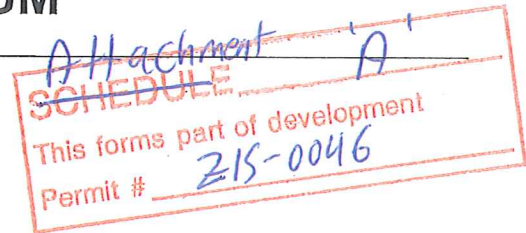




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**CITY OF KELOWNA**  
**MEMORANDUM**

**Date:** October 19, 2015  
**File No.:** Z15-0046  
**To:** Community Planning (AC)  
**From:** Development Engineering Manager  
**Subject:** 125 Dundas Rd & 815 Hwy 33 W



RU1 to RM5

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 Sergio Sartori

1. Domestic Water and Fire Protection

- (a) This development is within the service area of the Rutland Waterworks District (RWD). The developer is required to make satisfactory arrangements with the RWD for these items. All charges for service connection and upgrading costs are to be paid directly to the RWD. The developer is required to provide a confirmation that the district is capable of supplying fire flow in accordance with current requirements.
- (b) A water meter is mandatory as well as a sewer credit meter to measure all the irrigation water. Water meters must be housed in an above-ground, heated, accessible and secure building, either as part of the main site buildings or in a separate building. Remote readers units are also mandatory on all meters.

2. Sanitary Sewer

- (a) The existing lots are serviced with 150mm diameter sanitary service. The developer's consulting mechanical engineer will determine the requirements of this proposed development and establish the required size and preferred location of the service. Only one service will be permitted for this development. The applicant, at his cost, will arrange for the removal of one of the existing services. The estimated cost of this construction for bonding purposes is **\$4,000.00**

3. Storm Drainage

- (b) 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 for the installation of one new overflow service. The new



service should tie in to the main on Dundas Rd. The estimated cost of this construction for bonding purposes is **\$5,000.00**

4. Road Improvements

- (a) Dundas Street must be upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, separate sidewalk, corner bulb, landscaped boulevard complete with street trees, drainage system including catch basins, manholes and pavement removal and replacement, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The estimated cost of this construction for bonding purposes is **\$23,000.00**
- (a) Hwy 33 W will require removal of the driveway letdowns and separate sidewalk from the removed letdown to Dundas Road. The 2 trees located within the dedicated road area are to remain. A tree covenant will be required for proper care of the trees during construction. In addition a hard surfaced boulevard complete with street trees, street lighting and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The estimated cost of this construction for bonding purposes is **\$10,000.00**

5. Transportation

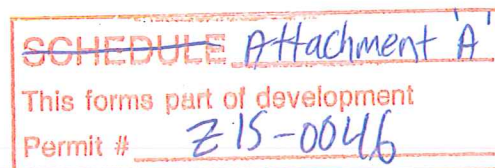
- a) These Development Engineering comments/requirements and are subject to the review and requirements from the Ministry of Transportation (MOT) Infrastructure Branch.

6. Road Dedication and Subdivision

- (a) Lot consolidation is required.
- (b) Grant Statutory Rights Of Way if required for utility services.
- (c) Dedicate ~5.26m width along the full frontage of Hwy 33 West complete with a 6.0 m corner rounding at the intersection of Dundas Rd and Hwy 33 W.
- (d) If any road dedication or closure affects lands encumbered by a Utility right-of-way (such as Hydro, Telus, Gas, etc.) please obtain the approval of the utility. Any works required by the utility as a consequence of the road dedication or closure must be incorporated in the construction drawings submitted to the City's Development Manager.

7. 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 the subject properties are within the "Rutland Urban Centre".
- b) Streetlights must be installed on Dundas 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).



8. 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.

9. Design and Construction

- (a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- (b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- (c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (refer to Part 5 and Schedule 3).
- (d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- (e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's 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.

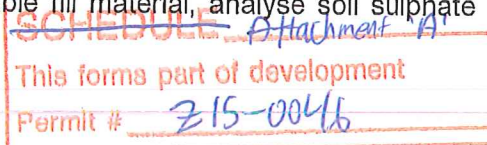
10. Servicing Agreements for Works and Services

- (a) A Servicing Agreement is required for all works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- (b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

11. 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.

## 12. Bonding and Levy Summary

### (a) Bonding

Water service upgrades	N/A
Sanitary sewer service upgrades	\$ 4,000
Storm overflow services	\$ 5,000
Dundas Rd frontage improvements	\$ 23,000
Hwy 33 W frontage improvements	\$ 10,000
<b>Total Bonding</b>	<b>\$41,000.00</b>

NOTE: The bonding amount 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.

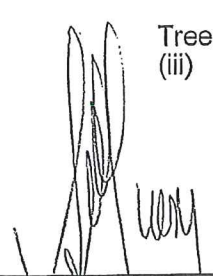
## 12. Development Permit and Site Related Issues

### Access and Manoeuvrability

- (i) Access to the site will be permitted from Dundas Rd.
- (ii) Indicate on the site, the locations of loading bays as well as the garbage and recycle bins.

### Trees fronting Hwy 33

- (iii) A tree covenant will be required for proper care of the trees during construction.

  
Steve Muenz, P. Eng.  
Development Engineering Manager

SS



## **THE VARSITY Student Residence**

### **DESIGN RATIONALE**

August 20, 2015 – Development Permit Application

#### **ARCHITECTURAL PROJECT PLANNING**

The VARSITY is a new student housing development on the Southeast corner of Highway 33W and Dundas Road located within the Rutland Urban Centre. Based on the proposed RM-5 zoning, the building is 4½ stories, with the top floor incorporated into a dormer architecture, and partial under-cover parking at grade.

The primary planning considerations for the development were to create a project that responds sensitively to the nearby neighbours, develops a massing that is in keeping with the adjacent RM5 (Multi-family) developments in the area, and to craft an architectural vocabulary that continues to revitalize the immediate and greater Rutland area where it is located.

Additionally, the rationale behind the development of a student residence in this location is multi-faceted:

##### **Proximity to BC Transit – both to UBCO and Okanagan College**

The #8 UBCO – OC Bus Line traveling to UBCO stops on Highway 33, on the development's side of the highway, just 5 meters from the northeast property line. Directly across Highway 33, is the bus stop for the #8 Bus line going directly to Okanagan College. Transit time to UBCO from our building is estimated at 16 minutes door to door, and to Okanagan College 28 minutes door to door. During peak hours, these buses stop at this stop every 15 minutes.

##### **Proximity to Merchant and Retail Services**

At the corner of Highway 33 W and Hollywood Road S, which Google Maps shows is a 300 meter, or a four-minute walk from the development, are 31 Shops and Services, which Students want, and would patronize (list attached)

##### **Parks and Outdoor Activities**

Directly across Highway 33W, from our building, and 2 blocks north up Franklyn Road, is Ben Lee Park. Ben Lee Park provides the amenities that university aged students are looking for. The park has a basketball court, a multi-purpose ( netted ) court, a skateboard park, as well as running and hiking trails. At 7.3 hectares, there is ample room for exercising, running, or quiet time and studying, at Ben Lee Park.

Architecturally, the development is a marriage of traditional materials (brick, siding and stucco) with a palette of colors that creates a modern mix of colors and textures that give the building strong architectural interest. As a

**Kevin Ryan** | Architect AIBC - MA (Hons) - DA - LEED AP

**Wendy Rempel** | Architect AIBC - M.Arch - B.Arch

[www.bluegreenarchitecture.com](http://www.bluegreenarchitecture.com)

#### **KAMLOOPS**

2 - 436 Lorne Street, Kamloops, BC V2C 1W3  
P | 250.374.1112 F | 250.374.2279

#### **KELOWNA**

202 - 110 Highway 33 West, Kelowna, BC V1X 1X7  
P | 778.753.2650 F | 778.753.1448



student residence, there is an additional need of creating an architectural vocabulary with a modern flair, which is created with the green punches of color.

The highest profile elevations are the Highway 33 Elevation (North) and the Dundas Elevation (West). Significant attention has been given to creating architecture that has both material and textural interest as well as 3-dimensional façades for further development of shadow and depth in these elevations. The building sits within the required setbacks per the zoning bylaw for RM-5. The east elevation matches, in general, the architecture on the west elevation that faces the multi-family development to the east. A variance is being sought for the east setback to 5.8 m in lieu of the 7m required). To be sensitive and maintain significant architectural interest to the adjacent neighbor, part of the request for the variance in this case is to allow for a continuation of the 3-dimensional architecture that appears on the North and West façades. The South elevation is consistent in color and texture palette in order to, again, create interest facing the neighbor to the south, although currently there is a very tall cedar hedge on the north edge of the adjacent property that creates a significant privacy buffer. A variance is being sought for the south setback from 9m to 7.68m. This is in part to continue some 3-dimensional interest as well as to accommodate the parking for the project (below). The setback reduction still maintains a significant separation from the adjacent property.

There is a private open space requirement of 25 square metres / unit for the RM5 zone for units exceeding 1 bedroom. This development proposal incorporates 23 units in excess of 1 bedroom equaling a total of 575 sm. required P.O.S. area. There are two variances being sought in order to address the issue of the Private Open Space requirement. First, based on the use (student housing), the POS component was addressed in common spaces rather than individual spaces. In order to create reasonably-sized internal common/social spaces, the building needed to expand to slightly (Building area allowable: 40%; Actual: 43.05%). The project incorporates a fitness room, a yoga room, a quiet study room and a student lounge and games room with an exterior deck creating significant internally-focused social and active spaces for students.

Second, in order to compensate for a 5.25m road dedication loss to the property along Highway 33, the development seeks a variance to the stipulation that Private Open Space cannot be part of a required setback(s). The north and east setbacks have been calculated into the POS area. And due to the variance request, there has been significant attention given to landscaping, as well as the social and interactive needs of the students. The project has developed a beautiful green space that not only achieves the appealing, inviting environment that makes this space very useable by students, but creates and enhances the streetscape appeal for the general public. Due to the very close proximity of the adjacent bus stop, the landscape concept additionally maintains a definition between the public and private realms in order to maintain security and privacy for the occupants while creating a park-like setting within.

The project also seeks two variances to the parking requirement which have been outlined by the developer in a letter dated August 13, 2015 (attached) wherein is outlined the rationale for the reduction, and proposed solution to address actual student and City requirements.

Further to the attachment, it is important to note that the above-noted transit, merchant and amenity features so accessible to the development's location, strongly suggest that the students living there will not need cars. It is expected to attract student residents that either cannot afford, or choose not to own and operate a car. Accordingly, we would request that this be considered in our parking requirements and proposed variance.



**List of Merchants:**

McDonalds  
Tim Horton's  
Wendy's  
Shoppers Drug Mart – with a Post Office  
Rexall Drugstore  
Panago Pizza  
Starbucks  
TacoTime  
IGA Supermarket  
Liquor Depot  
Wings Tap and Grill  
Sushi Zen Restaurant  
Zabb Thai Restaurant  
Pizza Factory  
Specialty Bakery  
Johnny's Meats and Deli  
Old Town Farmers Market  
New Empress Chinese Restaurant  
Insurance – Autoplan  
Dollar Store  
H+R Block Taxes  
Hollywood Shoes  
Purple Sea Horse Pet Store  
Rutland Optical  
Brayd's Hair Salon and Tanning Spa  
First Choice Hair Cutters  
Nails + Spa  
Central Spa and Nails  
Esso Gas Station – Car Wash  
Curves – Women's Fitness  
Quantum Video Games Store

Two blocks further east on Highway 33, there is a Dairy Queen, KFC, and another grouping of services and merchants.





August 13<sup>th</sup>, 2015

**Ryan Smith,  
BA, RPP, MCIP  
Department Manager, Community Planning  
City of Kelowna  
1435 Water Street,  
Kelowna, BC  
V1Y 1J4**

Re: Student Housing Parking Review

Development: 125 Dundas Road and 815 Highway 33 W  
Proposed 23 Unit Rental Apartment Building

RM5 Zoning Calls for 46 parking Spaces ( 2 x Unit )  
Current proposal provides for 27 Parking Spaces  
Current Shortfall is 19 Parking Spaces

Dear Ryan,

I wanted to present you with some research and facts from similar student housing facilities located here in Kelowna, to corroborate my proposal to you in regards to our parking space requirements.

We had discussed the dedication of an OGO car share vehicle on site to provide extra transportation in lieu of fewer cars from tenants. In speaking with Christian Brandt, the Managing Director of OGO, he advised me that in it's first full year of placement at Academy Hill, they signed up 10 new members ( users ) for their ( single ) OGO car share vehicle and they had 5-6 occasional users of that car that were already OGO members. He suggests that this number of users is low, compared to his other locations. Academy Hill is comprised of 15 one bedroom and den units and 63 two bedroom and den units...78 units in total. Assuming that the 'dens' are occupied by students as sleeping areas, total residency at Academy Hill could be about 215 people. This is more than double our expected occupancy. If only 10 people out of 200+ tenants sign up for car share membership, I believe that we should consider placement of one OGO car share vehicle at our development.

Of particular interest is the additional feedback from Christian Brandt, regarding inquiries for the OGO car share program from the Rutland area. He indicates that he has comparatively more interest from Rutland than from any other un-serviced area in greater Kelowna. He feels that there would be substantial membership sign-ups coming from the community at large, over and above the tenants in our building. In short, the benefit of placing an OGO car share vehicle at our development would become a community benefit.

In a Vancouver Sun Newspaper article, which ran on November 29<sup>th</sup>, 2014 , entitled "Vancouver Swaps parking requirement for car shares", the writer referred to a recent metro Vancouver study, which showed that "...one car share vehicle takes up to 11 cars off the road." The writer went on to report that "parking supply in strata apartments is 18 to 35 percent oversupplied across the region, with the highest vacancies near transit hubs."

I believe these stats are particularly relevant in our situation, due to a number of factors:

1. Transit Access – The #8 UBCO – OC Bus Line ( going both directions ) stops on Highway 33, beside, and directly across, from our proposed building. Transit time to UBCO from our building is estimated at 16 minutes door to door, and to Okanagan College 28 minutes door to door. During peak hours, these buses stop here every 15 minutes.

2. Access to Services and Amenities – Within a 2 block ( 5 minute ) stroll from our building are 31 retail and service businesses that students require. They include:

Tim Hortons  
McDonalds  
Wendy's  
TacoTime Cantina  
Wings Tap and grill  
Panago Pizza  
Sushi Zen  
IGA Supermarket  
2 x Drug Stores  
Walk-in Medical Clinic  
3 x Personal Care and Hair Styling Shops  
Liquor Store

With transit access, and shops and services this close to our building, the students we attract will likely not own cars. We feel that car ownership, and therefore parking requirements, at our building, will be considerably lower than other apartment buildings, which cater to a wider rental market, especially those buildings located away from main transit arteries.

We would like to address our shortfall of 19 parking spaces with the following proposal:

A) Install, at our cost, one OGO car share vehicle, for a minimum 2 year commitment period.

B) Consider that the OGO car share reduces parking ( cars ) by 11 spaces



C) Submit a one-time payment to the City of Kelowna in the amount of \$60,000 to mitigate the remaining 8 space shortfall ( 8 x \$7500 )

Attached are a copy of the Vancouver Sun article, and confirmation from OGO on their membership numbers, for your consideration.

Best Regards,

David Hallonquist  
Unico One Developments Ltd.  
101 – 1865 Dilworth Drive,  
Suite #351,  
Kelowna, BC  
V1Y 9T1



Project No.: 15055-10  
File No.: 1-5-001

December 22, 2015

Unico One Developments Ltd.  
101-1865 Dilworth Drive  
Kelowna, BC V1Y 9T1

Attention: Mr. Dave Hallonquist

Dear Sir:

**Re: Varsity Student Housing, Kelowna, BC  
Parking Review**

Unico One Developments Ltd. is proposing to develop 125 Dundas Road and 815 Highway 33 with a 23 unit Purpose Built Student Housing development.

The Varsity Student Housing project will add much needed dedicated student rental housing to the Highway 33 commercial area of Kelowna. There has been a severe lack of affordable student rental housing developed within Kelowna, with minimal off campus dedicated student housing available.

Current City of Kelowna Zoning Bylaw Parking requirements call for 2 parking stalls per unit for a total site requirement of 46 parking stalls.

The proposal is to provide much needed student rental accommodations to help facilitate Kelowna's current and future student housing needs. CTQ has been engaged to provide information validating the reduction of the City's above noted parking requirements to 1 stall per 4 student beds, so that Unico One Developments Ltd. can submit the variance to the City, for consideration.

The proximity of the site to the Highway 33 / Hollywood Road Commercial area (Hollywood Road is less than 200 m away), and adjacent public transit, work to support the City Official Community Plan vision and support a reduction in the single vehicle occupant and vehicle dependences that were associated with the current Zoning Parking requirements. Further, other jurisdictions recognize that rental suites and urban core uses, such as apartment housing, require less parking stalls per unit than conventional single family detached housing.

**COST**

**TIME**

**QUALITY**



The determination of the parking demand is a function of the following:

- proximity to the commercial core;
- proximity and availability of public transit;
- proximity and quality of pedestrian facilities;
- affordability of rental housing is a function of average income of residents and has a direct effect on level of car ownership.

The initial cost to a project for the development and provision of onsite parking is reflected in the ultimate cost of the facility to the end user, and is reflected in either a higher cost of ownership or higher monthly rental rates. The greater the amount of parking constructed the higher the end user cost.

The City of Kelowna Official Community Plan states in the Introduction – *An important part of a sustainable city is creating centrally-located communities served by transportation routes that encourage transit, bicycles, and pedestrians, and by efficient infrastructure. These three elements - land use, transportation and infrastructure - are the core decisions that the OCP is meant to guide.*

The first three goals for a sustainable future in the OCP are:

1. **Contain Urban Growth.** *Reduce Greenfield urban sprawl and focus growth in compact, connected and Mixed-use (residential and commercial) urban and village centers.*
2. **Address Housing Needs of All Residents.** *Address housing needs of all residents by working towards an adequate supply of a variety of housing.*
3. **Feature a Balanced Transportation Network.** *Increase the attractiveness, convenience and safety of all modes of transportation by implementing “complete streets” that are designed to serve a broader range of transportation modes, focusing on pedestrians, cyclists and transit service, and function in the context of surrounding land uses.*

The Varsity Student Housing project aligns with all of the above OCP goals.

A DP was issued in April 2014, for 225 Rutland Road S, which is also a purpose built student housing residence, with 22 4 bedroom units stacked on top of a main floor designated as commercial space. The 225 Rutland Road S site zoning is C4, versus the RM5 zoning for 125 Dundas Road / 815 Highway 33 W. The C4 zoning requires only 1 parking space per unit. Council approved the Rutland Road development on the basis one parking spot would service each 4 bedroom unit.

The site is proposed as purpose built student housing and is anticipated to have parking utilization and characteristics similar in nature to on campus student housing. To assist with the review of a reduced parking ratio for the off campus student housing development, a review of on campus parking for student housing is provided.

## **REVIEW OF ON SITE UNIVERSITY RESIDENCE PARKING**

### **UBC Okanagan:**

- 8,400 students, of which 810 are international students;
- 1,050 Faculty and Staff;
- 1,720 residence beds in total, 620 residence beds with kitchen facilities;
- 2,700 parking stalls, 320 parking stalls allocated for residence use (at a monthly rate);
- Average of one parking stall for every 7 student residence beds.

### **University of Victoria**

- 19,500 students;
- 1,900 Faculty and Staff;
- 2,500 residence beds in total, 480 residence beds with kitchen facilities;
- 4,200 parking stalls, 194 parking stalls allocated for residence use (at a monthly rate);
- Average of one parking stall for every 12 student residence beds.

### **Thompson River University**

- 13,200 students;
- 574 residence beds in total;
- 2,400 parking stalls, 123 parking stalls allocated for residence use (at a monthly rate);
- Average of one parking stall for every 5 student residence beds.

To assist with the review of a reduced parking ratio for rental apartment housing, a review of other jurisdictions parking standards is provided.

## **REVIEW OF OTHER JURISDICTIONS**

A review of parking requirements from other jurisdictions provides the following:

- The Okanagan communities have similar rates to the City of Vernon, with an average of 1 to 1.25 stalls per multifamily units. Parking rates do not differentiate between rental and non rental uses. There has been a minimal amount rental housing developed in the Okanagan over the past 30 years.
- City of Kamloops (within the downtown specified area) – 1 space per Multi Family dwelling unit (no additional 15% visitor parking required);
- City of Vancouver – a minimum of 0.5 parking stalls for each unit that is less than 50 m<sup>2</sup> of GFA;
- City of Edmonton - within the downtown ARP, 0.5 to 1 parking stalls per unit;
- City of Calgary – within the downtown core, 0.5 to 1 parking stalls per unit;



- City of Hamilton – 1 space per unit, 0.3 spaces when the dwelling is less than 50 m<sup>2</sup>;
- City of Toronto – Between 0.2 and 1.65 spaces based on number of bedrooms, location within the city and tenure;
- City of Ottawa – Between 0 and 1 space depending on location within the city and if it is within 600m of a rapid transit station;

Several cities have standardized the means to vary parking requirements, as follows:

- Calgary - minimum parking requirements may be reduced if:
  - the building is listed as a heritage structure; or
  - a Transportation Demand Management (TDM) measure is approved by the Development Authority where the TDM is included in an approved plan or as a condition on the development permit.
- Winnipeg - the Director of Planning may approve a Parking Management Plan if the lower parking amount will adequately service the use (or combination of uses) without incurring additional parking congestion on surrounding streets or lanes.

The Metro Vancouver Apartment Parking Study, City of Vancouver, September 2012; noted the following:

Vehicle holdings and parking demand for apartment renters are much lower than for owners. This is consistent with prior research. In purpose-built market rental sites, the parking demand range is 0.58 - 0.72 vehicles per apartment unit.

Visitor parking supply may be over supplied. Observed parking demand rates were below 0.1 stall per apartment unit, compared to the typical municipal requirement of 0.2 visitor stall per apartment unit.

Generally, market and non-market renters have lower vehicle ownership rates than do apartment owners. In order to maximize affordability and efficiency in apartment buildings, municipalities should encourage rental housing in Urban Centres and Frequent Transit Development Areas. Household expenditures on transportation should inherently be lower in locations near transit as there is a reduced need to own or operate a private personal vehicle. Reduced parking reduces the cost of development. Municipalities could encourage rental apartment units near transit by reducing or waiving parking requirements as part of an incentive package as appropriate, and encouraging inclusion of rental apartment units in new developments through policy or housing agreements.

Parking rates vary greatly from jurisdiction to jurisdiction, with the average being less than 1 stall per unit for conventional residential rental and market housing. Parking rates continue to be reduced as communities bring zoning requirements into alignment with current trends toward less single occupant vehicle oriented developments and lifestyles.

Student housing parking needs are further reduced by the provision of student transit passes and limited on campus parking availability, combined with the low percentage of vehicle ownership among students.



## **PROPOSED DEVELOPMENT**

The site is located at 125 Dundas Road and 815 Highway 33 W, with the proposed layout of the 23 unit student housing apartment building shown on the Blue Green Architecture Inc. Site Drawing. The purpose built student housing proposal calls for 23 units, made up of a mix of 3, 4 and 5 bedroom units, with a total of 97 beds. Each unit has a communal kitchen and shared bathroom facilities. The site is planned with a total of 27 parking stalls.

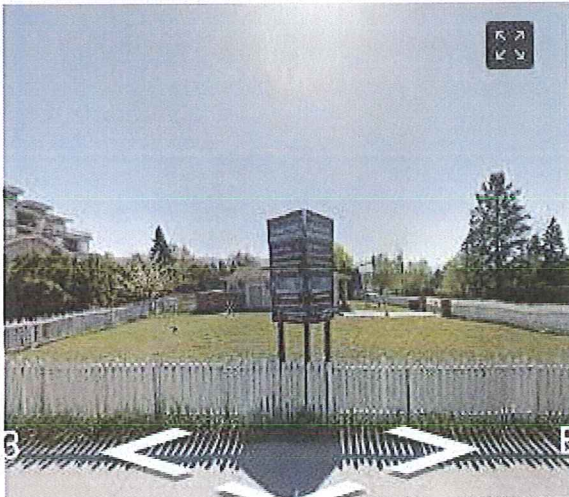
### **Transit Facilities**

The BC Transit #8 bus, with direct service to UBCO, and Okanagan College, stops on Highway 33 immediately in front of, and directly across the street from the site. The transit time from the site to UBCO is 16 minutes, and to Okanagan College is 28 minutes. The BC Transit schedule uses commuter 15 minute service durations during peak hours, for both the UBCO and Okanagan College transit route. The transit time on the #8 bus to Orchard Park Shopping Mall is 14 minutes.

### **Pedestrian Facilities**

The site has a walk score of 70 / 100 and is considered “Very walkable, so most errands can be completed on foot”. The average walk score for Kelowna is 42 / 100. The onsite campus housing at UBCO and Academy Way developments have very low walk scores (24 to 29 / 100) and are considered “Car Dependant. Almost all errands require a car”.

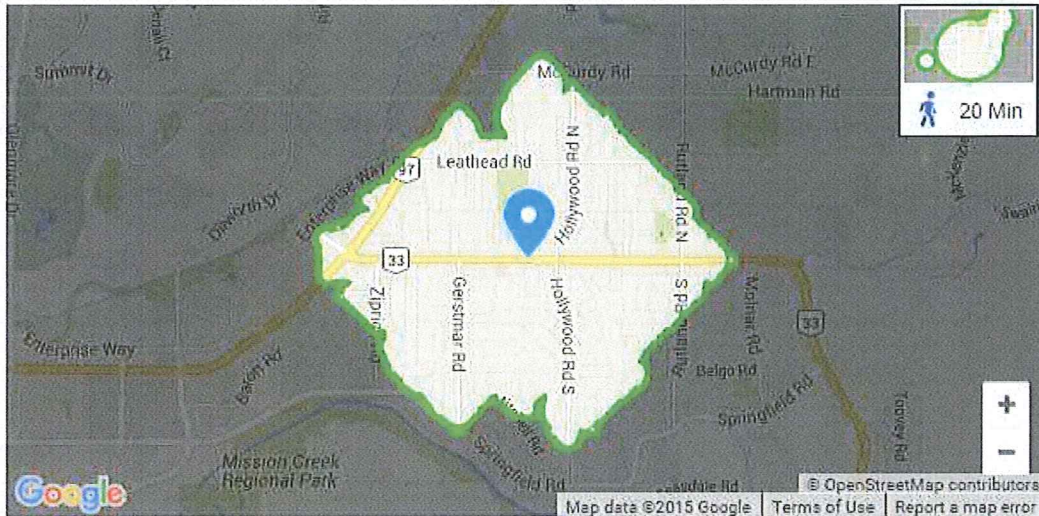
Ben Lee Park is 400m to the north of the site. The 7.3 hectare Ben Lee Park provides a basketball court, a multi-purpose court, a skateboard park, and running and hiking trails.



**Site Location Walk Score**

815 Highway 33 has a Walk Score of 70 out of 100. This location is Very Walkable so most errands can be accomplished on foot.

This location is in Kelowna. Nearby parks include Ben Lee Park, Rutland Bluff Linear Park and Rutland Centennial Park.



#### Site Location 20 Min Walk Area

#### CONCLUSION / RECOMENDATION

With the percentage of car ownership among students well below the average; the proximity of the site to the Highway 33 / Hollywood Road Commercial area; the proximity of the site to public transit; these factors provide for a supportable reduction in the current unit zoning requirement for onsite parking.

We recommend the City of Kelowna review the provision of 1 parking stall per unit, for student dedicated residential rental housing units where they are located within close proximity to commercial and business districts and transit facilities. The ratio of visitor parking stalls can remain unchanged at one space per 7 residential units.

As an alternate, for dedicated student rental housing facilities the parking rate could be based on the number parking stalls per beds, with 1 stall required for every 4 beds.

If you have any further questions or require any additional information please contact our office.

Yours truly,

**CTQ CONSULTANTS LTD.**

Per:

David D. Cullen, P.Eng.  
Transportation Engineer  
DDC  
Enclosure

August 24<sup>th</sup>, 2015

**Ryan Smith,  
Adam Cseke  
Community Planning  
City of Kelowna  
1435 Water Street,  
Kelowna, BC  
V1Y 1J4**

Re: VARSITY Student Residence Neighborhood Consultation

Development: 125 Dundas Road and 815 Highway 33 W  
Proposed 23 Unit Rental Apartment Building

Dear Ryan, Adam,

I have conducted the neighbourhood consultation, for the above-mentioned development, as required under policy 367. I attach the original, signed copies, of the comment sheets, from each resident that I consulted with. The comment sheet allows each resident to show their approval rating from a scale of 1 – 5, with 5 being the best approval rating, and 1 being the rating for the least approval.

We received:

5's – 8  
4's – 6  
3's – 2  
2's – 0  
1's – 1

There is only one address within the 50 meter radius that I could not make contact with: 155 Dundas Road. The owner is away traveling. I determined this from the owners brother, Rick Schneider, who owns 145 Dundas Road, and who is also part-owner of 155 Dundas Road. As Rick gave us a "5", and he suggested his brother would as well, I have no problem with not having this comment.

Regards,

  
David Hallonquist  
Unico One Developments Ltd.



305-307

K300

CP  
875

K978

CP  
150

(49517)

FRANKLYN RD

217  
CP  
PLAN

30323

A15032

123  
2

PLAN 22236

730  
D

PLAN 35816

720  
A

100  
CP

(37094)

Hwy 32 W

(56027)

1 2 3 4 5 6

CP  
130

K922

K1077

CP  
920

(56024)

1 20473 1 2  
950 950

SASKATOON RD

(39372)

125  
B

PL 19344

515  
A

1 56  
145

155  
55

1 155  
54

130  
CP

K3297

150  
4

5  
170

135  
53

DUNDAS RD

6  
200

505  
4

855  
3

153  
5

915  
CP

(37358)

BARBER RD

(39372)

765  
1

135  
2

155  
3

135  
4

PL 17229

195  
5

6  
135

K2403

110-250  
CP



SCHEDULE A, B, & C  
This forms part of development  
Permit # DP15-0197



**BLUEGREEN  
ARCHITECTURE INC.**  
www.bluegreenarchitecture.com

202 • (110) 449-9733	Kelowna BC V1X 1X7
P   (778) 552-1650	F   (778) 552-1440

2 • 436 George Street, Kelowna BC, V1Y 1W7  
P | (250) 254-1112 F | (250) 374-2239

THE VARSITY  
STUDENT RESIDENCE

PROJECT AND ZONING INFO

DATE 7/16/82  
SCALE AS NOTED  
ISSUED FOR REINFORCING BAR VARIANCE  
PROJECT 1-88  
ADD.



SCHEDULE B  
This forms part of development  
Permit # DP15-0197





SCHEDULE B  
This forms part of development  
Permit # DP15-0197





SCHEDULE B  
This forms part of development  
Permit # OP15-0197







SCHEDULE B  
This forms part of development  
Permit # DD15-0197



Permit # DP15-0197

LEGAL DESCRIPTION: LOTS A & B, TP. 26, O.D.Y.D. PL. 19344, EXCEPT PL. 39372

LEGAL DESCRIPTION: LOTS A & B, TP. 26, O.D.Y.D. PL. 19344, EXCEPT PL. 39372



1  
SITI  
NTS



# PROJECT LOCATION

## UNIT AND COMMON AREA SUMMARY

December 1, 2011

UNIT AND COMMON AREAS SUMMARY

NUMBER	DESCRIPTION	UNIT AREA	COMMON AREA	UNIT AREA	COMMON AREA	TOTAL AREA	UNIT AREA
101	UNIT 101	1,012.50		1,012.50		1,012.50	1,012.50
102	UNIT 102	1,012.50		1,012.50		1,012.50	1,012.50
103	UNIT 103	1,012.50		1,012.50		1,012.50	1,012.50
104	UNIT 104	1,012.50		1,012.50		1,012.50	1,012.50
105	UNIT 105	1,012.50		1,012.50		1,012.50	1,012.50
106	UNIT 106	1,012.50		1,012.50		1,012.50	1,012.50
107	UNIT 107	1,012.50		1,012.50		1,012.50	1,012.50
108	UNIT 108	1,012.50		1,012.50		1,012.50	1,012.50
109	UNIT 109	1,012.50		1,012.50		1,012.50	1,012.50
110	UNIT 110	1,012.50		1,012.50		1,012.50	1,012.50
111	UNIT 111	1,012.50		1,012.50		1,012.50	1,012.50
112	UNIT 112	1,012.50		1,012.50		1,012.50	1,012.50
113	UNIT 113	1,012.50		1,012.50		1,012.50	1,012.50
114	UNIT 114	1,012.50		1,012.50		1,012.50	1,012.50
115	UNIT 115	1,012.50		1,012.50		1,012.50	1,012.50
116	UNIT 116	1,012.50		1,012.50		1,012.50	1,012.50
117	UNIT 117	1,012.50		1,012.50		1,012.50	1,012.50
118	UNIT 118	1,012.50		1,012.50		1,012.50	1,012.50
119	UNIT 119	1,012.50		1,012.50		1,012.50	1,012.50
120	UNIT 120	1,012.50		1,012.50		1,012.50	1,012.50
121	UNIT 121	1,012.50		1,012.50		1,012.50	1,012.50
122	UNIT 122	1,012.50		1,012.50		1,012.50	1,012.50
123	UNIT 123	1,012.50		1,012.50		1,012.50	1,012.50
124	UNIT 124	1,012.50		1,012.50		1,012.50	1,012.50
125	UNIT 125	1,012.50		1,012.50		1,012.50	1,012.50
126	UNIT 126	1,012.50		1,012.50		1,012.50	1,012.50
127	UNIT 127	1,012.50		1,012.50		1,012.50	1,012.50
128	UNIT 128	1,012.50		1,012.50		1,012.50	1,012.50
129	UNIT 129	1,012.50		1,012.50		1,012.50	1,012.50
130	UNIT 130	1,012.50		1,012.50		1,012.50	1,012.50
131	UNIT 131	1,012.50		1,012.50		1,012.50	1,012.50
132	UNIT 132	1,012.50		1,012.50		1,012.50	1,012.50
133	UNIT 133	1,012.50		1,012.50		1,012.50	1,012.50
134	UNIT 134	1,012.50		1,012.50		1,012.50	1,012.50
135	UNIT 135	1,012.50		1,012.50		1,012.50	1,012.50
136	UNIT 136	1,012.50		1,012.50		1,012.50	1,012.50
137	UNIT 137	1,012.50		1,012.50		1,012.50	1,012.50
138	UNIT 138	1,012.50		1,012.50		1,012.50	1,012.50
139	UNIT 139	1,012.50		1,012.50		1,012.50	1,012.50
140	UNIT 140	1,012.50		1,012.50		1,012.50	1,012.50
141	UNIT 141	1,012.50		1,012.50		1,012.50	1,012.50
142	UNIT 142	1,012.50		1,012.50		1,012.50	1,012.50
143	UNIT 143	1,012.50		1,012.50		1,012.50	1,012.50
144	UNIT 144	1,012.50		1,012.50		1,012.50	1,012.50
145	UNIT 145	1,012.50		1,012.50		1,012.50	1,012.50
146	UNIT 146	1,012.50		1,012.50		1,012.50	1,012.50
147	UNIT 147	1,012.50		1,012.50		1,012.50	1,012.50
148	UNIT 148	1,012.50		1,012.50		1,012.50	1,012.50
149	UNIT 149	1,012.50		1,012.50		1,012.50	1,012.50
150	UNIT 150	1,012.50		1,012.50		1,012.50	1,012.50
151	UNIT 151	1,012.50		1,012.50		1,012.50	1,012.50
152	UNIT 152	1,012.50		1,012.50		1,012.50	1,012.50
153	UNIT 153	1,012.50		1,012.50		1,012.50	1,012.50
154	UNIT 154	1,012.50		1,012.50		1,012.50	1,012.50
155	UNIT 155	1,012.50		1,012.50		1,012.50	1,012.50
156	UNIT 156	1,012.50		1,012.50		1,012.50	1,012.50
157	UNIT 157	1,012.50		1,012.50		1,012.50	1,012.50
158	UNIT 158	1,012.50		1,012.50		1,012.50	1,012.50
159	UNIT 159	1,012.50		1,012.50		1,012.50	1,012.50
160	UNIT 160	1,012.50		1,012.50		1,012.50	1,012.50
161	UNIT 161	1,012.50		1,012.50		1,012.50	1,012.50
162	UNIT 162	1,012.50		1,012.50		1,012.50	1,012.50
163	UNIT 163	1,012.50		1,012.50		1,012.50	1,012.50
164	UNIT 164	1,012.50		1,012.50		1,012.50	1,012.50
165	UNIT 165	1,012.50		1,012.50		1,012.50	1,012.50
166	UNIT 166	1,012.50		1,012.50		1,012.50	1,012.50
167	UNIT 167	1,012.50		1,012.50		1,012.50	1,012.50
168	UNIT 168	1,012.50		1,012.50		1,012.50	1,012.50
169	UNIT 169	1,012.50		1,012.50		1,012.50	1,012.50
170	UNIT 170	1,012.50		1,012.50		1,012.50	1,012.50
171	UNIT 171	1,012.50		1,012.50		1,012.50	1,012.50
172	UNIT 172	1,012.50		1,012.50		1,012.50	1,012.50
173	UNIT 173	1,012.50		1,012.50		1,012.50	1,012.50
174	UNIT 174	1,012.50		1,012.50		1,012.50	1,012.50
175	UNIT 175	1,012.50		1,012.50		1,012.50	1,012.50
176	UNIT 176	1,012.50		1,012.50		1,012.50	1,012.50
177	UNIT 177	1,012.50		1,012.50		1,012.50	1,012.50
178	UNIT 178	1,012.50		1,012.50		1,012.50	1,012.50
179	UNIT 179	1,012.50		1,012.50		1,012.50	1,012.50
180	UNIT 180	1,012.50		1,012.50		1,012.50	1,012.50
181	UNIT 181	1,012.50		1,012.50		1,012.50	1,012.50
182	UNIT 182	1,012.50		1,012.50		1,012.50	1,012.50
183	UNIT 183	1,012.50		1,012.50		1,012.50	1,012.50
184	UNIT 184	1,012.50		1,012.50		1,012.50	1,012.50
185	UNIT 185	1,012.50		1,012.50		1,012.50	1,012.50
186	UNIT 186	1,012.50		1,012.50		1,012.50	1,012.50
187	UNIT 187	1,012.50		1,012.50		1,012.50	1,012.50
188	UNIT 188	1,012.50		1,012.50		1,012.50	1,012.50
189	UNIT 189	1,012.50		1,012.50		1,012.50	1,012.50
190	UNIT 190	1,012.50		1,012.50		1,012.50	1,012.50
191	UNIT 191	1,012.50		1,012.50		1,012.50	1,012.50
192	UNIT 192	1,012.50		1,012.50		1,012.50	1,012.50
193	UNIT 193	1,012.50		1,012.50		1,012.50	1,012.50
194	UNIT 194	1,012.50		1,012.50		1,012.50	1,012.50
195	UNIT 195	1,012.50		1,012.50		1,012.50	1,012.50
196	UNIT 196	1,012.50		1,012.50		1,012.50	1,012.50
197	UNIT 197	1,012.50		1,012.50		1,012.50	1,012.50
198	UNIT 198	1,012.50		1,012.50		1,012.50	1,012.50
199	UNIT 199	1,012.50		1,012.50		1,012.50	1,012.50
200	UNIT 200	1,012.50		1,012.50		1,012.50	1,012.50
201	UNIT 201	1,012.50		1,012.50		1,012.50	1,012.50
202	UNIT 202	1,012.50		1,012.50		1,012.50	1,012.50
203	UNIT 203	1,012.50		1,012.50		1,012.50	1,012.50
204	UNIT 204	1,012.50		1,012.50		1,012.50	1,012.50
205	UNIT 205	1,012.50		1,012.50		1,012.50	1,012.50
206	UNIT 206	1,012.50		1,012.50		1,012.50	1,012.50
207	UNIT 207	1,012.50		1,012.50		1,012.50	1,012.50
208	UNIT 208	1,012.50		1,012.50		1,012.50	1,012.50
209	UNIT 209	1,012.50		1,012.50		1,012.50	1,012.50
210	UNIT 210	1,012.50		1,012.50		1,012.50	1,012.50
211	UNIT 211	1,012.50		1,012.50		1,012.50	1,012.50
212	UNIT 212	1,012.50		1,012.50		1,012.50	1,012.50
213	UNIT 213	1,012.50		1,012.50		1,012.50	1,012.50
214	UNIT 214	1,012.50		1,012.50		1,012.50	1,012.50
215	UNIT 215	1,012.50		1,012.50		1,012.50	1,012.50
216	UNIT 216	1,012.50		1,012.50		1,012.50	1,012.50
217	UNIT 217	1,012.50		1,012.50		1,012.50	1,012.50
218	UNIT 218	1,012.50		1,012.50		1,012.50	1,012.50
219	UNIT 219	1,012.50		1,012.50		1,012.50	1,012.50
220	UNIT 220	1,012.50		1,012.50		1,012.50	1,012.50
221	UNIT 221	1,012.50		1,012.50		1,012.50	1,012.50
222	UNIT 222	1,012.50		1,012.50		1,012.50	1,012.50
223	UNIT 223	1,012.50		1,012.50		1,012.50	1,012.50
224	UNIT 224	1,012.50		1,012.50		1,012.50	1,012.50
225	UNIT 225	1,012.50		1,012.50		1,012.50	1,012.50
226	UNIT 226	1,012.50		1,012.50		1,012.50	1,012.50
227	UNIT 227	1,012.50		1,012.50		1,012.50	1,012.50
228	UNIT 228	1,012.50		1,012.50		1,012.50	1,012.50
229	UNIT 229	1,012.50		1,012.50		1,012.50	1,012.50
230	UNIT 230	1,012.50		1,012.50		1,012.50	1,012.50
231	UNIT 231	1,012.50		1,012.50		1,012.50	1,012.50
232	UNIT 232	1,012.50		1,012.50		1,012.50	1,012.50
233	UNIT 233	1,012.50		1,012.50		1,012.50	1,012.50
234	UNIT 234	1,012.50		1,012.50		1,012.50	1,012.50
235	UNIT 235	1,012.50		1,012.50		1,012.50	1,012.50
236	UNIT 236	1,012.50		1,012.50		1,012.50	1,012.50
237	UNIT 237	1,012.50		1,012.50		1,012.50	1,012.50
238	UNIT 238	1,012.50		1,012.50		1,012.50	1,012.50
239	UNIT 239	1,012.50		1,012.50		1,012.50	1,012.50
240	UNIT 240	1,012.50		1,012.50		1,012.50	1,012.50
241	UNIT 241	1,012.50		1,012.50		1,012.50	1,012.50
242	UNIT 242	1,012.50		1,012.50		1,012.50	1,012.50
243	UNIT 243	1,012.50		1,012.50		1,012.50	1,012.50
244	UNIT 244	1,012.50		1,012.50		1,012.50	1,012.50
245	UNIT 245	1,012.50		1,012.50		1,012.50	1,012.50
246	UNIT 246	1,012.50		1,012.50		1,012.50	1,012.50
247	UNIT 247	1,012.50		1,012.50		1,012.50	1,012.50
248	UNIT 248	1,012.50		1,012.50		1,012.50	1,012.50
249	UNIT 249	1,012.					



SITE CONTEXT - VIEW 1



**SITE CONTEXT - VIEW 2**



SITE CONTEXT - VIEW 3



SITE CONTEXT - VIEW 4

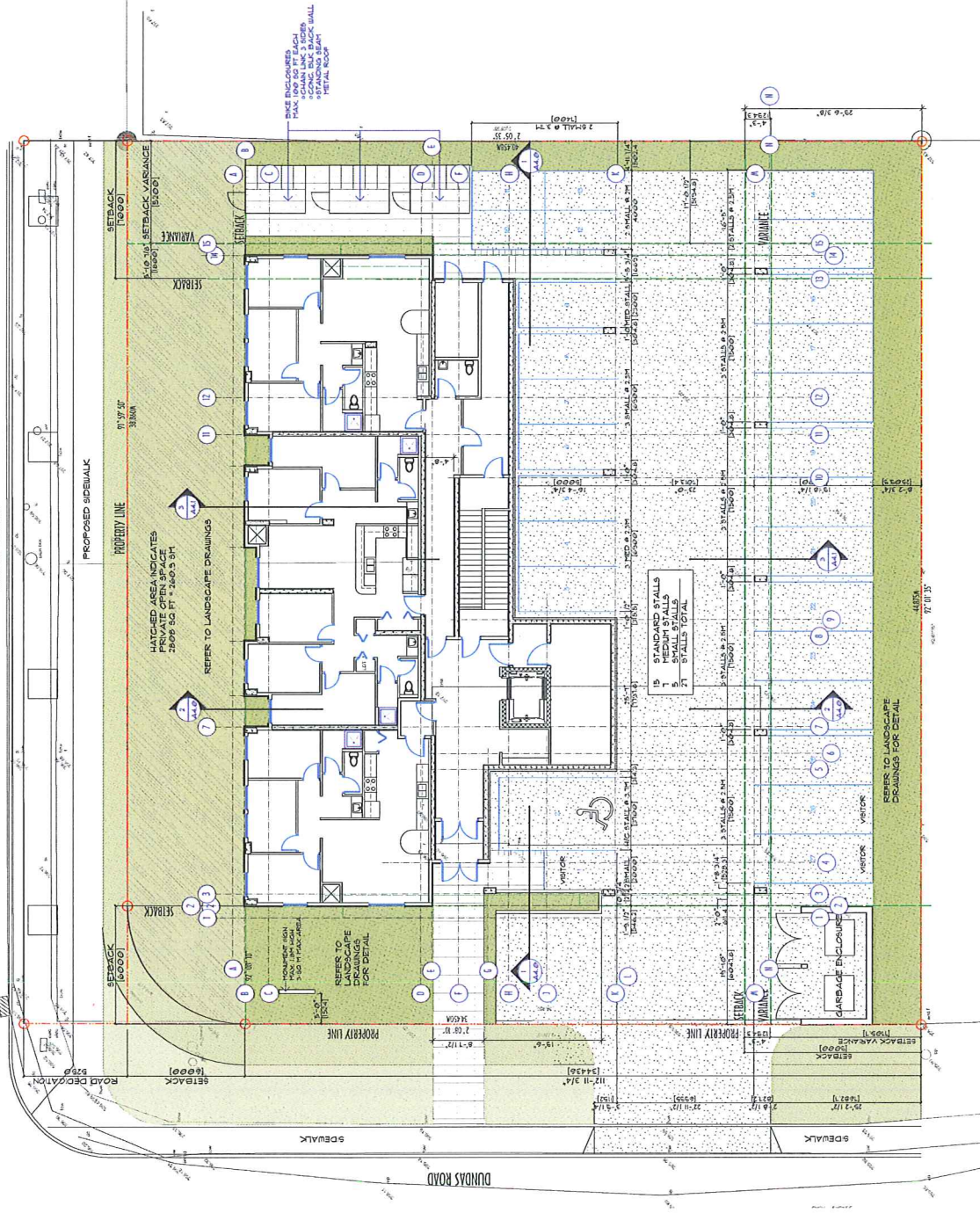


# SCHEDULE A

This forms part of development

Permit # DP15-0197

HIGHWAY 33 WEST



THE VARSITY STUDENT RESIDENCE

SITE PLAN

**BLUEGREEN ARCHITECTURE INC.**  
 2100 Highway 33 West, Unit 21  
 Mississauga, Ontario L4X 1L1  
 Tel: 905.276.1446  
 Fax: 905.276.1447  
 Email: info@bluegreenarchitect.com

DATE: 2015.12.17  
 ISSUED FOR: RESPONSE TO VARIANCE  
 PROJECT: 14236  
 A1.0 r2

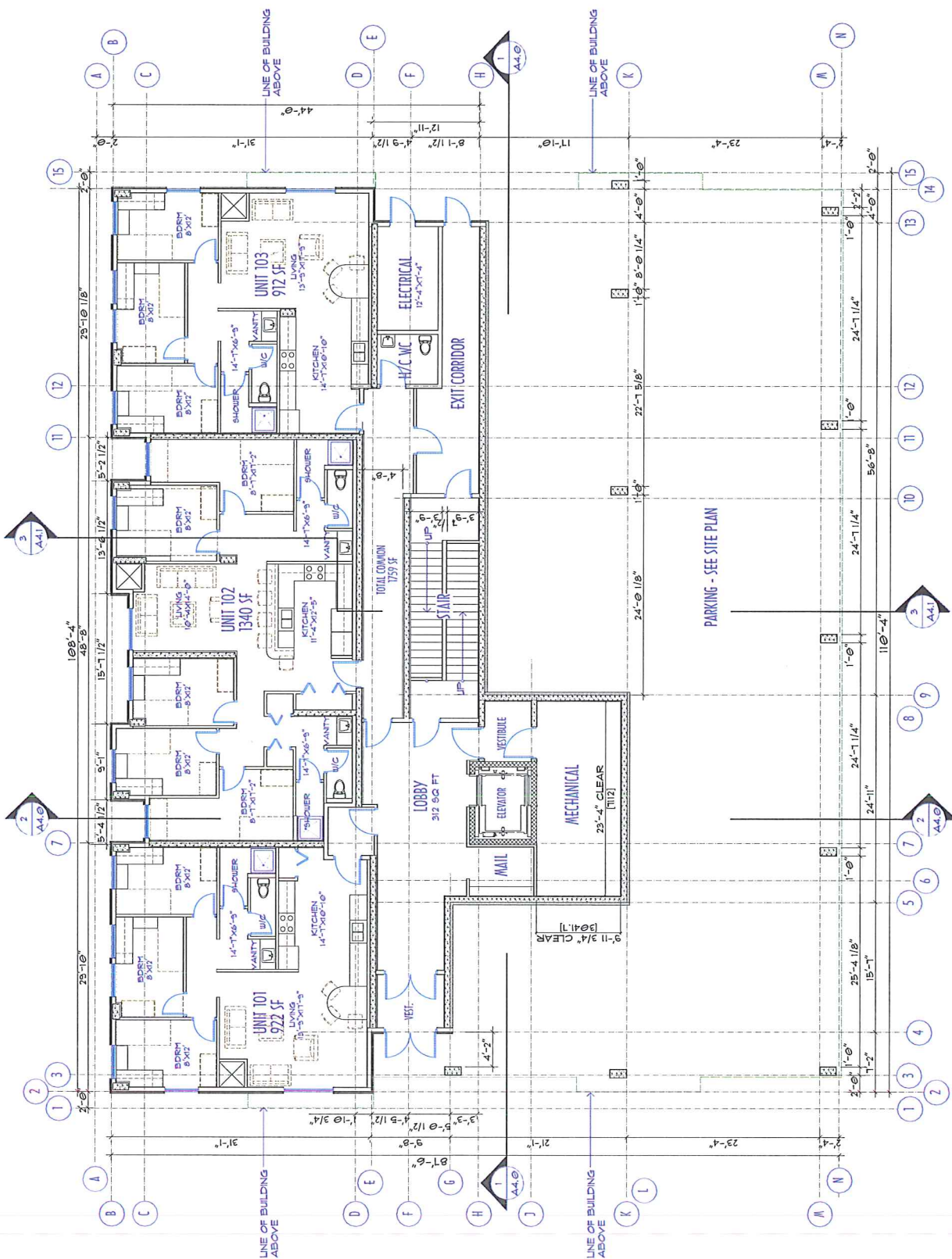
**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0197

DATE 10/12/17  
 SCALE 1/8" = 1'-0"  
 ISSUED FOR PERMITS  
 PROJECT 14388 A2.0.r1

MAIN FLOOR PLAN

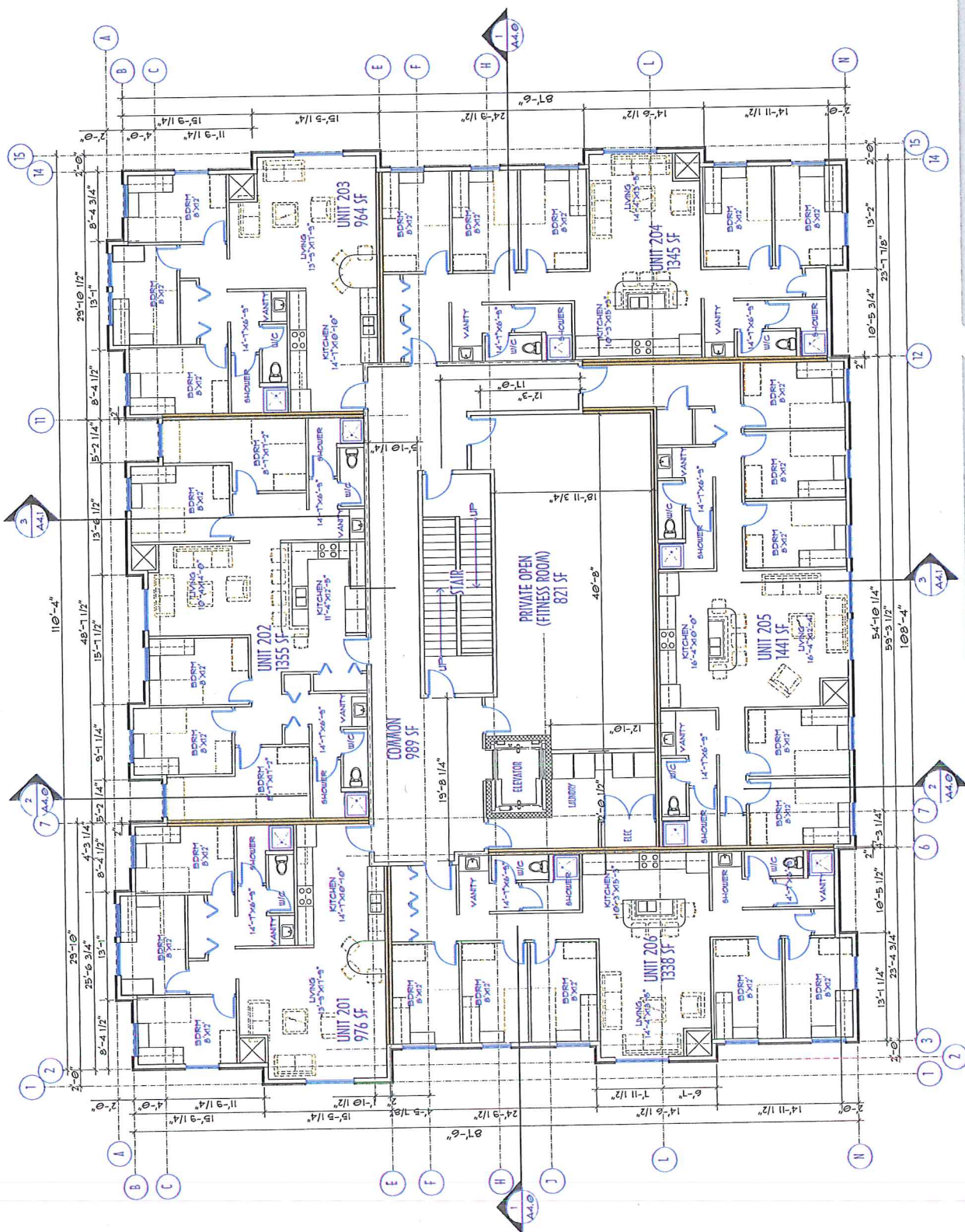
THE VARSITY STUDENT RESIDENCE

**BLUEGREEN ARCHITECTURE INC.**  
 2445 Lander Street, Kennesaw, GA 30144  
 770.424.1111  
 www.bluegreenarchitect.com





**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0197



2ND FLOOR PLAN

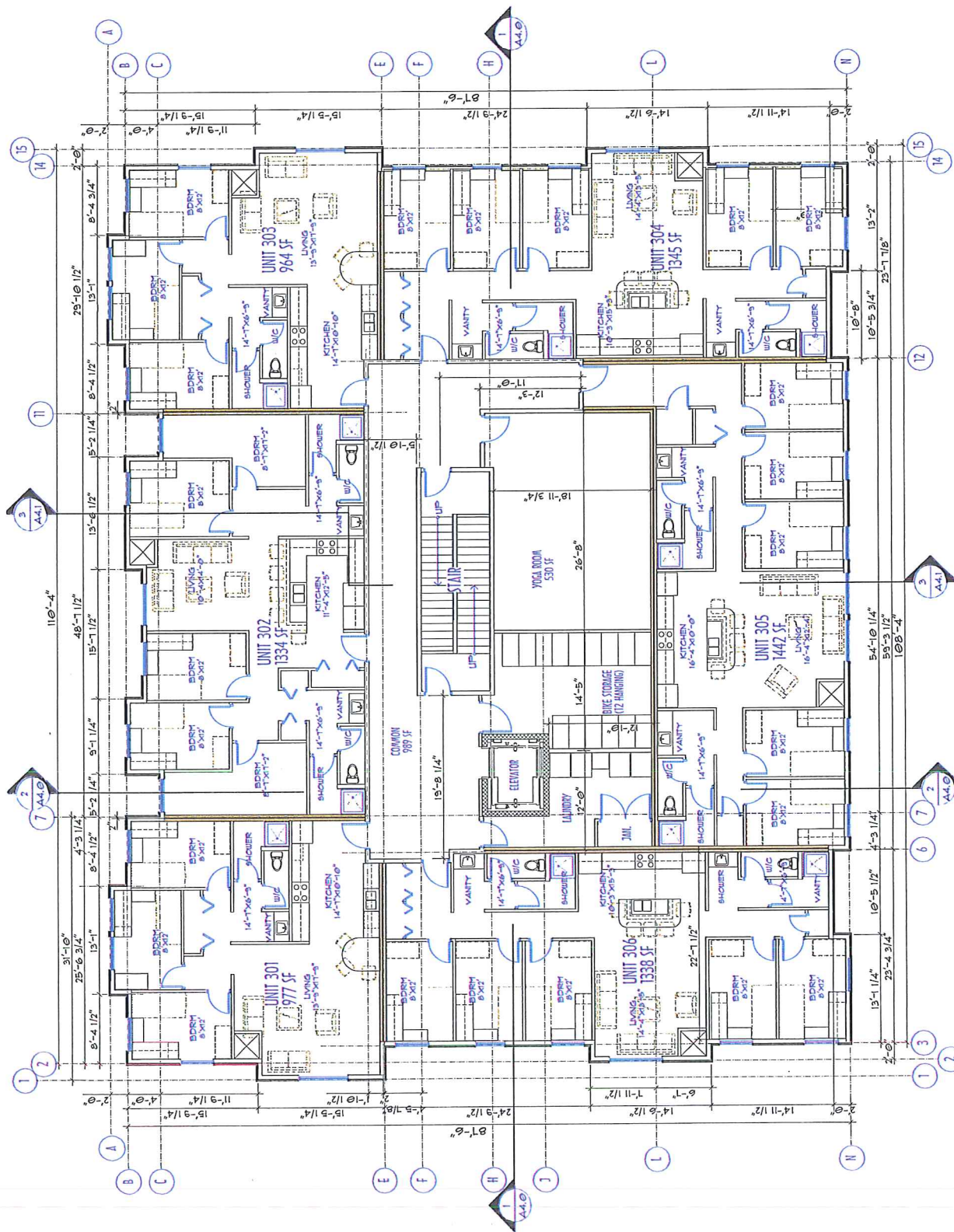
THE VARSITY STUDENT RESIDENCE

**BLUE GREEN ARCHITECTURE INC.**  
 2140 Lorne Street, Toronto, Ontario M6P 1Y7  
 P: 416.363.1112 F: 416.363.1113  
 www.bluegreenarchitecture.com



DATE: 11/15/2015  
 SCALE: 3/16" = 1'-0"  
 USED FOR: PERMITTING OF WORKS  
 REVISION: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0497



3RD FLOOR PLAN

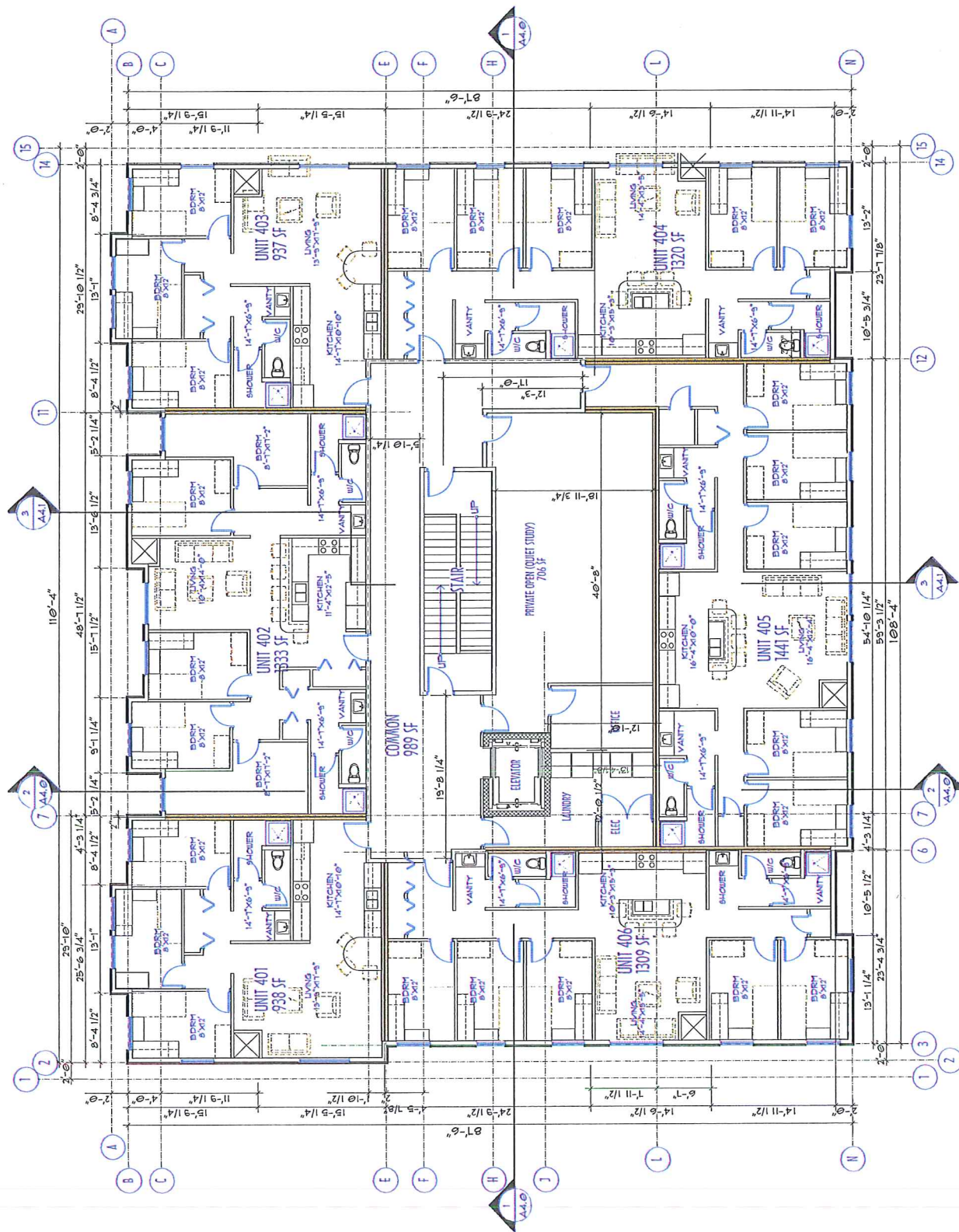
THE VARSITY STUDENT RESIDENCE

**BLUEGREEN ARCHITECTURE INC.**  
 280-118 HWY 33, Kalamazoo, MI 49001  
 P: 269.252.5005 F: 269.252.5005  
 E: info@bluegreenarch.com W: www.bluegreenarch.com

DATE: 10/27/15  
 DRAWN BY: J. HARRIS  
 CHECKED BY: J. HARRIS  
 SCALE: AS SHOWN  
 SHEET: A22



**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0497



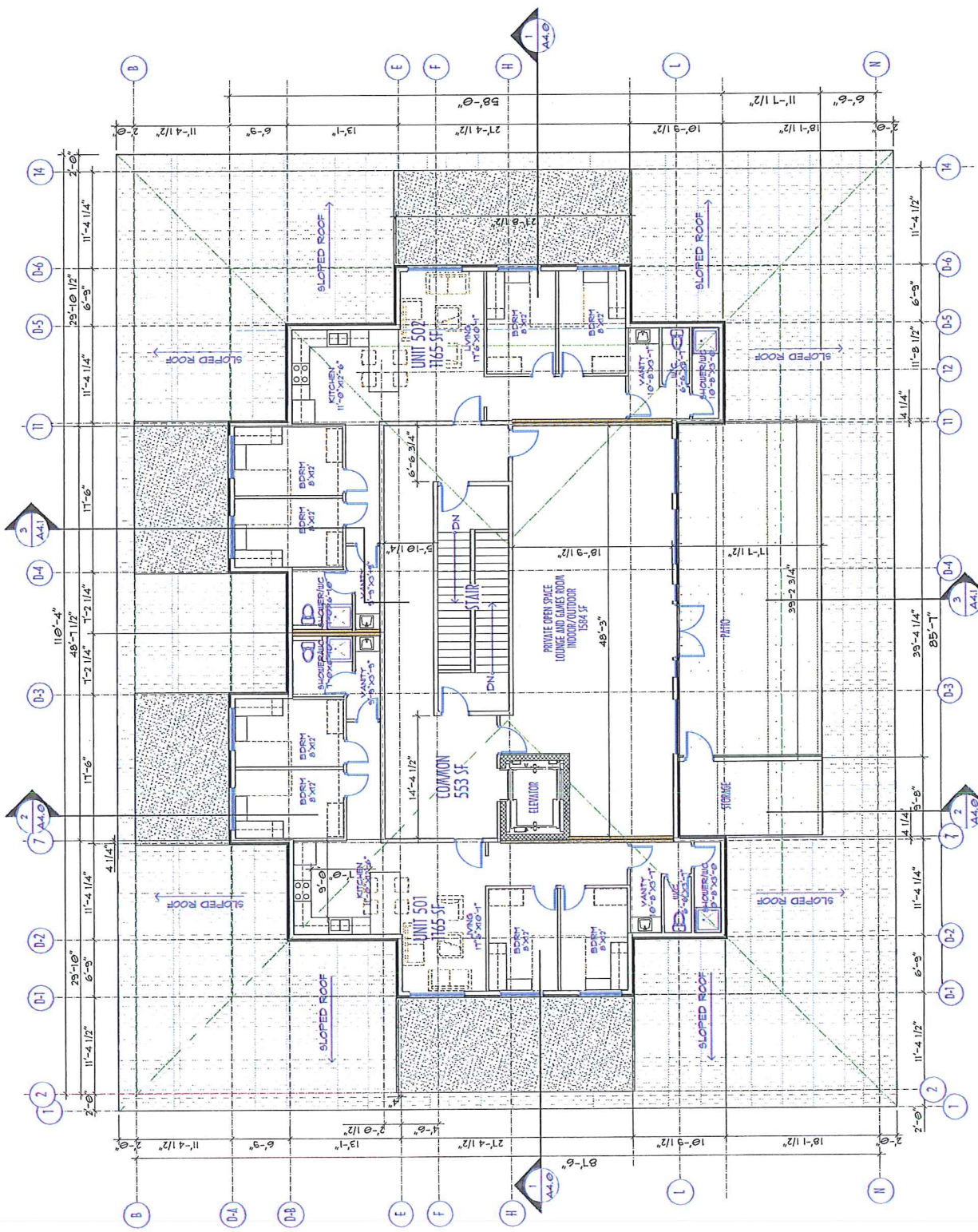
4TH FLOOR PLAN  
 THE VARSITY STUDENT RESIDENCE

**BLUEGREEN ARCHITECTURE INC.**  
 2445 Lower James Street, Suite 100  
 Richmond, BC V6V 1K1  
 Tel: 604.273.1444  
 Fax: 604.273.1445  
 Email: info@bluegreenarch.com

DATE: 01/11/15  
 SCALE: 1/8" = 1'-0"  
 PROJECT: VARSITY STUDENT RESIDENCE  
 SHEET: 404 OF 405



**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0197





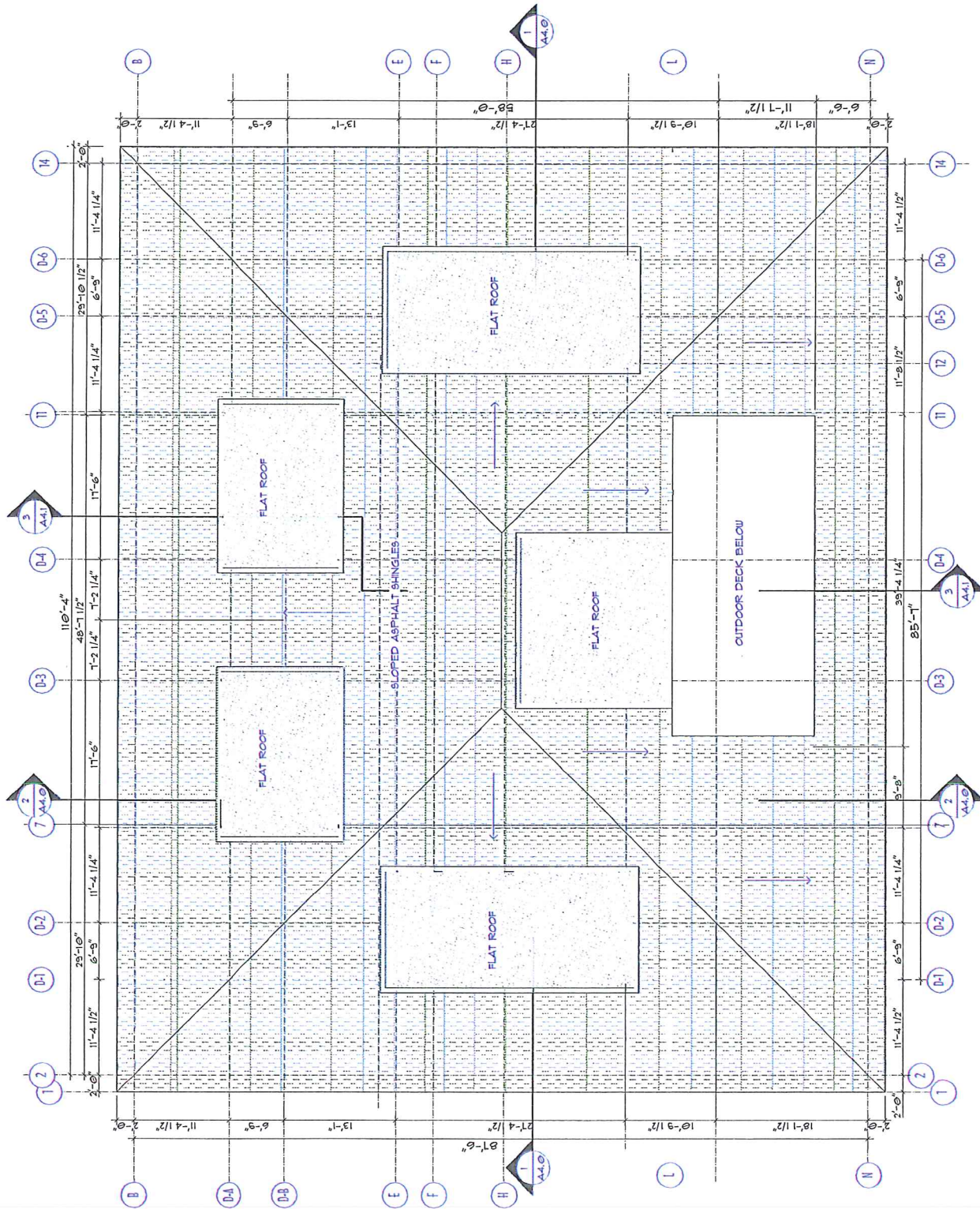
**SCHEDULE A**  
 This forms part of development  
 Permit # DP15-0197

DATE: 11/15/15  
 DRAWN BY: J. HARRIS  
 CHECKED BY: J. HARRIS  
 PROJECT: A25

ROOF PLAN

THE VARSITY STUDENT RESIDENCE

**BLUEGREEN ARCHITECTURE INC.**  
 10000 15th Avenue SW  
 Suite 100  
 Golden, CO 80401  
 Phone: 303.792.1444  
 Fax: 303.792.1445





**BUILDING COLORS AND FINISHES KEY**

- 1 FACE BRICK
- 2 STUCCO COLOR 1
- 3 STUCCO COLOR 2
- 4 STUCCO COLOR 3
- 5 STUCCO COLOR 4
- 6 STUCCO AGENT
- 7 STUCCO AGENT
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- 100 STUCCO AGENT

**SCHEDULE B**  
 This forms part of development  
 Permit # **DP15-0197**



**NORTH ELEVATION - HIGHWAY 33 WEST**



**WEST ELEVATION - DUNDAS ROAD**

**BLUE GREEN ARCHITECTURE INC.**  
 1000 10th Avenue, Kelowna, BC V1Y 1A1  
 Tel: 250.860.1111 Fax: 250.860.1112  
 Email: info@bluegreenarchitect.com

**THE VARSITY STUDENT RESIDENCE**  
 Kelowna, BC

**BUILDING ELEVATIONS**

DATE: 11/15/15  
 SCALE: 1/8" = 1'-0"  
 DESIGNED BY: J. G. GRIFFIN  
 DRAWN BY: J. G. GRIFFIN  
 CHECKED BY: J. G. GRIFFIN  
 APPROVED BY: J. G. GRIFFIN  
 A3.0

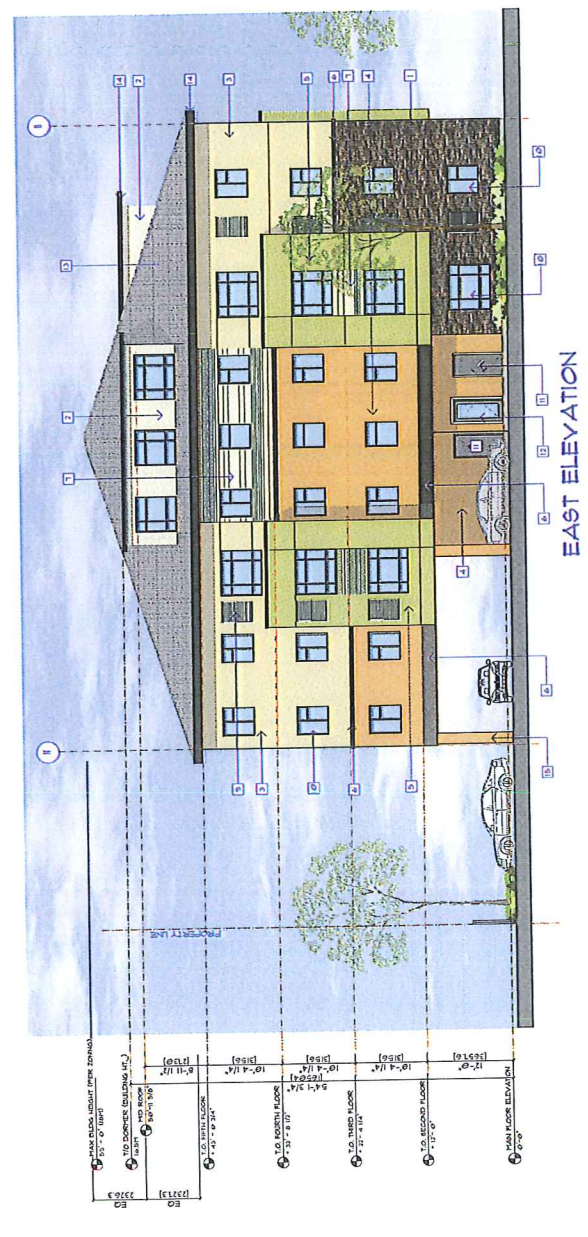


- BUILDING COLORS AND FINISHES KEY**
- 1 FACE BRICK
  - 2 STUCCO COLOR 1
  - 3 STUCCO COLOR 2
  - 4 STUCCO COLOR 3
  - 5 STUCCO COLOR 4
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**SCHEDULE** **AB**

This forms part of development

Permit # **DP15-0197**



**BLUEGREEN ARCHITECTURE INC.**

1000 10th Ave. S.W. Kelowna, BC V1Y 9V7

Phone: 250.860.1111 Fax: 250.860.1112

Website: www.bluegreenarchitecture.com

**THE VARSITY STUDENT RESIDENCE**

Kelowna, BC

**BUILDING ELEVATIONS**

**DATE:** 10/15/2015  
**BY:** J. H. H. H.  
**PROJECT:** A3.1



This forms part of development  
Permit # DP15-0197

THE VARSITY STUDENT RESIDENCE  
Kelowna, BC

**BLUEGREEN  
ARCHITECTURE INC.**  
[www.bluegreenarchitecture.com](http://www.bluegreenarchitecture.com)

202 - 110 4497 33, Kalamazoo, MI 49001-127  
P | 770.753.2450 F | 770.753.1440

3 - 436 Lewis Street, Kalamazoo, MI 49001-195  
P | 260.374.1112 F | 260.374.3774



## SECTION 1 (EAST-WEST)





**Date:** August 6<sup>th</sup>, 2015

**The Varsity Student Housing**  
Hwy33/Dundas Street  
**Contact:** Dave Hallonquist

## Exterior Finishing:

### **Preliminary Colours:**

#### **Paint:**

- **Green:** herbal wisdom 1964 General paint (Stucco)
- **Terracotta:** Brandywine 7710, Sherwin-Williams (Stucco)
- **Cream:** morrisson 1008 General paint (Hardi Board)
- **Tan:** Stonebriar 7693 Sherwin-Williams (Stucco)
- **Dark Trim:** Peppercorn 7674, Sherwin-Williams (Hardi or Stucco)

#### **Brick:**

- High desert used brick (Cultured stone)

#### **Windows:**

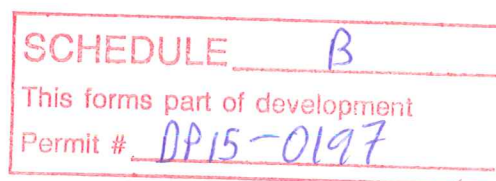
- Dark Gray Metal

#### **Metal Fascia:**

- Gentek Iron Ore

#### **Soffits:**

- Gentek Iron Ore







OUTLAND DESIGN  
LANDSCAPE ARCHITECTURE

December 17, 2015

The VARSITY Student Residence  
C/o Unico One Developments Ltd.  
101-1865 Dilworth Drive  
Kelowna, BC V1Y 9T1  
Attn: David Hallonquist

Re: Proposed Student Residence Development – Preliminary Cost Estimate for Bonding

Dear David:

Please be advised of the following preliminary cost estimate for bonding of the proposed landscape works shown in the VARSITY Student Residence conceptual landscape plan dated 15.08.17;

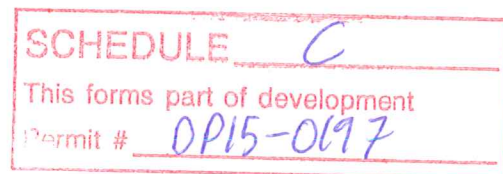
- 613 square metres (6,598 square feet) of improvements = \$47,153.50

This preliminary cost estimate is inclusive of trees, shrubs, turf, mulch, topsoil & irrigation.

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

Best regards,

Fiona Barton, MBCSLA, CSLA  
as per  
Outland Design Landscape Architecture







206 - 839 Spell Road  
Kelowna, BC V1Y 4R2  
T (250) 868-9270  
[www.cantarddesign.com](http://www.cantarddesign.com)

**THE VARSITY  
STUDENT RESIDENCE**  
Kelowna, BC  
David G. Telf

**CONCEPTUAL  
LANDSCAPE PLAN**

COILED FLOW LINE-IN		
1	15 12 17	Development Period
2		
3		
4		
5		

PRE-TEST	1-50
DEVELOP	10
REPAIR	20
CHECKED BY	10
DATE	DEC. 17, 2015
SIG	125



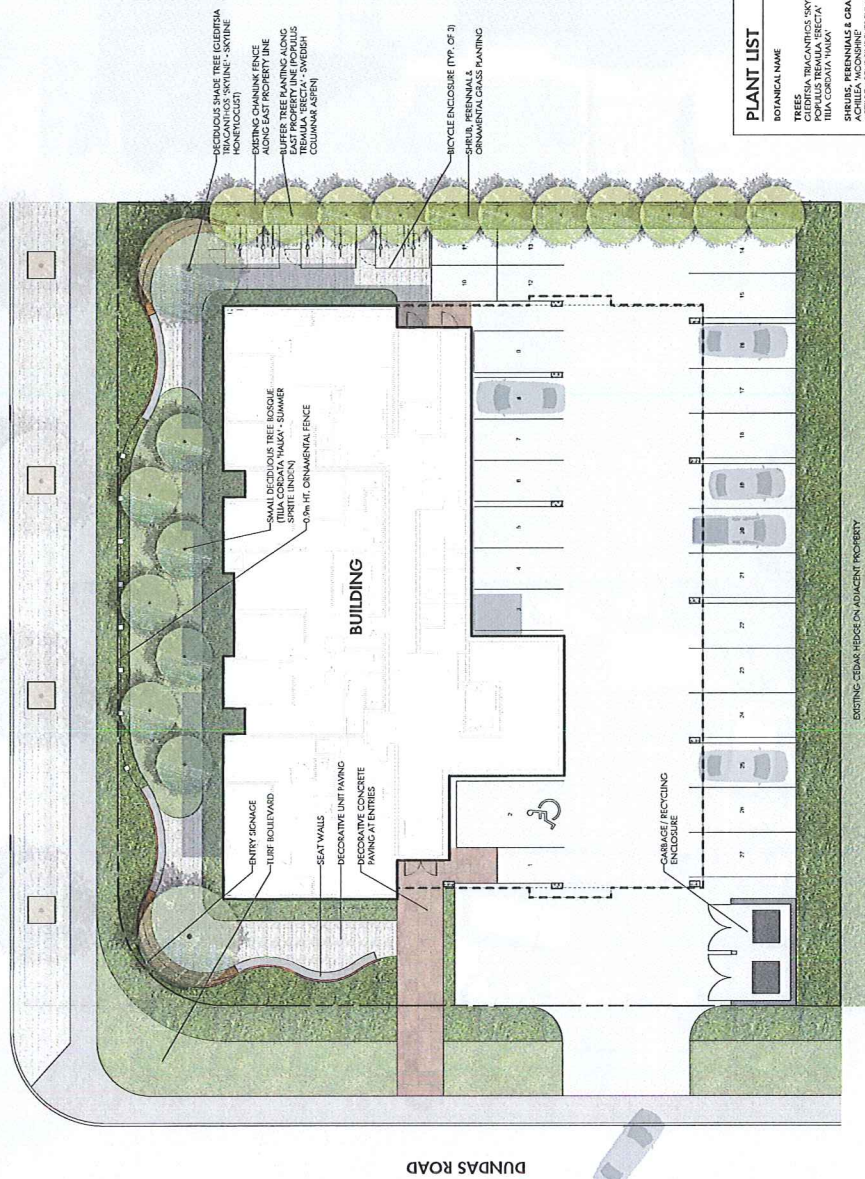
RESEARCH DESIGN

L1/2

**ISSUED FOR REVIEW ONLY**  
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SCHEDULE C  
This forms part of development  
Permit # DP15-0197



## NOTES

2. ALL PLANT MATERIAL AND CONSTRUCTION METHODS SHALL MEET OR EXCEED THE FOLLOWING STANDARDS:
- A. TREES SHALL BE FULLY AUTOMATICALLY WATERED BY A FULLY AUTOMATIC TRIGGERED SPRINKLER SYSTEM.
  - B. TREES AND SHRUB BEDS SHALL BE CHECKED IN A MINIMUM 72-HOUR PERIOD AFTER PLANTING AND SHALL BE WATERED AS REQUIRED TO PREVENT DROUGHT CONDITIONS. A MINIMUM OF 100mm DEPTH OF WATER SHALL BE REQUIRED DURING THE FIRST FLUSH.
  - C. TREES AND SHRUB BEDS TO RECEIVE A MINIMUM 200mm DEPTH TOWARD THE PLANTING.

### PLANT LIST

[illegible]





206 - 859 Spall Road  
Kelowna, BC V1Y 4K2  
T (250) 868-0270  
[www.cultrichdyeing.ca](http://www.cultrichdyeing.ca)



HIGHWAY 33

BUILDING

DUNDAS ROAD



PROJECT TITLE

## THE VARSITY STUDENT RESIDENCE

Kalswara, DC

# IRRIGATION WATER CONSERVATION PLAN

REQUIRED FOR: FIVE-11	
1	13, 12, 17
2	
3	
4	

PROJECT NO	1005
DESIGN BY	FB
DRAWN BY	GP
CHECKED BY	FB
DATE	DEC 17, 2015

- THE IRRIGATION PRODUCTS AND INSTALLATION METHODS SHALL MEET THE REQUIREMENTS OF THE IRRIGATION WATER REGULATION (IWR) AND THE SUBSURFACE IRRIGATION IN THE CITY OF LOS ANGELES (IWSI) (IWR 10.0, IWSI 10.0, SCHEDULE 5).
- THE IRRIGATION SYSTEM SHALL MEET THE REQUIREMENTS, REGULATIONS, AND STANDARDS OF THE WATER REUSE ACT AND THE WATER REUSE REGULATIONS (WR 10.0, WR 10.1, WR 10.2, WR 10.3, WR 10.4, WR 10.5, WR 10.6, WR 10.7, WR 10.8, WR 10.9, WR 10.10, WR 10.11, WR 10.12, WR 10.13, WR 10.14, WR 10.15, WR 10.16, WR 10.17, WR 10.18, WR 10.19, WR 10.20, WR 10.21, WR 10.22, WR 10.23, WR 10.24, WR 10.25, WR 10.26, WR 10.27, WR 10.28, WR 10.29, WR 10.30, WR 10.31, WR 10.32, WR 10.33, WR 10.34, WR 10.35, WR 10.36, WR 10.37, WR 10.38, WR 10.39, WR 10.40, WR 10.41, WR 10.42, WR 10.43, WR 10.44, WR 10.45, WR 10.46, WR 10.47, WR 10.48, WR 10.49, WR 10.50, WR 10.51, WR 10.52, WR 10.53, WR 10.54, WR 10.55, WR 10.56, WR 10.57, WR 10.58, WR 10.59, WR 10.60, WR 10.61, WR 10.62, WR 10.63, WR 10.64, WR 10.65, WR 10.66, WR 10.67, WR 10.68, WR 10.69, WR 10.70, WR 10.71, WR 10.72, WR 10.73, WR 10.74, WR 10.75, WR 10.76, WR 10.77, WR 10.78, WR 10.79, WR 10.80, WR 10.81, WR 10.82, WR 10.83, WR 10.84, WR 10.85, WR 10.86, WR 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10.452, WR 10.453, WR 10.454, WR

## WATER CONSERVATION CALCULATIONS

LANDSCAPE MAXIMUM WATER BUDGET (W<sub>B</sub>) = 613 mm / year

ESTIMATED LANDSCAPE WATER USE (MJ) = 513 cu m./year

WATER BALANCE = 100 cu.m./year  
REFER ATTACHED IRRIGATION APPLICATION FOR DETAILED CALCULATIONS

## IRRIGATION LEGEND

- [illegible]

2025 2024 2023 2022 2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 2003 2002 2001 2000 1999 1998 1997 1996 1995 1994 1993 1992 1991 1990 1989 1988 1987 1986 1985 1984 1983 1982 1981 1980 1979 1978 1977 1976 1975 1974 1973 1972 1971 1970 1969 1968 1967 1966 1965 1964 1963 1962 1961 1960 1959 1958 1957 1956 1955 1954 1953 1952 1951 1950 1949 1948 1947 1946 1945 1944 1943 1942 1941 1940 1939 1938 1937 1936 1935 1934 1933 1932 1931 1930 1929 1928 1927 1926 1925 1924 1923 1922 1921 1920 1919 1918 1917 1916 1915 1914 1913 1912 1911 1910 1909 1908 1907 1906 1905 1904 1903 1902 1901 1900 1899 1898 1897 1896 1895 1894 1893 1892 1891 1890 1889 1888 1887 1886 1885 1884 1883 1882 1881 1880 1879 1878 1877 1876 1875 1874 1873 1872 1871 1870 1869 1868 1867 1866 1865 1864 1863 1862 1861 1860 1859 1858 1857 1856 1855 1854 1853 1852 1851 1850 1849 1848 1847 1846 1845 1844 1843 1842 1841 1840 1839 1838 1837 1836 1835 1834 1833 1832 1831 1830 1829 1828 1827 1826 1825 1824 1823 1822 1821 1820 1819 1818 1817 1816 1815 1814 1813 1812 1811 1810 1809 1808 1807 1806 1805 1804 1803 1802 1801 1800 1799 1798 1797 1796 1795 1794 1793 1792 1791 1790 1789 1788 1787 1786 1785 1784 1783 1782 1781 1780 1779 1778 1777 1776 1775 1774 1773 1772 1771 1770 1769 1768 1767 1766 1765 1764 1763 1762 1761 1760 1759 1758 1757 1756 1755 1754 1753 1752 1751 1750 1749 1748 1747 1746 1745 1744 1743 1742 1741 1740 1739 1738 1737 1736 1735 1734 1733 1732 1731 1730 1729 1728 1727 1726 1725 1724 1723 1722 1721 1720 1719 1718 1717 1716 1715 1714 1713 1712 1711 1710 1709 1708 1707 1706 1705 1704 1703 1702 1701 1700 1699 1698 1697 1696 1695 1694 1693 1692 1691 1690 1689 1688 1687 1686 1685 1684 1683 1682 1681 1680 1679 1678 1677 1676 1675 1674 1673 1672 1671 1670 1669 1668 1667 1666 1665 1664 1663 1662 1661 1660 1659 1658 1657 1656 1655 1654 1653 1652 1651 1650 1649 1648 1647 1646 1645 1644 1643 1642 1641 1640 1639 1638 1637 1636 1635 1634 1633 1632 1631 1630 1629 1628 1627 1626 1625 1624 1623 1622 1621 1620 1619 1618 1617 1616 1615 1614 1613 1612 1611 1610 1609 1608 1607 1606 1605 1604 1603 1602 1601 1600 1599 1598 1597 1596 1595 1594 1593 1592 1591 1590 1589 1588 1587 1586 1585 1584 1583 1582 1581 1580 1579 1578 1577 1576 1575 1574 1573 1572 1571 1570 1569 1568 1567 1566 1565 1564 1563 1562 1561 1560 1559 1558 1557 1556 1555 1554 1553 1552 1551 1550 1549 1548 1547 1546 1545 1544 1543 1542 1541 1540 1539 1538 1537 1536 1535 1534 1533 1532 1531 1530 1529 1528 1527 1526 1525 1524 1523 1522 1521 1520 1519 1518 1517 1516 1515 1514 1513 1512 1511 1510 1509 1508 1507 1506 1505 1504 1503 1502 1501 1500 1499 1498 1497 1496 1495 1494 1493 1492 1491 1490 1489 1488 1487 1486 1485 1484 1483 1482 1481 1480 1479 1478 1477 1476 1475 1474 1473 1472 1471 1470 1469 1468 1467 1466 1465 1464 1463 1462 1461 1460 1459 1458 1457 1456 1455 1454 1453 1452 1451 1450 1449 1448 1447 1446 1445 1444 1443 1442 1441 1440 1439 1438 1437 1436 1435 1434 1433 1432 1431 1430 1429 1428 1427 1426 1425 1424 1423 1422 1421 1420 1419 1418 1417 1416 1415 1414 1413 1412 1411 1410 1409 1408 1407 1406 1405 1404 1403 1402 1401 1400 1399 1398 1397 1396 1395 1394 1393 1392 1391 1390 1389 1388 1387 1386 1385 1384 1383 1382 1381 1380 1379 1378 1377 1376 1375 1374 1373 1372 1371 1370 1369 1368 1367 1366 1365 1364 1363 1362 1361 1360 1359 1358 1357 1356 1355 1354 1353 1352 1351 1350 1349 1348 1347 1346 1345 1344 1343 1342 1341 1340 1339 1338 1337 1336 1335 1334 1333 1332 1331 1330 1329 1328 1327 1326 1325 1324 1323 1322 1321 1320 1319 1318 1317 1316 1315 1314 1313 1312 1311 1310 1309 1308 1307 1306 1305 1304 1303 1302 1301 1300 1299 1298 1297 1296 1295 1294 1293 1292 1291 1290 1289 1288 1287 1286 1285 1284 1283 1282 1281 1280 1279 1278 1277 1276 1275 1274 1273 1272 1271 1270 1269 1268 1267 1266 1265 1264 1263 1262 1261 1260 1259 1258 1257 1256 1255 1254 1253 1252 1251 1250 1249 1248 1247 1246 1245 1244 1243 1242 1241 1240 1239 1238 1237 1236 1235 1234 1233 1232 1231 1230 1229 1228 1227 1226 1225 1224 1223 1222 1221 1220 1219 1218 1217 1216 1215 1214 1213 1212 1211 1210 1209 1208 1207

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L2/2

SCIENCE FOR PEOPLE

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1435 Water Street  
Kelowna, BC V1Y 1J4  
250 469-8500  
kelowna.ca

# IRRIGATION APPLICATION

## APPLICATION IDENTIFICATION

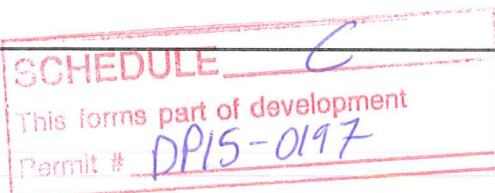
Owner:	Unico One Developments Ltd.	Subject Address:	125 Dundas Road / 815 Hwy 33 W, Kelowna, BC	
Agent if applicable:	Steve Petryshyn	Telephone:	250-868-9270	
Title:	Certified Irrigation Designer	Fax No:		
Company:	Outland Design Landscape Architecture	Email:	steve@outlanddesign.ca	
City:	Kelowna, BC	Mailing Address:	206-1889 Spall Road, Kelowna	
		Province:	BC	Postal Code: V1Y 4R2

## LANDSCAPE WATER CONSERVATION CHECKLIST

Note: all boxes are to be checked - see instruction page

- ☒ Install Backflow prevention devices to meet City of Kelowna standards to isolate the outdoor irrigation system from the potable water system.
- ☒ Group planting into 'hydrozones' of high, medium and low water-use plants or unirrigated/unwatered areas.
- ☒ Minimize mown turf areas that are high water use areas - ideally to 50% of the landscape area or less - substitute with areas of lower water use treatments like unwatered native woods or meadow, mulch, spaced wood deck, pervious paving.
- ☒ Provide adequate topsoil or growing medium of depth and quality to meet the BC Landscape Standard, published by the BC Society of Landscape Architects and the BC Landscape and Nursery Association. General minimum depths over poor subsoils are 150mm for lawn and 300mm for shrubs groundcover.
- ☒ Group irrigation circuits/zones into 'hydrozones' of high, medium, and low or unirrigated areas consistent with the landscape planting plan. Provide a separate irrigation valve for each irrigated hydrozone.
- ☒ Minimize use of high-volume spray heads, and employ drip or low volume irrigation where practical.
- ☒ When spray or rotor irrigation is used, design and install head to head coverage in accordance with manufacturer's specifications, and avoid overspray outside landscape areas.
- ☒ Ensure matched precipitation rates within all irrigation circuits.
- ☒ Design and install pipe and head layout so flow velocity does not exceed 1.5 m/s, and to minimize elevation change or pressure variation in circuits. Provide check valves to stop low head drainage.
- ☒ Ensure irrigation mainlines are proved leak-free with hydrostatic tests.
- ☒ Provide pressure regulating devices to ensure irrigation outlets are operating at the manufacturer's optimum pressure range.
- ☒ Install - and program to minimize water use - 'Smart Controllers' to meet standards of the City of Kelowna Water Regulation Bylaw.
- ☒ Install an irrigation master shut-off valve (isolation valve) located outside the building in a location accessible to the City that when closed shall stop the supply of water from the potable water supply to the outdoor irrigation system and shall be capable of being closed and locked off by the City.

Applicant Notes on the Landscape Water Conservation Checklist:







1435 Water Street  
Kelowna, BC V1Y 1J4  
250 469-8500  
kelowna.ca

# IRRIGATION APPLICATION

## LANDSCAPE WATER CONSERVATION TABLE

Applicant: **Unico One Developments Ltd.** Address: **125 Dundas Road / 815 Hwy 33 W, Kelowna, BC**

### Step 1: Measure Total Landscape Area (LA)

Area of site that will absorb water:

**621** sq.m.

Note: INCLUDE BOULEVARD, and proposed lawn, plants, mulch, PERVIOUS decks or paving. Do not include building areas, driveways, patios, decks or walks unless pervious.

Step 2: Divide Into Landscape Treatments*		Plant Factor	Irrig Efficiency	Hydrozone Area	% of Total LA	Estimated Water
Note: each of the areas below are a 'HYDROZONE'		(PF)	(IE)	(HA)		(WU)
<b>Unwatered Pervious Areas (not impervious paving)</b>						
Mulch (Stone, bark or sand)		N/A	N/A		0%	N/A
Pervious deck (Spaced wood deck)		N/A	N/A		0%	N/A
Pervious paving (AquaPave, Rima Pave)		N/A	N/A		0%	N/A
Naturalized meadow (wildflowers)		N/A	N/A		0%	N/A
Naturalized area (Existing natural area)		N/A	N/A		0%	N/A
Other:		N/A	N/A		0%	N/A
Swimming or ornamental pool		1	1		0%	0
<b>Watered Planting Beds (shrubs or groundcover)</b>						
<i>Planting Type</i>	<i>Irrig Efficiency</i>					
Low water use plants	High (Drip or Bubbler)	0.3	0.9		0%	0
Low water use plants	Low (Spray or Rotor)	0.3	0.7		0%	0
Moderate water use plants	High (Drip or Bubbler)	0.5	0.9	416	67%	231
Moderate water use plants	Low (Spray or Rotor)	0.5	0.7		0%	0
High water use plants	High (Drip or Bubbler)	0.7	0.9		0%	0
High water use plants	Low (Spray or Rotor)	0.7	0.7		0%	0
<b>Watered Mown Lawn Areas</b>						
Low		1	0.7	197	32%	281
<b>Special Landscape Areas (SLA)</b>						
Vegetable Garden	High (Drip or Bubbler)	1	0.9		0%	0
Vegetable Garden	Low (Spray or Rotor)	1	0.7		0%	0
Sports Lawn	Low (Spray or Rotor)	1	0.7		0%	0
Rainwater or Recycled Water Use		0.3	1		0%	0
<b>Totals</b>				613	99%	513
Special Landscape Area (SLA) Sub total						

\*If proposed design conditions are not shown on the form please contact the City at 250 469-8502

**SCHEDULE**  
This forms part of development  
Permit # **DP15-0197**



# IRRIGATION APPLICATION

## CALCULATE & COMPARE WATER BUDGET TO ESTIMATED WATER USE

Note: For Evapotranspiration (ETo) in Kelowna use 1000m      Amount      Units

Total Landscape Area	613	sq.m.
Landscape Maximum Water Budget (WB)	613	cu.m./yr.
Estimated Landscape Water Use (WU)	513	cu.m./yr.
Under (-OVER) Budget (Must be under Water Budget WB)	100 OK	cu.m./yr.

I have identified and confirmed, by completing the attached 'Landscape Water Conservation Checklist' above, that the project will conform to current landscape and irrigation water conservation practices listed in the checklist. I also acknowledge that the landscape treatments of the project will conform to the Hydrozone areas identified by me in the 'Landscape Water Conservation Calculation Table' above.

\_\_\_\_\_  
Signature of Applicant

Date: \_\_\_\_\_

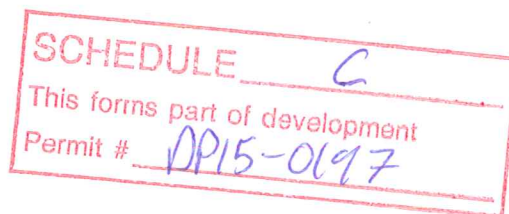
## FOR CITY OF KELOWNA OFFICE USE ONLY

The Irrigation Application and calculations above satisfy the requirements of the Water Regulation Bylaw 10480 Section 4.4.2 and 4.4.3. and is hereby APPROVED with the signature of the Water Manager or designate.

\_\_\_\_\_  
Signature of Kelowna Water Smart designate  
For Water Manager

Date: \_\_\_\_\_

\_\_\_\_\_  
Print Name



**NOTE: Post Signed and approved application at Smart Controller for future reference**