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CITY OF KELOWNA  
**MEMORANDUM**

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**Date:** December 2, 2008

**To:** City Manager

**From:** Community Sustainability Division

**APPLICATION NO.** DVP07-0100      **OWNER:** Anthony Otto

**AT:** 1415-1417 Edgewood Dr      **APPLICANT:** Anthony Otto

**PURPOSE:** To vary the height of a retaining wall from 1.2 m required to 5 m proposed and to vary the combined height of a retaining wall and fence from 2.0 m to 5.2 m

**EXISTING ZONE:** RU6 – Two Dwelling Housing

**REPORT PREPARED BY:** Carlie Ferguson

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**1.0 RECOMMENDATION**

THAT Council authorize the issuance of Development Variance Permit No. DVP07-0100 for Lot 1, District Lot 137, Osoyoos Division Yale District, Plan KAP81211 located at 1415-1417 Edgewood Dr, Kelowna, B.C.

AND THAT variances to the following sections of Zoning Bylaw No. 8000 be granted:

Section 7.5.9 Fencing and Retaining Walls – Retaining Wall Height  
Vary the retaining wall height from 1.2 m required to 5 m proposed

Section 7.5.11 Fencing and Retaining Walls – Retaining Wall Height  
Vary the combined retaining wall and fence height from 2.0 m required to 5.2 m proposed

**2.0 SUMMARY**

**2.1 The Proposal**

The applicant is proposing to construct two single family dwellings on the property. Given topographical constraints a retaining wall is required in order to accommodate the proposed dwellings on the site. The applicant is proposing to construct an over height retaining wall along the north and west sides of the property. The proposed retaining wall reaches a maximum height of 5.0 m in the northwest corner and tapers off to 0 m along both the north and west side yard lines. The proposed retaining wall is required in order to maximize the required open space component for the two proposed dwellings and to prevent the yard from falling into adjacent properties. The applicant also

proposes a 1.2 m chain link fence along the north and west sides of the property above the retaining wall. Site limitations prohibit alternatives to step the retaining wall down and therefore a variance is needed prior issuance of a direct Development Permit and corresponding Building Permit.

The application meets the development regulations of the RU6 – Two Dwelling Housing zone as follows:

| Zoning Bylaw No. 8000                  |                     |                                       |
|--|---------------------|---------------------------------------|
| CRITERIA                               | PROPOSAL            | RU6 ZONE REQUIREMENTS (TWO DWELLINGS) |
| <b>Subdivision Regulations</b>         |                     |                                       |
| Lot Area                               | 1241 m <sup>2</sup> | 700 m <sup>2</sup>                    |
| Lot Width                              | 6 m <sup>A</sup>    | 18.0 m                                |
| Lot Depth                              | 57.14 m             | 30.0 m                                |
| <b>Development Regulations</b>         |                     |                                       |
| Site Coverage (buildings)              | 33%                 | 40%                                   |
| Site Coverage (buildings/parking)      | 49%                 | 50%                                   |
| <b>Proposed Dwelling (Left House)</b>  |                     |                                       |
| Height                                 | 1 storey / 4.1 m    | 2 ½ storeys / 9.5 m                   |
| Front Yard                             | 27.3 m              | 6.0 m to a garage                     |
| Side Yard (w)                          | 2.0 m               | 2.0 m (1 - 1 ½ storey)                |
| Side Yard (e)                          | 19.8 m              | 2.0 m (1 - 1 ½ storey)                |
| Rear Yard                              | 8 m                 | 6.0 m (1 – 1 ½ storey)                |
| <b>Proposed Dwelling (Right House)</b> |                     |                                       |
| Height                                 | 1 storey / 4.1 m    | 2 ½ storeys / 9.5 m                   |
| Front Yard                             | 34.7 m              | 6.0 m to a garage                     |
| Side Yard (w)                          | 16.1 m              | 2.0 m (1 - 1 ½ storey)                |
| Side Yard (e)                          | 2.0 m               | 2.0 m (1 - 1 ½ storey)                |
| Separation Between Houses              | 4.5 m               | 4.5 m                                 |
| <b>Other Requirements</b>              |                     |                                       |
| Parking Stalls (#)                     | 4 spaces            | 4 spaces                              |
| Private Open Space                     | meets requirements  | 30 m <sup>2</sup> per dwelling        |

<sup>A</sup> The Subdivision Approving Officer, acting pursuant to Section 944(3) of the Municipal Act, has granted an exemption for the subject property from the minimum frontage requirements (Subdivision File # S03-0104).

## 2.2 Site Context

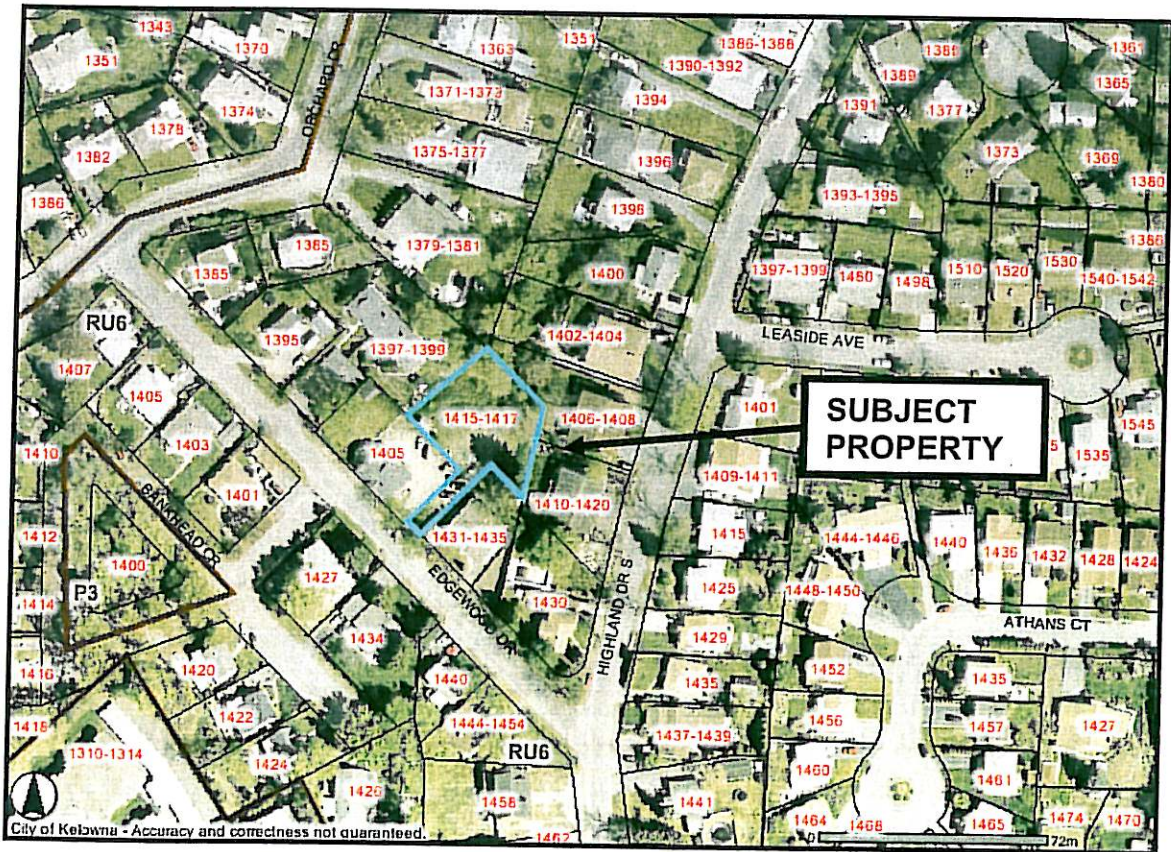
The subject property is located on the north side of Edgewood Dr between Highland Dr S and Orchard Dr. The surrounding neighbourhood is predominately developed with

single detached or semi-detached residential housing on large lots. More specifically the adjacent zones and uses are:

- North - RU6 – Two Dwelling Housing
- East - RU6 – Two Dwelling Housing
- South - RU6 – Two Dwelling Housing
- West - RU6 – Two Dwelling Housing

2.3 Site Location Map

1415-1417 Edgewood Dr



3.0 **TECHNICAL COMMENTS**

3.1 Fire Department

Driveway access must be at least 14 feet clear width. Addresses are to be posted and visible at the street.

3.2 Parks Department

The City of Kelowna Boulevard Maintenance By-Law No. 5708-84 requires the residents to be responsible to weed, water and mow the boulevards adjacent to their properties. They will also be responsible for maintaining the boulevard in a reasonably tidy condition, free and clear of garbage, litter or debris.



3.3 Works & Utilities Department

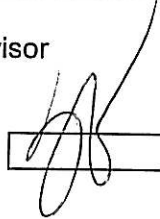
See comments attached.

4.0 **LAND USE MANAGEMENT DEPARTMENT COMMENTS**

The visibility of the proposed retaining wall and fence is anticipated to be minimal considering the configuration of the subject property and the surrounding properties. The adjacent properties are either panhandles or irregularly shaped and have a significant amount of mature vegetation directly adjacent to the subject property and the proposed retaining wall, limiting visibility of the retaining wall. All affected neighbours have provided their consent in writing with regards to the proposed variance. Given the lot configuration which was approved as part of a previous subdivision application in 2003, staff recognize that the proposed over height retaining wall is necessary in order to develop the lot to its maximum potential (two dwelling housing as per the RU6 zoning).



Danielle Noble  
Urban Land Use Supervisor

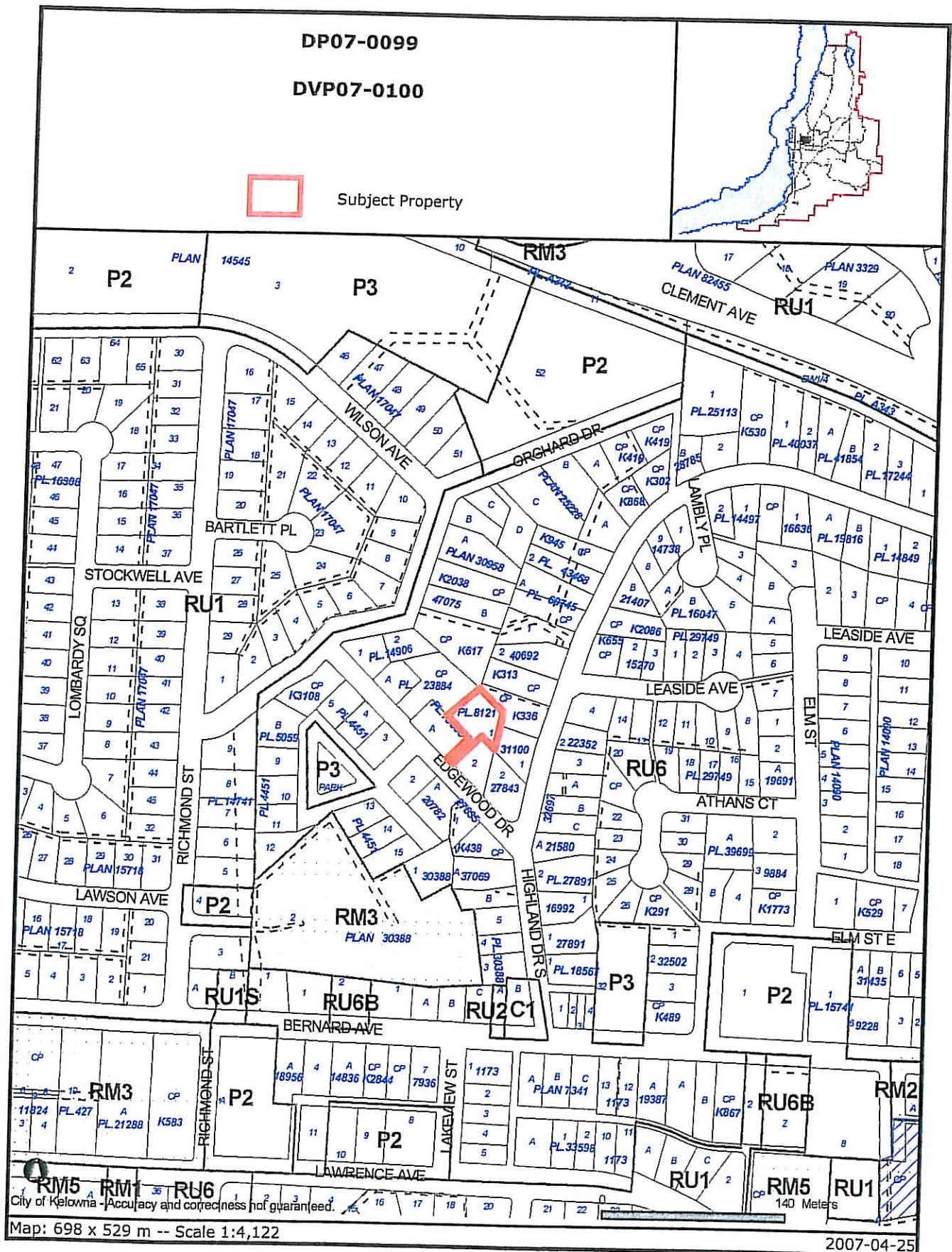


Shelley Gambacort  
Director, Land Use Management

DN/SG/cf

**Attachments**

Location Map  
Site Plan  
Engineered Drawings  
Photographs  
Works & Utilities Comments



City of Kelowna - Accuracy and correctness not guaranteed.

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.

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

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**Date:** November 28, 2008  
**File No.:** DP07-0099 DVP07-0100  
**To:** Planning & Development Services Department (CF)  
**From:** Development Engineering Manager **Revised Comments**  
**Subject:** Edgewood Dr 1415-1417 Lot 1 Plan 81211

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The Works & Utilities Department has the following requirements associated with these applications.

Works and Utilities requirements for this development site were addressed in our report under file S03-0104

The requirements for a geotechnical report were differed to the development permit stage.

The Geotechnical reports have been submitted to the Planning and Development Services Department (Planning & Development Officer) for distribution to the Works & Utilities Department and Inspection Services Division.

The requested variance to reduce the lot frontage width from 18.0m to 6.00, does not compromise Works and Utilities servicing requirements.

The requested variance to increase the proposed rear lot retaining wall height (maximum 1.2m to 6.75m proposed), does not compromise Works and Utilities servicing requirements.

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Steve Muenz, P. Eng.  
Development Engineering Manager  
JF



**CONSTRUCTION NOTES FOR LOCK BLOCK WALLS**

**A. Ground Preparation and Backfill Materials**

A.1. The base of the excavation shall be cleaned of all loose material. The base should consist of compacted granular material or prepared as directed by the geotechnical engineer representing the owner.

A.2. Backfill material placed in the reinforced zone shall consist of site soils having at least the friction angle specified in Table 1.

A.3. Backfill material must be placed and compacted in lifts not exceeding 250 mm.

A.4. Backfill material placed in the reinforced zone shall be compacted to minimum of 98% of Standard Proctor Density (ASTM D698), and 95% Standard Proctor Density (ASTM D1557) within 1.0 m of wall face.

**B. Placement of Tensar Geogrids**

B.1. Geogrid reinforcement should be Tensar Uniaxial (geogrid manufactured by the Tensar Corporation).

B.2. Tensar geogrid lengths specified on the design drawings shall be placed at the locations and elevations shown on the design drawings.

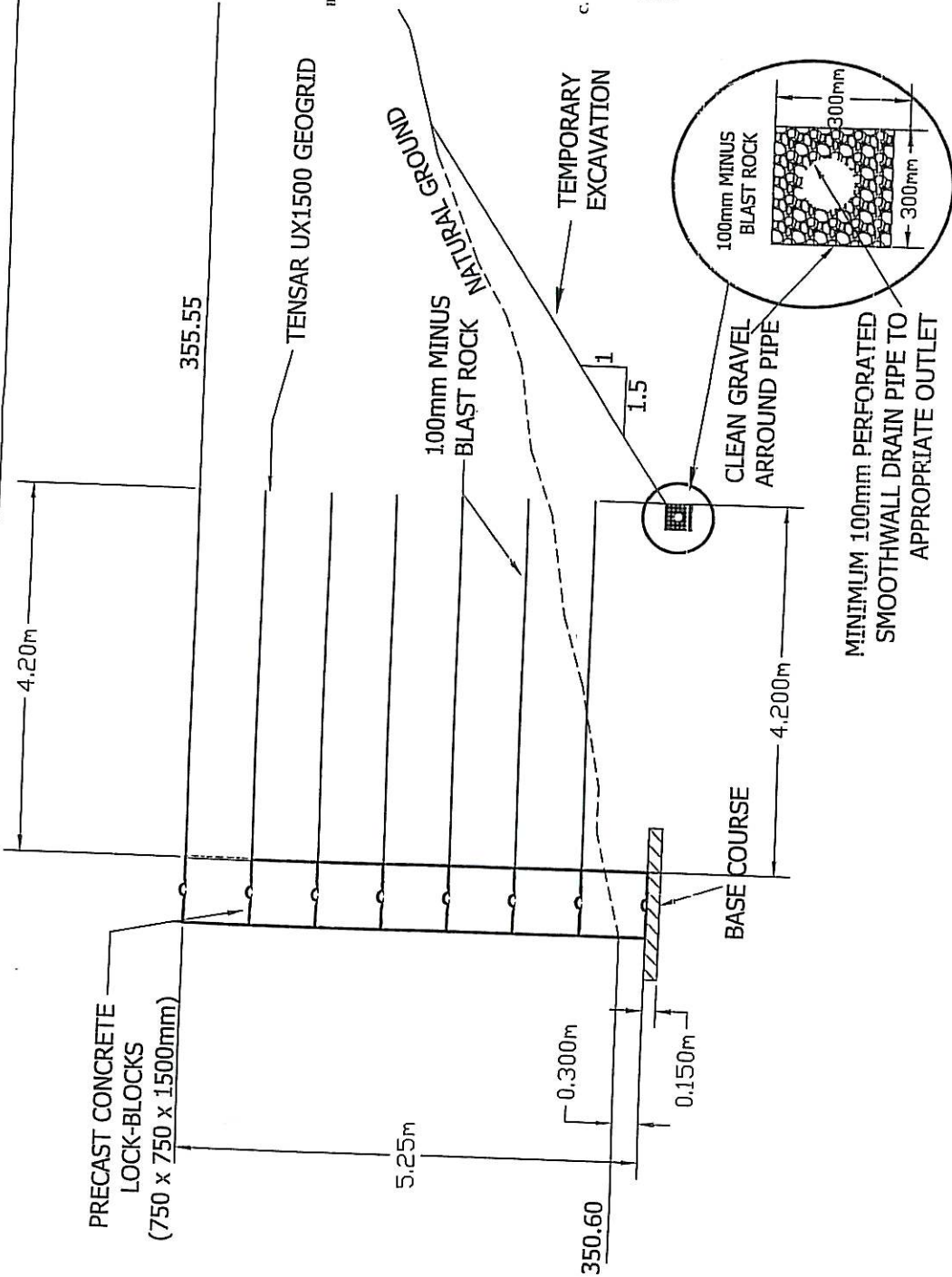
B.3. No changes shall be made in the length or type of Tensar geogrids, without the written consent of the design engineer.

B.4. The lengths of the geogrids are measured from the front face of the form.

B.5. Tensar geogrid reinforcement shall be continuous throughout the embedment lengths, and splicing is not allowed.

**C. Drainage**

C.1. The reinforced soil structure has been designed on the basis that the reinforced backfill material shall be free of ponding water, seepage, and subsurface water. The design, collection and diversion of ponding water, seepage and subsurface water shall be the responsibility of others.



Tony Olio Subdivision

TYPICAL CROSS SECTION-1  
LOCK BLOCK WALL

|             |          |       |              |
|-------------|----------|-------|--------------|
| PROJECT NO. | 1800000  | DATE  | APR 27, 2007 |
| CD          | CC       | REV   | 2            |
| DATE        | 04/27/07 | BY    | GU           |
| PROJECT     | WELDONIA | SCALE |              |

EBA Engineering Consultants Ltd.



Tony Olio

Figure 2

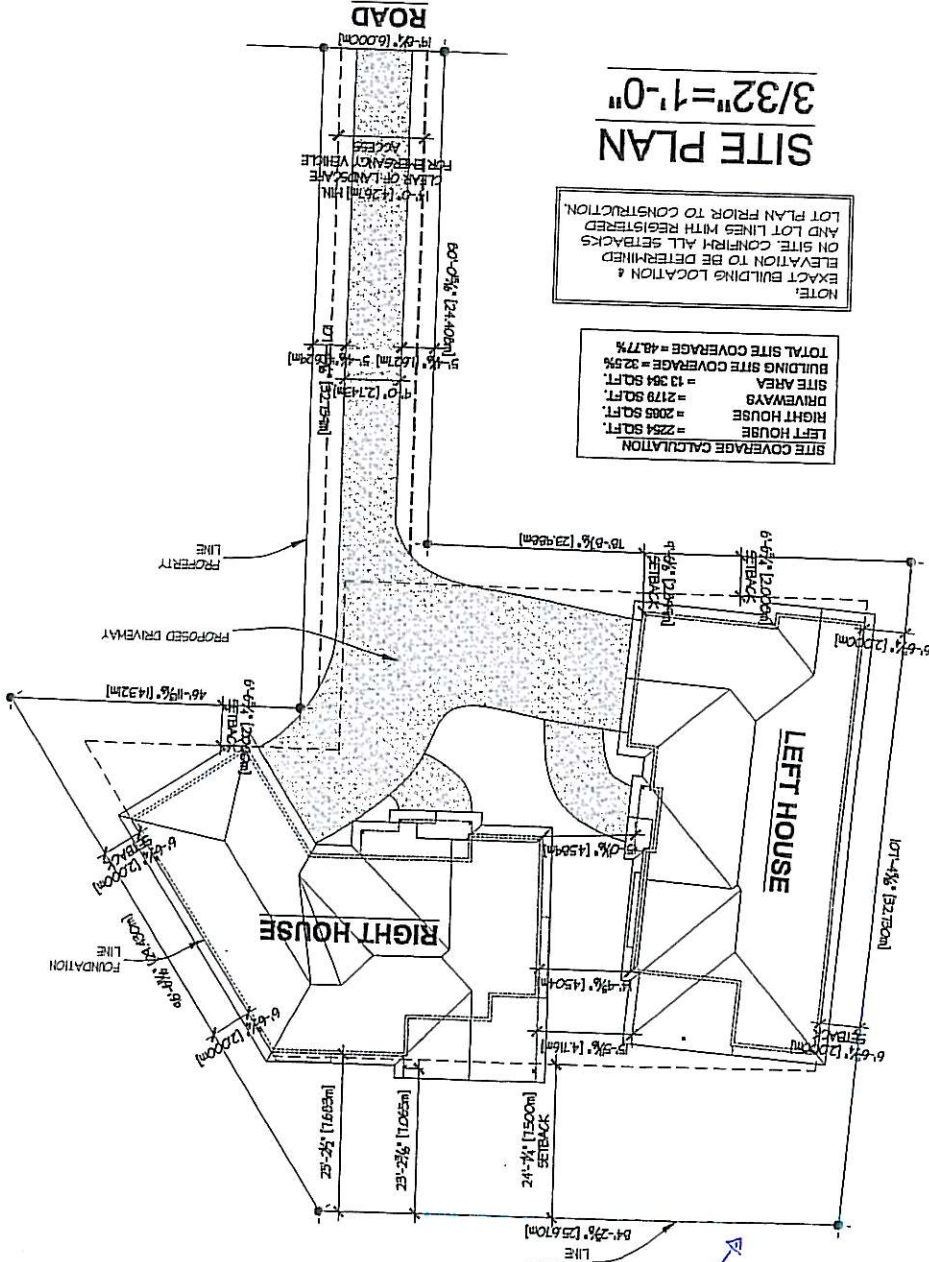
REVISED PLANS

SITE PLAN  
3/32"=1'-0"

NOTE:  
EXACT BUILDING LOCATION &  
ELEVATION TO BE DETERMINED  
ON SITE. CONFIRM ALL SETBACKS  
AND LOT LINES WITH REGISTERED  
LOT PLAN PRIOR TO CONSTRUCTION.

SITE COVERAGE CALCULATION

|                        |                |
|------------------------|----------------|
| LEFT HOUSE             | = 2254 SQ.FT.  |
| RIGHT HOUSE            | = 2085 SQ.FT.  |
| DRIVWAYS               | = 2179 SQ.FT.  |
| SITE AREA              | = 13364 SQ.FT. |
| BUILDING SITE COVERAGE | = 32.5%        |
| TOTAL SITE COVERAGE    | = 48.77%       |



*concrete retaining wall*

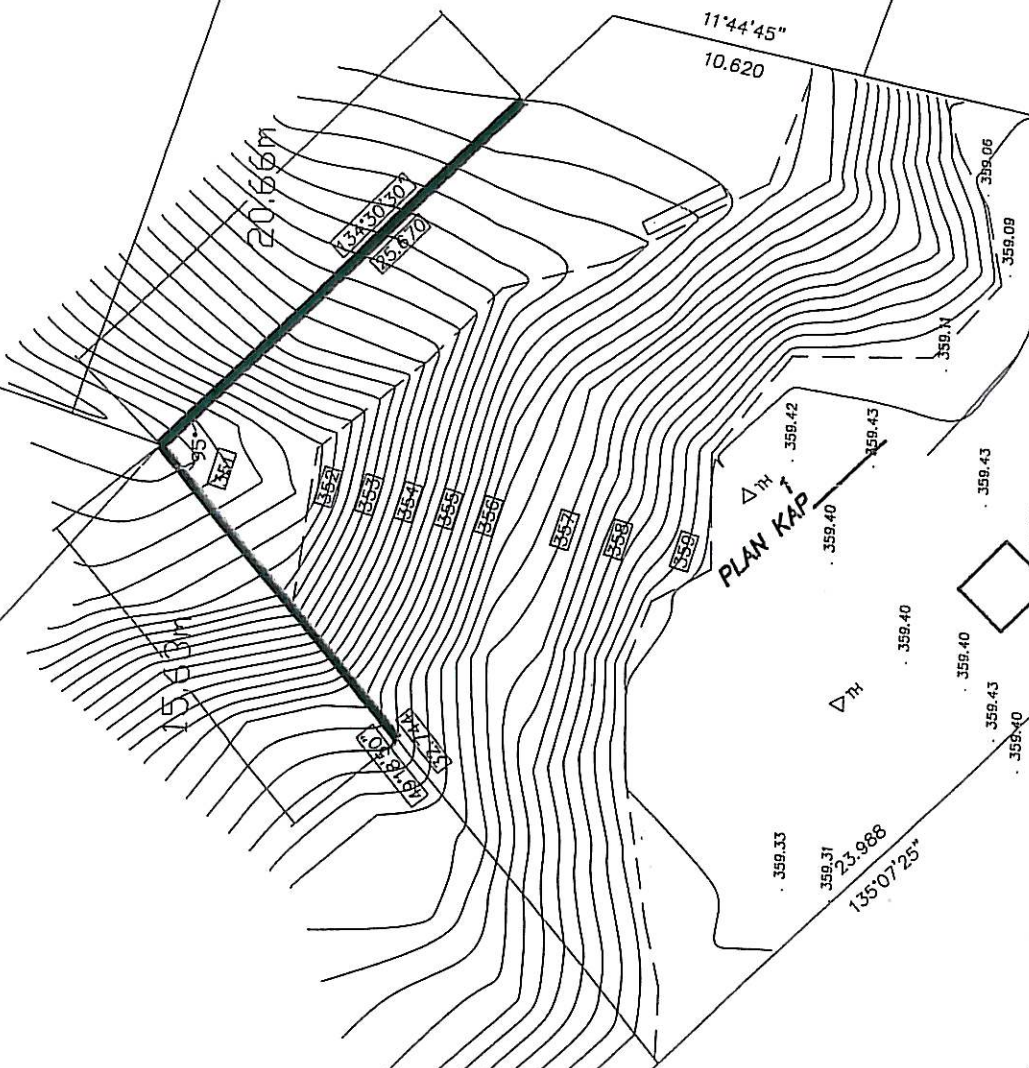


STRATA PLAN K313

STRATA PLAN K336

STRATA PLAN K684

PLAN KAP78683



Tony Olio Subdivision

PLAN VIEW

Tony Olio

PROJECT NO: BRD00303  
 DATE: 27/04/07  
 OFFICE: KELOWNA



EBA Engineering  
 Consultants Ltd.



| Physical Features  |              | Electric Code, volt | Wind in Cycle          |
|--------------------|--------------|---------------------|------------------------|
| Recessed Rim Light | 30.0 Degrees | 0 kPa               | 20.6 kN/m <sup>2</sup> |
| Roof/Soff          | 32.0 Degrees | 0 kPa               | 20.4 kN/m <sup>2</sup> |
| Foundation Soil    | 32.0 Degrees | 0 kPa               | 20.4 kN/m <sup>2</sup> |

Design parameters  
 -Design of the reinforced soil structure is based on the following geotechnical parameters.  
 -The design is based on 10 kPa dead load surcharge.

Figure 1

View of northwest corner of property where retaining wall will reach maximum height.



View from northern edge of property where retaining wall is to be located looking south towards proposed building site



View of northern edge of property

