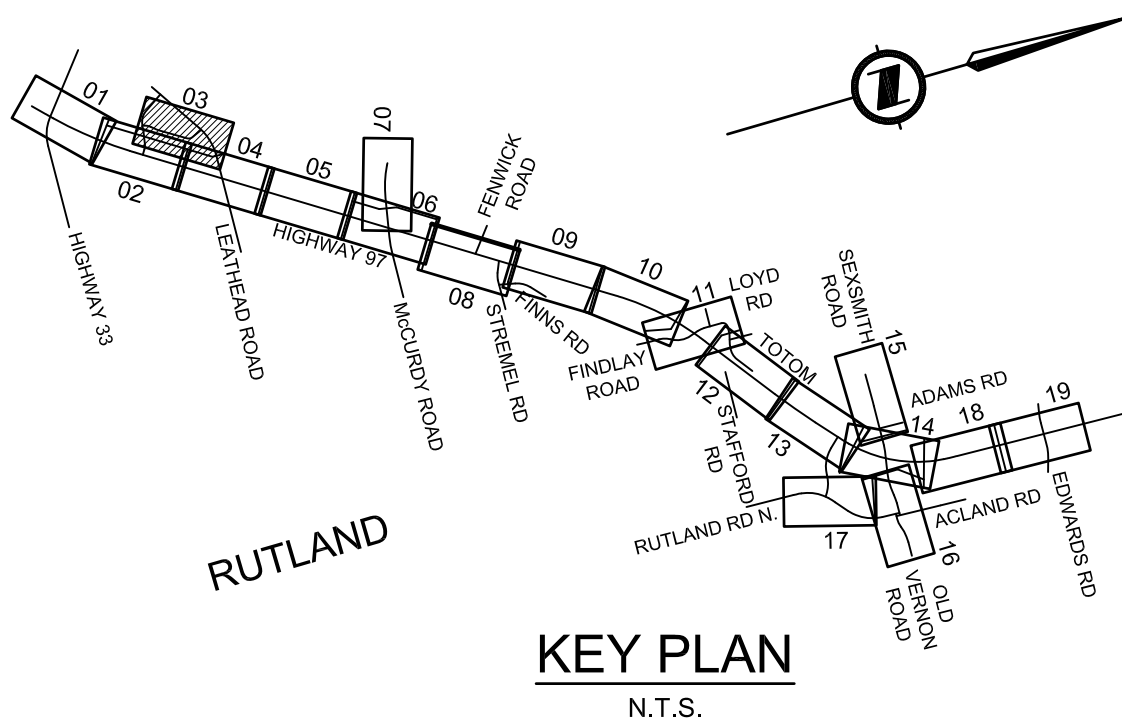
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

CL & GR THIS SHEET:  
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FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792



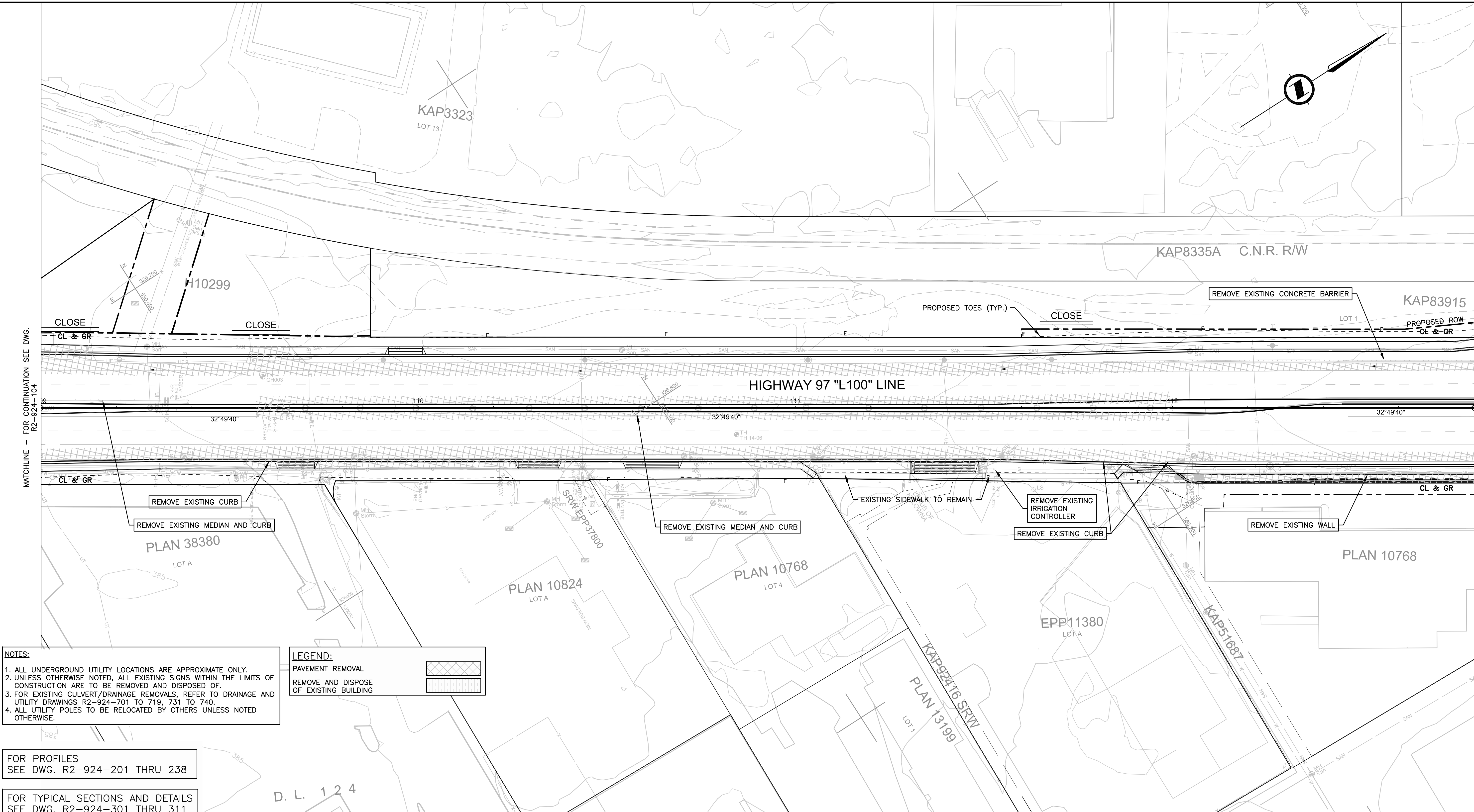
 1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9 		 MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ENGINEERING BRANCH SOUTHERN INTERIOR REGION	
<b>PLAN</b> OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA.280+16.121 TO STA. 282+67.824			
SCALE 0 5 1:500 25m CAD FILENAME: R2-924-101 TO 110 DATE: 2015-11-08		DESIGNED: G. CHOW DATE: 2015-11-08 QUALITY CONTROL: V. WANG DATE: 2015-11-08 QUALITY ASSURANCE: S.S. DEEPAK DATE: 2015-11-08 DRAWN: D. NISSILA DATE: 2015-11-08	
REV. DATE REVISIONS SIGNATURE		SENIOR DESIGNER	
FILE NUMBER: 2747		PROJECT NUMBER: 23239-0000	
REG: 2		DRAWING NUMBER: R2-924-103	







DATE: 2015-11-03 - 10:11pm (CHOWG3)  
PATH: H:\DATA\615355 - Hwy 97 -H33 to Edwards Rd\41 - Civil Engineering\4100 - Drawings\R2-924-101 to 110.dwg  
LAYOUT: 105



- NOTES:**
1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
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  3. FOR EXISTING CULVERT/DRAINAGE REMOVALS, REFER TO DRAINAGE AND UTILITY DRAWINGS R2-924-701 TO 719, 731 TO 740.
  4. ALL UTILITY POLES TO BE RELOCATED BY OTHERS UNLESS NOTED OTHERWISE.

- LEGEND:**
- PAVEMENT REMOVAL
  - REMOVE AND DISPOSE OF EXISTING BUILDING

FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

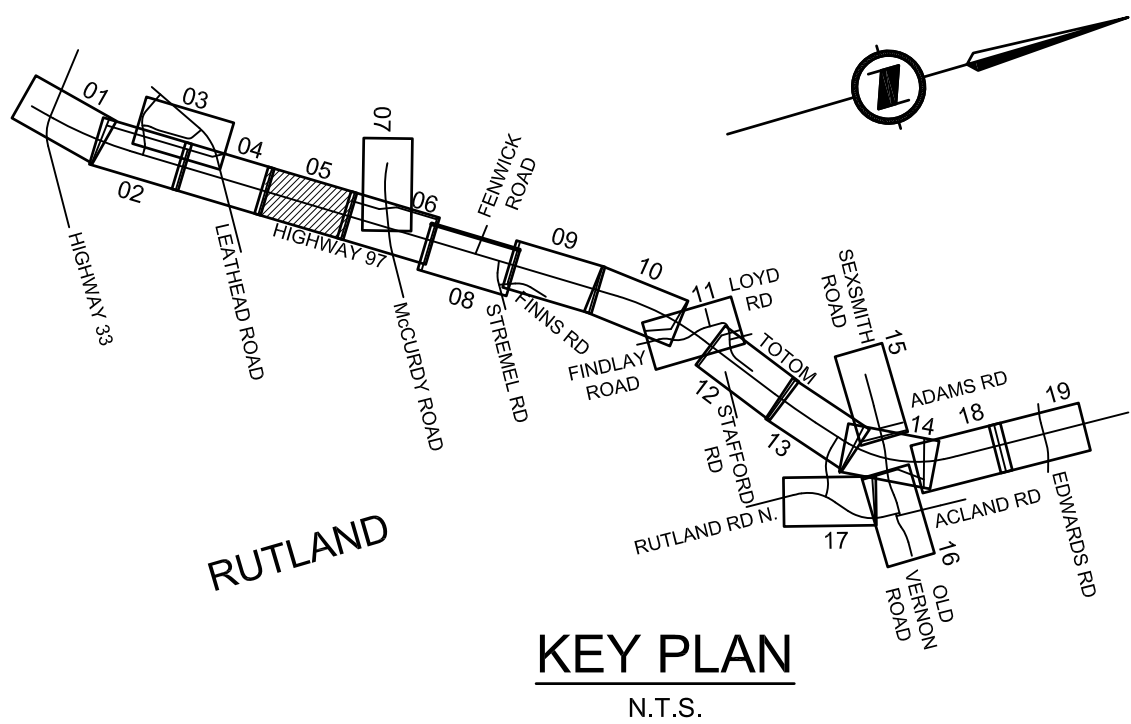
FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

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FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

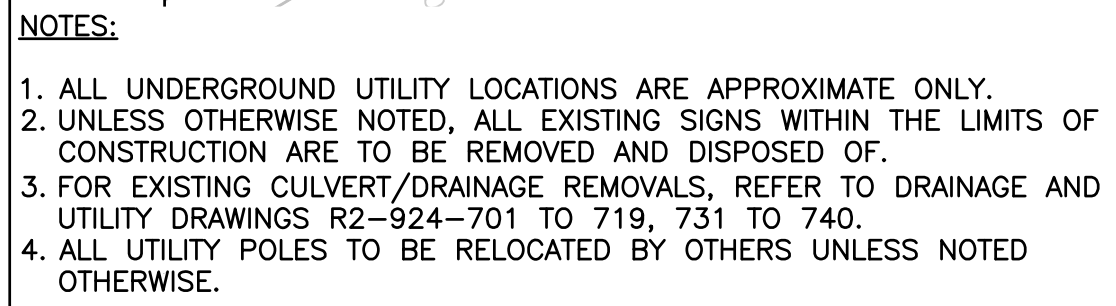
FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792



		1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9			
<b>BRITISH COLUMBIA</b> MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ENGINEERING BRANCH SOUTHERN INTERIOR REGION					
<b>PLAN</b> OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA. 109+00.000 TO STA. 112+80.000					
SCALE 0 5 1:500 25m		CAD FILENAME R2-924-101 TO 110		DATE 2015-11-08	
REV	DATE	REVISIONS	SIGNATURE		
SENIOR DESIGNER DATE 2015-11-08		FILE NUMBER 2747		PROJECT NUMBER 23239-0000	
DESIGNED G. CHOW		DATE 2015-11-08		QUALITY CONTROL V. WANG	
QUALITY ASSURANCE S.S. DEEPAK		DATE 2015-11-08		DRAWN D. NISSILA	
DATE 2015-11-08		FILE NUMBER 2747		PROJECT NUMBER 23239-0000	
REG 2		DRAWING NUMBER R2-924-105		REV	

MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-106





PAVEMENT REMOVAL  
REMOVE AND DISPOSE  
OF EXISTING BUILDING



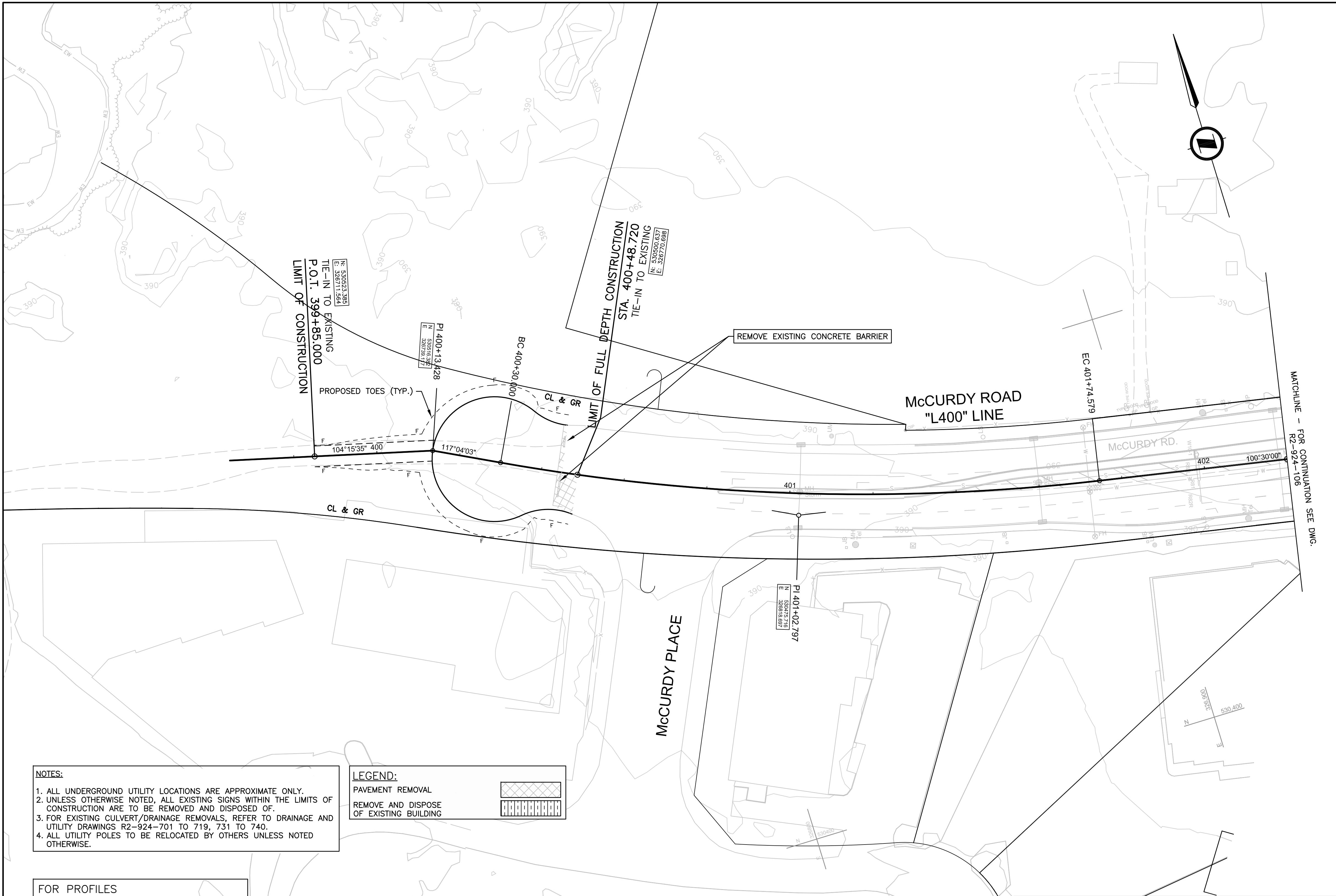
FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

KEY PLAN  
N.T.S.

DATE: 2015-11-03 - 10:12pm (CHOWG3)  
 PATH: H:\DATA\615355 - Hwy 97 - H33 to Edwards Rd\41 - Civil Engineering\41DD - Drawings\R2-924-101 to 110.dwg



DATE: 2015-11-03 -- 10:12pm (CHOWG3)  
PATH: H:\DATA\615355 -- Hwy 97 --H33 to Edwards Rd\41 -- Civil Engineering\41DD -- Drawings\R2-924-101 to 110.dwg  
LAYOUT: 107



- NOTES:**
1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
  2. UNLESS OTHERWISE NOTED, ALL EXISTING SIGNS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED AND DISPOSED OF.
  3. FOR EXISTING CULVERT/DRAINAGE REMOVALS, REFER TO DRAINAGE AND UTILITY DRAWINGS R2-924-701 TO 719, 731 TO 740.
  4. ALL UTILITY POLES TO BE RELOCATED BY OTHERS UNLESS NOTED OTHERWISE.

- LEGEND:**
- PAVEMENT REMOVAL
  - REMOVE AND DISPOSE OF EXISTING BUILDING

FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

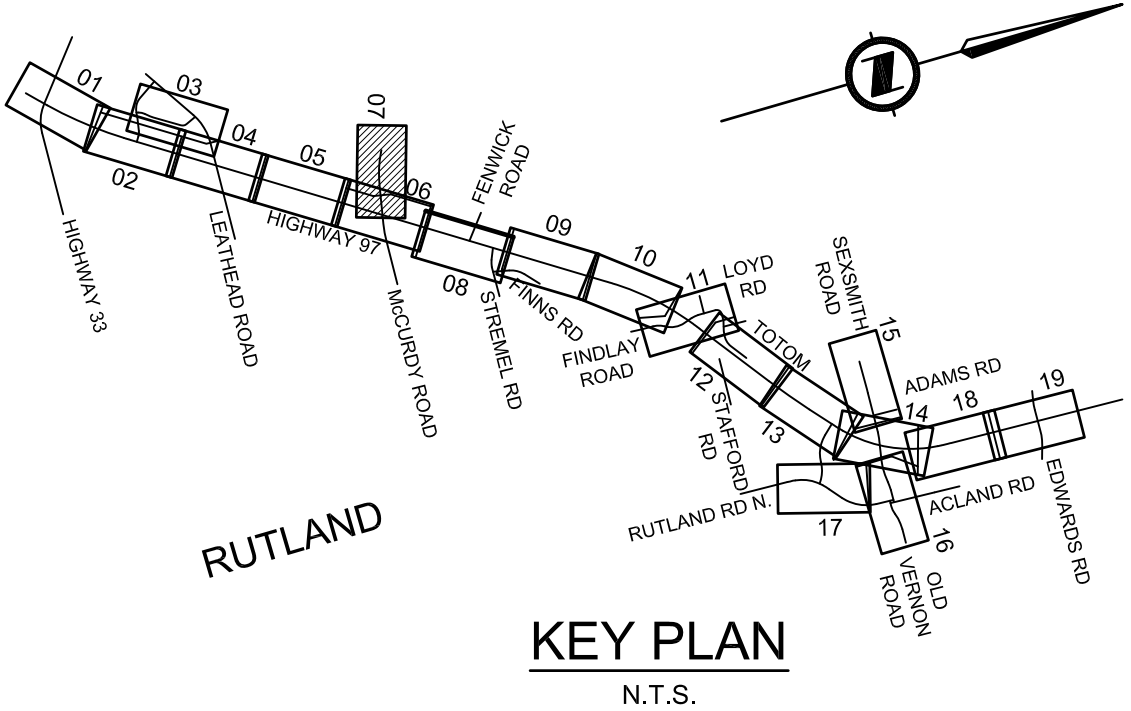
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311





FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719, 731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
0.2581 ha



 1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9 		 MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ENGINEERING BRANCH SOUTHERN INTERIOR REGION 	
SCALE 0 5 1:500 25m CAD FILENAME R2-924-101 TO 110 DATE 2015-11-08		<b>PLAN</b> OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA. 400+00.000 TO STA. 402+20.000	
REV. DATE REVISIONS SIGNATURE		DESIGNED G. CHOW DATE 2015-11-06 QUALITY CONTROL V. WANG DATE 2015-11-06 QUALITY ASSURANCE S.S. DEEPAK DATE 2015-11-06 DRAWN D. NISSILA DATE 2015-11-06	
SENIOR DESIGNER DATE 2015-11-08		REG 2 DRAWING NUMBER R2-924-107	
FILE NUMBER 2747		PROJECT NUMBER 23239-0000	



MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-106

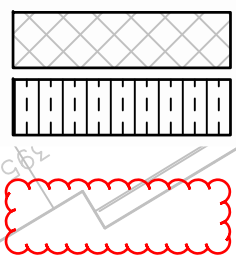
MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-109

#### NOTES:

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#### LEGEND:

PAVEMENT REMOVAL  
REMOVE AND DISPOSE OF  
EXISTING BUILDING  
CITY OF KELOWNA WORKS



FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

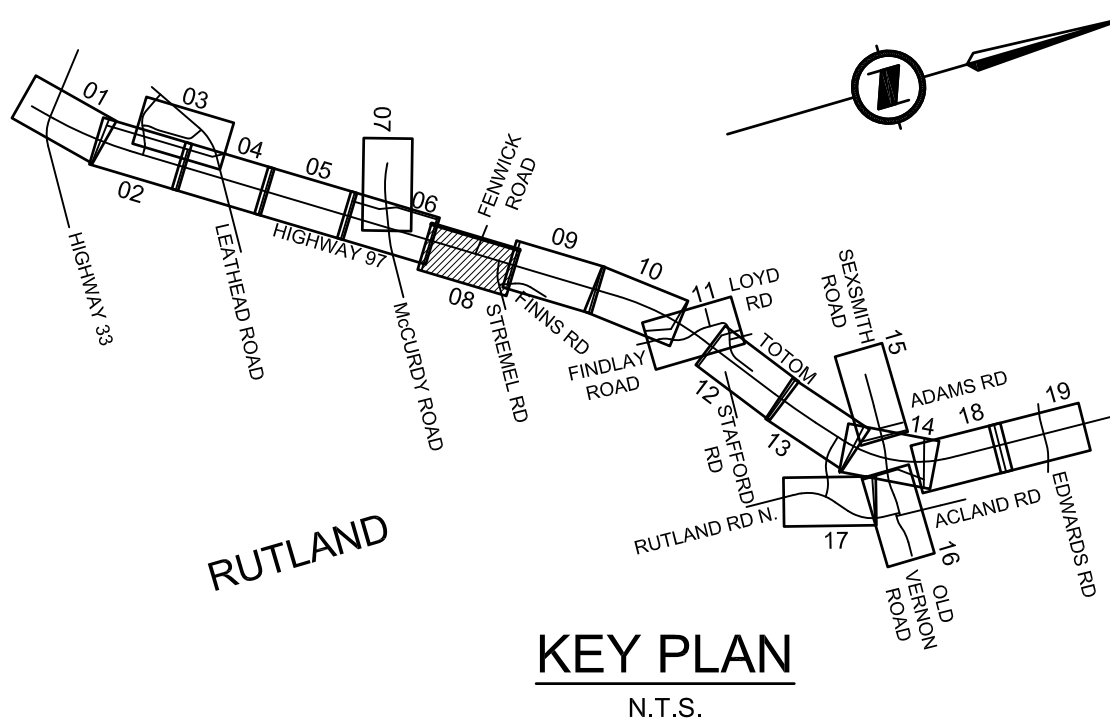
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
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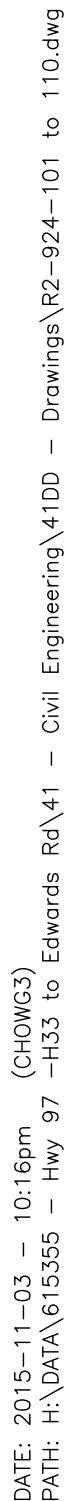
 1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9 		 MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ENGINEERING BRANCH SOUTHERN INTERIOR REGION	
<b>PLAN</b> OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA. 116+60.000 TO STA. 120+40.000			
SCALE 0 5 1:500 25m CAD FILENAME: R2-924-101 TO 110 DATE: 2015-11-08		DESIGNED: G. CHOW DATE: 2015-11-08 QUALITY CONTROL: V. WANG DATE: 2015-11-08 QUALITY ASSURANCE: S.S. DEEPAK DATE: 2015-11-08 DRAWN: D. NISSELA DATE: 2015-11-08	
REV. DATE REVISIONS SIGNATURE		SENIOR DESIGNER DATE: 2015-11-08	
FILE NUMBER 2747		PROJECT NUMBER 23239-0000	
REG 2		DRAWING NUMBER R2-924-108	





DATE: 2015-11-03 — 10:15pm (CHOW63)  
 PATH: H:\DATA\615355 — Hwy 97 — H33 to Edwards Rd\41 — Civil Engineering\41DD — Drawings\R2-924-101 to 110.dwg  
 LAYOUT: 109

















1. ALL UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE ONLY.
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PAVEMENT REMOVAL  
REMOVE & DISPOSE  
OF EXISTING BUILDING

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

KEY PLAN  
N.T.S.

197



INSTALL 10m CHAIN LINK FENCE  
GATE AS PER SP741-05.03  
END 1.8m HIGH TYPE "D" FENCE.  
TIE INTO EXISTING FENCE.

MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-113

REMOVE EXISTING  
MEDIAN AND CURB  
REMOVE EXISTING  
CURB

BEGIN 2.0m HIGH TYPE "D"  
FENCE WITH BARBED WIRE  
AS PER SP741-05.01. TIE  
INTO EXISTING FENCE.

PI 138+04.354

INSTALL CUSTOMIZED  
12m TYPE "D" CHAIN  
LINK FENCE GATE WITH  
BARBED WIRE

REMOVE EXISTING FENCE

END 2.0m HIGH TYPE "D" FENCE  
WITH BARBED WIRE. TIE INTO  
EXISTING FENCE.

REMOVE EXISTING  
CURB AND SIDEWALK

P.O.T. 2402+43.294 (L2400)=  
P.O.T. 700+00.000 (L700)

RUTLAND ROAD NORTH  
(EXISTING)  
"L2400" LINE

TIE-IN TO EXISTING  
P.O.T. 2402+29.004  
LIMIT OF CONSTRUCTION

FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

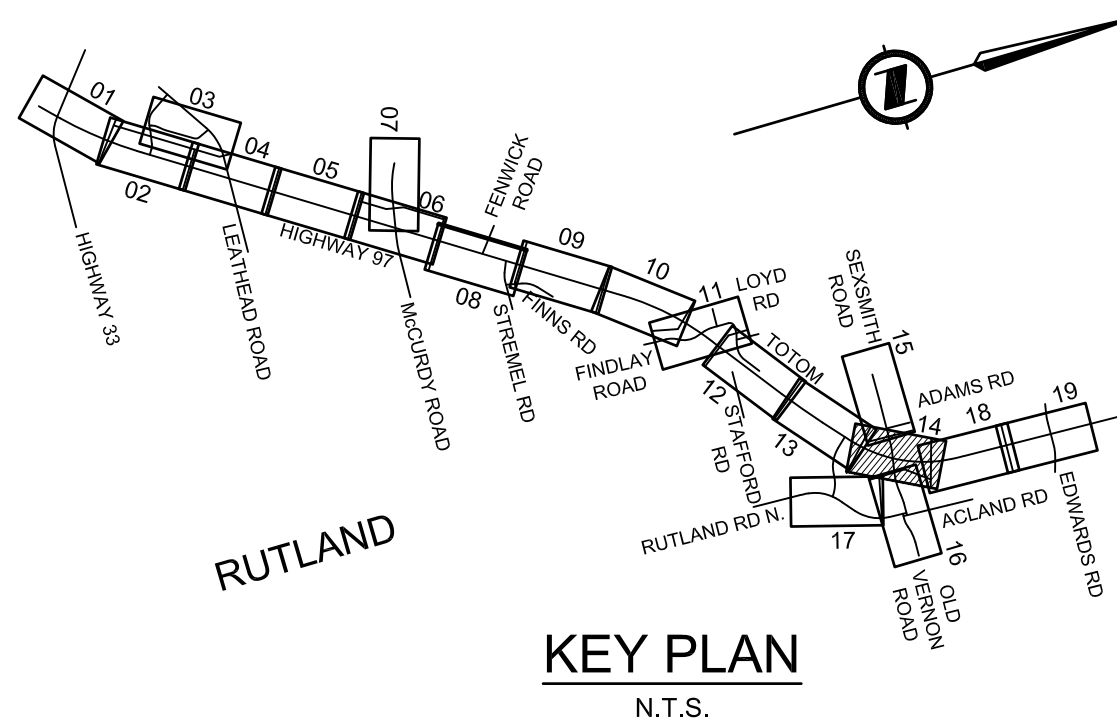
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
2.6755 ha



KEY PLAN  
N.T.S.

RELOCATE EXISTING  
IRRIGATION CONTROLLER

- NOTES:
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LEGEND:

PAVEMENT REMOVAL

REMOVE & DISPOSE  
OF EXISTING BUILDING

CITY OF KELOWNA WORKS

		1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9			
SCALE		0 5 1:500 25m		CAD FILENAME R2-924-111 TO 119	
REV		DATE		SIGNATURE	
2747		2015-11-06			
FILE NUMBER		PROJECT NUMBER		REG	
2747		23239-0000		2	
DRAWING NUMBER		REV			
R2-924-114					

DESIGNED G. CHOW DATE 2015-11-06	
QUALITY CONTROL V. WANG DATE 2015-11-06	
QUALITY ASSURANCE S.S. DEEPAK DATE 2015-11-06	
DRAWN D. NISILA DATE 2015-11-06	

SENIOR DESIGNER

DATE 2015-11-06

PLAN

OKANAGAN HIGHWAY No. 97 - SIX LANING

HIGHWAY 33 TO EDWARDS ROAD

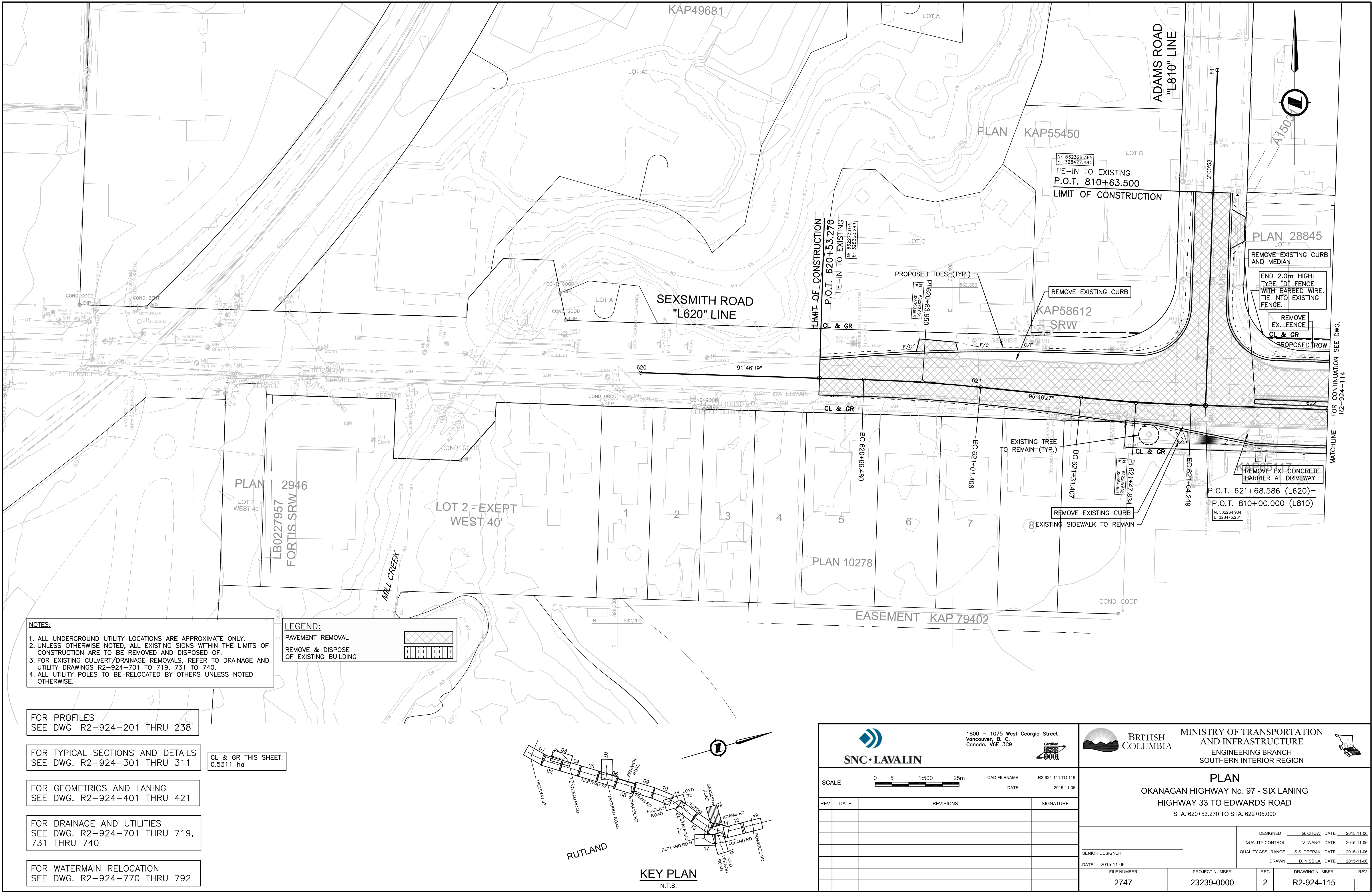
STA. 137+60.000 TO STA. 140+80.000

BRITISH COLUMBIA

MINISTRY OF TRANSPORTATION  
AND INFRASTRUCTURE

ENGINEERING BRANCH  
SOUTHERN INTERIOR REGION





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- LEGEND:
- PAVEMENT REMOVAL
  - REMOVE & DISPOSE OF EXISTING BUILDING

FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

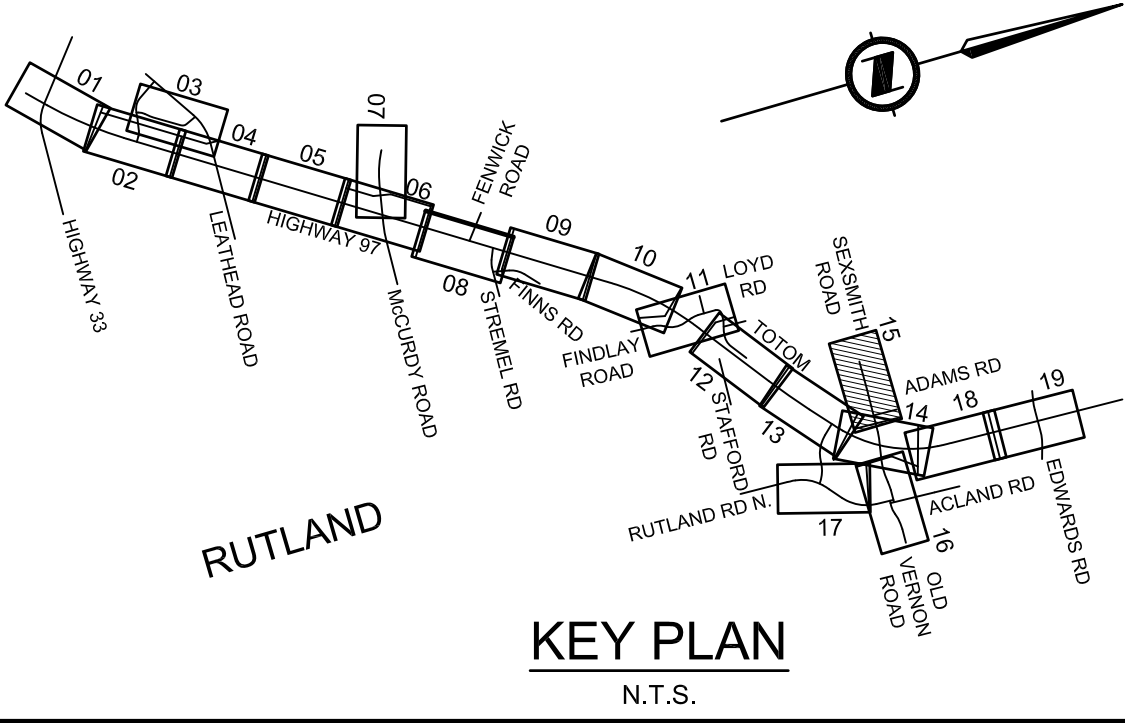
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
0.5311 ha



 1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9 		 MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE ENGINEERING BRANCH SOUTHERN INTERIOR REGION																																																	
SCALE 0 5 1:500 25m CAD FILENAME: R2-924-111 TO 119 DATE: 2015-11-08		PLAN OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA. 620+53.270 TO STA. 622+05.000																																																	
<table><thead><tr><th>REV</th><th>DATE</th><th>REVISIONS</th><th>SIGNATURE</th></tr></thead><tbody><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></tbody></table>		REV	DATE	REVISIONS	SIGNATURE																													<table><tr><td colspan="2">DESIGNED: G. CHOW DATE: 2015-11-08</td></tr><tr><td colspan="2">QUALITY CONTROL: V. WANG DATE: 2015-11-08</td></tr><tr><td colspan="2">QUALITY ASSURANCE: S.S. DEEPAK DATE: 2015-11-08</td></tr><tr><td colspan="2">DRAWN: D. NISSELA DATE: 2015-11-08</td></tr><tr><td>SENIOR DESIGNER</td><td> </td></tr><tr><td>DATE: 2015-11-08</td><td> </td></tr><tr><td>FILE NUMBER: 2747</td><td>PROJECT NUMBER: 23239-0000</td></tr><tr><td>REG: 2</td><td>DRAWING NUMBER: R2-924-115</td></tr></table>		DESIGNED: G. CHOW DATE: 2015-11-08		QUALITY CONTROL: V. WANG DATE: 2015-11-08		QUALITY ASSURANCE: S.S. DEEPAK DATE: 2015-11-08		DRAWN: D. NISSELA DATE: 2015-11-08		SENIOR DESIGNER		DATE: 2015-11-08		FILE NUMBER: 2747	PROJECT NUMBER: 23239-0000	REG: 2	DRAWING NUMBER: R2-924-115
REV	DATE	REVISIONS	SIGNATURE																																																
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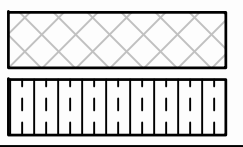
MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-114

NOTES:

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LEGEND:

PAVEMENT REMOVAL  
REMOVE & DISPOSE  
OF EXISTING BUILDING



FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

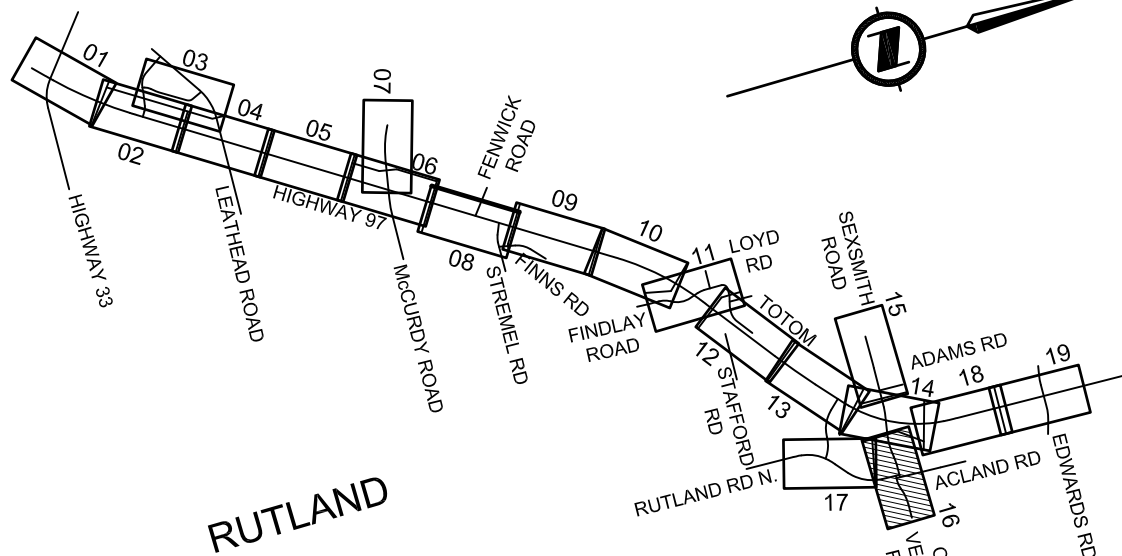
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421

FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740

FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
1.5987 ha



KEY PLAN  
N.T.S.



1800 - 1075 West Georgia Street  
Vancouver, B. C.  
Canada. V6E 3C9



BRITISH  
COLUMBIA

MINISTRY OF TRANSPORTATION  
AND INFRASTRUCTURE  
ENGINEERING BRANCH  
SOUTHERN INTERIOR REGION



SCALE 0 5 1:500 25m  
CAD FILENAME R2-924-111 TO 119  
DATE 2015-11-08

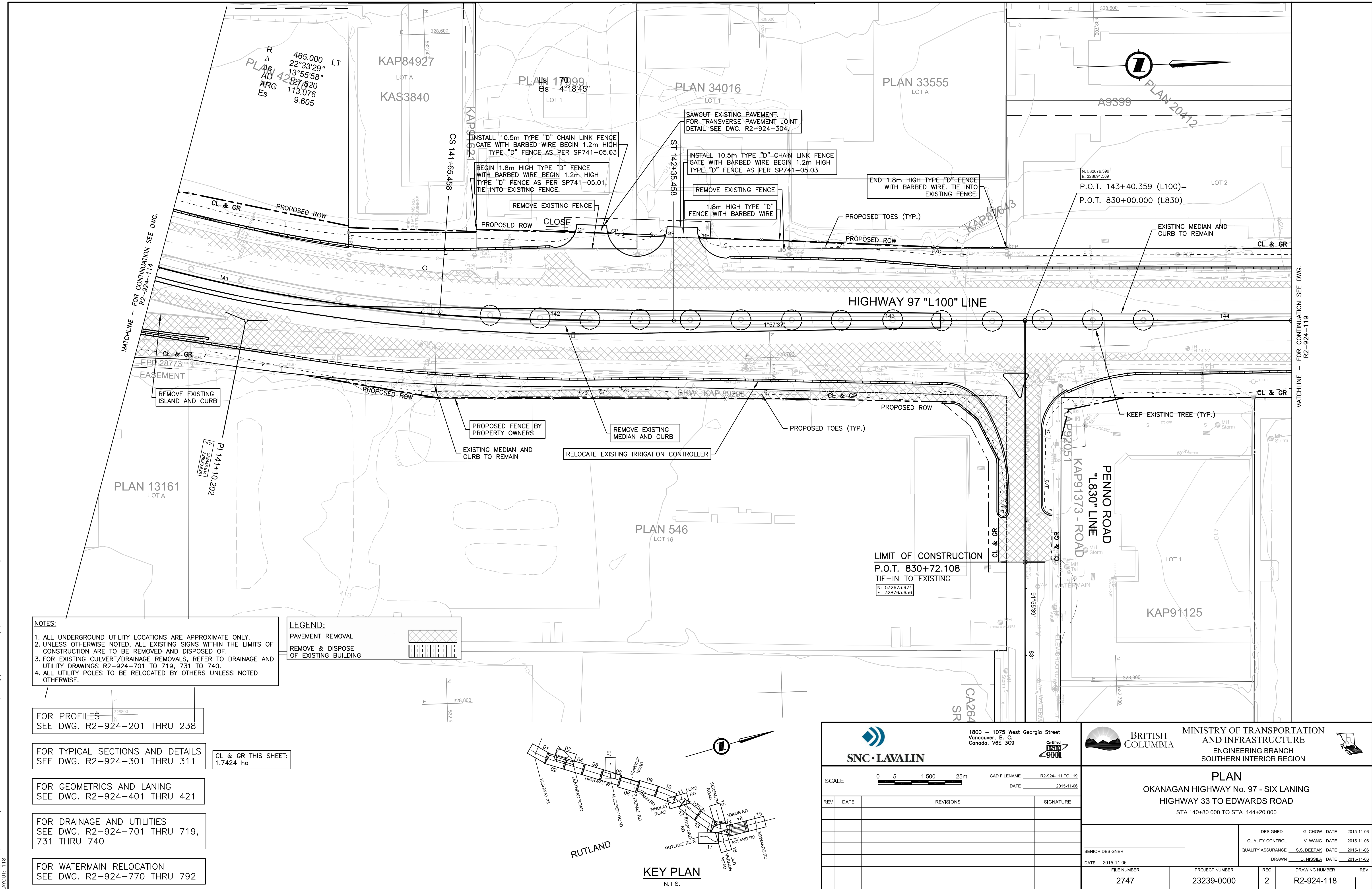
REV	DATE	REVISIONS	SIGNATURE

PLAN OKANAGAN HIGHWAY No. 97 - SIX LANING HIGHWAY 33 TO EDWARDS ROAD STA. 623+65.000 TO STA. 641+19.666			
DESIGNED G. CHOW DATE 2015-11-06		QUALITY CONTROL V. WANG DATE 2015-11-06	
QUALITY ASSURANCE S.S. DEEPAK DATE 2015-11-06		DRAWN D. NISSILA DATE 2015-11-06	
SENIOR DESIGNER		FILE NUMBER 2747	
DATE 2015-11-08		PROJECT NUMBER 23239-0000	
REG 2		DRAWING NUMBER R2-924-116	











MATCHLINE - FOR CONTINUATION SEE DWG.  
R2-924-118

ALCAN ROAD  
"850" LINE

SAWCUT EXISTING PAVEMENT.  
FOR TRANSVERSE PAVEMENT JOINT  
DETAIL SEE DWG. R2-924-304.

LIMIT OF CONSTRUCTION  
P.O.T. 850+49.542  
TIE-IN TO EXISTING

N: 532781.685  
E: 328653.585

REMOVE EXISTING CURB  
AND GUTTER

REMOVE EXISTING CONCRETE PAD

REMOVE EXISTING BUS SHELTER  
(BY OTHERS)

PROPOSED TOES (TYP.)

HIGHWAY 97 "L100" LINE

P.O.T. 144+44.602 (L100)=  
P.O.T. 850+91.127 (L850)

N: 532780.581  
E: 328686.155

EXISTING MEDIAN AND  
CURB TO REMAIN

REMOVE EXISTING BUS SHELTER  
(BY OTHERS)

REMOVE EXISTING CONCRETE PAD

EDWARDS ROAD  
LIMIT OF CONSTRUCTION  
P.O.T. 146+16.539  
TIE-IN TO EXISTING

N: 532952.418  
E: 328701.035

NOTES:

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LEGEND:

PAVEMENT REMOVAL  
REMOVE & DISPOSE  
OF EXISTING BUILDING



FOR PROFILES  
SEE DWG. R2-924-201 THRU 238

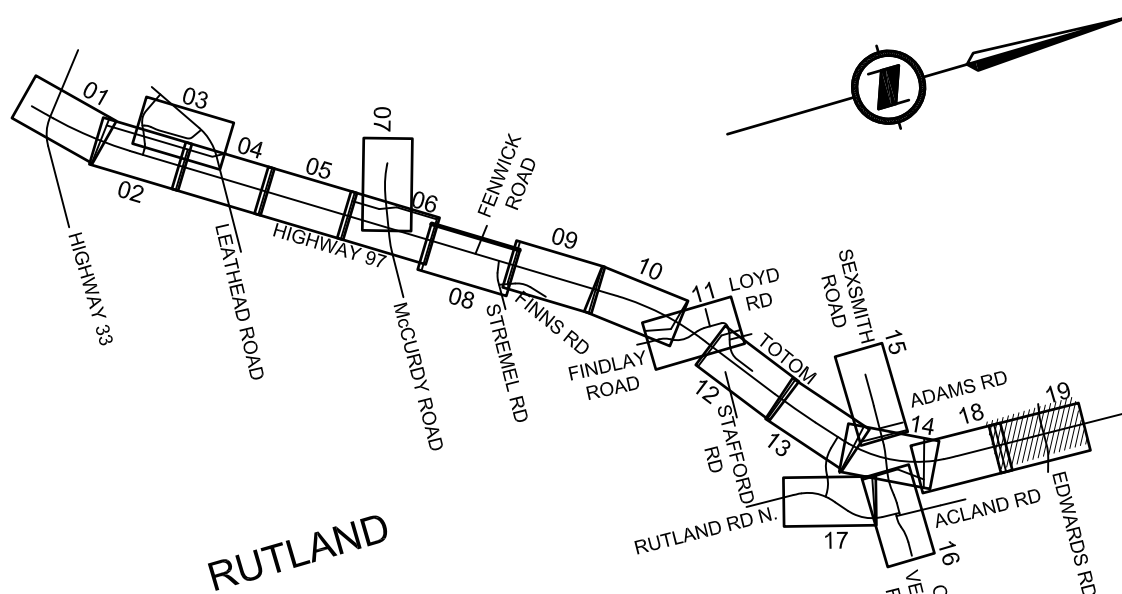
FOR TYPICAL SECTIONS AND DETAILS  
SEE DWG. R2-924-301 THRU 311

FOR GEOMETRICS AND LANING  
SEE DWG. R2-924-401 THRU 421



FOR DRAINAGE AND UTILITIES  
SEE DWG. R2-924-701 THRU 719,  
731 THRU 740



FOR WATERMAIN RELOCATION  
SEE DWG. R2-924-770 THRU 792

CL & GR THIS SHEET:  
0.9469 ha



KEY PLAN  
N.T.S.

 <b>SNC • LAVALIN</b>		1800 - 1075 West Georgia Street Vancouver, B. C. Canada. V6E 3C9			
SCALE 0 5 1:500 25m		CAD FILENAME R2-924-111 TO 119		DATE 2015-11-08	
REV	DATE	REVISIONS	SIGNATURE		

 <b>BRITISH COLUMBIA</b>		<b>MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE</b>			
		ENGINEERING BRANCH SOUTHERN INTERIOR REGION			
<b>PLAN</b>					
OKANAGAN HIGHWAY No. 97 - SIX LANING					
HIGHWAY 33 TO EDWARDS ROAD					
STA. 144+20.000 TO STA. 146+16.539					
DESIGNED G. CHOW DATE 2015-11-06		QUALITY CONTROL V. WANG DATE 2015-11-06		QUALITY ASSURANCE S.S. DEEPAK DATE 2015-11-06	
SENIOR DESIGNER DATE 2015-11-08		DRAWN D. NISSILA DATE 2015-11-06			
FILE NUMBER 2747	PROJECT NUMBER 23239-0000	REG 2	DRAWING NUMBER R2-924-119		REV

## APPENDIX A

### Cost Contribution Breakdown

Item No.	Description	City of Kelowna Cost
a	The replacement of the City sanitary works between Fenwick Road and Stremel Road	\$361,344.42
b	The extension of sanitary sewer works along Jenkins Street	\$10,000
c	Continuous sidewalk that is not replacement of existing sidewalk, and is not required by the Ministry	\$275,478.00
d	Re-grading of property number P015, Chrysler Dealership, , as identified on Drawing R2-924-103 of Appendix B	\$15,815.06
e	Extension of the Mayfair storm works	\$146,739.92
f	Work related to communications conduits	\$142,836.00
g	McCurdy Sanitary Sewer	\$30,000.00
H	McCurdy Storm Sewer	\$11,000.00
i	SNC engineering services and Design Consultant Fees	\$33,185.02
j	Credit to the City for relocation of “Welcome to Kelowna” entrance sign	-\$100,000
<b>Total</b>		<b>\$926,398.42</b>



# CITY OF KELOWNA

## BYLAW NO. 11275

**A bylaw of the City of Kelowna to Establish a Local Area Service, authorize the borrowing of the estimated cost to construct works within the Local Area Service and establish the property owner's portion of the cost within the Local Area Service**

### **Local Area Service for Aspen Road**

---

WHEREAS pursuant to the provisions of Section 210 of the *Community Charter*, and amendments thereto, empowers the Council of the City of Kelowna with the authority to establish a local area service within a part of the municipality by establishing a local area service bylaw;

AND WHEREAS pursuant to the provisions of Section 210 of the *Community Charter*, and amendments thereto, empowers the Council of the City of Kelowna with the authority to adopt a local area service bylaw to recover costs from property owner's pursuant to Section 216 of the *Community Charter* and amendments thereto, who derive a particular benefit from the service provided from local improvement works;

AND WHEREAS pursuant to the provisions of Section 211 of the *Community Charter*, and amendments thereto, states that the Council of the City of Kelowna must adopt a bylaw to establish a local area service and its cost recoveries;

AND WHEREAS the local area service works proposed by this bylaw include all things necessary in providing for the installation of a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; installation of new water service to property line complete with new curb stops; installation of a fire hydrant for fire protection; paving of the portion of road that is disturbed by construction; decommission of the existing water system; installation of a Pressure Reducing Valve inside home; installation of a Water Meter inside home; for the local area service as shown on Schedule "A" attached hereto and forming part of this bylaw and hereafter referred to as the "Local Area Service" or "LAS";

AND WHEREAS the Council of the City of Kelowna may borrow sums of money, not exceeding the total cost of the work that may be necessary, pursuant to Section 217 of the *Community Charter* and amendments thereto;

AND WHEREAS the amount to be borrowed to provide the installation of a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; installation of new water service to property line complete with new curb stops; installation of a fire hydrant for fire protection; paving of the portion of road that is disturbed by construction; decommission of the existing water system; installation of a Pressure Reducing Valve inside home; installation of a Water Meter inside home to the LAS, is the sum of Forty-Eight Thousand Dollars (\$48,000.00) which is the amount of debt intended to be created by this bylaw;

AND WHEREAS the maximum term for the debentures to be issued to secure the monies authorized to be borrowed hereunder is twenty (20) years;

AND WHEREAS the approval of the Inspector of Municipalities has been obtained prior to its adoption, pursuant to Section 179 of the *Community Charter*;



AND WHEREAS the affected property owners within the LAS were notified, under the owner initiated petitioning process, pursuant to Section 212 of the Community Charter, and amendments thereto, that the Council of the City of Kelowna intends to establish a LAS and install a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; install a new water service to property line complete with new curb stops; install a fire hydrant for fire protection; pave the portion of road that is disturbed by construction; decommission the existing water system; install a Pressure Reducing Valve inside their home; install a Water Meter inside their home on behalf of the affected property owners;

AND WHEREAS the Council of the City of Kelowna has been advised through a report prepared by the Corporate Officer that the elector responses submitted by the affected property owners of the LAS, requesting that Council to proceed with the establishment of a LAS and the borrowing to undertake the installation of a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; install a new water service to property line complete with new curb stops; install a fire hydrant for fire protection; pave the portion of road that is disturbed by construction; decommission the existing water system; install a Pressure Reducing Valve inside their home; install a Water Meter inside their home, are sufficient;

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

1. In this bylaw:

"Annual Costs" shall mean the cost, including management, reserves, administration, rental, operation and maintenance, debt servicing and capital costs of the works;

"Parcel" shall mean any lot, block or other area in which real property is held or into which is subdivided and includes the right or interest of an occupier of land but does not include a highway or portion of a highway. The term parcel; includes strata parcels.

"Group of Parcels" shall mean where a building or other improvement extends over more than one parcel of land, those parcels if contiguous may be treated by the Assessor as one parcel and assessed accordingly;

"Collector" shall mean the Collector for the Municipality duly appointed by the Council of the City of Kelowna pursuant to the provisions of the Local Government Act; and

"Local Area Service" or "LAS" shall mean the local area service works for the local area service as shown on Schedule "A" attached hereto and forming part of this bylaw; and

"Local Area Service Works" shall mean all things necessary in providing for the installation of a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; installation of new water service to property line complete with new curb stops; installation of a fire hydrant for fire protection; paving of the portion of road that is disturbed by construction; decommission of the existing water system; installation of a Pressure Reducing Valve inside home; installation of a Water Meter inside home; for the local service area as shown on Schedule "A" attached hereto and forming part of this bylaw;

2. There shall be and is hereby established a LAS under the provision of the Community Charter, and amendments thereto, to be known as the "City of Kelowna Local Area Service for Aspen Road";
3. The boundaries of the City of Kelowna LAS for Aspen Road are outlined in Schedule "A" attached to and forming part of this bylaw;
4. The City of Kelowna is hereby authorized to provide the installation of a new 150mm PVC Main complete with the necessary Valves, Tee's, and Elbows; installation of new water service to property line complete with new curb stops; installation of a fire hydrant for fire protection; paving of the portion

of road that is disturbed by construction; decommission of the existing water system; installation of a Pressure Reducing Valve inside home; installation of a Water Meter inside home for the LAS as outline in Schedule "A" attached to and forming part of this bylaw;

5. The City of Kelowna is hereby authorized to borrow, upon the credit of the City of Kelowna, a sum not exceeding Forty-Eight Thousand Dollars (\$48,000.00) for the purpose of constructing the works more particularly described in Section 4 for the special benefit of the LAS for Aspen Road area for a term of twenty (20) years.
6. The City of Kelowna is hereby authorized to acquire all such real property, easements and right-of-ways and to enter into leases, and to obtain other rights and authorities as may be required or desired in connection with the construction of the works described in Section 4 of this bylaw.
7. The entire capital costs of the work shall be paid for out of money borrowed, pursuant to the authorization of this bylaw shall be borne by the benefiting area and shall be raised by way of a parcel tax under Section 200 of the Community Charter, levied in 20 annual instalments.
8. Should the sums recovered through the levy of the local service tax at any time be insufficient to meet the costs of repayment of the debt, the Council may levy and impose within the local area service an additional rate on land and improvements over and above all other rates sufficient to meet such a deficit in the same manner and time as other general municipal levies.
9. Any person whose parcel is subject to being specially charged under Section 7 of this bylaw, may elect to make a one-time payment of the portion of the cost of construction assessed upon their parcel within sixty days of receipt of written instructions from the Collector. The amount of the one-time cash payment after the loan has been incurred will vary depending upon a number of factors including the year of payment, interest rate of the loan and the rates of return on the sinking fund and cash commutation fund.
10. This bylaw shall take effect on the date of its adoption by Council.
11. This bylaw shall be cited as Bylaw No. 11275 being "Establishment and Loan Authorization Bylaw for Local Area Service Aspen Road".

Read a first, second and third time by the Municipal Council this 19<sup>th</sup> day of September, 2016.

Received Approval of the Electors by an Owner Imitated process under the Community Charter this 7<sup>th</sup> day of September, 2016.

Amended at third reading this 8<sup>th</sup> day of January, 2018

Received the Approval of the Inspector of Municipalities this 16<sup>th</sup> day of February, 2018.

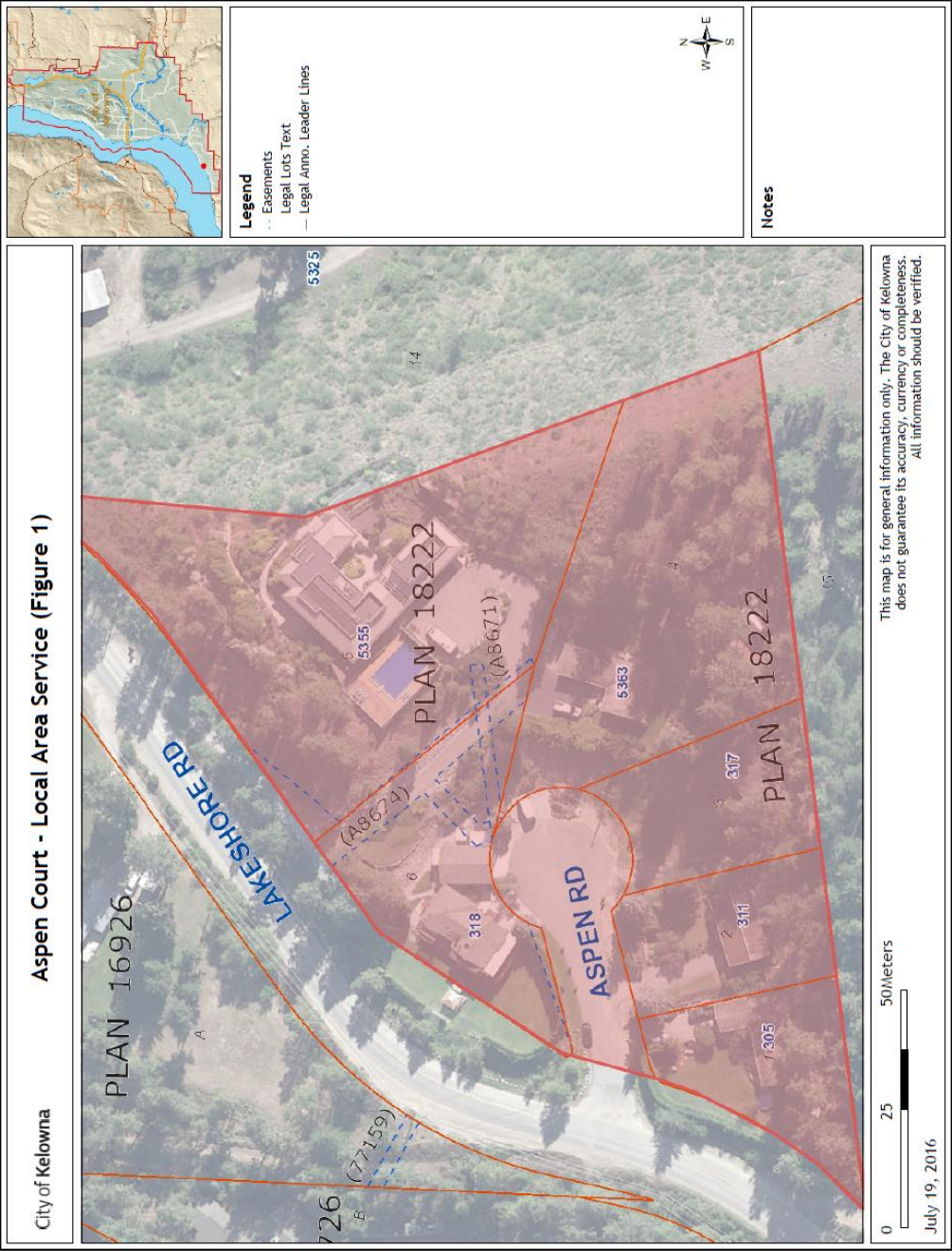
Adopted by the Municipal Council of the City of Kelowna this

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Mayor

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City Clerk





# CITY OF KELOWNA

## BYLAW NO. 11498

### Amendment No. 3 to Development Cost Charge Bylaw No. 10515

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The Municipal Council of the City of Kelowna, in open meeting assembled, enacts that the City of Kelowna Development Cost Charge Bylaw No. 10515 be amended as follows:

1. THAT Schedule A be deleted in its entirety and replaced with a new Schedule A as attached to and forming part of this bylaw.
2. This bylaw may be cited for all purposes as "Bylaw No. 11498, being Amendment No. 3 to Development Cost Charge Bylaw No. 10515."
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 8<sup>th</sup> day of January, 2018.

Approved by the Inspector of Municipalities this 16<sup>th</sup> day of February, 2018.

Adopted by the Municipal Council this

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Mayor

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City Clerk

SERVICE AREA	Sector	Residential 1 To 15 Units/Hectare (Each Lot or Unit)	Residential 2 >15-35 Units/Hectare (Each Lot or Unit)	Residential 3 >35-65 Units/Hectare (Each Lot or Unit)	Residential 4 Greater Than 65 Units/Hectare (Each Lot or Unit)	Residential 5 Maximum applied to 50 sq. mtrs. unit	Residential 5 Per Square Meter of habitable floor space applied to units 50 sq. mtrs. or less	Secondary Suites Per Unit	Commercial For 1st 93 sq. mtrs. of floor area or portion; 1/63rd the rate for per sq. mtr over 93	Commercial Per Square Meter	Seasonal Agricultural Commercial (See Commercial)	Institutional "A" For 1st 93 sq. mtrs. of floor area or portion; 1/63rd the rate for per sq. mtr over 93	Institutional "B" For 1st 93 sq. mtrs. of floor area or portion; 1/63rd the rate for per sq. mtr over 93	Industrial/ Campground Minimums	Industrial/ Campground Per Hectare over minimum Developable Land	Seasonal Agricult. Industrial See Industrial Minimums	Seasonal Agricult. Industrial Per Hectare over minimum
ALL SERVICES								2,500									
ROADS																	
SE Kelowna	R-A	9,243	8,688	6,193	5,823	4,529	81.3		2,843	30.6	1,422	2,843		9,243 - 1st. 405 hctr/prtn	22,830	4,621	11,415
South Mission	R-B	26,118	24,550	17,499	16,454	12,798	229.7		8,034	86.5	4,017	8,034		26,118 - 1st. 405 hctr/prtn	84,510	13,059	32,255
NE of Inner City	R-C	15,513	14,582	10,394	9,773	7,601	136.4		4,772	51.4	2,386	4,772		15,513 - 1st. 405 hctr/prtn	38,317	7,756	19,159
North of Hwy 33	R-D	13,321	12,522	8,925	8,392	6,527	117.2		4,098	44.1	2,049	4,098		13,321 - 1st. 405 hctr/prtn	32,903	6,661	16,451
North of Inner City	R-E	11,000	10,340	7,370	6,930	5,390	96.7		3,384	36.4	1,692	3,384		11,000 - 1st. 405 hctr/prtn	27,169	5,500	13,584
Inner City	R-I	8,338	7,838	5,586	5,253	4,086	73.3		2,565	27.6	1,282	2,565		8,338 - 1st. 405 hctr/prtn	20,594	4,169	10,297
WATER																	
Inner City	W-A	1,282	859	615	436	359	6.4		492	5.3	246	492	492	1,282 - 1st. 15 hctr/prtn	8,871	641	4,436
South Mission	W-B	833	558	400	283	234	4.2		320	3.4	160	320	320	833 - 1st. 15 hctr/prtn	5,764	417	2,882
Clifton/Glenmore	W-D	3,584	2,402	1,721	1,219	1,005	18.0		1,376	14.8	688	1,376	1,376	3,584 - 1st. 15 hctr/prtn	24,804	1,792	12,402
TRUNKS																	
Inner City	S-A	1,541	1,279	863	832	680	12.2		592	6.4	296	592	592	1,541 - 1st. 15 hctr/prtn	10,666	771	5,333
South Mission	S-B	1,379	1,145	772	745	608	10.9		529	5.7	265	529	529	1,379 - 1st. 15 hctr/prtn	9,543	690	4,771
TREATMENT																	
Inner City	T-A	3,645	3,025	2,041	1,968	1,606	28.8		1,399	15.1	700	1,399	1,399	3,645 - 1st. 15 hctr/prtn	25,223	1,823	12,612
South Mission																	
PARKS																	
	P-A	5,795	5,795	5,795	5,795	5,795	104.0		Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt	Exempt

#### NOTES

- Roads - Charges are Net of "Assist Factor" of 15%

- Wastewater Trunks/Treatment - Charges are Net of "Assist Factor" of 1%

- Water - Charges are Net of "Assist Factor" of 1%

- Areas not noted above are provided water by suppliers other than the City

- Parks - Charges are Net of "Assist Factor" of 8%

- General - 1,000 square feet is considered to be the equivalent of 92.9 meters

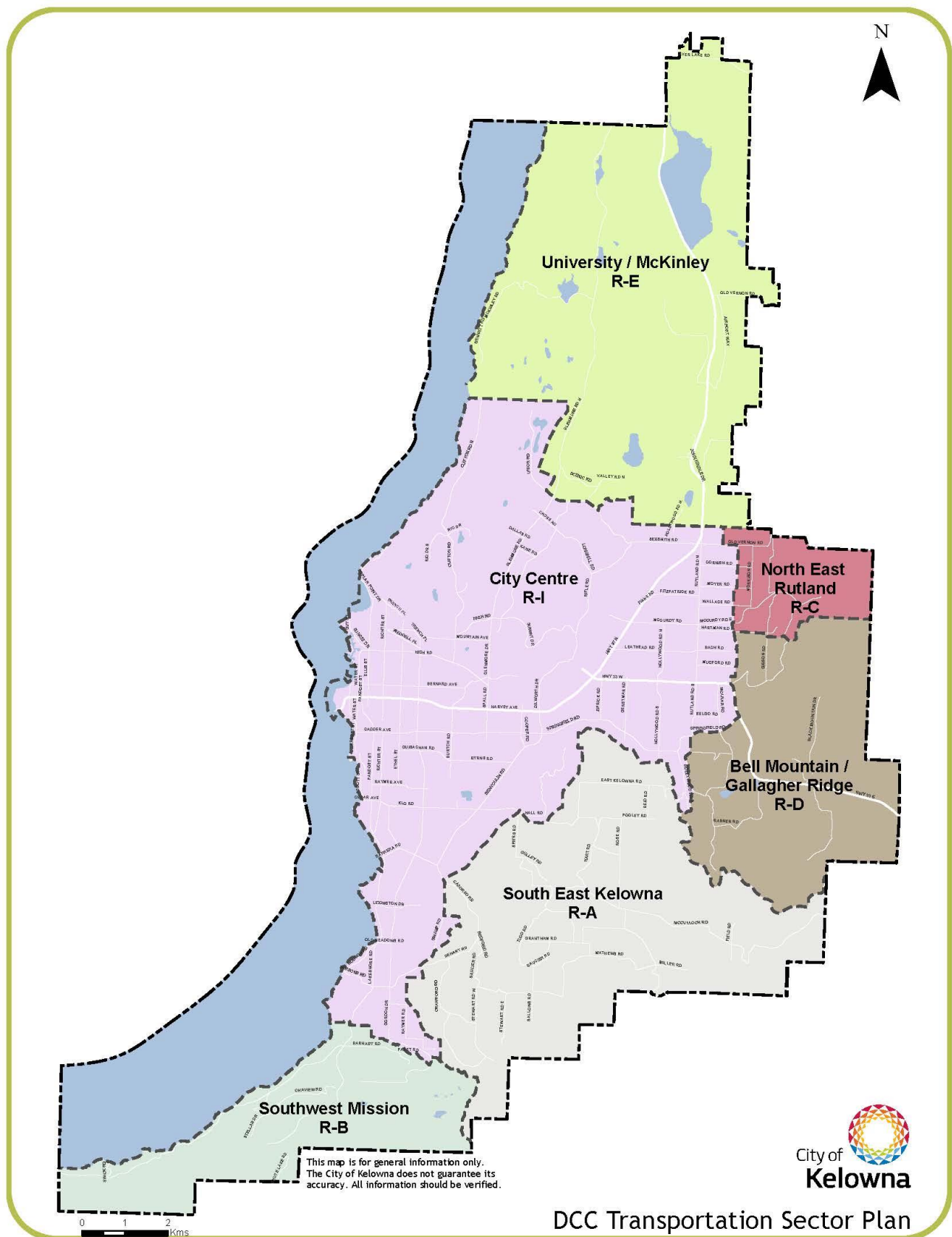
- sector designations denote geographical areas as designated on attached Sector maps A1 to A5

#### - Commercial or Institutional Calculation

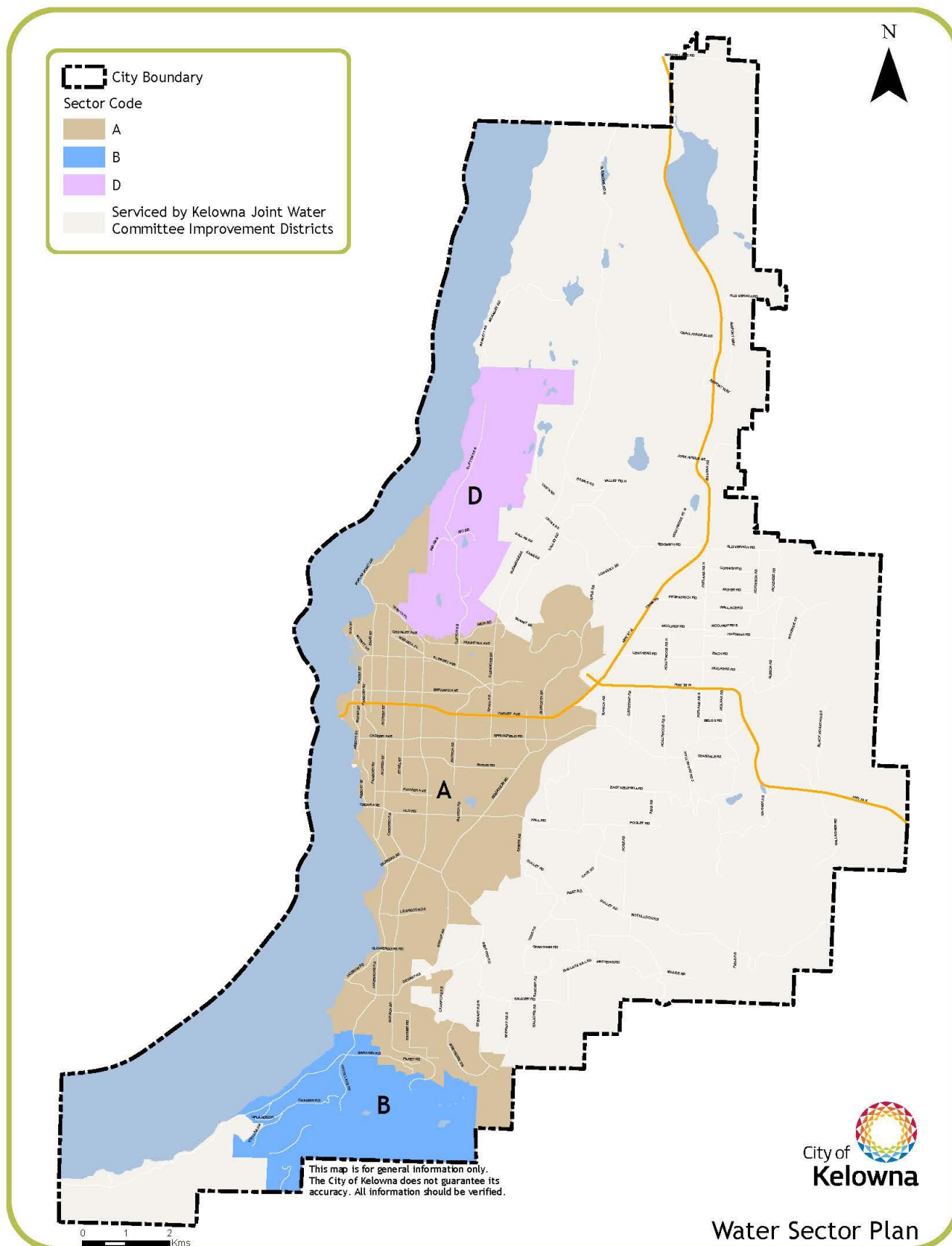
The measurement unit for Commercial and Institutional development is square meters of floor area. The calculation of floor area of a commercial or institutional building is based on the gross floor area which is measured from the outside edge of all exterior walls, less the area used for parking of motor vehicles and bicycles in the building permit application.

#### - Industrial Calculation

The measurement unit for Industrial development is hectares of site area. The calculation of industrial site area is based on the gross area of the site that is proposed for development in a building permit application, including access, parking and loading and excludes landscaped areas and the undeveloped portion of the site that is being held in it's pre-developed state for future additional development (0.405 hectares minimum).









## Legend

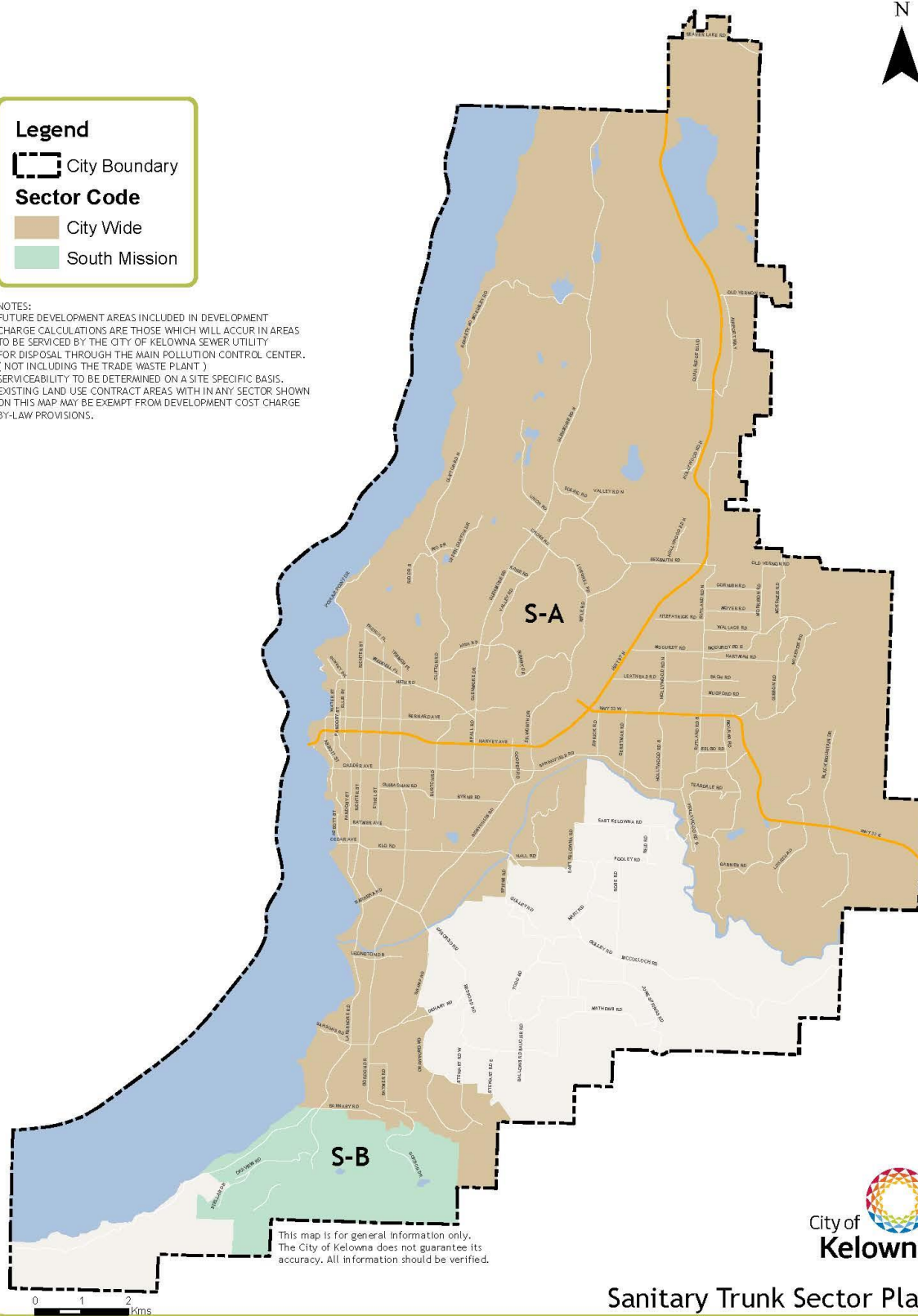
 City Boundary

## Sector Code



 City Wide

 South Mission

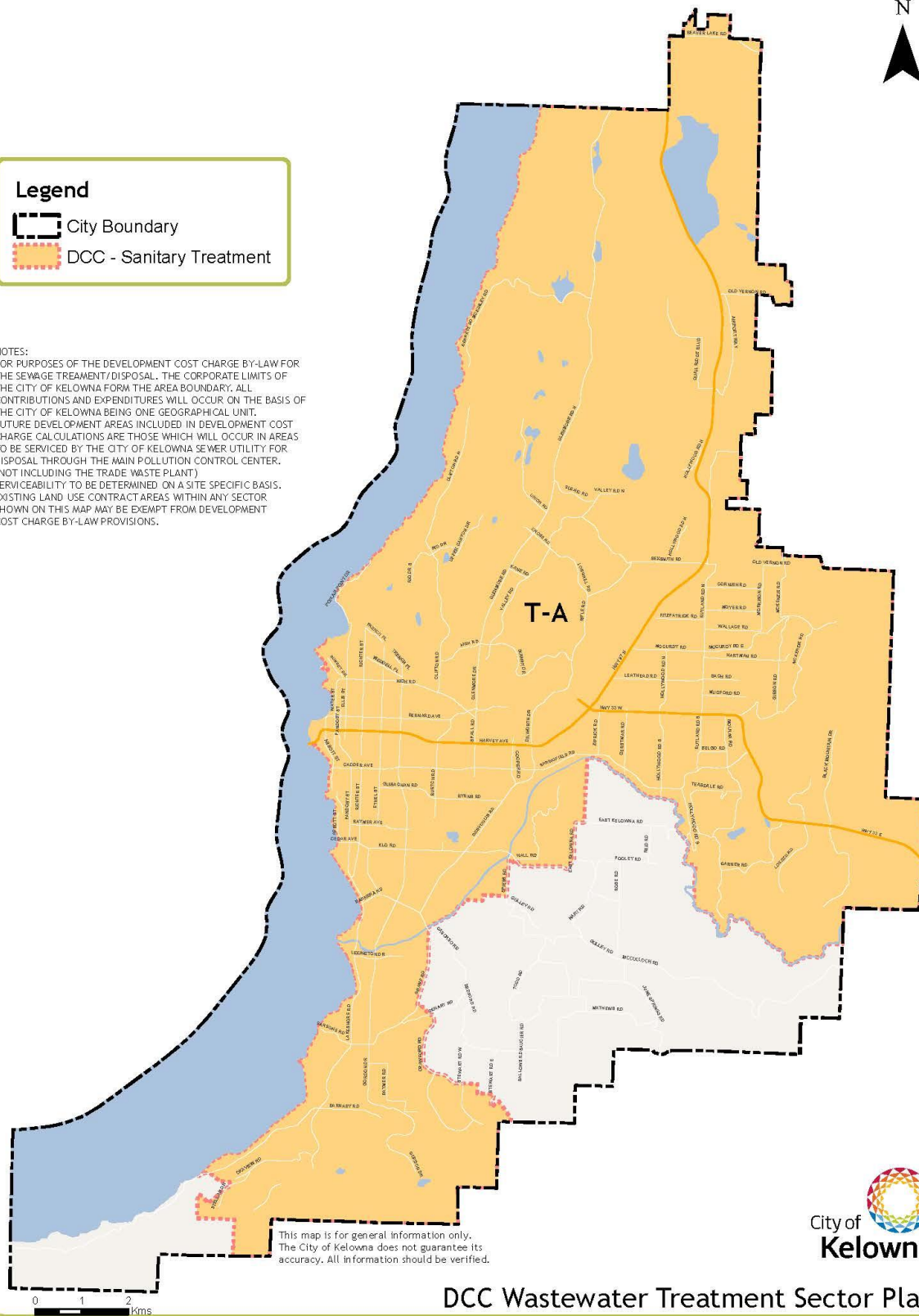
NOTES:  
FUTURE DEVELOPMENT AREAS INCLUDED IN DEVELOPMENT CHARGE CALCULATIONS ARE THOSE WHICH WILL OCCUR IN AREAS TO BE SERVICED BY THE CITY OF KELOWNA SEWER UTILITY FOR DISPOSAL THROUGH THE MAIN POLLUTION CONTROL CENTER. (NOT INCLUDING THE TRADE WASTE PLANT.)  
SERVICEABILITY TO BE DETERMINED ON A SITE SPECIFIC BASIS.  
EXISTING LAND USE CONTRACT AREAS WITH IN ANY SECTOR SHOWN ON THIS MAP MAY BE EXEMPT FROM DEVELOPMENT COST CHARGE BY-LAW PROVISIONS.



## Legend

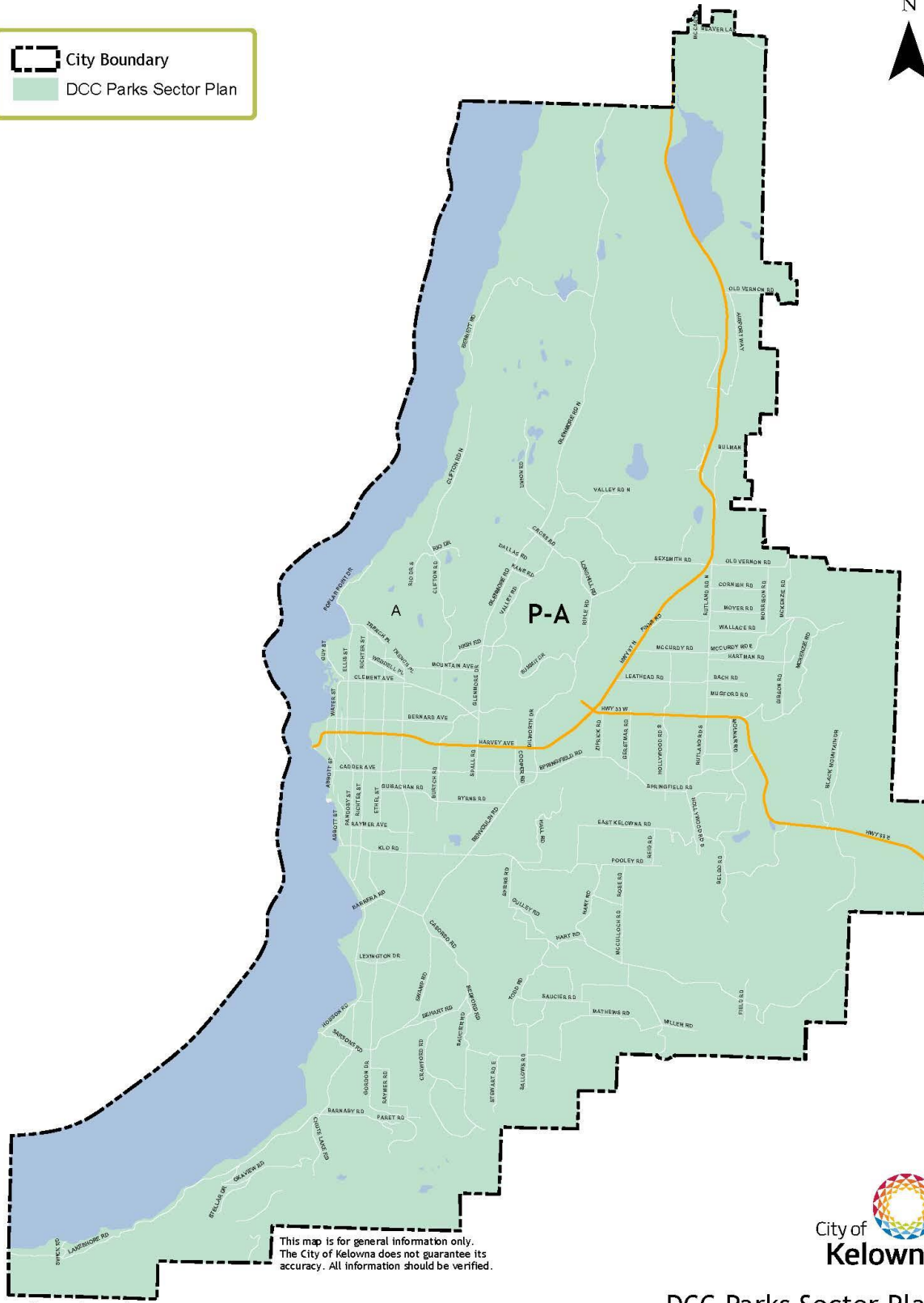
-  City Boundary
-  DCC - Sanitary Treatment

NOTES:  
FOR PURPOSES OF THE DEVELOPMENT COST CHARGE BY-LAW FOR THE SEWAGE TREATMENT/DISPOSAL, THE CORPORATE LIMITS OF THE CITY OF KELOWNA FORM THE AREA BOUNDARY. ALL CONTRIBUTIONS AND EXPENDITURES WILL OCCUR ON THE BASIS OF THE CITY OF KELOWNA BEING ONE GEOGRAPHICAL UNIT. FUTURE DEVELOPMENT AREAS INCLUDED IN DEVELOPMENT COST CHARGE CALCULATIONS ARE THOSE WHICH WILL OCCUR IN AREAS TO BE SERVICED BY THE CITY OF KELOWNA SEWER UTILITY FOR DISPOSAL THROUGH THE MAIN POLLUTION CONTROL CENTER. (NOT INCLUDING THE TRADE WASTE PLANT)  
SERVICEABILITY TO BE DETERMINED ON A SITE SPECIFIC BASIS. EXISTING LAND USE CONTRACT AREAS WITHIN ANY SECTOR SHOWN ON THIS MAP MAY BE EXEMPT FROM DEVELOPMENT COST CHARGE BY-LAW PROVISIONS.





City Boundary  
DCC Parks Sector Plan



DCC Parks Sector Plan