
CITY OF KELOWNA

MEMORANDUM

Date: September 27, 2016
File No.: Z16-0055
To: Community Planning (TY)
From: Development Engineering Technologist (SS)
Subject: 1940 KLO Road

A1 to RU5

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.

.1) Domestic Water and Fire Protection

- a) The development site is presently serviced with a 19-mm 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.
- b) The applicant, at his cost, will arrange for the removal of the existing service and the installation of one new larger metered water service. The estimated cost of this construction for bonding purposes is **\$10,000.00**.
- c) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures. The City of Kelowna water meter contractor must salvage existing water meters, prior to building demolition. If water meters are not salvaged, the developer will be invoiced for the meters.

.2) Sanitary Sewer

- a) The 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. The estimated cost of this construction for bonding purposes is **\$10,000.00**

.3) Storm Drainage

- (a) The developer must engage a consulting civil engineer to provide a storm water management plan for these sites which meets the requirements of the City 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.

- (b) Only one service will be permitted for this development. The applicant, at his cost, will arrange the installation of one overflow service. The estimated cost of this construction for bonding purposes is **\$10,000.00**

.4) Road Improvements

- (a) KLO Rd fronting this development must be upgraded to an urban standard to including barrier curb & gutter, concrete separate sidewalk, storm drainage, landscaped boulevard complete with street trees and relocation or adjustment of existing utility appurtenances if required to accommodate the upgrading construction. The estimated cost of the road improvements for bonding purposes is **\$19,200.00**
- (b) All pavement marking adjustments for a left turn lane will be at the developer's expense.

.5) Road Dedication and Subdivision Requirements

By registered plan to provide the following:

- a) Dedicate a 6.0m taper from west to east along the full frontage of KLO Rd
- b) 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 within the South Pandosy urban town centre.
- b) Streetlights must be installed on KLO Rd if needed.
- 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).

.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

.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 upgrade	\$10,000.00
Water service upgrade	\$10,000.00
Sanitary service upgrade	\$10,000.00
Road Frontage Improvements	\$19,200.00

Total Bonding	<u>\$49,200.00</u>
---------------	---------------------------

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

.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


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

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 piezometers if necessary. Log test hole data to identify soil characteristics, identify areas of fill if any. Identify unacceptable fill material, analyse soil sulphate content, identify unsuitable underlying soils such as peat, etc. and make recommendations for remediation if necessary.
- (d) List extraordinary requirements that may be required to accommodate construction of roads and underground utilities as well as building foundation designs.
- (e) Additional geotechnical survey may be necessary for building foundations, etc.


Sergio Sartori
Development Engineering Technologist


Development Engineering Manager
(initials)

ATTACHMENT A

This forms part of application
Z16-0055



City of
Kelowna
COMMUNITY PLANNING

Planner
Initials **TH**

PROJECT DATA

CIVIC ADDRESS: 1940 KLO ROAD, KELOWNA, B.C.
LEGAL DESCRIPTION: LOT 2, PLAN 12186
CURRENT ZONING: AI

ZONING BYLAW REQUIREMENTS

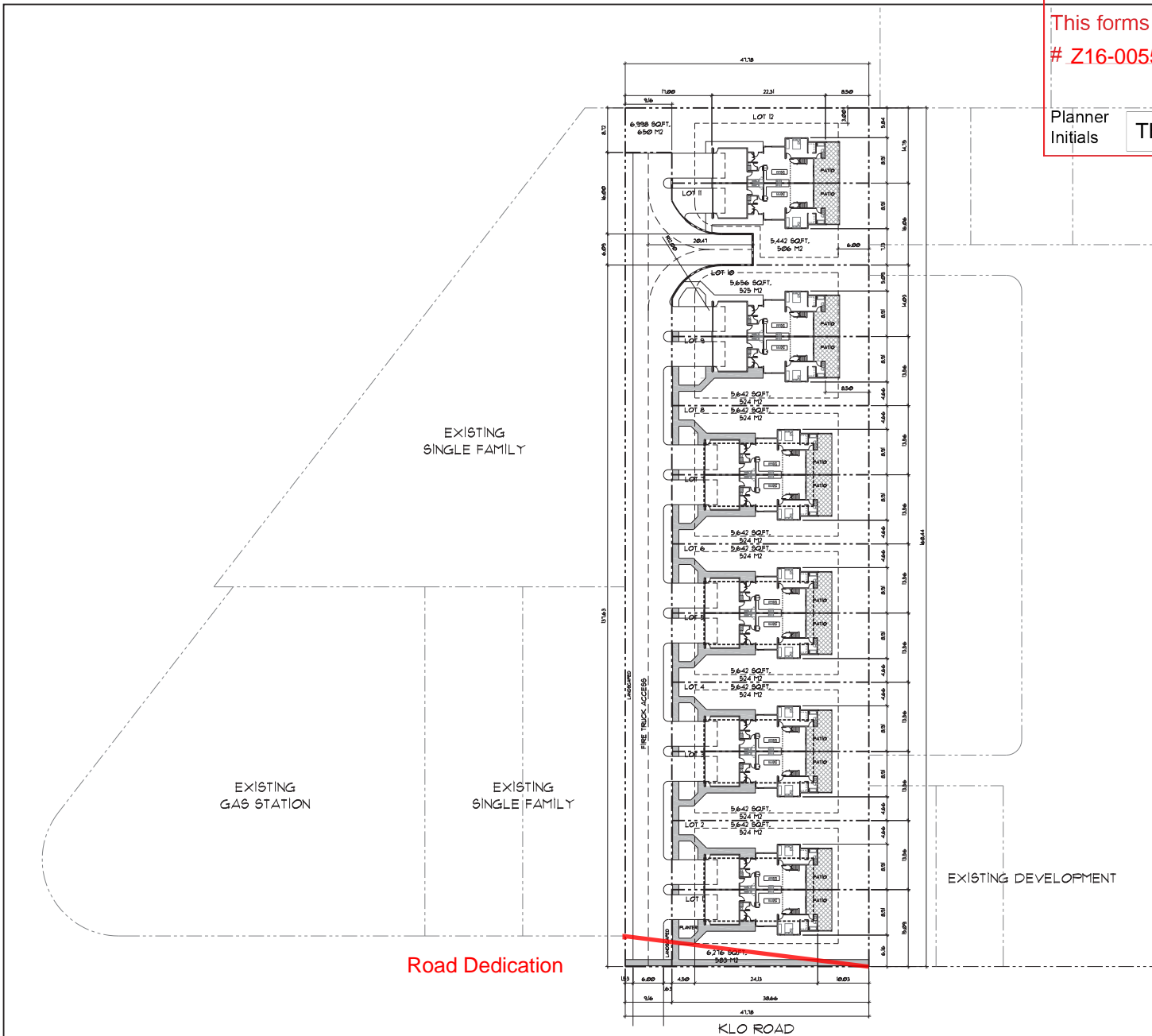
ZONE RUB - BARELAND STRATA HOUSING	
SITE AREA + 86,641 SQFT. (8,049.2 SQM)	
GROSS FLOOR AREA	
GROSS FLOOR AREA DUPLEX	
MAIN FLOOR	+ 168.0 SQFT. (15.6 SQM) X 10 = 1,680.0 SQFT.
SECOND FLOOR	+ 645 SQFT. (59.9 SQM) X 10 = 6,450 SQFT.
MAIN FLOOR STUDIOS	+ 645 SQFT. (59.9 SQM) X 2 = 1,290 SQFT.
TOTAL MAIN FLOOR AREA	+ 10,020 SQFT. (928.8 SQM)
MINIMUM PROPOSED (MIN)	
LOT WIDTH	12.0 m 13.56 m
LOT DEPTH	25.0 m 32.21 m
LOT AREA	375 m ² 375sqm.
SITE COVERAGE (MAXIMUM)	50% (4,024.6 sqm) 20.9% (16,800 sqm)
HEIGHT (m)	9.5 m 2.5 STOREYS 7.1 m 2 STOREYS
SETBACKS (m)	
FRONT	4.5 m 4.5 m
SIDE	3.0 m 3.0 m
REAR	6.0 m 6.0 m

PROJECT DATA

CIVIC ADDRESS: 1940 KLO ROAD, KELOWNA, B.C.
LEGAL DESCRIPTION: LOT 2, PLAN 12186
CURRENT ZONING: AI

ZONING BYLAW REQUIREMENTS

ZONE RUB - BARELAND STRATA HOUSING						
SITE AREA + 86,641 SQFT. (8,049.2 SQM)						
LOT NO.	AREA	WIDTH	LENGTH	% COVERAGE	OPEN SPACE	PARKING
1	538.1 M ²	15.09 M	38.66 M	21% (156.1 M ²)	20.4% (109.6 M ²)	4
2-9	524.2 M ²	13.56 M	38.66 M	28% (156.1 M ²)	28.8% (151.1 M ²)	4
10	525.5 M ²	14.03 M	VARIES	25.1% (156.1 M ²)	28.8% (151.1 M ²)	4
11	505.6 M ²	15.25 M	VARIES	30.5% (156.1 M ²)	26% (131.6 M ²)	4
12	650.7 M ²	15.56 M	VARIES	24% (156.1 M ²)	25% (129.5 M ²)	4



1940 KLO ROAD
LOT 2, PLAN 12186

SCALE: 1" = 30'-0"	SITE PLAN	
DATE: SEPT 2016		
		DRAWING No. 1

ATTACHMENT B

This forms part of application

Z16-0055

Planner
Initials

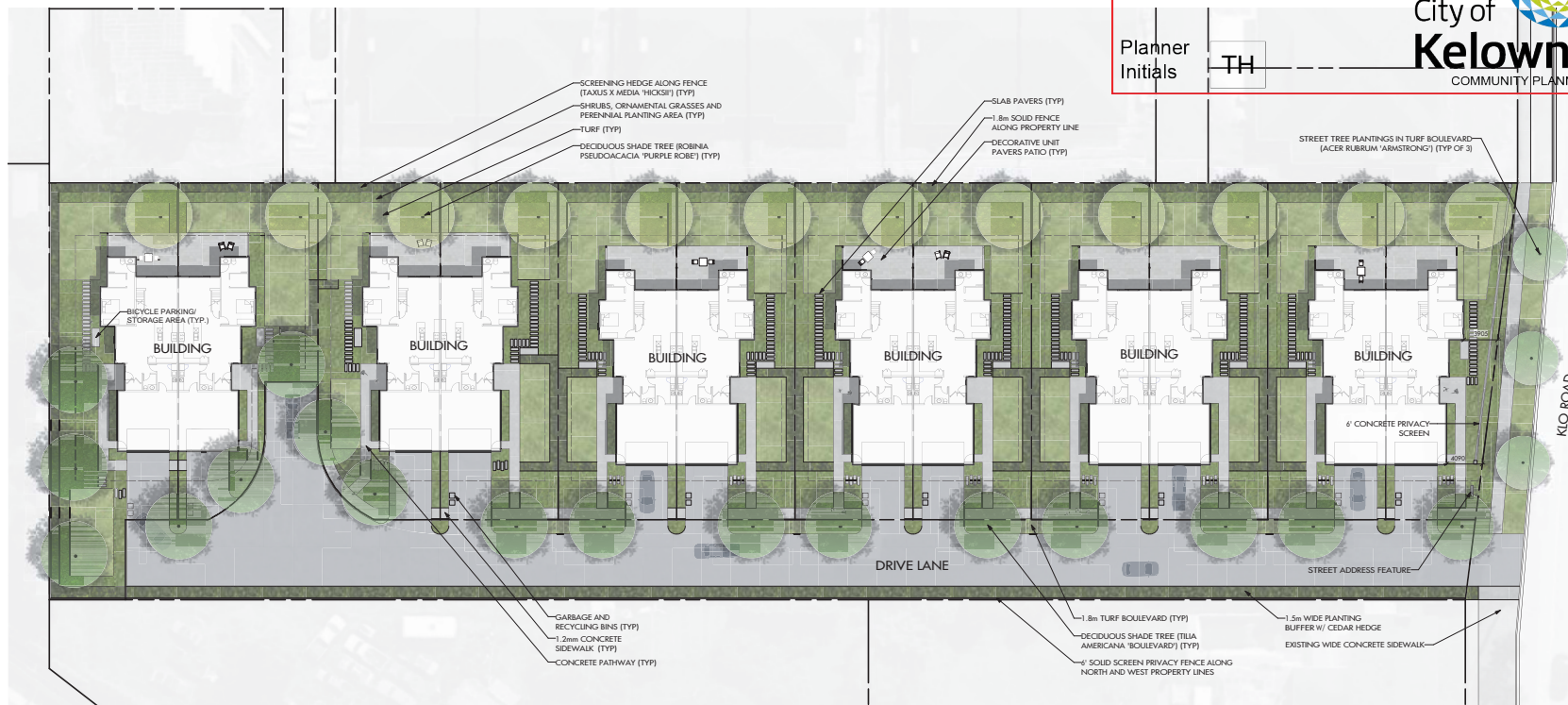
TH

City of
Kelowna
COMMUNITY PLANNING



OUTLAND DESIGN
LANDSCAPE ARCHITECTURE

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



NOTES

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

PLANT LIST

BOTANICAL NAME	COMMON NAME	QTY	SIZE / SPACING & REMARKS
TREES			
ACER RUBRUM 'ARMSTRONG'	ARMSTRONG MAPLE	3	6cm CAL
THUJA OCCIDENTALIS	NORTHERN WHITE CEDAR	66	1.5M HT
ROBINIA PSEUDACACIA 'PURPLE ROBE'	PURPLE ROBE LOCUST	12	6cm CAL
TILOA AMERICANA 'BOULEVARD'	BOULEVARD LINDEN	17	6cm CAL
SHRUBS			
BERBERIS THUNBERGII 'MONDIE'	CHERRY BOMB BARBERRY	160	#01 CONT. /1.0M O.C. SPACING
CORNUS ALBA 'BAIHALO'	IVORY HALO DOGWOOD	70	#01 CONT. /1.5M O.C. SPACING
EUCONYMIUS ALATUS 'COMPACTA'	DWARF BURNING BUSH	50	#01 CONT. /1.8M O.C. SPACING
HYDRANGEA MACROPHYLLA 'BALMER'	ENDLESS SUMMER HYDRANGEA	70	#01 CONT. /1.5M O.C. SPACING
ROSA 'MORDEN SUNRISE'	MORDEN SUNRISE ROSE	70	#01 CONT. /1.5M O.C. SPACING
SYRINIA MEYER 'TAUBEN'	DWARF KOBAN LILAC	70	#01 CONT. /1.5M O.C. SPACING
TAXUS X MEDIA 'HICKSI'	HICK'S YEW	226	#01 CONT. /1.2M O.C. SPACING
PERENNIALS & GRASSES			
ACHILLEA FILIPENDULINA 'CLOTH OF GOLD'	CLOTH OF GOLD YARROW	104	#01 CONT. /0.75M O.C. SPACING
ASTILBE JAPONICA 'PEACH BLOSSOM'	PEACH BLOSSOM ASTILBE	104	#01 CONT. /0.75M O.C. SPACING
ECHEINACEA PURPUREA 'MAGNUS'	MAGNUS CONEFLOWER	160	#01 CONT. /0.6M O.C. SPACING
HOSTA 'FRAGRANT BOUQUET'	FRAGRANT BOUQUET HOSTA	58	#01 CONT. /1.0M O.C. SPACING
MISCANTHUS SINENSIS 'GRACILIMUS'	WALKER'S LOW CATMINT	40	#01 CONT. /1.2M O.C. SPACING
NEPETA X FAASSENII 'WALKER'S LOW'	WALKER'S LOW CATMINT	104	#01 CONT. /0.75M O.C. SPACING
PANICUM VIRGATUM 'ROSTRAHLBUSCH'	RED SWITCH GRASS	58	#01 CONT. /1.0M O.C. SPACING
PENNISETUM ALOPECUROIDES	FOUNTAIN GRASS	58	#01 CONT. /1.0M O.C. SPACING
PEROVSKIA ATRIPICIFOLIA	RUSSIAN SAGE	40	#01 CONT. /1.2M O.C. SPACING
RUDBECKIA FUGIDA 'GOLDSTURM'	GOLDSTURM CONEFLOWER	104	#01 CONT. /0.75M O.C. SPACING
SEDUM SPECTABILE 'AUTUMN JOY'	AUTUMN JOY STONECROP	104	#01 CONT. /0.75M O.C. SPACING



PROJECT TITLE

1940 KLO ROAD

Kelowna, BC

DRAWING TITLE

CONCEPTUAL
LANDSCAPE PLAN

ISSUED FOR / REVISION

1	16.07.20	Review
2	16.10.28	Review
3		
4		
5		

PROJECT NO. 16054

DESIGN BY FB

DRAWN BY NS

CHECKED BY FB

DATE OCT. 28, 2016

SCALE 1:200

SEAL



DRAWING NUMBER

L1/2

ISSUED FOR REVIEW ONLY
Copyright Reserved: This drawing is the property of Outland Design
Landscape Architecture Limited and shall not be reproduced,
modified, or lent without permission.