## CITY OF KELOWNA

## **MEMORANDUM**

Date: File No.: July 19, 2016 Z16-0037

To:

Community Planning (LK)

From:

Development Engineering Manager (PI)

Subject:

671-681 Glenwood Ave

RU6 to RM3

The Development Engineering Department has the following comments and requirements associated with this rezoning 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 Ryan O'Sullivan

## 1. <u>Domestic Water and Fire Protection</u>

a) This property is currently serviced with a 19mm-diameter water service. The applicant's consulting mechanical engineer will determine the requirements of the proposed development and establish the service needs. The applicant will arrange for the removal and disconnection of the existing service and the installation of one new larger service at the applicants cost.

The estimated cost of this construction, for bonding purposes, is \$12,000.

b) 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

Our records indicate that this property is currently serviced with a 100mm-diameter sanitary sewer service. The applicant's consulting mechanical engineer will determine the requirements of the proposed development and establish the service needs. Only one service per lot will be permitted for this development. If required, the applicant will arrange for the removal and disconnection of the existing service and the installation of one new larger service at the applicants cost.

The estimated cost of this construction, for bonding purposes, is \$10,000.

## 3. Road Improvements

(a) Richter Street must be upgraded to an urban standard along the full frontage of this proposed development, including curb and gutter, sidewalk, drainage system including catch basins, manholes and pavement removal and replacement and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction.

(b) Glenwood Avenue must be upgraded to an urban standard along the full frontage of this proposed development, sidewalk is need to complete this frontage.

## 4. Subdivision

- (a) Grant Statutory Rights of Way if required for utility services.
- (b) Dedicate 2.5m width along the full frontage of Glenwood Avenue.
- (c) 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.
- (d) Provide 6m corner rounding at intersection of Glenwood Avenue and Richter Street.

## 5. <u>Development Permit and Site Related Issues</u>

- a) Direct the roof drains into on-site rock pits or splash pads.
- b) An MSU standard size vehicle must be able to manoeuvre onto and off the site without requiring a reverse movement onto public roadways. If the development plan intends to accommodate larger vehicles movements should also be illustrated on the site plan.
- c) The access to this site must be from the lane. Access to Richter St. and Glenwood Ave. is not permitted as per bylaw.

#### 6. Electric Power and Telecommunication Services

The electrical and telecommunication services to this building must be installed in an underground duct system, and the building must be connected by an underground service. It is the developer's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for these services, which would be at the applicant's cost.

### 7. Bonding and Levy Summary

#### (a) Bonding

Storm service upgrades	\$20,843.00
Sanitary service upgrades	\$10,000.00
Watermain and service upgrade	\$12,000.00
Road Frontage Improvements	\$31,984.38

Total Bonding <u>\$74,827.38</u>

#### 8. 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). in the amount of \$2,749.90 (\$2,618.95 + 130.95GST)

## 9. Geotechnical Report

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

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

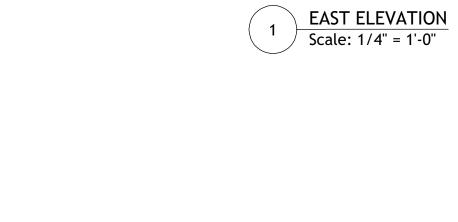
Purvez Irani, MS, P.Eng, PTOE

Development Engineering Manager

RO

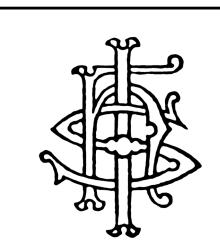






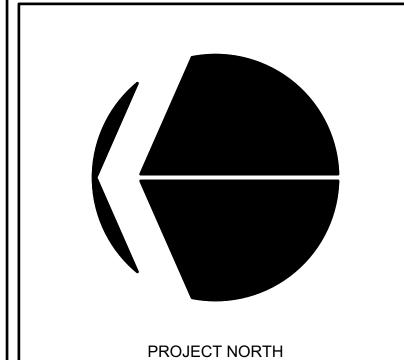






IHS DESIGN 1392 MINE HILL DRIVE KELOWNA, BC V1P 1S5 www.ihsdesign.com (250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION DATE DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT
671 GLENWOOD AVENUE
KELOWNA, BC V1Y 5M2
LOT 2 PLAN KAP6704

DRAWING TITLE

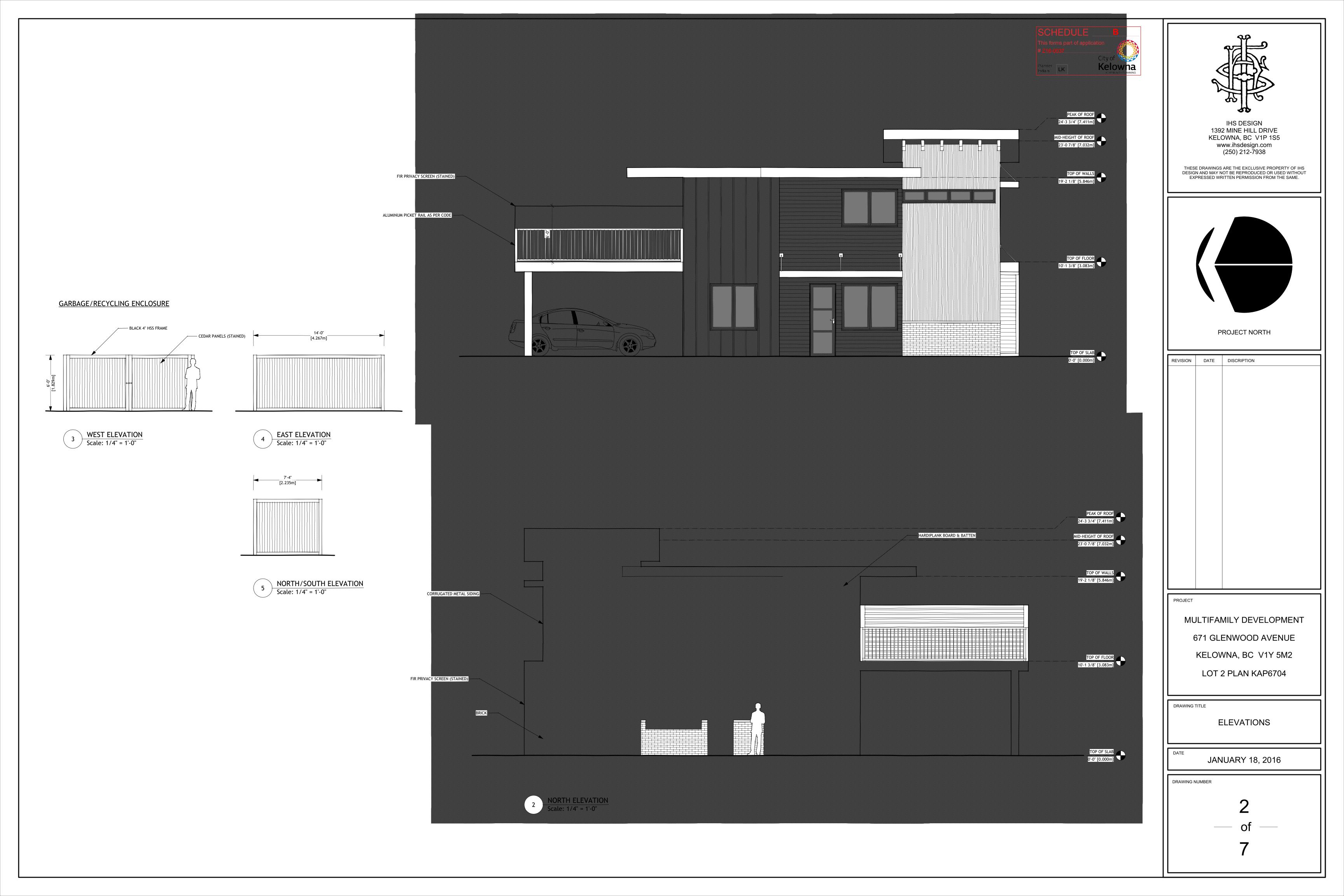
**ELEVATIONS** 

JANUARY 18, 2016

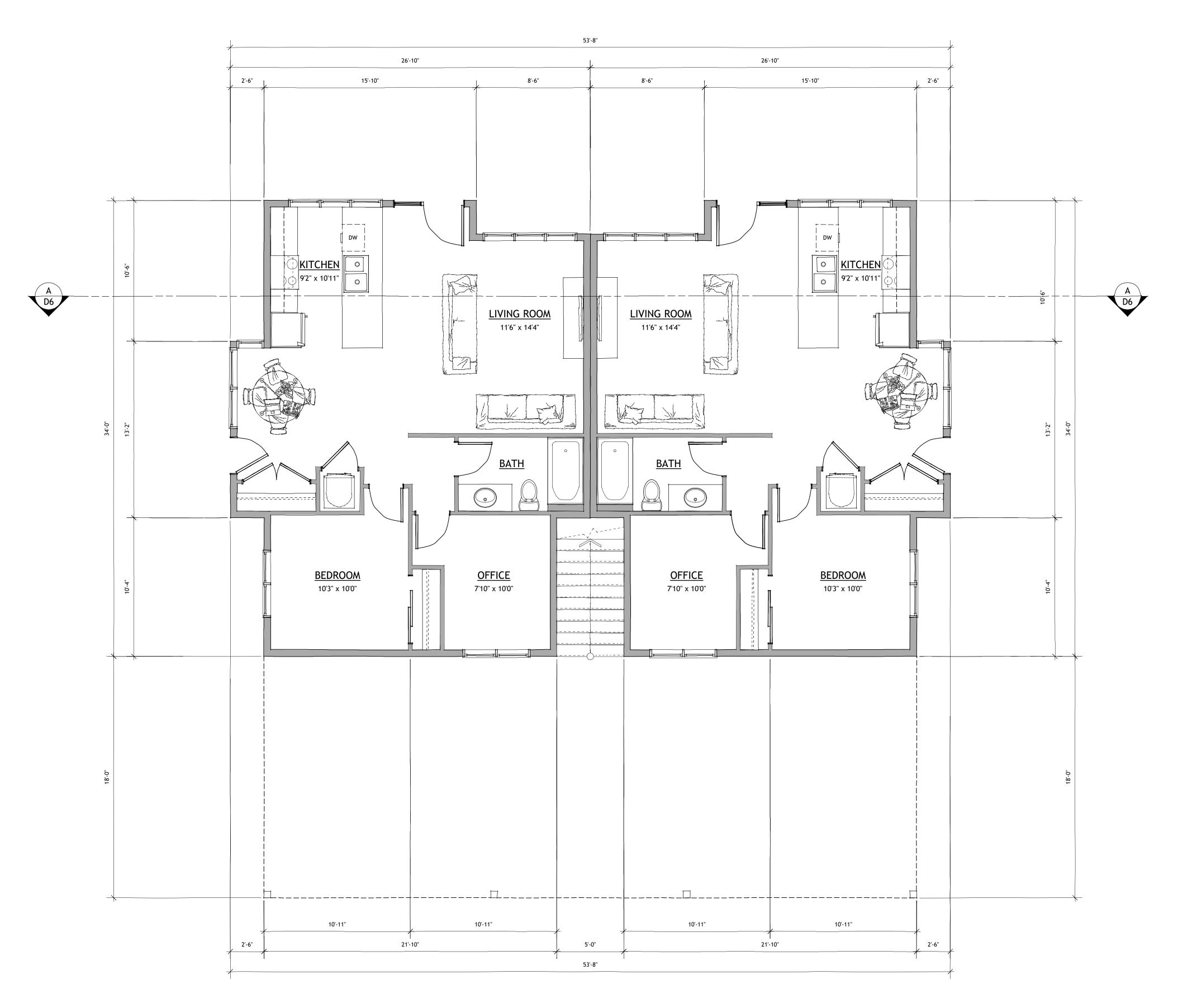
DRAWING NUMBER

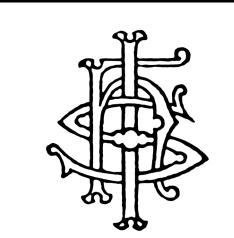
\_ of \_

7



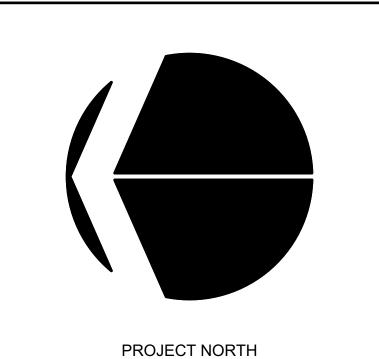






IHS DESIGN 1392 MINE HILL DRIVE KELOWNA, BC V1P 1S5 www.ihsdesign.com (250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION	DATE	DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT
671 GLENWOOD AVENUE
KELOWNA, BC V1Y 5M2
LOT 2 PLAN KAP6704

DRAWING TITLE

MAIN FLOOR PLAN

JANUARY 18, 2016

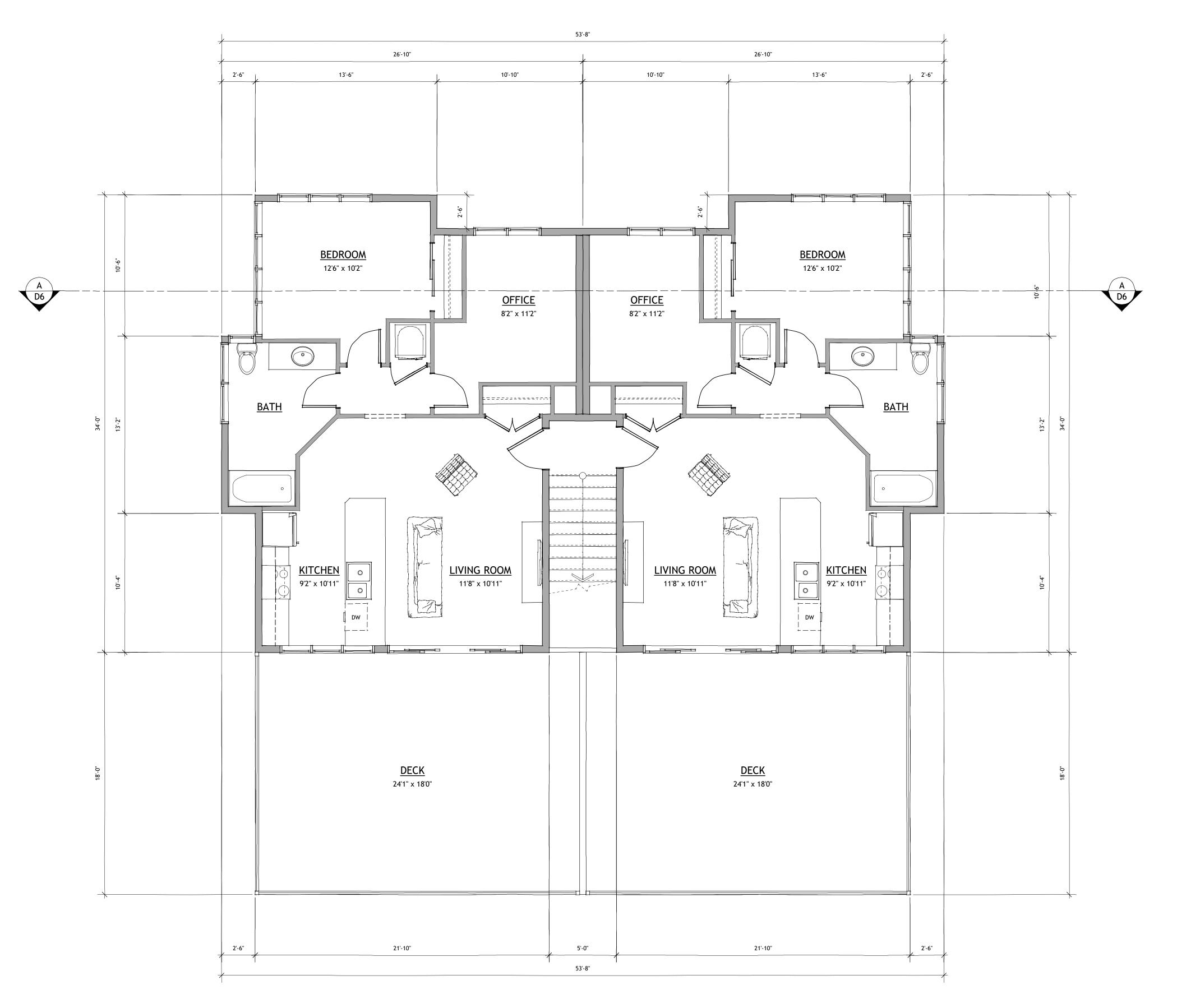
DRAWING NUMBER

\_\_ of \_

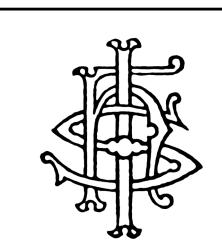
7

MAIN FLOOR PLAN
Scale: 1/4" = 1'-0"



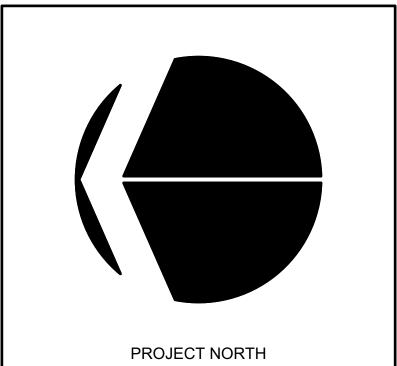






IHS DESIGN 1392 MINE HILL DRIVE KELOWNA, BC V1P 1S5 www.ihsdesign.com (250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION	DATE	DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT
671 GLENWOOD AVENUE
KELOWNA, BC V1Y 5M2

LOT 2 PLAN KAP6704

DRAWING TITLE

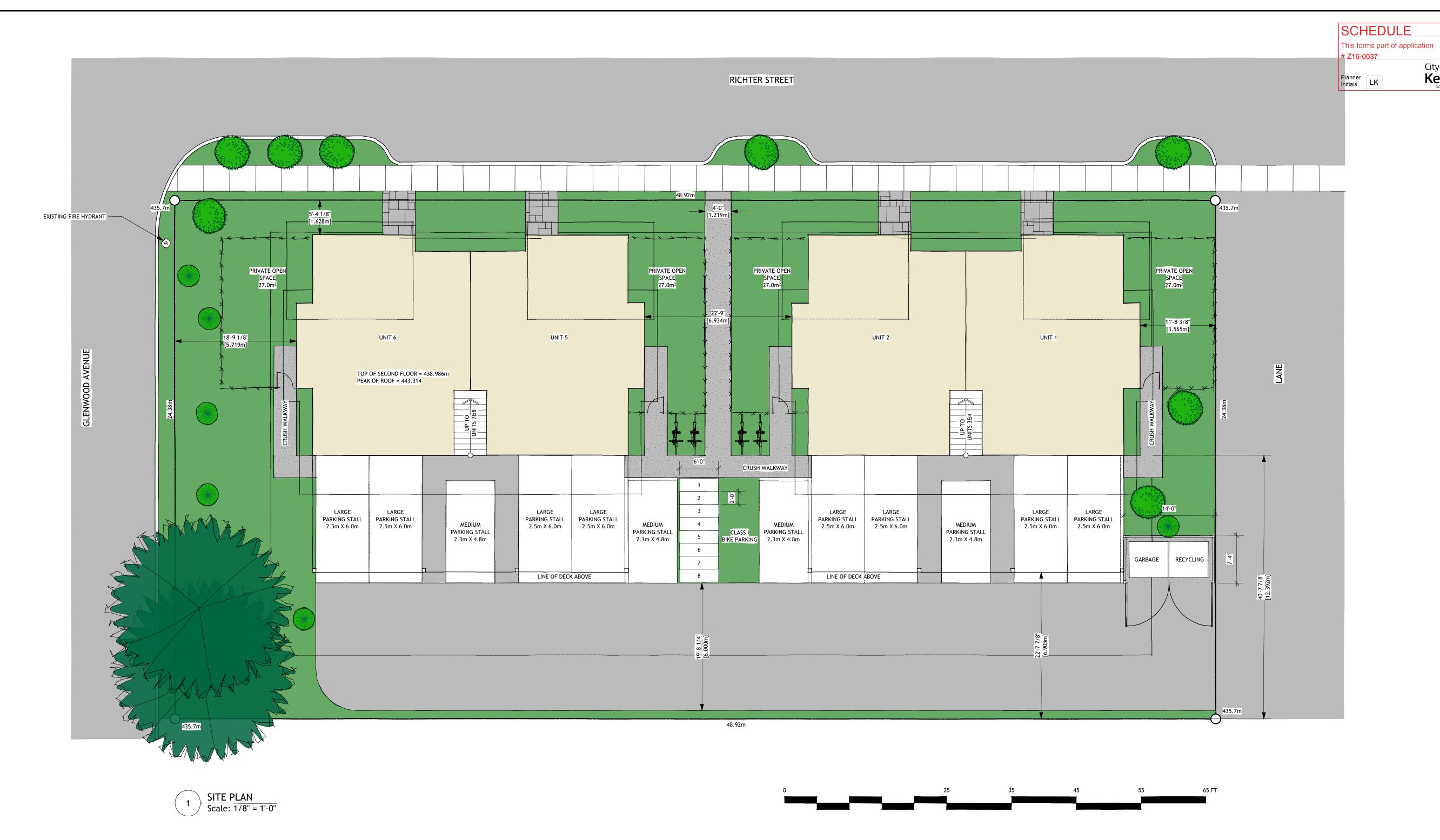
SECOND FLOOR PLAN

JANUARY 18, 2016

DRAWING NUMBER

**⊤** – of —

7



PARKING CALCULATIONS 12 STALLS REQUIRED PARKING 8 UNITS X 1.5 (1 BED + DEN) 1 PER 7 UNITS 2 STALLS VISITOR PARKING **TOTAL PARKING** 12 STALLS 8 STALLS FULL SIZE STALLS MIN. 50% MEDIUM SIZE STALLS MAX. 50% 4 STALLS **BOULEVARD PARKING** NONE REQUIRED 4 STALLS CLASS I BICYCLE PARKING 8 UNITS X 0.5 4 STALLS CLASS II BICYCLE PARKING 1 STALL 8 UNITS X 0.1

PROJECT DATA: CIVIC ADDRESS

E CIVIC ADDRESS

671 GLENWOOD AVENUE

KELOWNA, BC V1Y 5M2

LEGAL ADDRESS

LOT 2 PLAN KAP6704

CURRENT ZONING

PROPOSED ZONING

FUTURE LAND USE

671 GLENWOOD AVENUE

KELOWNA, BC V1Y 5M2

LOT 2 PLAN KAP6704

RU-6 TWO DWELLING HOUSING

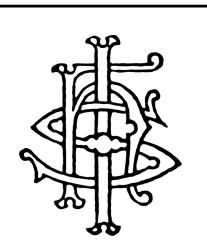
RM3 - LOW DENSITY MULTIPLE HOUSING

MRL MULTIPLE UNIT RESIDENTIAL (LOW DENSITY)

ZONING ANALYSIS

	RM3 ZONE STANDARDS	PROPOSED
SITE AREA	900.00m2	1193.25m2
PROPOSED BUILDING FOOTPRINT AT GRADE (PER BLDG)		155.89m2
PROPOSED DECK AREA (PER BLDG)		81.38m2
PROPOSED PERMEABLE FRONT WALKWAYS (2X2 PAVERS)		9.92m2
PROPOSED PERMEABLE DRIVEWAY AREA (2X2 PAVERS)		290.21m2
PROPOSED CRUSH WALKWAYS		49.70m2
LOWER UNIT FINISHED FLOOR AREA		75.55m2
UPPER UNIT FINISHED FLOOR AREA		73.41m2
FLOOR AREA RATIO (WITH PARKING BONUS)	0.80	0.42
SITE COVERAGE (WITH SITE COVERAGE BONUS)	50.0%	39.8%
SITE COVERAGE INCLUDING HARD SURFACES	65.0%	64.9%

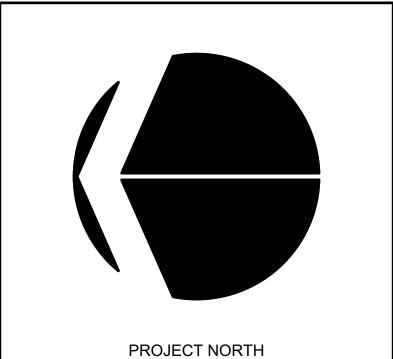
PROPOSED BUILDING HEIGHT	10m/3 STOREYS	7.032m/2 STOREYS
PARKING STALLS PROVIDED	12	12
BICYCLE STALLS PROVIDED	5	12
PRIVATE OPEN SPACE (LOWER UNITS)	15.00m2	27.00m2
PRIVATE OPEN SPACE (UPPER UNITS)	15.00m2	40.69m2
DISTANCE BETWEEN BUILDINGS	3.000m	6.934m
FRONT (NORTH) YARD SETBACK	4.500m	5.719m
REAR (SOUTH) YARD SETBACK	3.000m	3.565m
SIDE/FLANKING (EAST) YARD SETBACK	1.500m	1.628m
SIDE (WEST) YARD SETBACK	4.000m	6.905m
1 IN 200 YEAR FLOOD CONSTRUCTION LEVEL	343.660m	345.500m



Kelowna

IHS DESIGN
1392 MINE HILL DRIVE
KELOWNA, BC V1P 1S5
www.ihsdesign.com
(250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION	DATE	DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT
671 GLENWOOD AVENUE
KELOWNA, BC V1Y 5M2
LOT 2 PLAN KAP6704

DRAWING TITLE

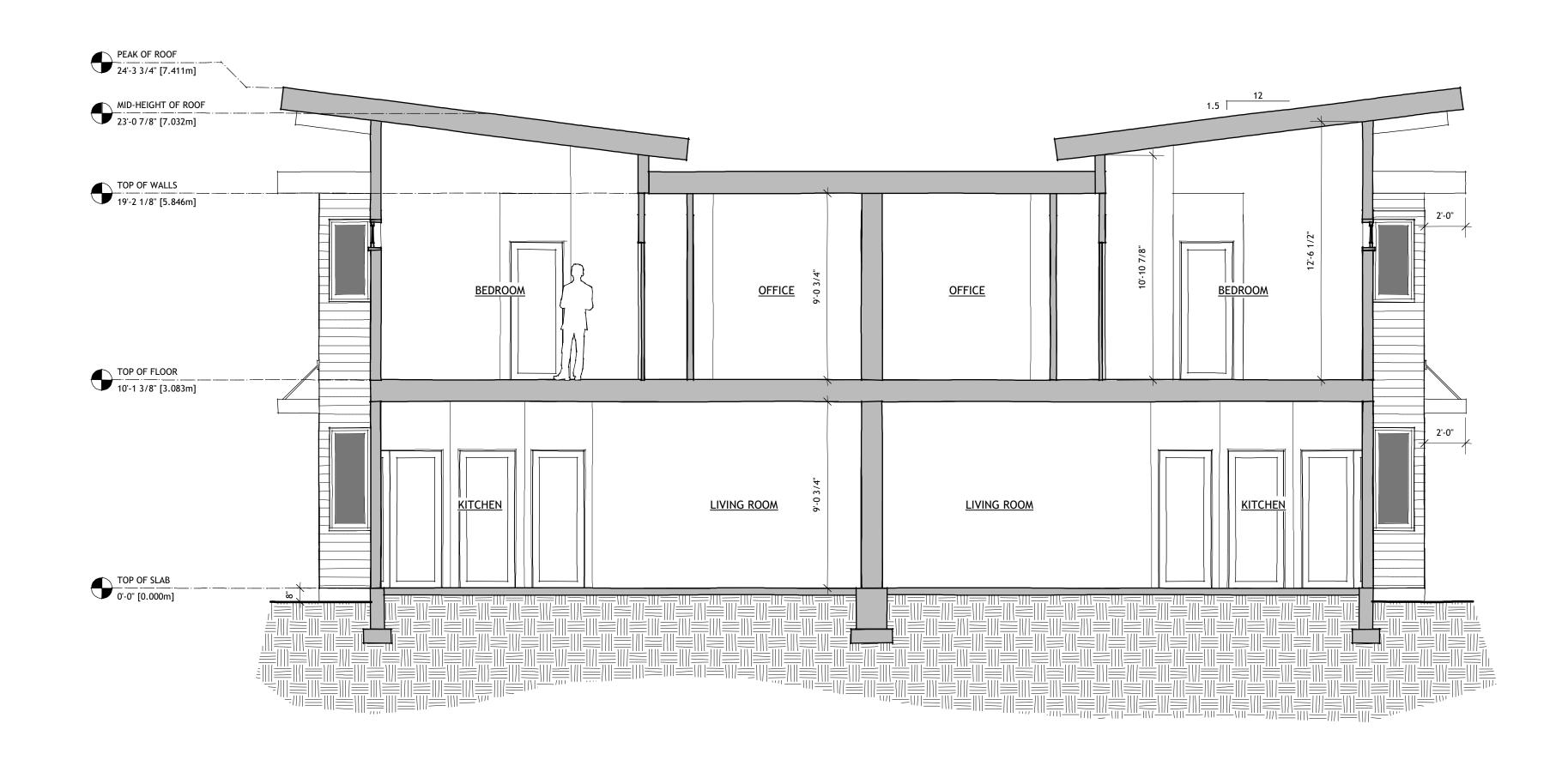
SITE PLAN

JANUARY 18, 2016

DRAWING NUMBER

5 of -

7



SECTION A Scale: 1/4" = 1'-0"

# **GENERAL NOTES**

- 1. THE DESIGNER MAKES EVERY EFFORT TO PROVIDE COMPLETE AND ACCURATE HOME PLANS. HOWEVER, WE ASSUME NO LIABILITY FOR ANY ERRORS AND OR OMISSIONS WHICH MAY AFFECT CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK AND VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH CONSTRUCTION. SHOULD ANY DISCREPANCIES BE FOUND ON THESE PLANS IT IS INCUMBENT ON YOU TO ADVISE OUR OFFICE AS SOON AS POSSIBLE. BY DOING SO WE WILL BE ABLE TO MAKE CORRECTIONS TO THE DRAWINGS AND REPLACE ANY PLANS IF NECESSARY. IN THIS WAY WE CAN BETTER SERVE YOU AND PREVENT ERRORS
- 2. ALL FOOTINGS MUST BE PLACED ON UNDISTURBED OR COMPACTED SOILS AND BELOW THE FROST LINE. FOUNDATION WALL HEIGHTS AND THICKNESSES AS WELL AS FOOTING SIZES MAY NEED TO BE ADJUSTED AND/OR REINFORCED DUE TO SITE CONDITIONS. ANY ENGINEERING SERVICES REQUIRED ARE THE RESPONSIBILITY OF THE OWNER OR BUILDER.
- 3. APPROVED SMOKE ALARMS TO BE INSTALLED AND INTERCONNECTED.
- 4. BUILDER TO CHECK SNOW LOAD REQUIREMENTS FOR THEIR LOCAL AREA AND MAKE ANY NECESSARY ADJUSTMENTS PRIOR TO CONSTRUCTION.
- 5. CARBON MONOXIDE ALARMS SHALL CONFORM TO CSA 6.19, "RESIDENTIAL CARBON MONOXIDE ALARMING DEVICES".
- 6. DAMPROOFING OF 6 MIL POLYETHYLENE, WITH SEAMS LAPPED, OVER 4" OF GRANULAR FILL SHALL BE LAID UNDER CONCRETE SLABS. A FLEXIBLE SEALANT SHALL BE PLACED WHERE THE SLAB AND FOUNDATION WALL MEET.
- 7. DIMENSIONS TAKE PRECEDENCE TO SCALE.

- 8. DRAINAGE AROUND FOUNDATION TO CONSISTING OF A 4" DIAMETER PIPED COVERED WITH A MINIMUM OF 6" CRUSHED STONE SHALL BE PLACED AROUND THE PERIMETER OF THE BUILDING.
- 9. ENSURE THAT WINDOWS IN FUTURE BEDROOMS HAVE A MINIMUM AREA OF .35m2 (3.75 FT2) WITH AN UNOBSTRUCTED HEIGHT AND WIDTH OF 380mm (15"). THE WINDOW OPENING SHALL BE A MAXIMUM OF 1.5m (5') ABOVE THE FLOOR.
- 10. EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING.
- 11. EXTERIOR WALLS ARE DRAWN AT 6"
- 12. LIGHTING AND ELECTRICAL LAYOUTS TO BE SPECIFIED BY THE OWNER OR BUILDER AND MUST MEET WITH 2012 BCBC REQUIREMENTS.
- 13. PLANS ARE BASED ON THE USE OF #2 OR BETTER SPF, UNLESS OTHERWISE STATED. LAMINATED BEAMS WILL REQUIRE AN ENGINEER'S CERTIFICATION. THIS IS THE RESPONSIBILITY OF THE OWNER OR BUILDER.
- 14. REFER TO ENGINEERED FLOOR JOIST AND ROOF TRUSS LAYOUT TO CONFIRM BEAM, POST AND PAD FOOTING LOCATION AND SIZES. ENSURE PROPER BEARING IS PROVIDED FOR ALL BEAMS.
- 15. ROOF SPACES SHALL BE VENTED WITH ROOF, EAVE AND/OR GABLE END TYPE VENTS TO A MIN OF 1:300 OF THE INSULATED AREA.
- 16. SITING OF THE HOME IS THE RESPONSIBILITY OF THE BUILDER IN CONJUNCTION WITH THE HOMEOWNER.
- 17. THE DRAWINGS HAVE BEEN PREPARED TO CONFORM TO THE 2012 EDITION OF THE BRITISH COLUMBIA BUILDING CODE. THE BUILDER IS RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION CONFORMS TO THE BCBC AND LOCAL BUILDING CODES AND BYLAWS. ALL CONSTRUCTION AND INSTALLATION OF MATERIALS SHALL BE DONE IN ACCORDANCE WITH GOOD BUILDING PRACTICES AND MANUFACTURERS INSTRUCTIONS. LOCAL BUILDING DEPARTMENTS MAY REQUIRE CERTIFICATION FROM A STRUCTURAL ENGINEER FOR PART OR ALL OF THE STRUCTURE. ANY ENGINEERING FEES ARE THE RESPONSIBILITY OF THE OWNER OR BUILDER.
- 18. THE INSTALLATION OF ALL PLUMBING, HVAC AND ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND THE APPLICABLE SECTIONS OF THE 2012 BCBC.
- 19. THE SITING OF THE HOME MUST BE IN COMPLIANCE WITH CITY OF KELOWNA BYLAWS. BEFORE COMMENCEMENT OF CONSTRUCTION, ENSURE THAT THE SITE PLAN HAS BEEN APPROVED BY A CITY OF KELOWNA BUILDING
- 20. VANITY SIZES ARE FOR REFERENCE ONLY. REFER TO APPROVED KITCHEN LAYOUT FOR CABINET SIZES.
- 21. CONSTRUCTION LOADS ON THE STRUCTURE CAUSED BY INTERIM STORAGE OF MATERIALS OR USE OF EQUIPMENT, SHALL NOT BE ALLOWED TO EXCEED THE DESIGN LOADINGS.
- 22. CONFIRM ALL DIMENSIONS ON-SITE PRIOR TO BEGINNING CONSTRUCTION
- 23. EXTERIOR DOORS SHALL BE SOLID CORE AND WEATHERSTRIPPED. GARAGE DOORS TO DWELLING TO BE AS ABOVE AND SELF-CLOSING.
- 24. GRADES SHOWN ON PLANS ARE ESTIMATED. FOUNDATION WALL HEIGHTS AND HOUSE SITING MAY REQUIRE ADJUSTMENT TO SUIT SITE CONDITIONS.
- 25. MIN. 25% OF UNOBSTRUCTED ROOF VENT AREA SHALL BE AT BOTH THE SOFFIT AND TOP OF ATTIC. ROOF VENTING SHALL BE IN ACCORDANCE WITH BCBC 9.19.1.2.
- 26. PROVIDE BAFFLE FOR AIR SPACE (EQUAL TO SOFFIT VENTING) BETWEEN INSULATION AND ROOF SHEATHING AT EXTERIOR WALL LINE.
- 27. THE FACE OF SHEATHED EXTERIOR WALLS SHALL BE FLUSH WITH FOUNDATION WALLS.
- 28. WOOD IN CONTACT WITH CONCRETE TO BE DAMP-PROOFED WITH SILL GASKET OR OTHER APPROVED METHOD. PLATES TO BE ANCHORED TO CONCRETE FOUNDATION WITH 1/2" DIA. A307 ANCHOR BOLTS AT 4'-0" O.C.

- LAMINATE SHINGLES - BITUMEN SATURATED ROOFING PAPER

- 7/16" SHEATHING W/ H-CLIPS - ENGINEERED ROOF TRUSSES @ 24" O.C. - LOOSE FILL INSULATION
- 6 MIL POLY VAPOUR & AIR BARRIER
- 1/2" CEILING BOARD (TEXTURED)

- HARDIPLANK LAP SIDING/BOARD & BATTEN - BUILDING PAPER

- 3/8" SHEATHING - 2X6 STUD WALL - STUDS @ 16" O.C. - BATT TYPE INSULATION
- 6 MIL POLY VAPOUR & AIR BARRIER - 1/2" DRYWALL (PAINTED)
- **BEARING WALL** 
  - 1/2" DRYWALL (PAINTED) - 2X4 STUD WALL - STUDS @ 16" O.C. - 1/2" DRYWALL (PAINTED)
    - WALLS RUNNING PERPENDICULAR TO FLOOR JOIST LAYOUT ARE TO HAVE A STUD SPACING OF 19.2" O.C. WITH STUDS
    - DIRECTLY ABOVE JOIST
- **BEARING WALL** 
  - 1/2" DRYWALL (PAINTED) - 2X4 STUD WALL - STUDS @ 16" O.C. - 1/2" DRYWALL (PAINTED)

- INTERIOR FLOOR COVERINGS - 3/4" T & G PLYWOOD SUBFLOOR - 11 7/8" TJI SILENT FLOOR (SEE APPROVED LAYOUT FOR JOIST SPACING AND PLACEMENT) - 1/2" DRYWALL (TEXTURED) IN FINISHED AREAS ONLY - REFER TO APPROVED FLOOR LAYOUT DIAGRAM

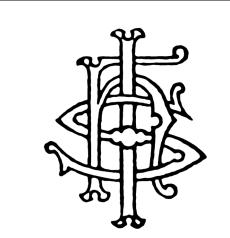
- **CONCRETE FOUNDATION** 
  - 8" CONCRETE FROST WALL - MIN. 20 MPa 28 DAY CONCRETE STRENGTH
    - 10M BAR (HORIZ.) @ 18" O.C. - 10M BAR (VERT.) @ 48" O.C. ALTERNATING
    - 24" X 24" 15M CORNER BARS @ ALL CORNERS - 1 1/2" CLEAR TO REBAR FROM INSIDE OF WALL - 1/2" A307 ANCHOR BOLTS REQ'D @ 4'-0" O.C.
    - RIGID INSULATION - 8" X 16" CONTINUOUS CONCRETE FOOTING
    - 2 ROWS 15M BAR CONTINUOUS - 2" CLEAR TO REBAR FROM BOTTOM OF FOOTING

    - UNEXCAVATED EARTH - PROVIDE MINIMUM 24" FROST PROTECTION

    - 4" CONCRETE SLAB (20 MPA MIN) - 10M BARS @ 16" E.W. IN TILED FLOOR AREAS
    - ALL JOINTS SEALED TO PREVENT AIR LEAKAGE - RIGID INSULATION

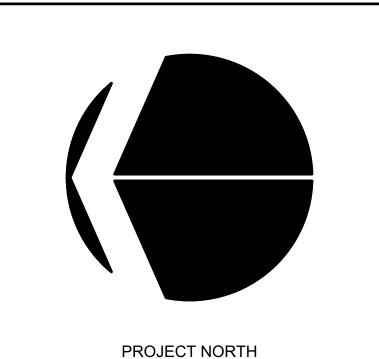
- 6 MIL POLY LAPPED NOT LESS THAN 12" &

- MINIMUM 4" CLEAN GRANULAR MATERIAL - PROVIDE ROUGH-IN FOR FUTURE SUBFLOOR
- DEPRESSURIZATION SYSTEM TO CONTROL SOIL GAS AS PER BCBC 9.13.4.3
- 4" CONCRETE SLAB (32 MPA MIN) - MIN. 2% SLOPE TO FRONT OF GARAGE - 5% MIN AIR ENTRAINMENT
- 10M BARS @ 18" E.W. - 6" MIN WELL COMPACTED GRANULAR FILL
- UNEXCAVED EARTH



1392 MINE HILL DRIVE KELOWNA, BC V1P 1S5 www.ihsdesign.com (250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION	DATE	DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT 671 GLENWOOD AVENUE KELOWNA, BC V1Y 5M2 LOT 2 PLAN KAP6704

DRAWING TITLE

**SECTION** 

JANUARY 18, 2016

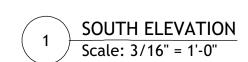
DRAWING NUMBER











ALLURA LAP SIDING - GRANITE GRAY

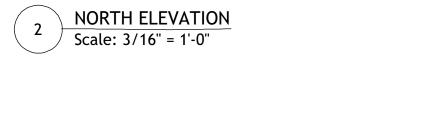


CORRUGATED METAL SIDING - GALVANIZED

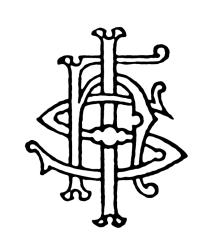
HEBRON BRICK COMPANY - SANTA ROSE

FIR TIMBERS - CIL 'GOLDEN CEDAR'

EAST ELEVATION

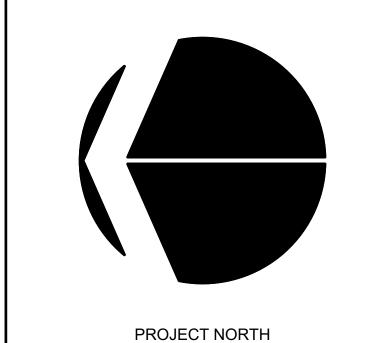






IHS DESIGN 1392 MINE HILL DRIVE KELOWNA, BC V1P 1S5 www.ihsdesign.com (250) 212-7938

THESE DRAWINGS ARE THE EXCLUSIVE PROPERTY OF IHS DESIGN AND MAY NOT BE REPRODUCED OR USED WITHOUT EXPRESSED WRITTEN PERMISSION FROM THE SAME.



REVISION	DATE	DISCRIPTION

PROJECT

MULTIFAMILY DEVELOPMENT 671 GLENWOOD AVENUE KELOWNA, BC V1Y 5M2 LOT 2 PLAN KAP6704

DRAWING TITLE

COLOUR BOARD

JANUARY 18, 2016

DRAWING NUMBER

SMARTBOARD FASCIA, METAL SUNSHADES, ALUMINUM RAIL, WINDOW FRAMES - BLACK