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

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**Date:** June 5, 2007  
**File No.:** A07-0009  
**To:** City Manager  
**From:** Planning & Corporate Services Department  
**Purpose:** To obtain approval from the ALC for a soil deposit under Section 20(3) of the Agricultural Land Commission Act, allowing for an estimated 14,000 m<sup>3</sup> of material to be deposited in order to reclaim a previously excavated area for agricultural use.

**OWNER** Terry and Valerie Scott      **APPLICANT:** Terry and Valerie Scott  
**AT:** 4480 Stewart Road East  
**EXISTING ZONE:** A1 Agriculture 1  
**REPORT PREPARED BY:** Nelson Wight

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**1.0 RECOMMENDATION**

THAT Agricultural Land Reserve Appeal No. A07-0009 for Lot 222, Section 32, Township 29, O.D.Y.D., Plan 1247, located on Stewart Road, Kelowna, B.C. for a soil deposit under Section 20(3) of the Agricultural Land Commission Act, be supported by Municipal Council, subject to the following:

1. The applicants ensure the deposit is completed in compliance with a City of Kelowna issued Soil Deposit Permit;
2. The applicants be required to post a security deposit with the City of Kelowna, guaranteeing that the land be satisfactorily reclaimed for agricultural use.

**2.0 SUMMARY**

There is an open excavation on the subject property, which was undertaken to facilitate a horizontal geothermal application (a more efficient and environmentally friendly heating solution for one or both of the existing residences). The excavated material was previously hauled to another location. The Applicants are requesting permission to return other material, which is more suitable for agricultural production, to replace the soil that was previously excavated. Approximately 14,000 m<sup>3</sup> of soil is required to fill-in the excavated area (approximately 1.5 ha in size), after which approximately 1.0 m of topsoil will be placed on top to enhance the arability of the land.

For additional background, please refer to the information package provided by the Applicant, which is attached to this report.

**3.0 SITE CONTEXT**

The subject property is located in the Southeast Kelowna area of the City, south of the intersection of Saucier Road, Bedford Road, and Stewart Road East.

As noted in the application, existing development consists of two houses, a horse shed, and a shop/wood working structure. The remaining land is seeded to alfalfa for hay production.

An area approximately 1.0 ha in size has been previously excavated for the purpose of installing a geothermal system, and the sand/gravel that was extracted has been relocated elsewhere.

Parcel Size: 4.86 ha (12.01 ac)  
 Elevation: 494 m – 505 m

**BCLI Land Capability**

The unimproved land classification for the subject area is primarily Class 5 (±90%), and Class 4 (±10%). The predominant limiting factor is “soil moisture deficiency”. Through improvements—primarily through irrigation—the improved land capability rating on the majority of the parcel increases to Class 3 (± 90%), with some Class 2 (± 10%) (see attached Land Capability Map copied from map 82E.083).

**Soil Classification**

The soil classification for the subject property includes the following:

%	Soil Type	Description
35%	GM - Gammil	<u>Land</u> : very gently to extremely sloping fluvioglacial deposits. <u>Texture</u> : 10 to 25 cm of sandy loam or loamy sand over very gravely loamy sand or very gravely sand. <u>Drainage</u> : rapid.
15%	PE - Paradise	<u>Land</u> : nearly level to very steeply sloping fluvioglacial deposits. <u>Texture</u> : 25 to 60 cm of sandy loam or loamy sand over gravely loamy sand or very gravely sand. <u>Drainage</u> : rapid.
35%	PR – Parkhill	<u>Land</u> : very gently to strongly sloping fluvioglacial deposits. <u>Texture</u> : 100 cm or more of loamy sand or sand. <u>Drainage</u> : rapid.
15	TC – Trout Creek	<u>Land</u> : nearly level to extremely sloping fluvioglacial deposits. <u>Texture</u> : 60 cm to 100 cm of sandy loam or loamy sand over gravely loamy sand. <u>Drainage</u> : well to rapid.

**Zoning of Adjacent Property**

North        A1 – Agriculture 1  
 East         A1 – Agriculture 1  
               RR3 – Rural Residential 3  
 South        A1 – Agriculture 1  
 West         A1 – Agriculture 1

**4.0 POLICY AND REGULATION**

**4.1.1 Kelowna 2020 – Official Community Plan**

**Policy 10.1.7 Gravel Extraction in ALR** – Seek the co-operation of the appropriate provincial ministry or agency with respect to allowing, where necessary, sand and gravel extraction to take place on lands within the Agricultural Land Reserve;

**Policy 10.1.8 Rehabilitation** – Co-operate with the appropriate provincial ministry or agency to ensure the rehabilitation of depleted sand and gravel extraction areas;

**Policy 10.1.27 Extraction Outside the ALR** – Utilize gravel resources outside the Agricultural Land Reserve (ALR), whenever possible, prior to seeking sources within the ALR;

**Policy 10.1.28 Impact of Extraction** – Continue to require sand and gravel extraction to be conducted in a manner which limits impact on neighbouring properties by controlling: hours of operation, dispersion of dust, screening and access;

## 5.0 PLANNING AND DEVELOPMENT SERVICES COMMENTS

The Agrologist's Report submitted with this application indicates that there is an intention to return soil excavated from the Mission Sports Complex, which consists of "sandy to silty materials containing variable amounts of organic material and are calcareous", and that these materials appear suitable as backfill. The report further details a "best practices" approach to placement of the material and concludes that:

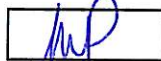
"The proposed reclamation/restoration plan should return the site to agricultural land capabilities that are at least equivalent to those that existed originally and are likely to exceed these expectations."

Given (a) the history of aggregate extraction, which compromised the lands agricultural potential, and (b) the Applicant's intention to reclaim the land for agricultural use, Staff considers that this soil deposit application should be supported. If done properly, the reclamation work should enhance the agricultural viability of this parcel. This support, however, would depend upon the Applicant meeting the following conditions:

3. Ensure the deposit was done in compliance to a City of Kelowna issued Soil Deposit Permit.
4. Posting of a bond to ensure that the land is reclaimed to a condition suitable for agricultural cropping.

  
R. G. Shaughnessy  
Subdivision Approving Officer

Approved for inclusion



Mary Pynenburg, MRAIC MCIP  
Director of Planning & Development Services

NW/nw

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### **ATTACHMENTS (14 pages)**

Subject Property Map

ALR Map

Land Capability Map

Soil Classification Map


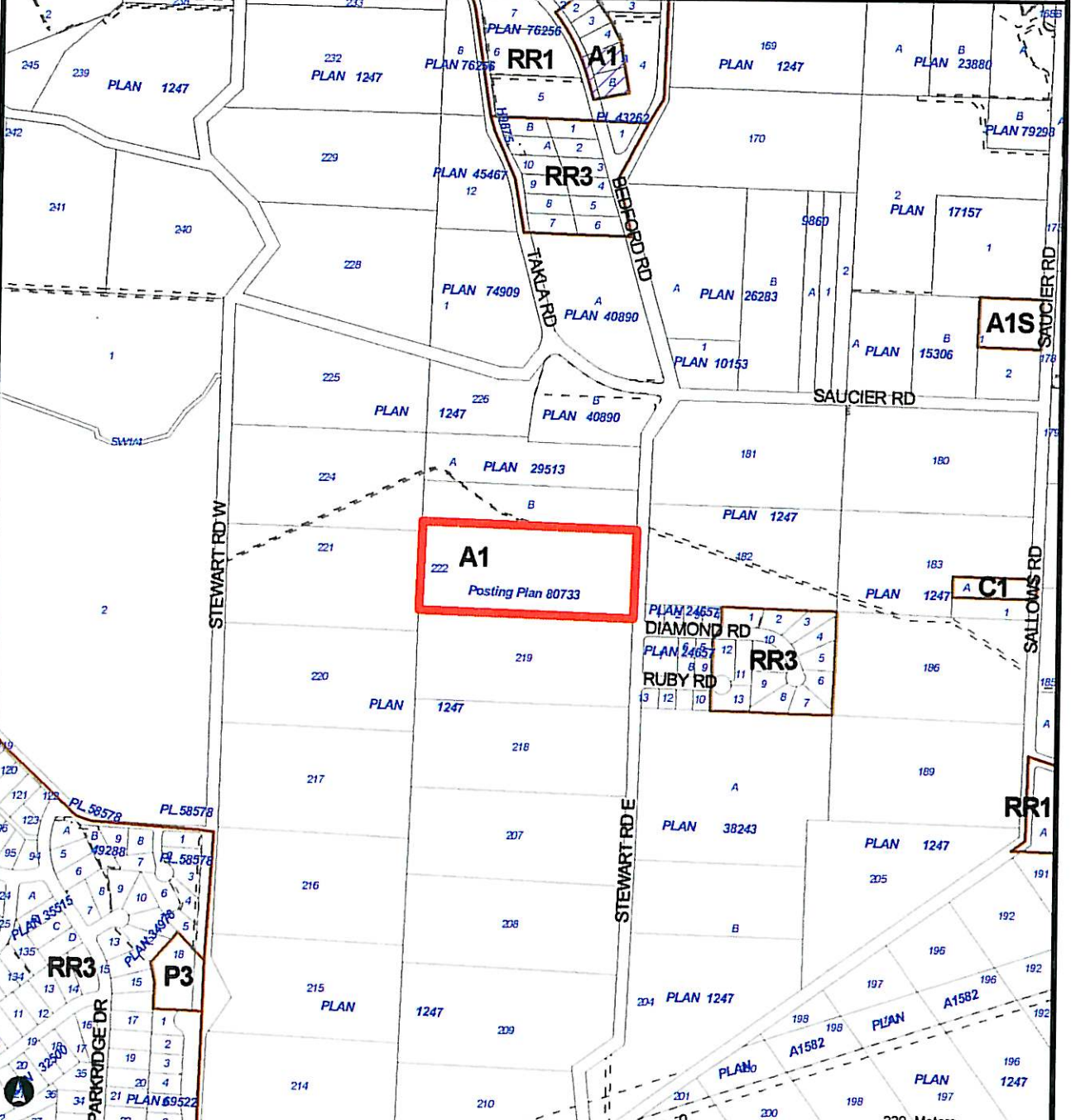
Additional Information from Applicant

1. Letter from ALC, dated March 19, 2007
2. Application Form (2 pages)
3. Agrologist's Report (2 pages)
4. Maps/Drawings Showing Excavation (4 pages)
5. Air Photo

**A07-0009**

**4480 STEWART ROAD E**

Subject Property

City of Kelowna - Accuracy and correctness not guaranteed.

Map: 1,693 x 1,826 m -- Scale 1:10,000

2007-05-02

*Certain layers such as lots, zoning and dp areas are updated bi-weekly. This map is for general information only. The City of Kelowna does not guarantee its accuracy. All information should be verified.*





**Agricultural Land Commission**  
133-4940 Canada Way  
Burnaby, British Columbia V5G 4K6  
Tel: 604-660-7000  
Fax: 604-660-7033  
www.alc.gov.bc.ca

March 19, 2007

Reply to the attention of Gordon Bednard

Terry Scott and Associates (Canada) Ltd.  
#9, 3151 Lakeshore Road  
Kelowna, BC V1W 3S9

Dear Sir/Madam:

Re: Our Application 320-30/KELO/SCOTT  
4480 Stewart Road, Kelowna

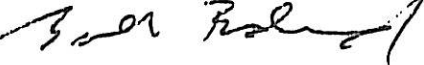
This is to acknowledge your letter and application dated March 13, 2007. Under the Agricultural Land Commission Act applications for non-farm use of lands within the Agricultural Land Reserve must be sent directly to the Regional District of Central Okanagan, 1450 KLO Road, Kelowna, BC, V1W 3P6.

In the case of your application the required fee is \$600.00 (GST is not required). A cheque or money order in this amount, made payable to Regional District is to be included with your application.

The Commission will consider your application when it has been forwarded by the local authority with their comments and recommendations.

Yours truly,

PROVINCIAL AGRICULTURAL LAND COMMISSION

per: 

Erik Karlsen, Chair

GB/eg  
i/320-30/KELO/SCOTT

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H.A. Luttmerding, P.Ag.  
Specialist in Land Inventory,  
Interpretation and Use

1190 Thompson Road  
Kelowna, British Columbia  
Canada, V1X 1C7

Phone: (250) 861-5407  
email: hluttmer@telus.net

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February 13, 2007

Terry and Valerie Scott  
Scott 5 Farms Ltd.  
#9 - 3151 Lakeshore Road  
Kelowna, BC V1W 3S9

ATTN: Darren Schamuhn

Dear Mr. and Mrs. Scott,

RECEIVED  
PROV. AGRICULTURAL  
LAND COMMISSION MAR 16 2007

**RE: Reclamation/Restoration of Geothermal Site at 4480 Stewart Road E.,  
Kelowna, BC. ALC File #G-37028**

As requested, the following outlines a proposed method of restoring the agricultural capability and suitability of the geothermal excavation on the above property. About 13 000 cubic m of gravel and sand were excavated to a depth of about 4 m and removed from the property. The removed soils had surface textures of sandy loam or loamy sand (sometimes gravelly) in the upper layers and then graded to mostly gravelly sand in the subsoil. The soils were rapidly to well drained and had improved (irrigated) land capability for agriculture ratings of Class (3A) or (3AP).

Restoration of the site, after the geothermal piping has been installed, begins with back filling of the excavation with appropriate soil material. The material should be free of construction waste and debris (eg. concrete, wood), toxic contaminants (eg. hydrocarbons), be non-saline and permeable and at least equivalent in quality to the materials that were originally excavated and removed.

I understand that a potential source of backfill material is the City of Kelowna's Mission Sports Complex where a portion of the site has been preloaded for eventual construction of an aquatic complex. The preload materials were partially derived on-site and consist of sandy to silty materials containing variable amounts of organic material and are calcareous. These materials appear suitable as backfill although care should be taken to prevent undue compaction during placement to minimize restriction of perviousness and water permeability. The calcareous nature of these materials should have limited effect on agricultural uses since a surface capping of non-calcareous 'topsoil' is suggested as well.

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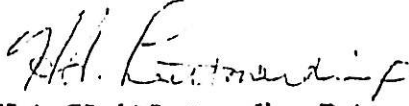
The topsoil capping, about 75 cm deep, should consist of sandy loam to silt loam textured, non-saline soils which have few coarse fragments (ie. gravels, cobbles, stones) and near-neutral pH. Organic matter contents of about 5 % are satisfactory and, of course, toxic contaminants should not be present. The topsoil should be evenly distributed over the backfilled area in a fashion which minimizes compaction (ie. heavy equipment traffic) and undertaken when the site and topsoil are relatively dry. A gentle convex final surface to the filled area may be beneficial to accommodate ongoing settling that may occur over time.

After the backfilling and topsoil addition to the excavation is complete, the areas adjacent which may have been compacted by heavy equipment should be loosened with a cultivator to at least 50 cm depth. The site is then ready for planting. At a minimum a forage/pasture crop should be planted in timely fashion to minimize weed infestation.

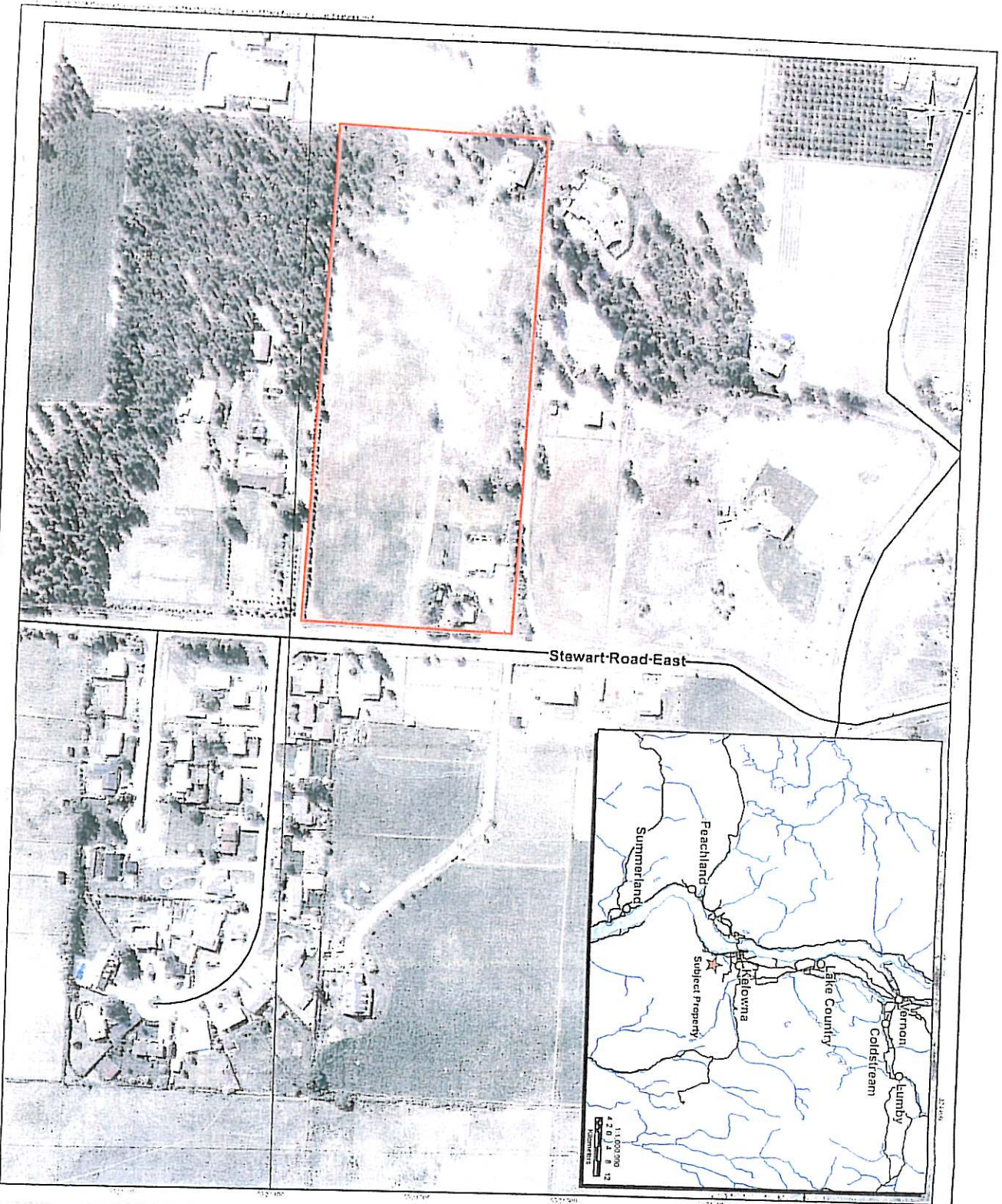
The proposed reclamation/restoration plan should return the site to agricultural land capabilities that are at least equivalent to those that existed originally and are likely to exceed these expectations.

If any of the preceding is unclear or requires further detail please contact me at (250) 861-5407.

Yours truly,

  
H.A. (Herb) Luttmerding, P.Ag.  
Soils/Terrain Specialist





**LEGEND**

Subject Property

Streets

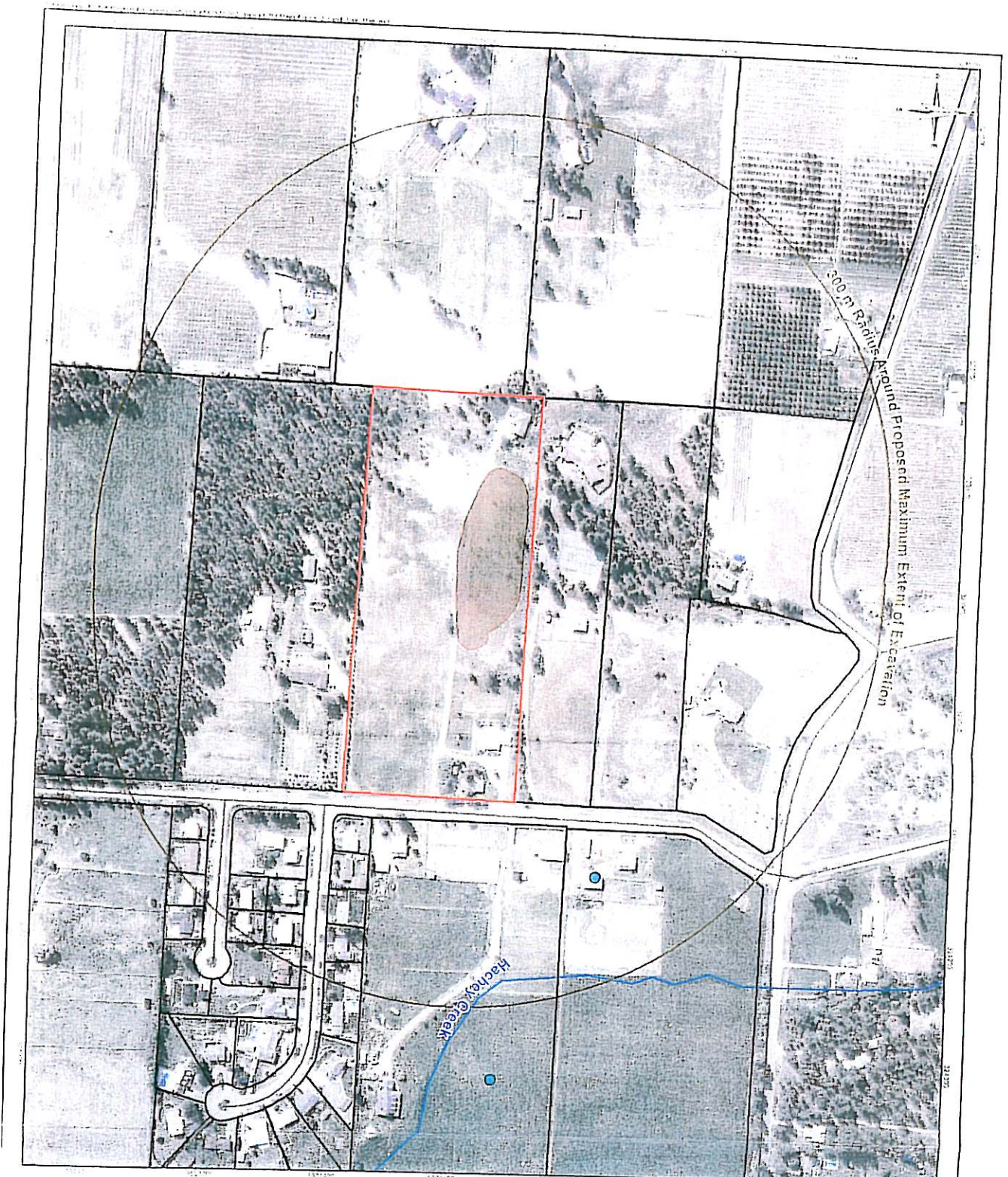
**GRAVEL EXTRADITION - SCOTT PROPERTY AT 440 STEWART ROAD E, KELOWNA BC**

Schedule A2  
Local Features Map

UTM Zone 11  
Scale 1:2500  
Figure 2: Local Features Map  
February 21, 2009  
Figure 2

**Basic data sources:**  
Orthorectified (DOM) satellite imagery for use by the City of Kelowna  
Property boundary adapted from survey by T.E. Ferguson and Surveying Ltd  
Map shown on the Kelowna web page: <http://www.city.kelowna.bc.ca/CIIP/2003/2003.asp>

**Disclaimer:**  
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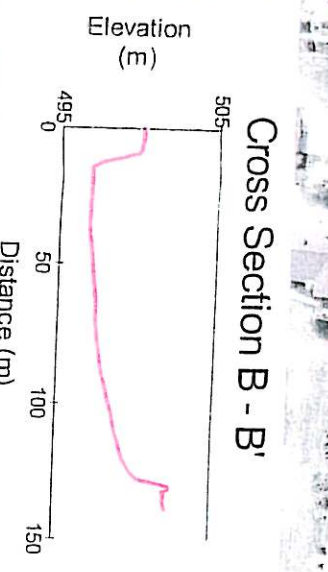
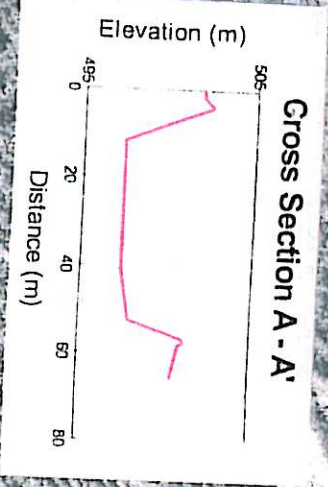
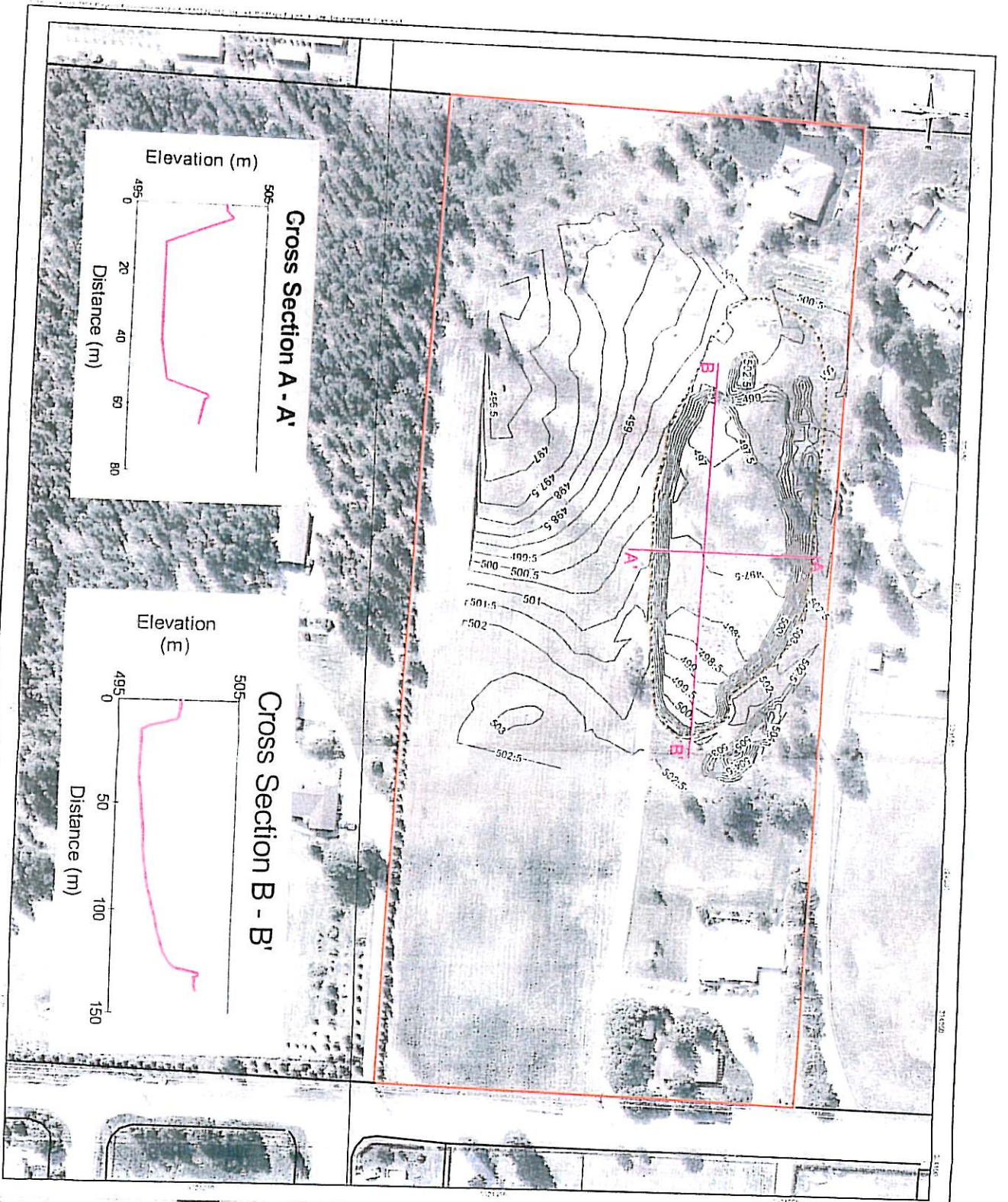
- LEGEND**
- Water Well
  - Watercourse
  - Subject Property
  - Lot Boundaries
  - Streets
  - Proposed Maximum Extent of Excavation

**DATA SOURCES:**  
 OrthoPhoto (2010) authorized for use by the City of Kelowna  
 Property boundary data derived from survey by T.E. Bergman Land Surveying Ltd and used by the City of Kelowna  
<http://www.city.kelowna.bc.ca/CIP/Project318.htm>  
 Proposed maximum extent of excavation was determined from a survey from Hyper Computation and dimensions from the aerial  
 Water well locations obtained from BC Water Resources Act web mapping Distribution  
 The information provided on this map has been compiled by EBA from a variety of sources and is subject to change. It is not intended to be used as a substitute for a professional survey. EBA is not responsible for any errors, omissions or for any use of this information. EBA will not be liable for any general, special, or consequential damages, including but not limited to, lost revenue or lost profits resulting from the use of this information. EBA will not be liable for any use of this information. Any use of this map or information on this map is at the user's own risk.

**GRAVEL EXTRACTION - SCOTT PROPERTY AT 4480 STEWART ROAD E, KELOWNA, BC**

**Schedule A3  
 Land Use Plan**

Scale: 1:3750  
 Date: 13/03/07  
 Project: 3  
 Date: February 21, 2007  
 Figure 3



**LEGEND**

- Subject Property
- Property Boundaries
- Contours (m)
- Proposed Maximum Extent of Excavation

**DATA SOURCES:**  
 OrthoData (2003) annotated for use by the City of Kelowna.  
 Property boundaries obtained from survey by T. E. Brington Land Surveying Ltd and used at the City of Kelowna's discretion.  
 Highways (grey) viewed as calculated right-of-way.

**CONTOUR DATA PROVIDED BY: HAYLER CONSTRUCTION**

**DISTANCE:**  
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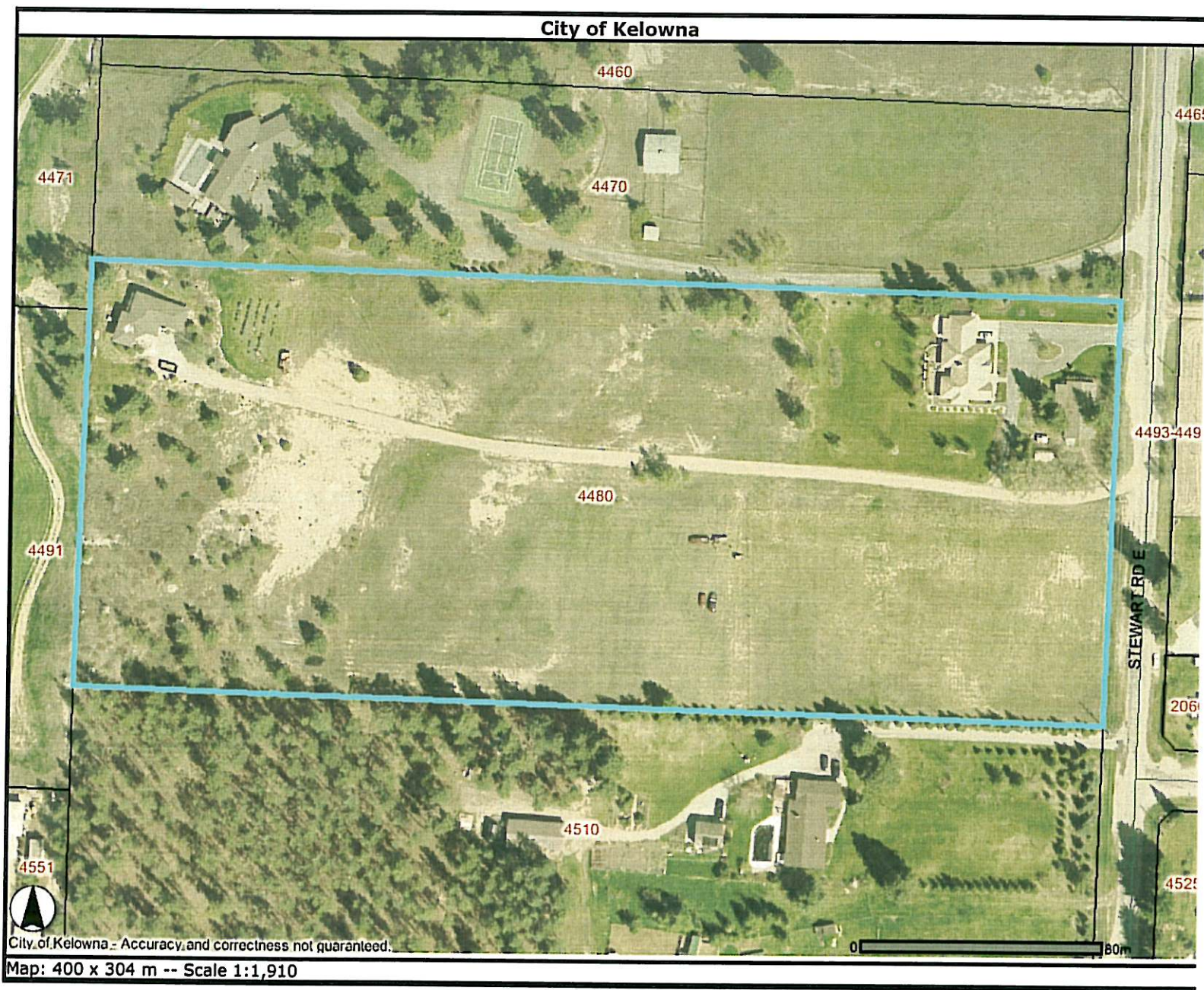
**GRAVEL EXTRACTION - SCOTT PROPERTY/AT 4480 STEWART ROAD E, KELOWNA, BC**

**Schedule A5**  
**Site Development Plan**

UPM Zone 11  
 Scale: 1:1250  
 UTM Zone 11  
 10 5 0 5 10 15 20 25

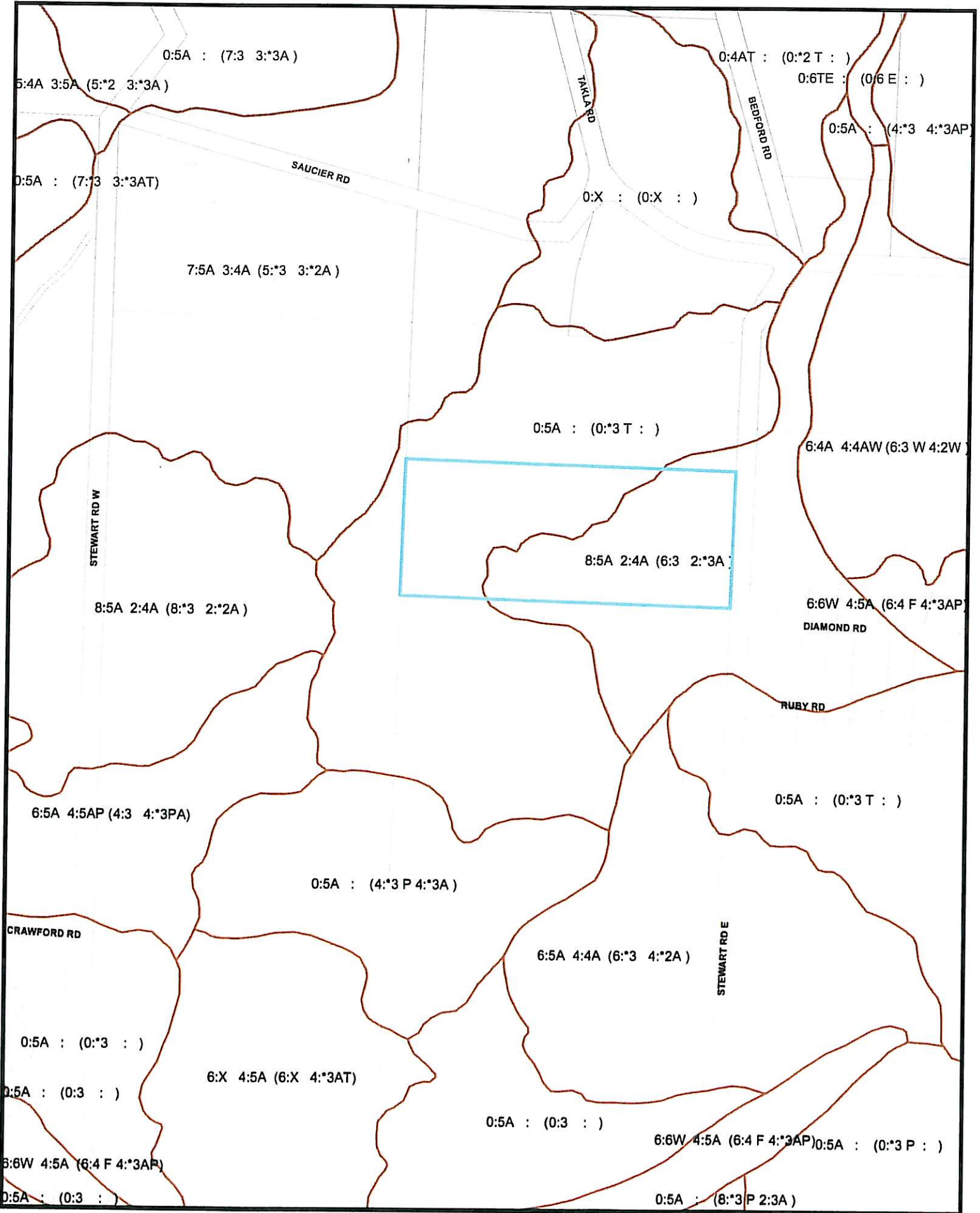
Figure 4: Site Development Plan  
 February 27, 2007

Figure 4



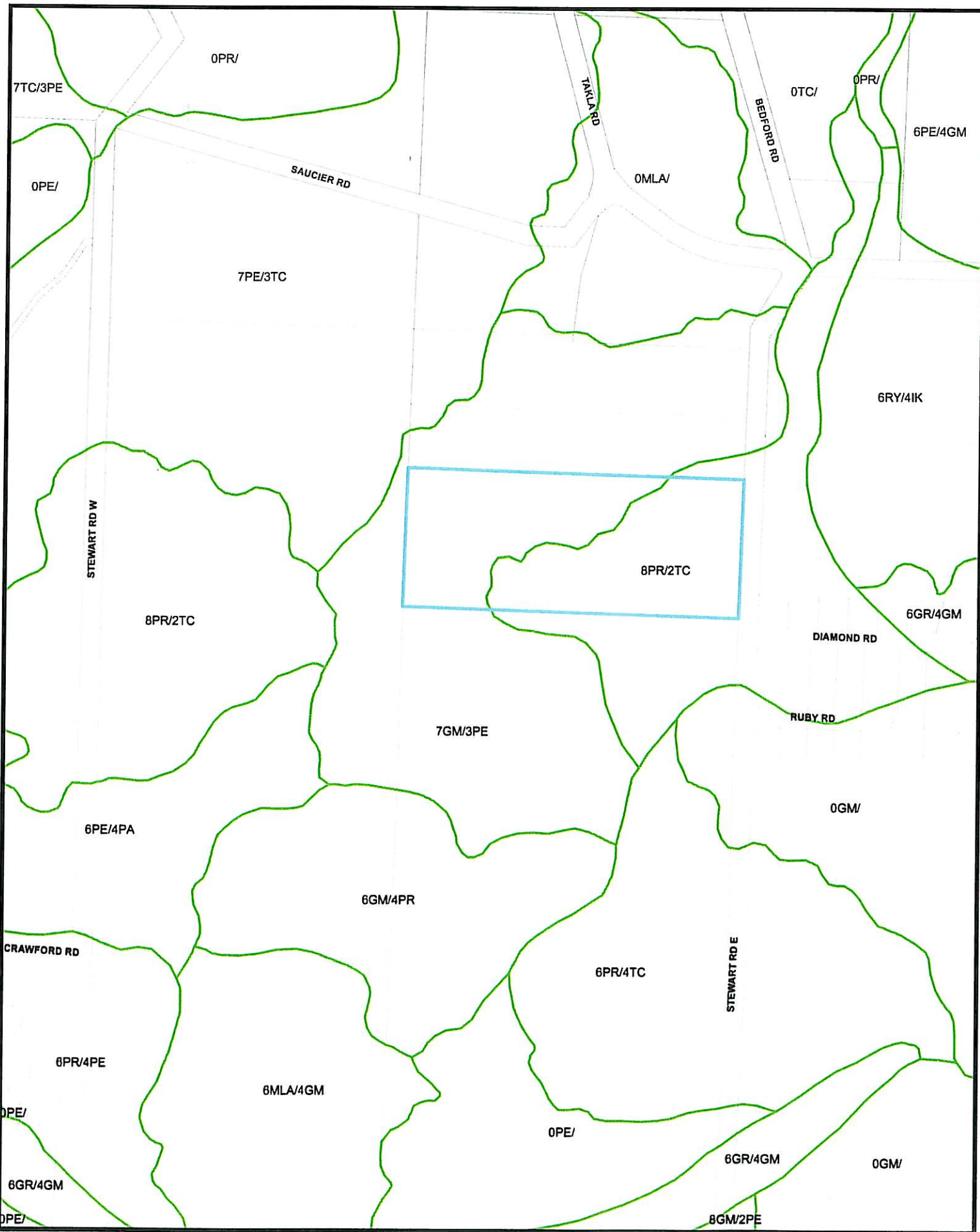
*This map is for general information only. The City of Kelowna does not guarantee its accuracy. All information should be verified.*

# Land Capability = Brown/ Soil Class = Green



1:5,000

Land Capability = Brown/ Soil Class = Green



1:5,000