CITY OF WEST KELOWNA
DEVELOPMENT PERMIT WITH VARIANCES
DP 23-14

To: Jenifer Berkhiem
105-1932 Summit Drive
Kelowna, BC
V1V 3E9

1. This Development Permit is issued subject to compliance with all the Bylaws of the City of West Kelowna applicable thereto, except as specifically varied or supplemented by this Permit.

2. This Permit applies to and only to those lands within the City of West Kelowna described below, and any and all buildings, structures, and other developments thereon:

PLAN EPP67384 LOT 14 DISTRICT LOT 3496 OSOYOOS DIV OF YALE DISTRICT
(3053 Wales Rd)

1. This Permit Hillside Development Permit with Variances allows for the development of a Single family dwelling in a Hillside Development Area with the following variances S.10.5.5(g)i. of the Zoning Bylaw to reduce the front parcel boundary setback from 6.0 m to 0.9 m for the garage and 4.5m to 3.0 m and S.10.5.5(f)i. of the Zoning Bylaw to increase the building height from 10.0 m to 11.32 m. subject to the following conditions and related Schedules:

    A. The size and dimensions of the single family dwelling are to be in accordance with Schedule 'A';

    B. The dimensions, siting, and parking layout are to be in accordance with Schedule 'B';

    C. The landscape works to be in accordance with Schedule 'C';

    D. Landscape Estimate works to be in accordance with Schedule 'D';

    E. All construction activities to be conducted on the land in general accordance with Schedule ‘E’.

2. As a condition of the issuance of this Permit, the City of West Kelowna is holding a landscape security set out below to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Permittee and be paid to the Permittee if the security is returned. The condition of the posting of the security is that should the Permittee fail to carry out the development hereby authorized, according to the terms and conditions of the Permit within the time provided, the City of West Kelowna may use the security to carry

out the work by its servants, agents or contractors, and any surplus shall be paid over to the Permittee, or should the Permittee carry out the development permitted by this Permit within the time set out below, the security shall be returned to the Permittee. There is filed accordingly:

An Irrevocable Letter of Credit or Bank Draft in the amount of $23,125.00

3. The land described herein shall be developed strictly in accordance with the terms and conditions of this Permit and any plans and specifications attached to this Permit, which shall form a part hereof. Should any change be required to this permit, please ensure that you obtain written approval from the City of West Kelowna prior to making any changes.

4. If this Development Permit has not been issued within one year from approval, Permit (DP 23-14) shall be deemed to have been refused and the file will be closed.

5. **This Permit is not a Building Permit.**

6. **This Permit is not a Municipal Highway Permit.**

7. **This is not an Archaeology Permit.**

A: All archaeological sites in B.C. are protected under the Heritage Conservation Act. This applies to whether sites are located on public or private land and whether the site is known or unknown. If you think you have uncovered an archaeological site during a building project or renovation, please do not disturb the site further and call B.C.'s Archaeology Branch immediately at (250) 953-3334. Branch archaeologists will review your project plans and make recommendations to manage site impacts and secure the required permitting.

AUTHORIZING RESOLUTION NO (XXXXXXX) PASSED BY THE MUNICIPAL COUNCIL ON (DATE).

Signed on _____

_____
Corporate Officer

I hereby confirm that I have read and concur with the conditions of Development Permit and will ensure that copies of the Permit will be provided to onsite personnel at time of construction.

Signed on _____

_____
Property Owner or Agent

ISSUED on _____

Schedules:

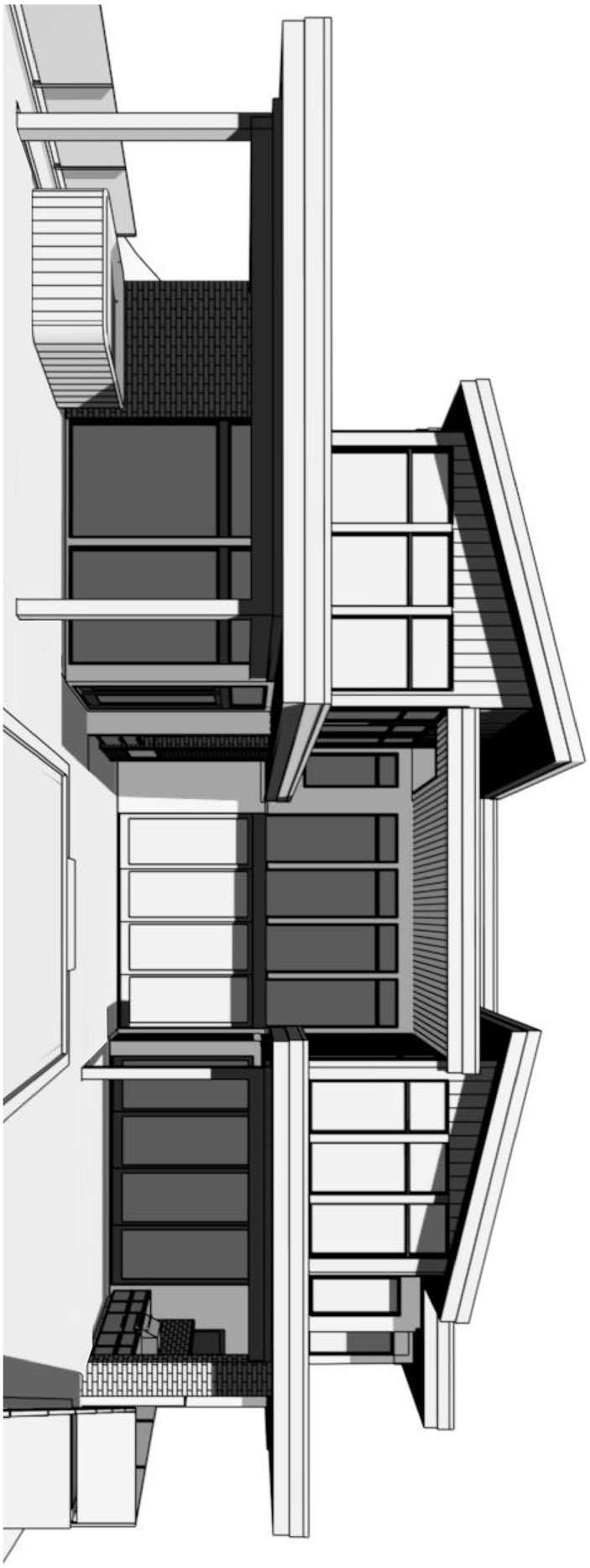
Schedule A: Architectural Plans prepared by R-Tistry Home Design on August 31st, 2023.

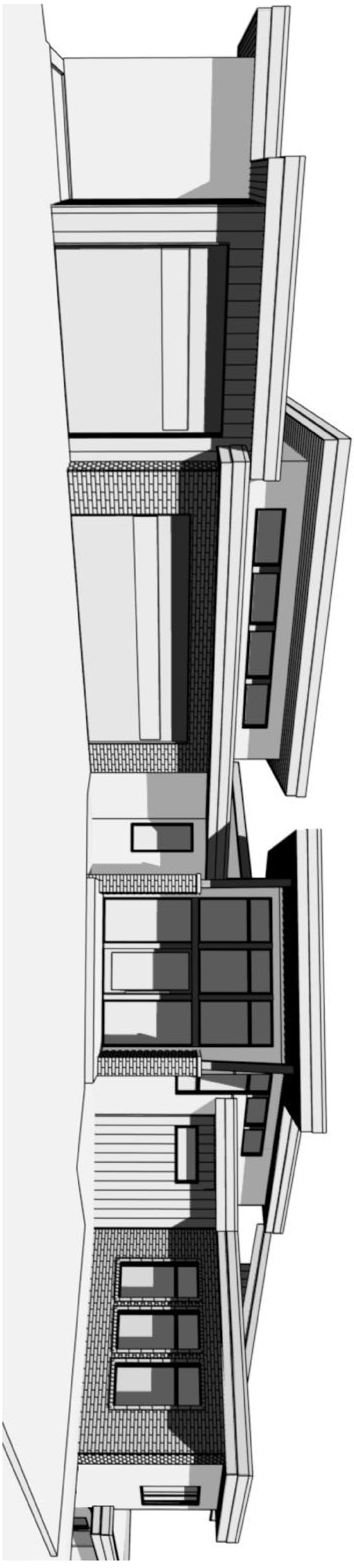
Schedule B: Site Plan prepared by Vector Geomatics Land Surveying Ltd. on January 5th, 2023.

Schedule C: Landscape Plan prepared by Shelley Lynn Design on September 5th, 2023.

Schedule D: Landscape Estimate prepared by Picture Perfect Landscaping on September 11th, 2023.

Schedule E: Slope Stability Report prepared by Evertek Engineering Ltd. on August 31st, 2023.





SHEET:	SCALE:	DATE:
1/11	1/4" = 1'	2023-08-31

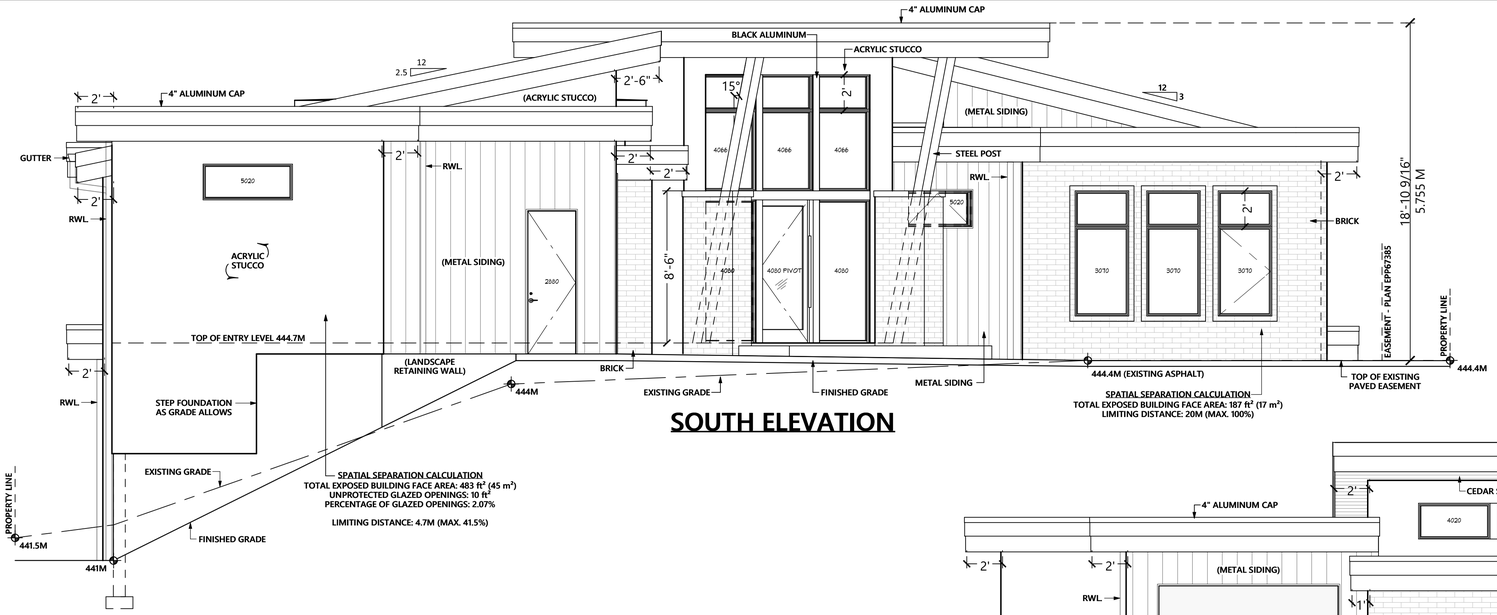
PROJECT TITLE:

3053 WALES RD.
WEST KELOWNA, BC

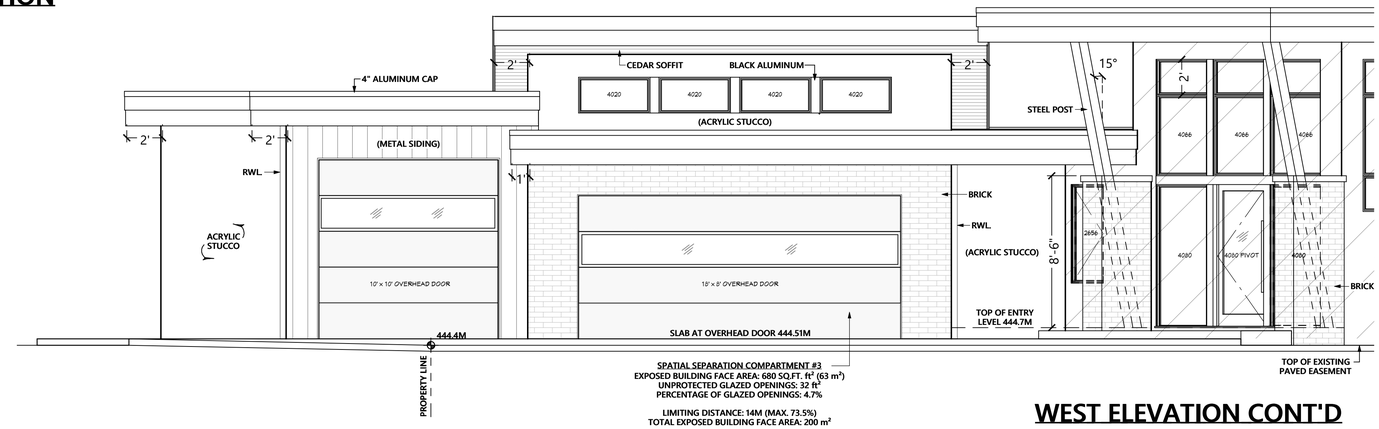
GIBSON
CONTRACTING

ISSUED PLANS:		
NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8-2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9-2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31-2023

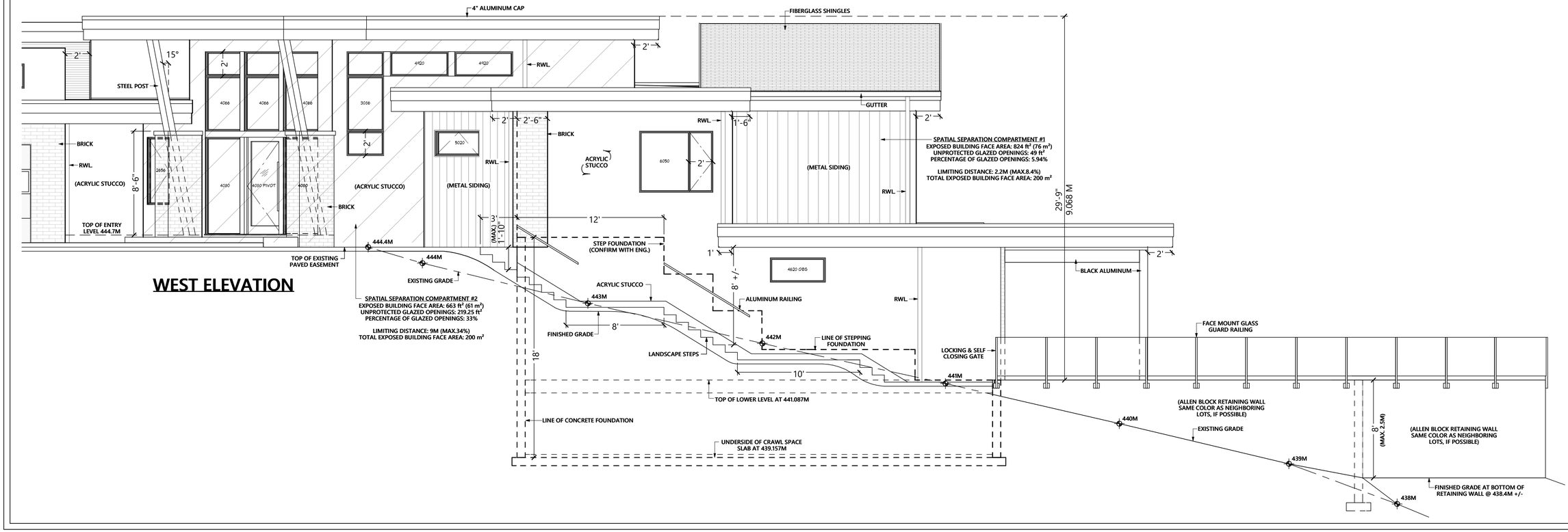
R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641



SOUTH ELEVATION



WEST ELEVATION CONT'D



WEST ELEVATION

STANDARD NOTES

1. ALL WORK SHALL CONFORM TO THE CURRENT BUILDING CODES ADOPTED BY AUTHORITIES HAVING JURISDICTION OR LOCAL BUILDING CODES AND BYLAWS WHICH MAY TAKE PRECEDENCE.

2. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

3. "R-TISTRY DRAFTING INC." SHALL NOT BE RESPONSIBLE FOR ANY VARIANCES FROM THE STRUCTURAL DRAWINGS AND SPECIFICATIONS, OR ADJUSTMENT REQUIRED RESULTING FROM CONDITIONS ENCOUNTERED AT THE JOB SITE AND IS THE SOLE RESPONSIBILITY OF THE OWNER/ BUILDER.

4. CONSTRUCTION LOADS ON THE STRUCTURE CAUSED BY INTERIM STORAGE OF MATERIALS OR USE OF EQUIPMENT, SHALL NOT BE ALLOWED TO EXCEED THE DESIGN LOADINGS.

5. ALL WINDOW AND DOOR SIZES AND OPERATION ARE TO BE CONFIRMED BY OWNER/BUILDER WITH THE MANUFACTURE.

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

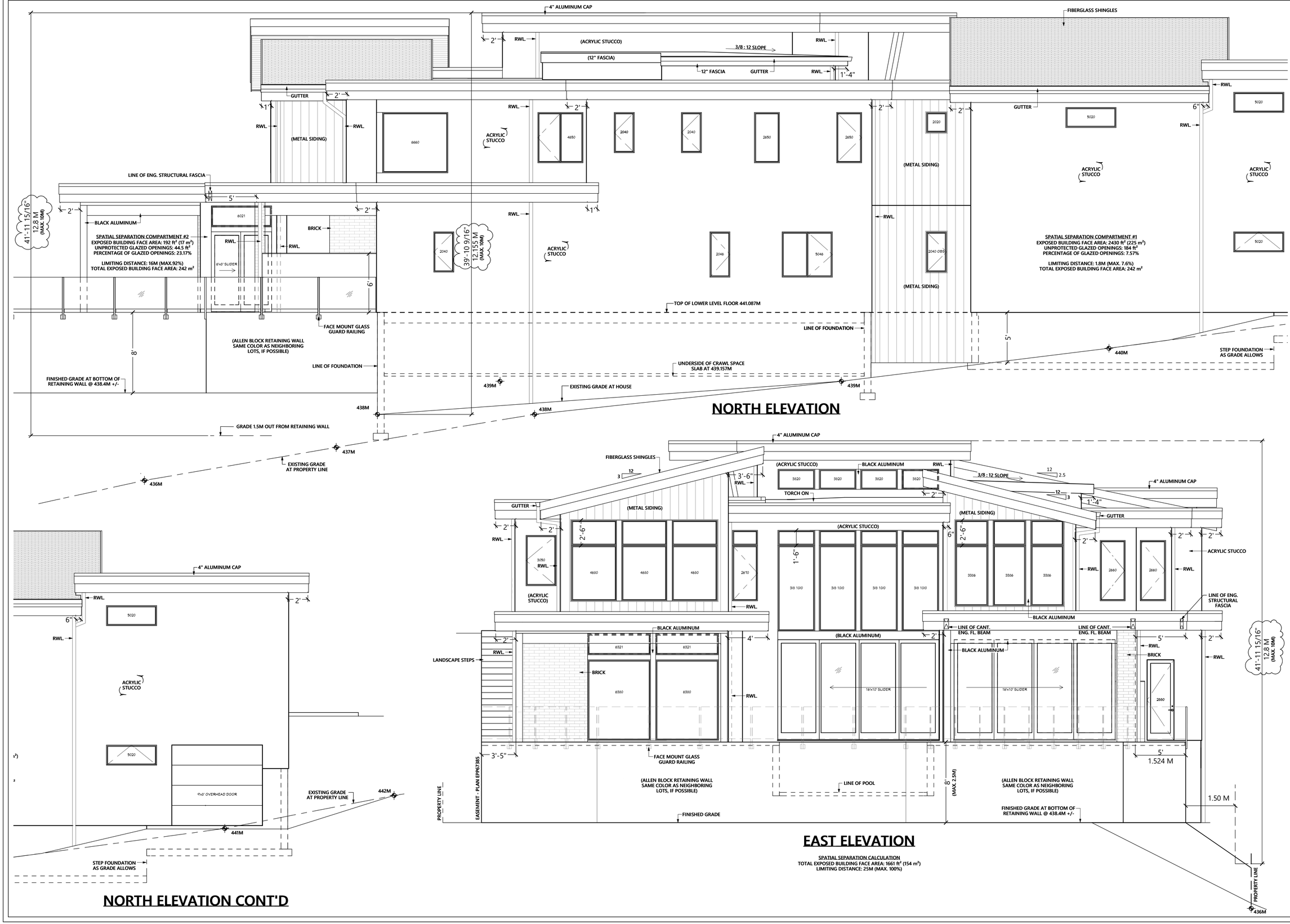
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
2/11



NORTH ELEVATION

NORTH ELEVATION CONT'D

EAST ELEVATION

SPATIAL SEPARATION CALCULATION
TOTAL EXPOSED BUILDING FACE AREA: 1661 ft² (154 m²)
LIMITING DISTANCE: 25M (MAX. 100%)

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

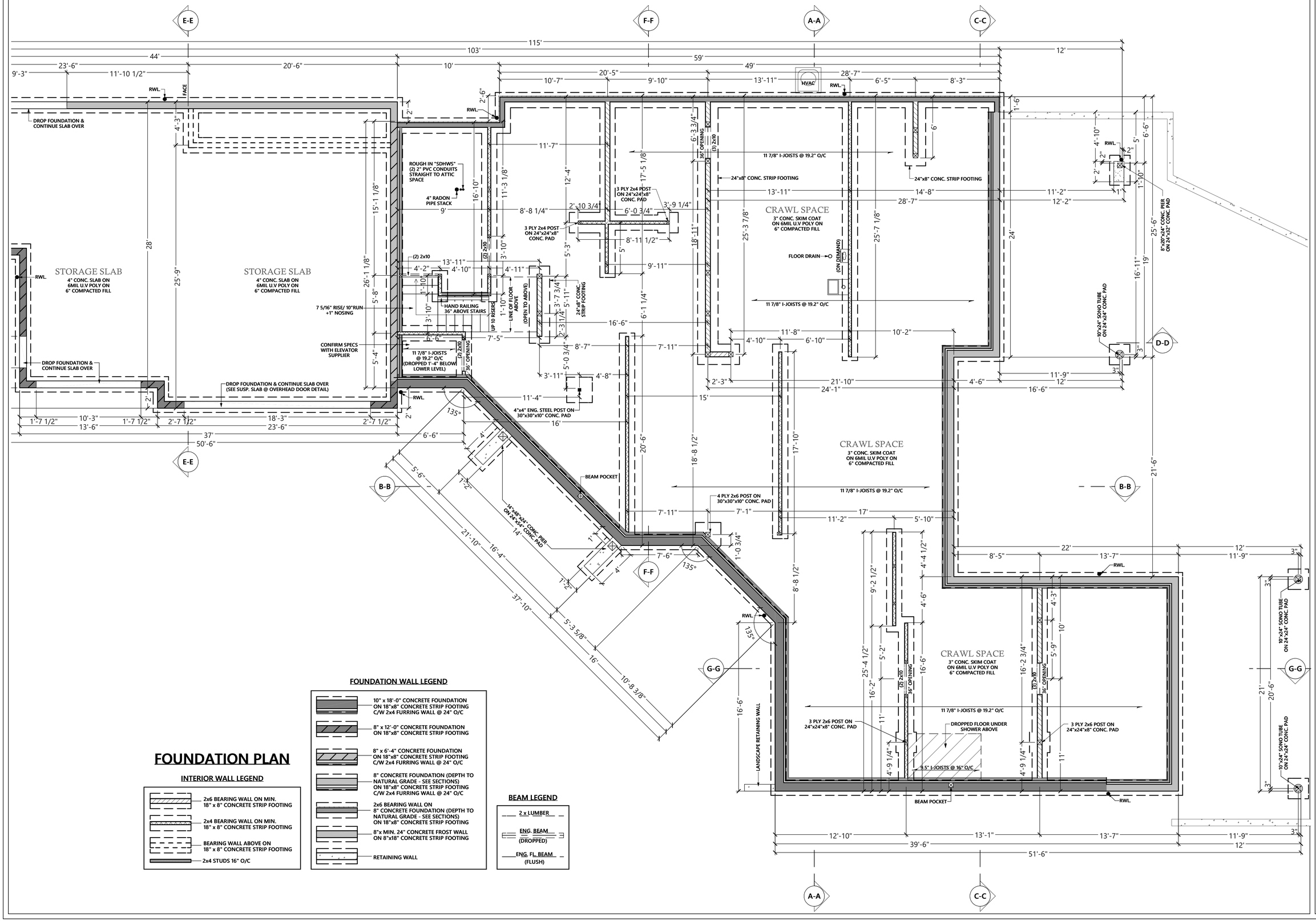
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
3/11



FOUNDATION PLAN

INTERIOR WALL LEGEND

- 2x6 BEARING WALL ON MIN. 18" x 8" CONCRETE STRIP FOOTING
- 2x4 BEARING WALL ON MIN. 18" x 8" CONCRETE STRIP FOOTING
- BEARING WALL ABOVE ON 18" x 8" CONCRETE STRIP FOOTING
- 2x4 STUDS 16" O/C

FOUNDATION WALL LEGEND

- 10" x 18'-0" CONCRETE FOUNDATION ON 18"x8" CONCRETE STRIP FOOTING C/W 2x4 FURRING WALL @ 24" O/C
- 8" x 12'-0" CONCRETE FOUNDATION ON 18"x8" CONCRETE STRIP FOOTING
- 8" x 6'-4" CONCRETE FOUNDATION ON 18"x8" CONCRETE STRIP FOOTING C/W 2x4 FURRING WALL @ 24" O/C
- 8" CONCRETE FOUNDATION (DEPTH TO NATURAL GRADE - SEE SECTIONS) ON 18"x8" CONCRETE STRIP FOOTING C/W 2x4 FURRING WALL @ 24" O/C
- 2x6 BEARING WALL ON 8" CONCRETE FOUNDATION (DEPTH TO NATURAL GRADE - SEE SECTIONS) ON 18"x8" CONCRETE STRIP FOOTING
- 8"x MIN. 24" CONCRETE FROST WALL ON 8"x18" CONCRETE STRIP FOOTING
- RETAINING WALL

BEAM LEGEND

- 2 x LUMBER
- ENG. BEAM (DROPPED)
- ENG. FL. BEAM (FLUSH)

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

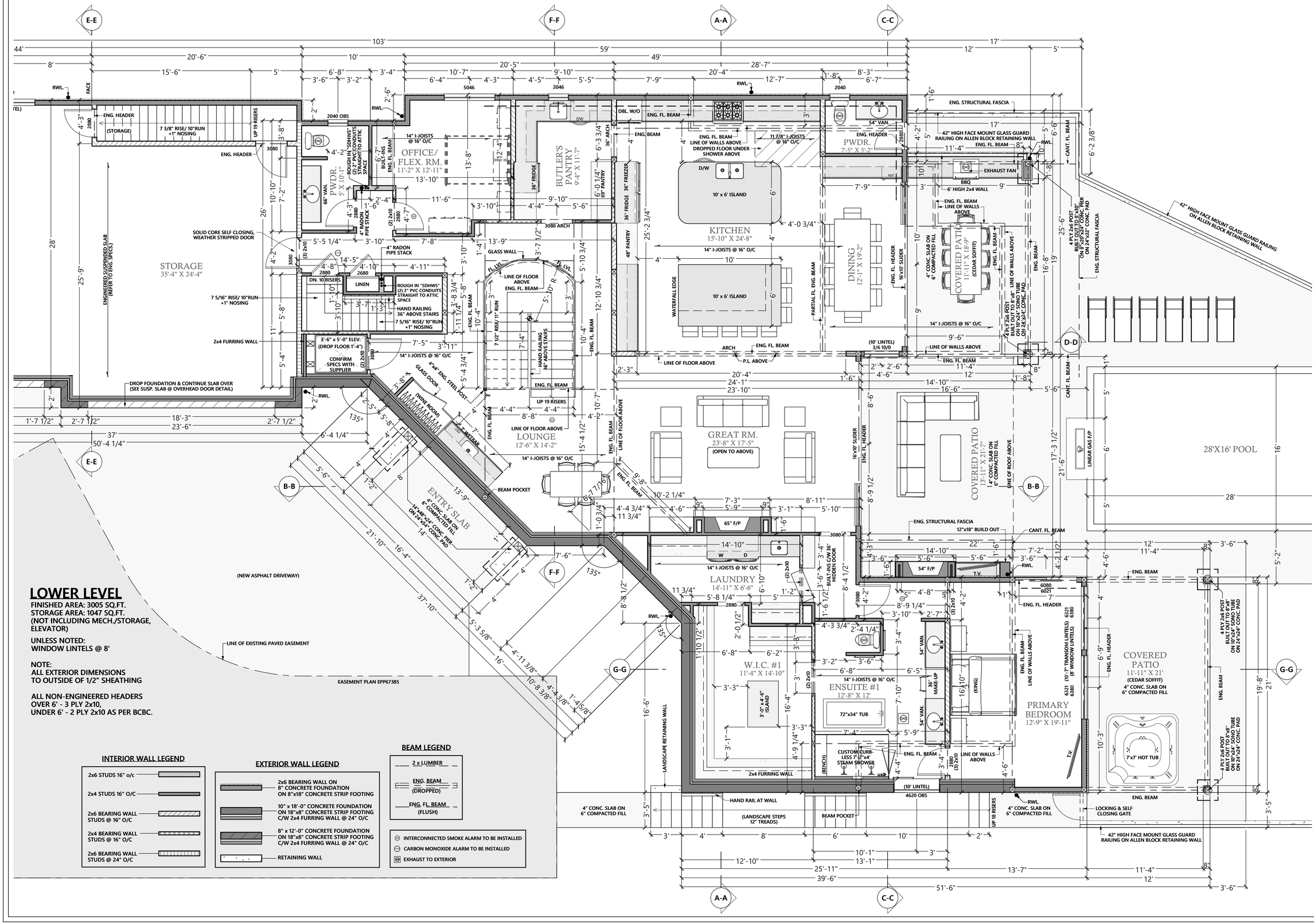
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
4/11



LOWER LEVEL

FINISHED AREA: 3005 SQ.FT.
STORAGE AREA: 1047 SQ.FT.
(NOT INCLUDING MECH./STORAGE, ELEVATOR)

UNLESS NOTED:
WINDOW LINTELS @ 8'

NOTE:
ALL EXTERIOR DIMENSIONS TO OUTSIDE OF 1/2" SHEATHING

ALL NON-ENGINEERED HEADERS OVER 6' - 3 PLY 2x10,
UNDER 6' - 2 PLY 2x10 AS PER BCBC.

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

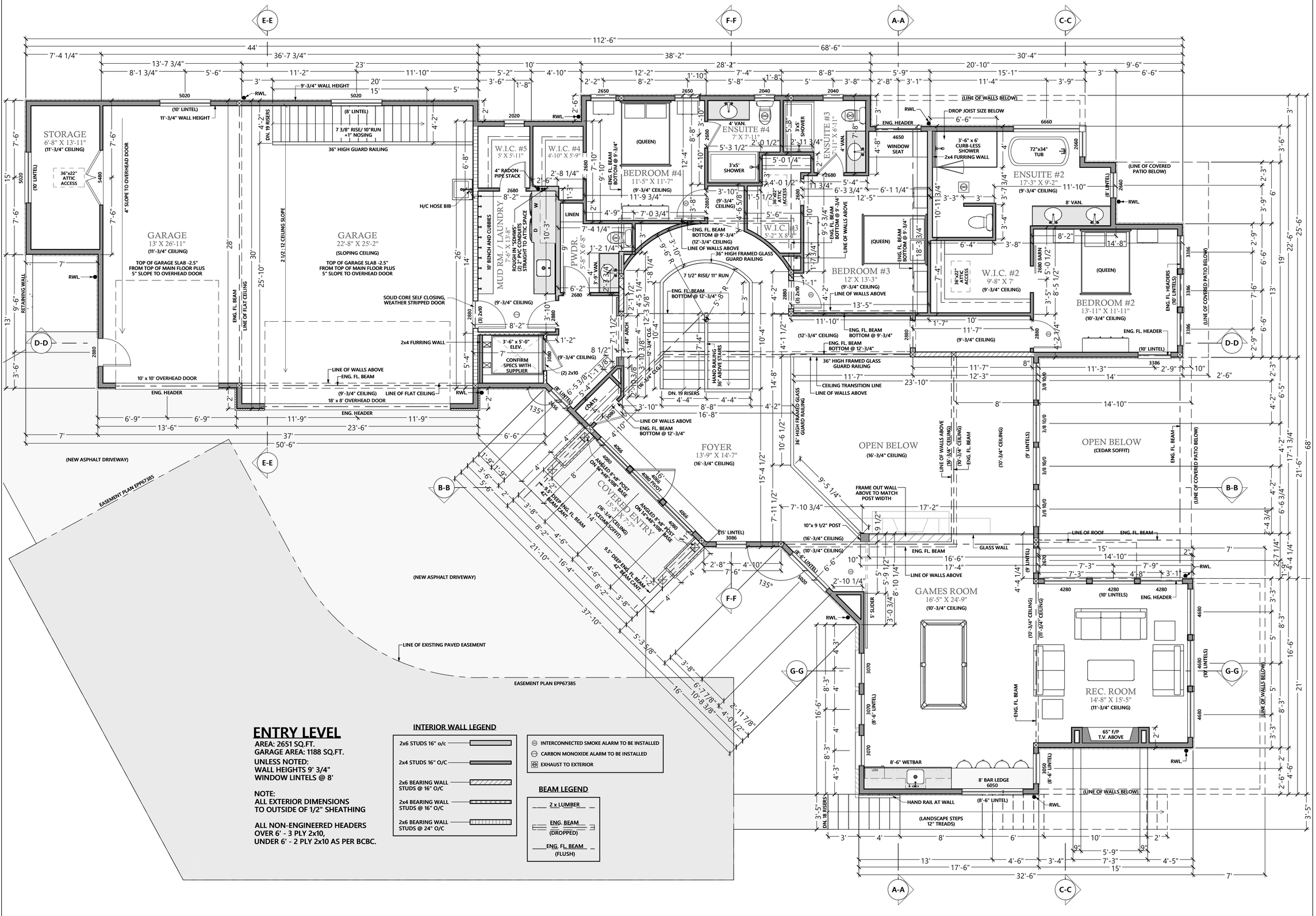
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
5/11



R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

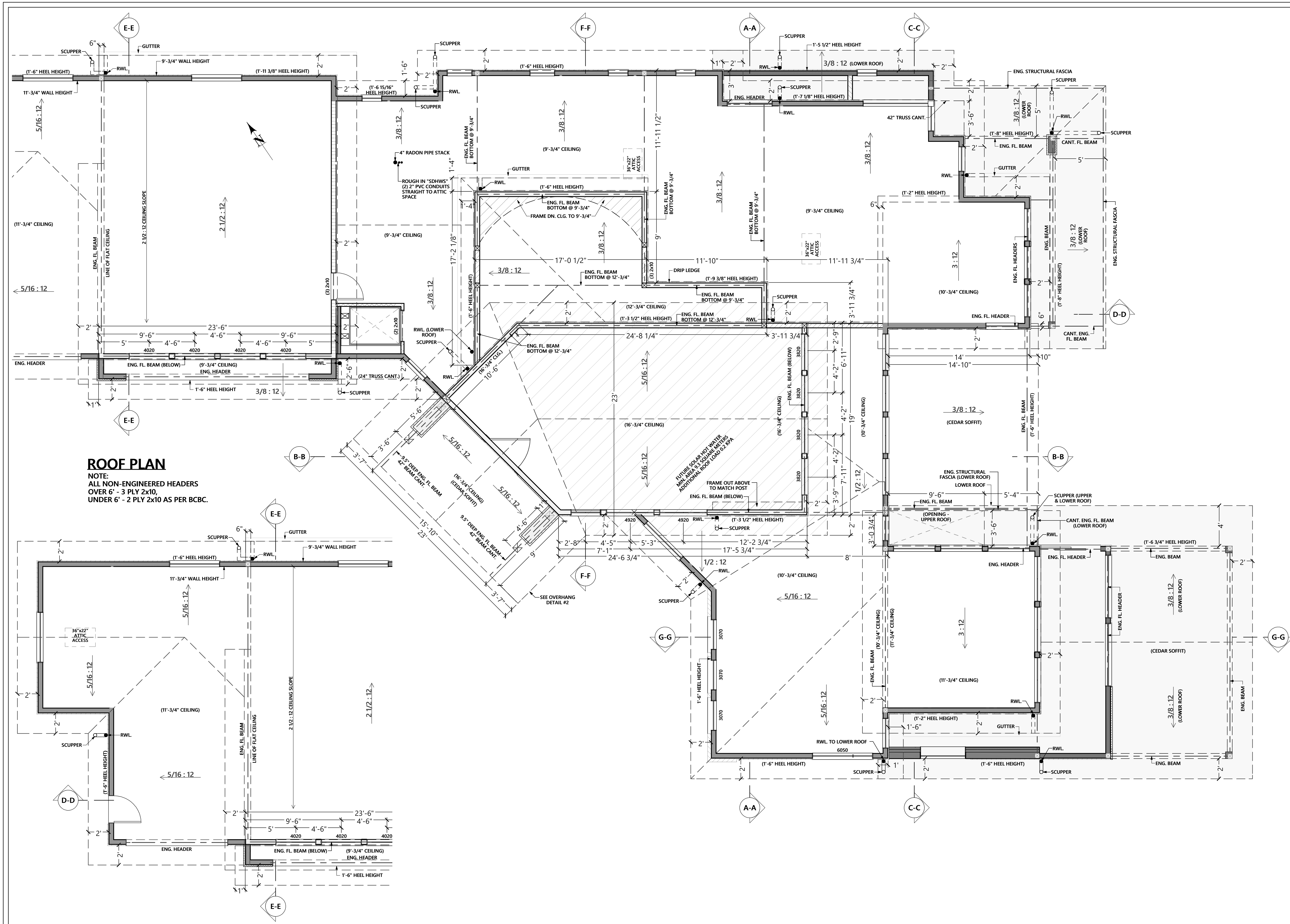
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
6/11



R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8-2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9-2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31-2023

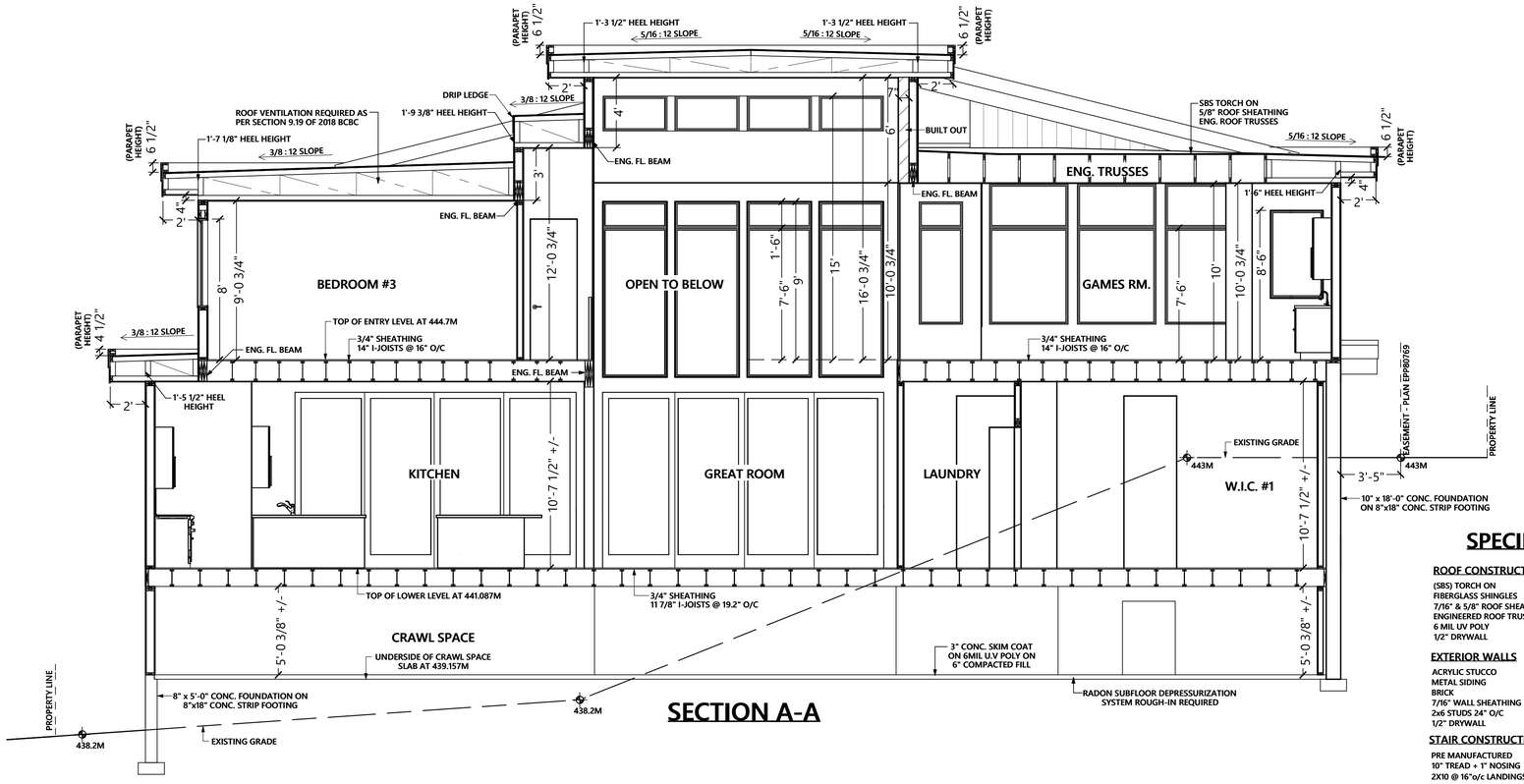
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

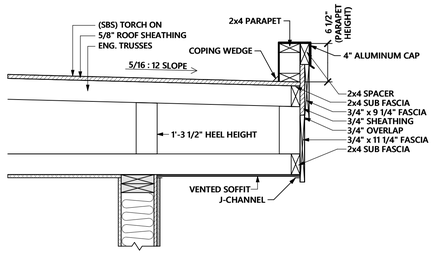
DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
7/11

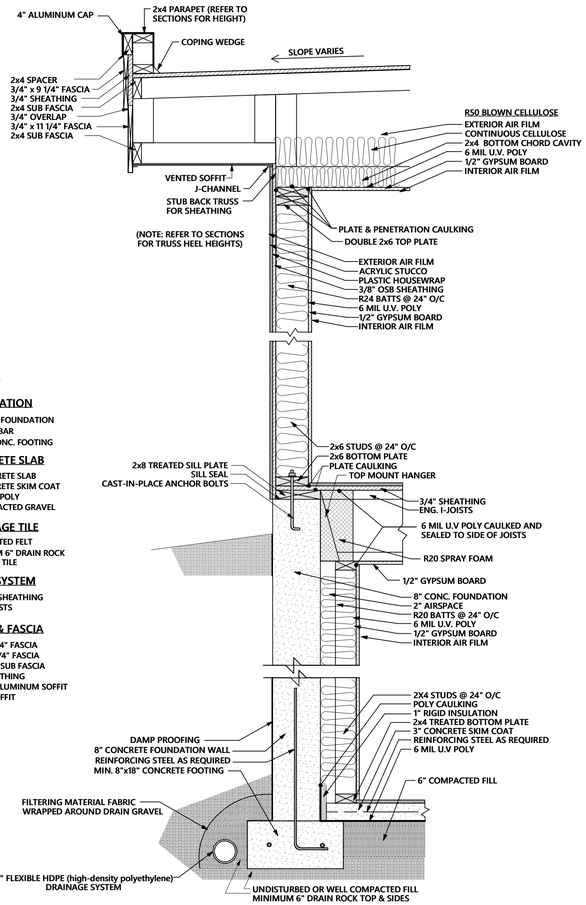


SECTION A-A



OVERHANG DETAIL #2

SCALE: 1" = 1'-0"



TYPICAL WALL SECTION

SCALE: 1" = 1'-0"

SPECIFICATIONS

ROOF CONSTRUCTION
(SBS) TORCH ON
FIBERGLASS SHINGLES
7/16" & 5/8" ROOF SHEATHING
ENGINEERED ROOF TRUSSES
6 MIL UV POLY
1/2" DRYWALL

EXTERIOR WALLS
ACRYLIC STUCCO
METAL SIDING
BRICK
7/16" WALL SHEATHING
2x6 STUDS 24" O/C
1/2" DRYWALL

STAIR CONSTRUCTION
PRE MANUFACTURED
10" TREAD + 1" NOSING
2X10 @ 16"o/c LANDINGS

DOORS & WINDOWS
WINDOWS & DOORS
(REFER TO INSULATION SPECS.)
STYROFOAM BACKER ROD
AND CAULKING SEALS

FOUNDATION
8" CONC. FOUNDATION
10MM REBAR
8"x18" CONC. FOOTING

CONCRETE SLAB
4" CONCRETE SLAB
3" CONCRETE SKIM COAT
6 MIL UV POLY
6" COMPACTED GRAVEL

DRAINAGE TILE
PERFORATED FELT
MINIMUM 6" DRAIN ROCK
4" DRAIN TILE

FLOOR SYSTEM
3/4" T&G SHEATHING
ENG. I-JOISTS

SOFFIT & FASCIA
3/4" x 9 1/4" FASCIA
3/4" x 11 1/4" FASCIA
2x4 & 2x6 SUB FASCIA
3/4" SHEATHING
VENTED ALUMINUM SOFFIT
CEDAR SOFFIT

SECTION B-B

ERRORS AND OMISSIONS

"R-TISTRY DRAFTING INC." MAKES EVERY EFFORT TO PROVIDE COMPLETE AND ACCURATE HOME PLANS. HOWEVER, WE ASSUME NO LIABILITY FOR ANY ERRORS OR OMISSIONS WHICH MAY EFFECT 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 PLEASE ADVISE "R-TISTRY DRAFTING INC." AT YOUR EARLIEST CONVENIENCE BY DOING SO WE WILL BE ABLE TO MAKE CORRECTIONS TO THE DRAWINGS AND REPLACE ANY PLANS PURCHASED IF NECESSARY. IN THIS WAY WE CAN BETTER SERVE YOU AND PREVENT ERRORS FROM RECURRING.

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

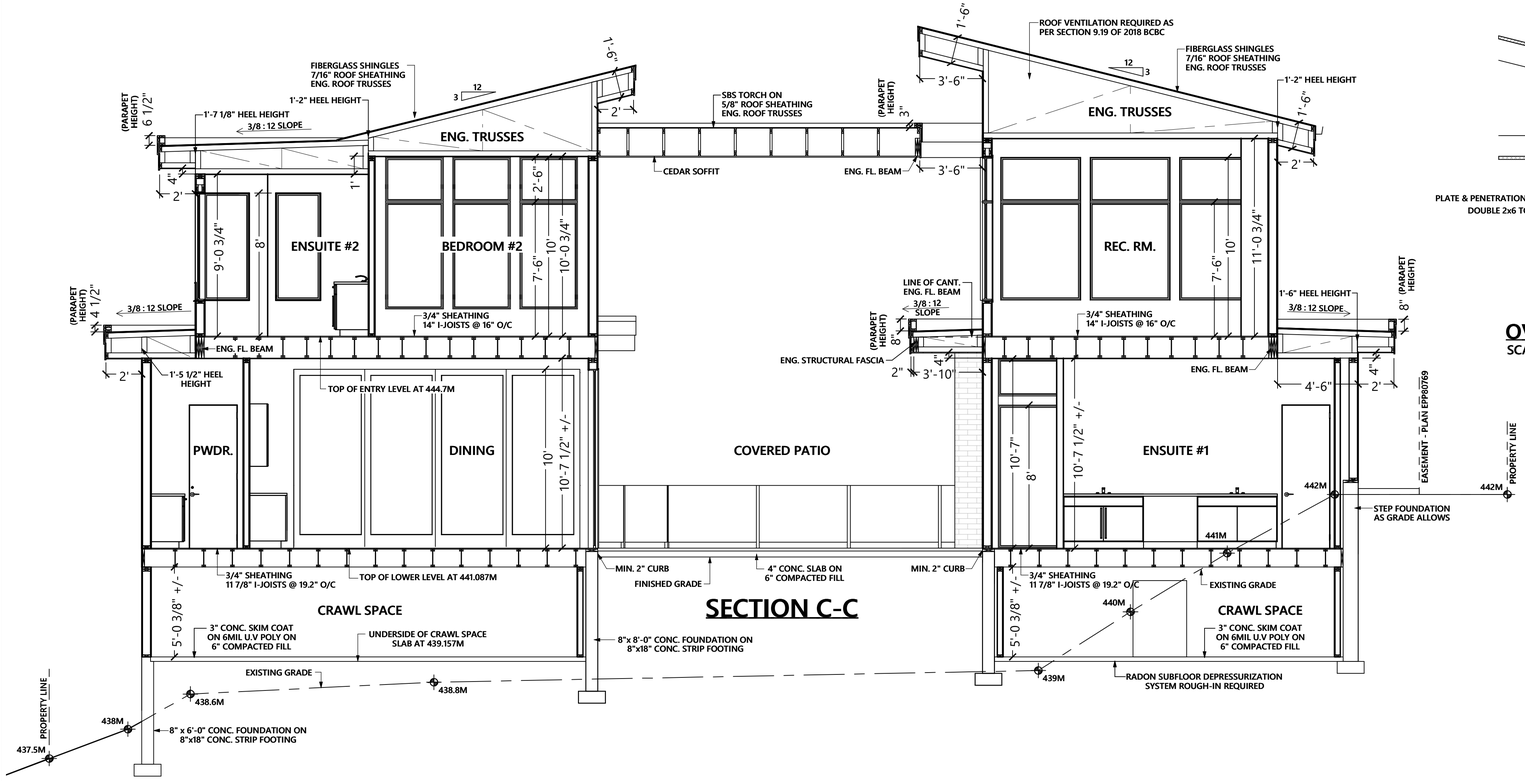
GIBSON CONTRACTING

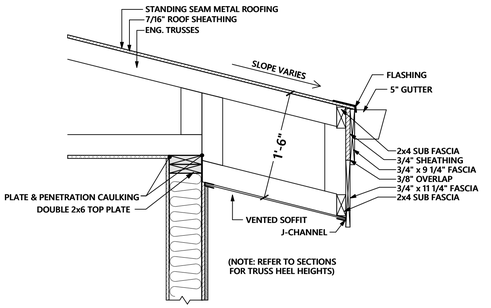
PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

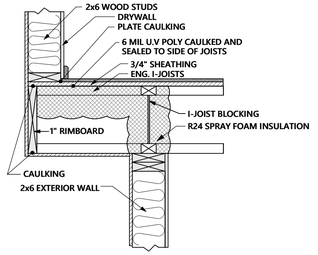
SHEET:
8/11





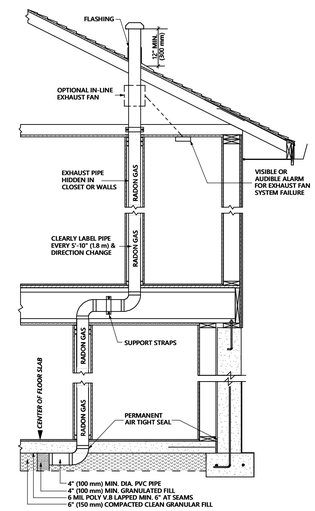
OVERHANG DETAIL #3

SCALE: 1" = 1'-0"



FLOOR CANTILEVER

SCALE: 1" = 1'-0"



SOIL GAS DEPRESSURIZATION DETAIL

SCALE: 1/2" = 1'

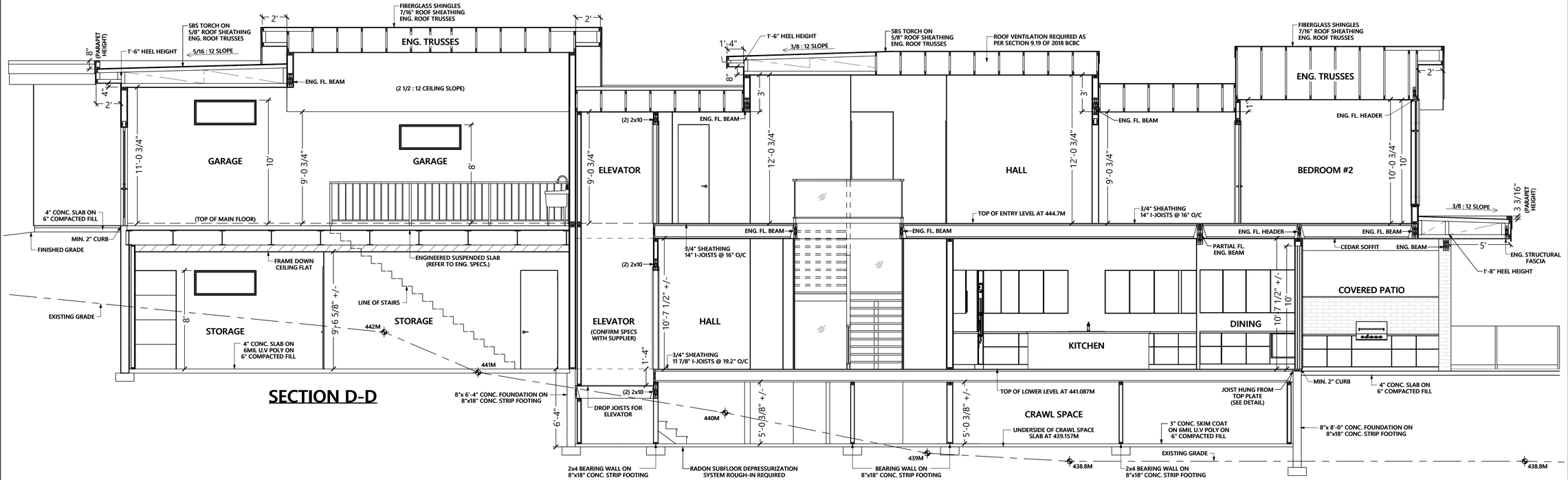
DEPRESSURIZATION OF SOIL GAS:
TO ALLOW EFFECTIVE DEPRESSURIZATION OF THE SPACE BETWEEN THE AIR BARRIER AND THE GROUND, THE EXTRACTION OPENING (THE PIPE) SHOULD NOT BE BLOCKED AND SHOULD BE ARRANGED SUCH THAT THE AIR CAN BE EXTRACTED FROM THE ENTIRE SPACE BETWEEN THE AIR BARRIER AND THE GROUND. THIS WILL ENSURE THAT THE EXTRACTION SYSTEM CAN MAINTAIN NEGATIVE PRESSURE UNDERNEATH THE ENTIRE FLOOR (OR IN HEATED CRAWL SPACES UNDERNEATH THE AIR BARRIER). THE ARRANGEMENT AND LOCATION OF THE EXTRACTION SYSTEM INLET(S) MAY HAVE DESIGN IMPLICATIONS WHERE THE FOOTING LAYOUT SEPARATES PART OF THE SPACE UNDERNEATH THE FLOOR.

PROVIDING FOR THE ROUGH-IN FOR A SUBFLOOR DEPRESSURIZATION SYSTEM:

1) DOORS-ON-GROUND SHALL BE PROVIDED WITH A ROUGH-IN FOR SUBFLOOR DEPRESSURIZATION CONSISTING OF: A) A GAS-PERMEABLE LAYER, AN INLET AND AN OUTLET AS DESCRIBED IN SENTENCE (2), OR; (B) CLEAN GRANULAR MATERIAL AND PIPE AS DESCRIBED IN SENTENCE (3).

2) THE ROUGH-IN REFERRED TO IN (1)(A) SHALL INCLUDE: A) A GAS-PERMEABLE LAYER INSTALLED IN THE SPACE BETWEEN THE AIR BARRIER AND THE GROUND TO ALLOW THE DEPRESSURIZATION OF THAT SPACE; B) AN INLET THAT ALLOWS FOR THE EFFECTIVE DEPRESSURIZATION OF THE GAS-PERMEABLE LAYER, AND C) AN OUTLET IN THE CONDITIONED SPACE THAT: I)PERMITS CONNECTION TO DEPRESSURIZATION EQUIPMENT, II) IS SEALED TO MAINTAIN THE INTEGRITY OF THE AIR BARRIER SYSTEM, AND; III) IS CLEARLY LABELLED TO INDICATE THAT IT IS INTENDED ONLY FOR THE REMOVAL OF RADON FROM BELOW THE FLOOR-ON-GROUND.

3)THE ROUGH-IN REFERRED TO IN CLAUSE (1)(B) SHALL INCLUDE: A) A CLEAN GRANULAR MATERIAL INSTALLED BELOW THE FLOOR-ON-GROUND; AND; (B) A PIPE NOT LESS THAT 100MM IN DIAMETER INSTALLED THROUGH THE FLOOR SUCH THAT I) ITS BOTTOM END OPENS INTO EACH CONTIGUOUS AREA OF THE GRANULAR LAYER REQUIRED BY CLAUSE (A) AT OR NEAR THE CENTER OF THE FLOOR AND NOT LESS THAN 100MM OF GRANULAR MATERIAL PROJECTS BEYOND THE TERMINUS OF THE PIPE MEASURED ALONG ITS AXIS; II) ITS TOP END PERMITS CONNECTION TO DEPRESSURIZATION EQUIPMENT AND IS PROVIDED WITH AN AIRTIGHT CAP AND, IF APPLICABLE, EVERY 1.8 M AND AT EVERY CHANGE IN DIRECTION TO INDICATE THAT IT IS INTENDED ONLY FOR THE REMOVAL OF RADON FROM BELOW THE FLOOR-ON-GROUND.



SECTION D-D

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
9/11

CODES AND STANDARDS

All workmanship is to be of a standard equal in all respects to good building practice.

At the time of preparation, this plan was drawn in accordance with the current edition of the B.C. Building Code. It is the responsibility of the owner/builder to insure that changes made to the code are complied with and all amendments are incorporated in the construction of this plan. All work shall conform to local building codes and bylaws which may take precedence.

Prior to proceeding with construction, the owner/builder must verify all information, dimensions and specifications of this plan. Written dimensions always take precedence over scale measurements.

Any variance from structural drawings and specifications or from conditions encountered at the job site, shall be resolved by the owner/builder and such solutions shall be their sole responsibility.

CONCRETE & FOOTINGS

All concrete to have a minimum compressive strength of 2,900 PSI (20 MPa) at 28 days.

All foundation walls 24" (600 mm) and higher should have one horizontal 10 mm reinforcing bar 3" (75 mm) from the top. Corner reinforcing to be lapped minimum 24" (600 mm).

All footings are to have two ½" reinforcing bars. The reinforcing bars are to be situated such that one bar is 3" (75 mm) clear of the side and bottom of the footing on both sides of the footing.

Grades shown on elevations are estimated. Adjust on site as required. Retaining walls other than the foundation walls of the residence are beyond the scope of these drawings unless otherwise noted.

INSULATION / VENTILATION/ HVAC

Performance Pathway for BCBC 9.36.6
Energy Step Code Level:

Heat-recovery Ventilator: % SRE
Space Conditioning (Heating & Cooling) - Natural gas forced air: % AFUE/SEER
Service Water Heating - Tankless: EF

Air Barrier System & Location: Poly on the inside
Exterior Walls & Floor Headers - 2x6 studs @ 24" o/c R24 Batt, Headers R20 Foam: RSI
Roof and Ceiling - Trusses @ 24" o/c with R50 blown-in or I-Joists with R28 Batt: RSI
Suspended Slab - R28 foam: RSI
Foundation Walls Below Grade - 2x4 studs @ 24" o/c with R20 batt: RSI
Foundation Floor Headers - R20 Foam: RSI
Frost Wall Foundation - R10 Vertical to footing with thermal break at slab: RSI
Floors Over Unheated Space - I-Joists with R40 batt: RSI

Windows: U-Value =
Doors: U-Value =
FDWR: %

Walls and ceilings between residence and attached garage shall be insulated.

Insulation requirements may vary with heating systems and with local conditions.

All roof spaces shall be ventilated with soffit, roof or gable vents or a combination of these, equally distributed between the top of the roof space and soffits.

ABOVE GRADE MASONRY

All above grade masonry is to conform to the BC Building Code.

If brick veneer is to be installed, counter flashing shall be installed up to 8" (200 mm) behind the building felt and below the bottom course with vertical joints raked clean. Weep holes 24" (600 mm) o.c..

CARPENTRY

Framing lumber shall be number two (2) or better Spruce unless otherwise specified on the plan. All beam and lintel sizes shown on the drawings to be reviewed & confirmed by truss manufacturer and contractor. Any beam or lintel sizes provided by truss/floor manufacturer take precedence.

Joists are to be doubled under parallel partitions.

Joists shall be placed to accommodate plumbing, in the event of a discrepancy please contact floor supplier before any alterations or cuts are made.

Wood in contact with concrete shall be dampproofed with 45 lb. felt or a sill plate gasket and pressure treated with a waterborne preservative or other approved method on exterior walls.

Interior framing to be 4" (100 mm) clear of back and sides of firebox and 2" (50 mm) clear of brick chimneys. Frame exterior walls 1" (25 mm) clear from exterior fireplaces.

Plates are to be anchored to concrete with ½" anchor bolts, maximum 6 ft. o.c. or other approved method.

Flush framed wood members shall be anchored with 200 lb. joist hangers unless otherwise specified.

MISCELLANEOUS

Caulk over and around all exterior openings using non-hardening caulking compound.

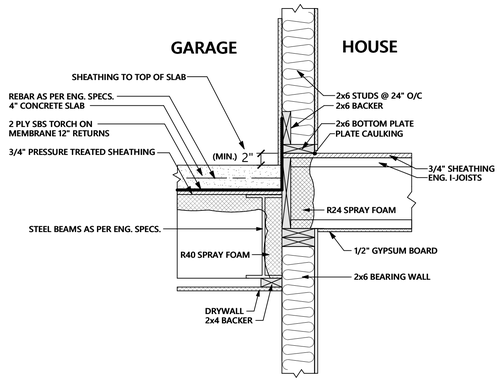
Flash all changes of materials on exterior walls.

Flash over all exterior openings.

All siding or stucco to be a minimum of 8" (200 mm) above finished grade.

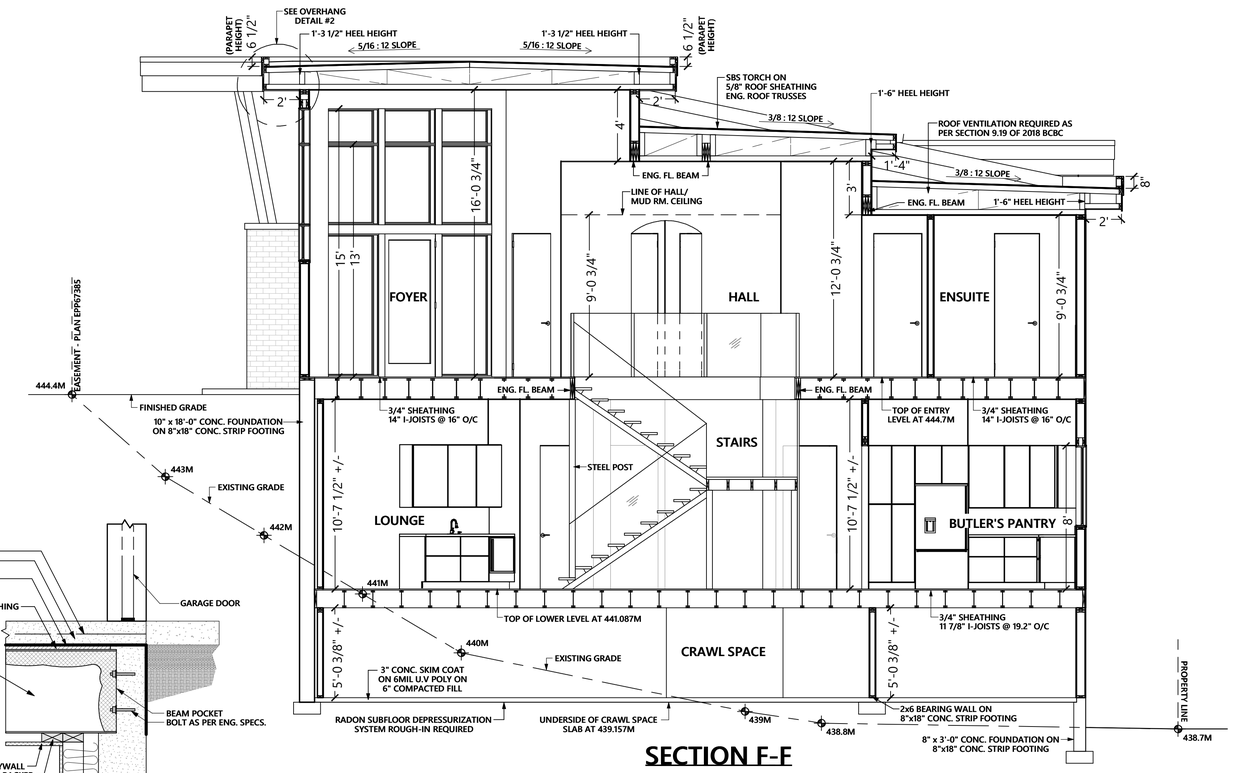
All balcony railings to be 3'6" (1070 mm) in height. Maximum spacing between vertical members is 4" (100 mm). Minimum distance between horizontal rails to be 32" (800 mm). Top rail to sustain outward load of 40 lbs. per lineal foot.

Coat and clothes closets shall have at least one rod and shelf with minimum depth of 24" unless otherwise stated. Linen closet shall have 5 adjustable shelves wherever possible. Broom closets shall have on shelf.

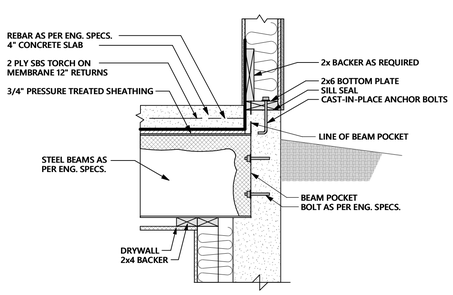


GARAGE TO HOUSE WALL

SCALE: 1" = 1'-0"



SECTION F-F

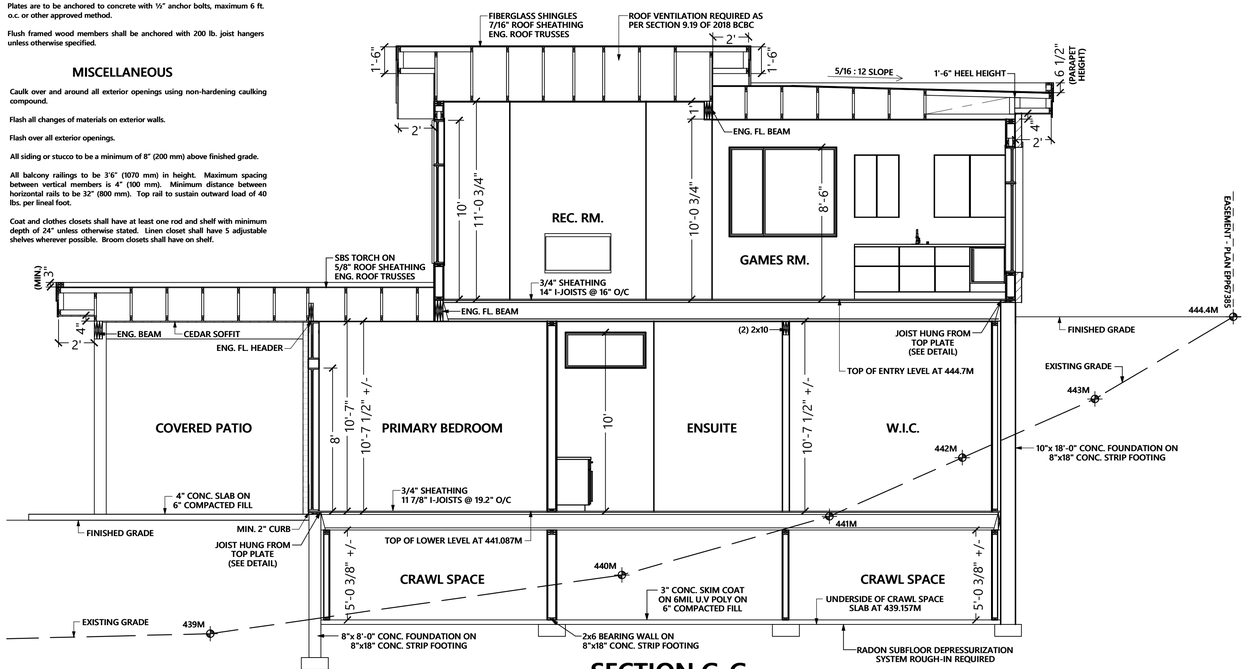


SUSPENDED SLAB AT FOUNDATION

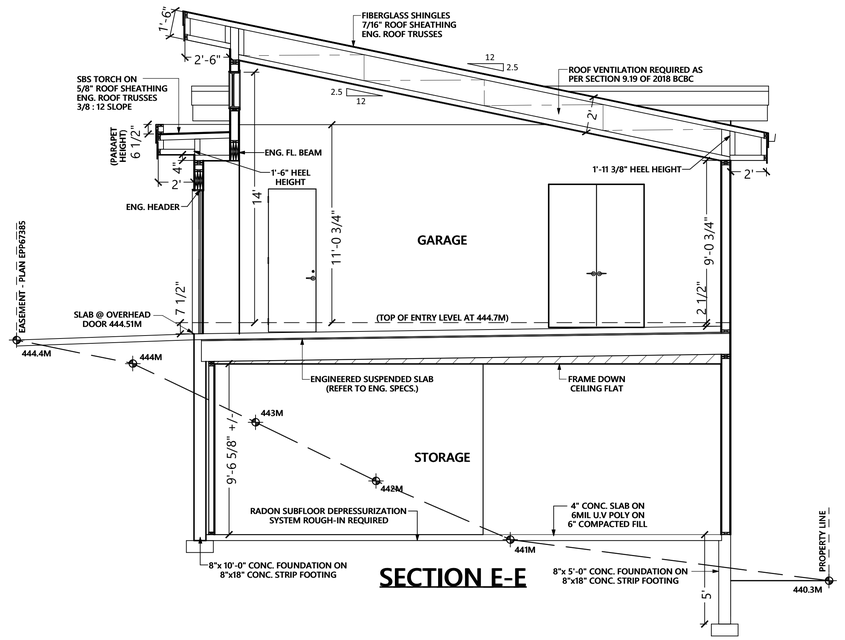
SCALE: 1" = 1'-0"

SUSPENDED SLAB AT OVERHEAD DOOR

SCALE: 1" = 1'-0"



SECTION G-G



SECTION E-E

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

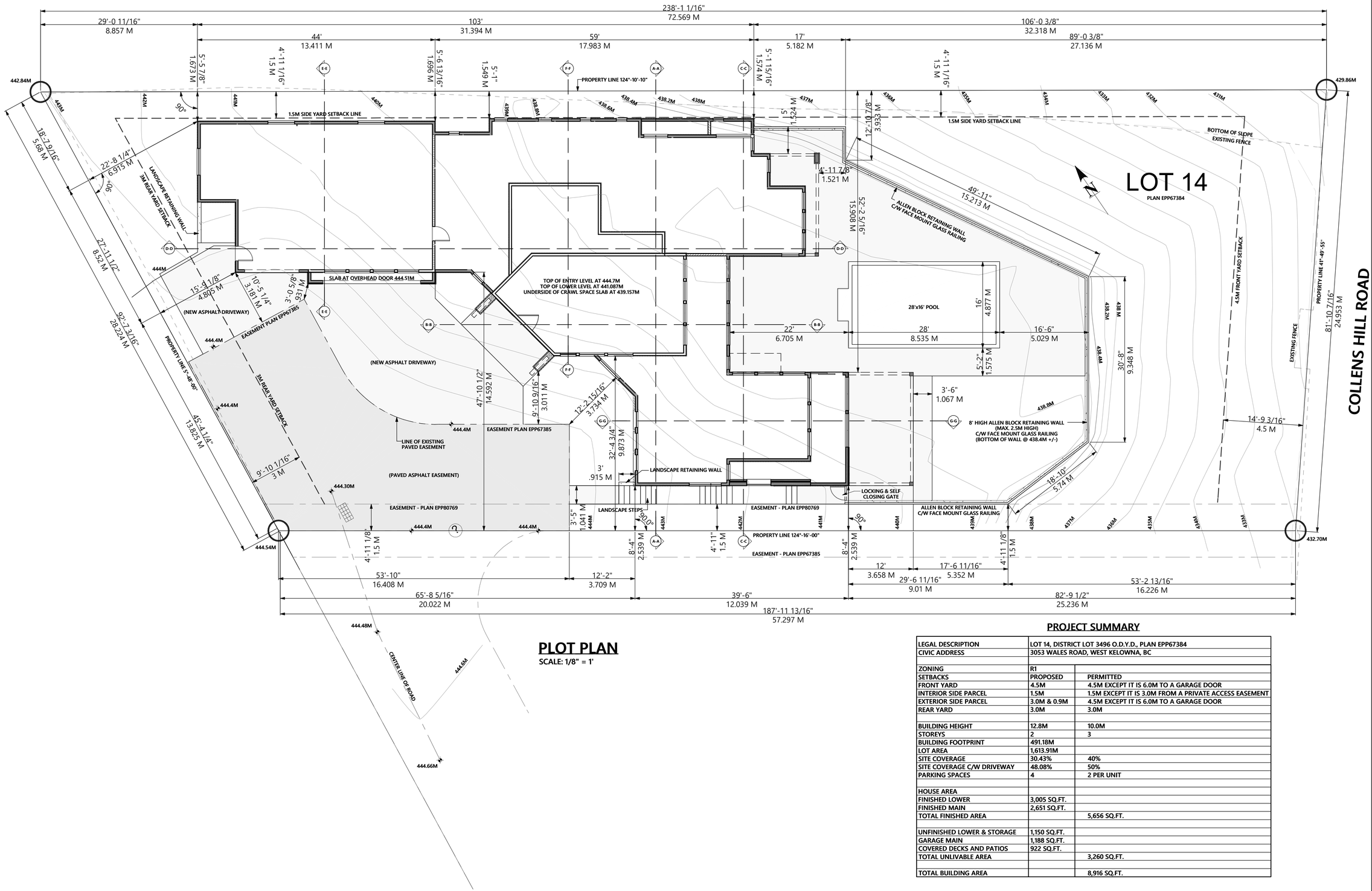
GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/4" = 1'

SHEET:
10/11



PLOT PLAN

SCALE: 1/8" = 1'

PROJECT SUMMARY

LEGAL DESCRIPTION	LOT 14, DISTRICT LOT 3496 O.D.Y.D., PLAN EPP67384	
CIVIC ADDRESS	3053 WALES ROAD, WEST KELOWNA, BC	
ZONING	R1	
SETBACKS	PROPOSED	PERMITTED
FRONT YARD	4.5M	4.5M EXCEPT IT IS 6.0M TO A GARAGE DOOR
INTERIOR SIDE PARCEL	1.5M	1.5M EXCEPT IT IS 3.0M FROM A PRIVATE ACCESS EASEMENT
EXTERIOR SIDE PARCEL	3.0M & 0.9M	4.5M EXCEPT IT IS 6.0M TO A GARAGE DOOR
REAR YARD	3.0M	3.0M
BUILDING HEIGHT	12.8M	10.0M
STOREYS	2	3
BUILDING FOOTPRINT	491.18M	
LOT AREA	1,613.91M	
SITE COVERAGE	30.43%	40%
SITE COVERAGE C/W DRIVEWAY	48.08%	50%
PARKING SPACES	4	2 PER UNIT
HOUSE AREA		
FINISHED LOWER	3,005 SQ.FT.	
FINISHED MAIN	2,651 SQ.FT.	
TOTAL FINISHED AREA		5,656 SQ.FT.
UNFINISHED LOWER & STORAGE	1,150 SQ.FT.	
GARAGE MAIN	1,188 SQ.FT.	
COVERED DECKS AND PATIOS	922 SQ.FT.	
TOTAL UNLIVABLE AREA		3,260 SQ.FT.
TOTAL BUILDING AREA		8,916 SQ.FT.

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8.2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9.2023
NO.5	PROJECT SUMMARY UPDATE	AUG. 31.2023

GIBSON CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE:
2023-08-31

SCALE:
1/8" = 1'

SHEET:
11/11

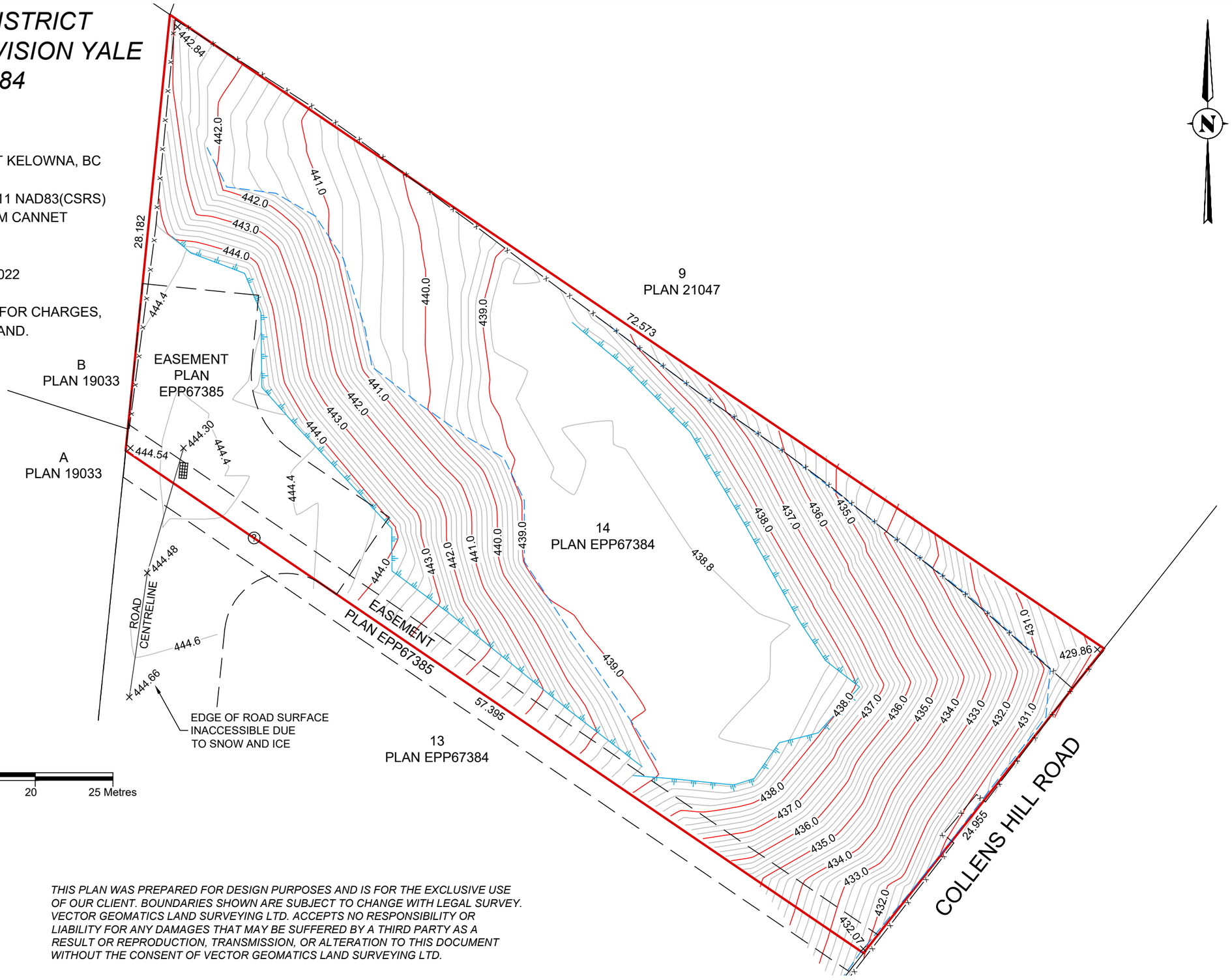
SITE PLAN OF LOT 14 DISTRICT LOT 3496 OSOYOOS DIVISION YALE DISTRICT PLAN EPP67384

PID: 030-392-781
CLIENT: GIBSON CONTRACTING
CIVIC ADDRESS: 3053 WALES ROAD, WEST KELOWNA, BC

HORIZONTAL COORDINATE SYSTEM: UTM 11 NAD83(CSRS)
VERTICAL DATUM: CGVD28 (DERIVED FROM CANNET STATION BC_KELOWNA)

DATE OF FIELD SURVEY: DECEMBER 22, 2022

REFER TO THE CURRENT STATE OF TITLE FOR CHARGES, LIENS, AND INTERESTS AFFECTING THIS LAND.



LEGEND

- Subject Property
- Major Contour (1.0m)
- Minor Contour (0.2m)
- Top Slope
- Bottom Slope
- Fence
- Catch Basin
- Unknown Manhole
- Spot Elevation

SCALE 1:250

0 2.5 5 10 15 20 25 Metres

VECTOR
GEOMATICS LAND SURVEYING LTD.
111-810 Clement Ave
Kelowna, B.C. V1Y 7C9
Ph.: (250) 868-0172
www.vectorgeomatics.com

File: 2201831R0 Date: 2023-01-05
Drafted by: EC Checked by: TF

shelley lynn design
250.681.1826
shelleylynndesign@gmail.com

ORTYNSKI, Jessa & Cory		
3053 Wales Road West Kelowna, BC		
client:		
scale 1:18	date September 5, 2023	revision REV002
drawn by S.WEMPE	checked by J.BERK	drawing # 3053WAL

PRELIMINARY DESIGN ONLY.
THE QUANTITIES SHOWN ON THE LABELS ARE NOT TO BE CONSTRUED AS THE COMPLETE AND ACCURATE LIMITS OF THE CONTRACT.

WARRANTIES ARE NULL AND VOID DUE TO DAMAGE FROM WILDLIFE SUCH AS DEER, RABBITS, VOLES AND OTHER RODENTS. ALTHOUGH PLANTS LISTED MAY BE RATED AS RESISTANT TO THESE ANIMAL SPECIES, IT IS NOT GUARANTEED ACCURATE.

CLIENT'S SIGNATURE OF ACCEPTANCE

THIS SIGNATURE AUTHORIZES THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION OF THIS PROJECT AS PRESENTED BY THIS DESIGN.

THIS SIGNATURE ALSO ACKNOWLEDGES THE SCOPE AND DETAILS OF THE PROJECT AS REPRESENTED BY THIS DESIGN. ANY SUBSEQUENT CHANGES MUST BE MADE VIA CHANGE ORDER AND WILL RESULT IN ADDITIONAL COSTS.

X

DEVELOPER'S SIGNATURE OF ACCEPTANCE

X

LANDSCAPE NOTES:

ALL PLANT BEDS TO BE 2" COBBLE ROCK MULCH EXCEPT WHERE OTHERWISE INDICATED

ALL MEASUREMENTS AND QUANTITIES TO BE CONFIRMED

ALL LANDSCAPING TO FOLLOW BCLNA GUIDELINES

ALL IRRIGATION TO BE DRIP LINE FOR PLANTS WITH TIMED CONTROLLER AS PER BCLNA GUIDELINES

ALL LANDSCAPING TO MEET FIRESMART REGULATIONS

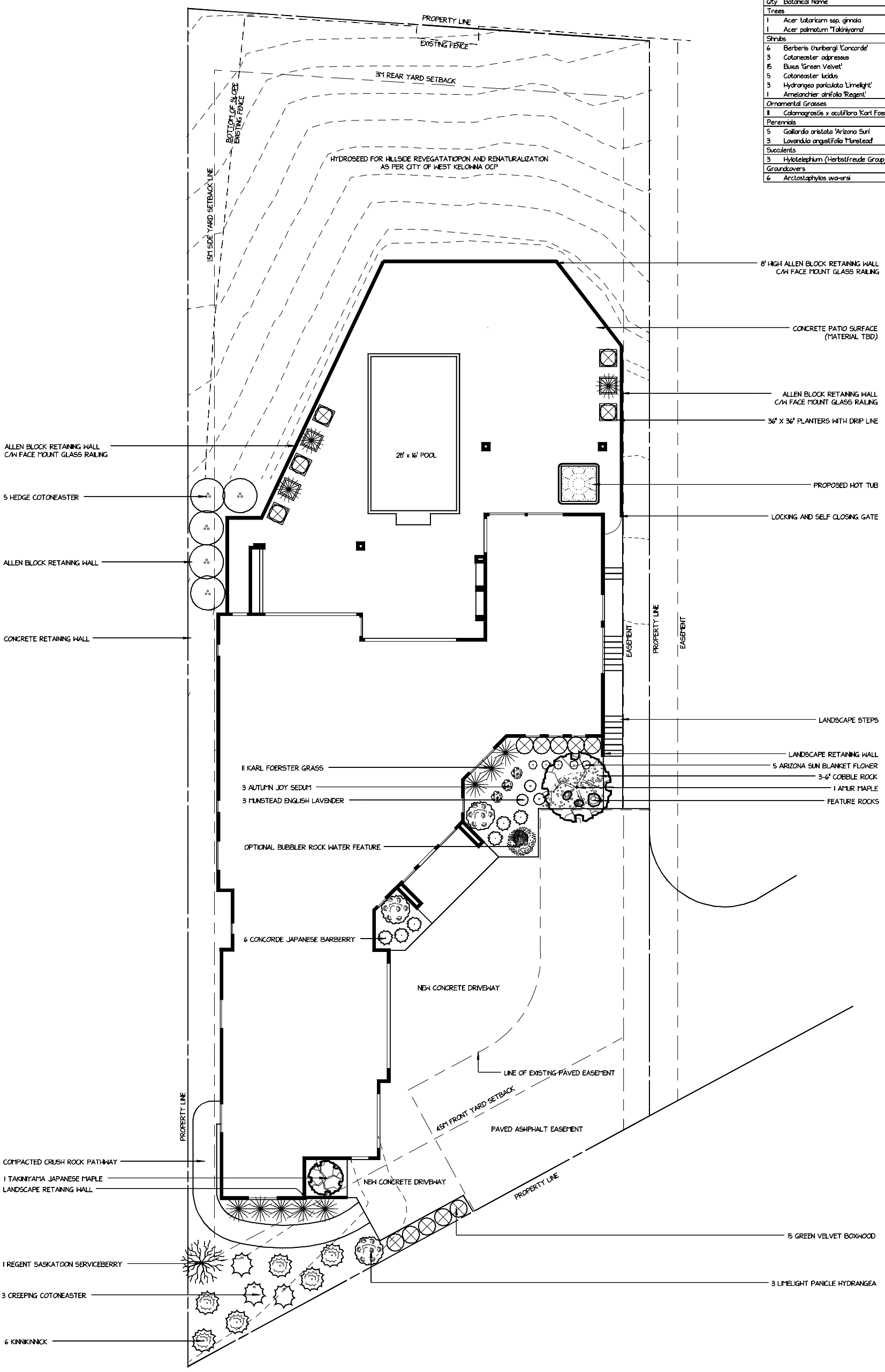
BACK SLOPE TO BE HYDROSEEDED AS PER CITY OF WEST KELOWNA OCP

TREES TO BE 10-15 GAL POT SIZE
ALL SHRUBS TO BE MIN 2 GAL POT SIZE
ALL PERENNIALS AND ORNAMENTAL GRASSES TO BE MIN 1 GAL POT SIZE

PLANT DISCLAIMER

DUE TO COVID-19 CIRCUMSTANCES AFFECTING THE NURSERY INVENTORIES, PLANT SUBSTITUTIONS MAY BE NECESSARY. IN THE EVENT THAT A PLANT LISTED ABOVE CANNOT BE OBTAINED, A CLOSE AND SIMILAR PLANT SPECIES MAY BE INSTALLED IN ITS PLACE.

Qty	Botanical Name	Common Name
Trees		
1	Acer tataricum ssp. ginnala	AMUR MAPLE
1	Acer palmatum 'Takiniyama'	TAKINIYAMA JAPANESE MAPLE
Shrubs		
6	Berberis thunbergii 'Concorde'	CONCORDE JAPANESE BARBERRY
3	Cotoneaster adpressus	CREEPING COTONEASTER
15	Buxus 'Green Velvet'	GREEN VELVET BOXWOOD
5	Cotoneaster lucidus	HEDGE COTONEASTER
3	Hydrangea paniculata 'Limelight'	LIMELIGHT PANICLE HYDRANGEA
1	Amelanchier alnifolia 'Regent'	REGENT SASKATOON SERVICEBERRY
Ornamental Grasses		
11	Calamagrostis x acutiflora 'Karl Foerster'	KARL FOERSTER GRASS
Perennials		
5	Gaillardia aristata 'Arizona Sun'	ARIZONA SUN BLANKET FLOWER
3	Lavandula angustifolia 'Munstead'	MUNSTEAD ENGLISH LAVENDER
Succulents		
3	Hylotelephium (Herbstfreude Group) 'Autumn Joy'	AUTUMN JOY SEDUM
Groundcovers		
6	Arctostaphylos uva-ursi	KINNIKINNICK



Picture Perfect Landscaping

11131 Pheasant Rd.
Winfield, British Columbia V4V 1W9

QUOTE

Quote No.: 298
Date: 09/11/2023
Page: 1
Ship Date:

Sold To:

Gibson Contracting

Kelowna, BC

Ship To:

Gibson Contracting

Kelowna, BC

Business No.: 846694156RT0001

Quantity	Unit	Description	Unit Price	Tax	Amount
		Estimate for Landscaping at 3053 Wales Rd, Westside, as per plan provided to us. Measurements showing landscaping only to front property line and need to be verified on site. Rear landscaping on left side to back of Cotoneaster plantings only, and on right side to gate as shown. Approx 1800 s/f xeriscaped garden areas to be planted as shown, complete with weed barrier fabric and topped with 1" crushed silver granite unless otherwise shown. Crusher chip pathway to be done in weed barrier fabric and black crusher chips 1" crushed silver granite down both sides of house with weed barrier fabric installed Extra drip lines run to rear deck pots All plants and trees on automatic drip irrigation Conduit to be installed under any hardscaping as needed to planted areas Roughed in irrigation and power to be installed by builder to outside area reasonable for proper irrigation services to be installed Includes supplies, labour, materials, delivery and $2250 plant budget All prices subject to GST Any onsite changes will incur cost adjustments as needed Although some plants may be rated as deer resistant, it cannot be guaranteed and warranties will not cover damage from wildlife. Plants may be substituted for like kind depending on availability at time of install 25% Deposit required for materials before any project begins			18,500.00

Shipped by

Comments 30 day estimate subject to change due to product availibility, and any unforseen excavation costs.

Sold By:

Total Amount 18,500.00

Our File: E100864

August 31, 2023

Gibson Contracting
105-1932 Summit Drive
Kelowna, BC V1V 3E9

Attn: Ms. Jenifer Berkhiem
Email: jenifer@gibsoncustomhomes.com

Re: Slope Stability Assessment for the Proposed Single-Family Dwelling
3053 Wales Road, West Kelowna, BC

1.0 Introduction

Evertek Engineering Ltd. (Evertek) was retained by Gibson Contracting (the Client) to prepare this slope stability assessment report for the proposed single-family dwelling on the property located at 3053 Wales Road in West Kelowna, BC. According to the City of West Kelowna Official Community Plan (OCP) Bylaw 100.42, the site is within the Hillside Development Permit Area (DPA 4) with steep slopes. Therefore, a development permit (DP) with a site-specific geotechnical hazard (steep-slope) assessment is required for the proposed building. This report has been prepared based on Evertek's scope of work outlined in our Confirmation of Assignment dated July 25, 2023. This report does not address environmental considerations.

The purposes of this slope stability assessment were:

- To conduct a field review of the current site surface and subsurface conditions;
- To review surficial geology in the area;
- To identify potential geohazards on the site, and to provide geotechnical recommendations for mitigation of the geohazards and protection of the natural environment; and
- To comment on the suitability of the site for the proposed residential development.

Preparation of this report is generally in accordance with the following guidelines and bylaws:

- West Kelowna Official Community Plan Bylaw 2011 No 0100;
- British Columbia Building Code 2018; and
- Professional Practice Guidelines – Landslide Assessments in British Columbia. Version 4.1. Engineers and Geoscientists British Columbia. Revised March 2023.

This report has been prepared using the information provided by the Client and the topographic survey plan prepared by Vector Geomatics Land Surveying Ltd. (Dated: January 1, 2023). The Geotechnical Investigation Report for the Proposed 14 Lot Single-Family Development at 3055 Thacker Drive, West Kelowna, BC prepared by Beacon Geotechnical Ltd. (dated: June 8, 2016, revised July 25, 2017) was reviewed when preparing this report.

2.0 Site Location & Proposed Development

The property is identified with the civic address and legal lot description as 3053 Wales Road, West Kelowna, BC – Lot 14, Plan EPP67384, District Lot 3496, Osoyoos Division of Yale Land District, PID: 030-392-781. The site location is shown in the attached Figure 1. The total area of the property is 0.398 acres (1,610 m^2).

The property is currently sloping down to the east with localized steep slopes with an inclination of approximately 28 to 32 degrees. Based on the architectural plan prepared by R-tistry Home Design (dated: July 10, 2023), it is understood the Client is planning to construct a 2-storey residential single-family building with a crawl space on the property. An Allan block retaining wall is being proposed in the backyard above the natural slope to raise the backyard in order to have a pool at the walkout (lower level) house elevation.

3.0 Background Information

3.1 Surficial Geology

Based on the published information from the Geological Survey of Canada (Kelowna, Surficial Geology Map 6146), the surficial geology of the subject site is expected to be underlain by Glacial Sediments, continuous till cover (Tb): Diamicton comprising lodgement and ablation facies with thicknesses generally over 1 m. The diamicton consists of a heterogeneous mixture of boulder, cobbles, pebble, sand, silt and clay. In the Kelowna area, granitic rocks tend to produce a more gravelly sandy till compared to Tertiary bedrock resulting in a more clay-rich till.

3.2 Seismic Design Data

Based on published information from Natural Resources Canada, for site Class D (stiff soil) as per 2020 National Building Code Seismic Hazard, a seismic event with a 2% probability of exceedance in 50 years at the project site would have peak ground acceleration (PGA) of 0.113g (9.81m/s^2). The spectral acceleration for Class D is presented in Table 1.

Table 1: Spectral accelerations (g) for Class D for return period of 2475 years

Sa(0.2)	Sa(0.5)	Sa(1.0)	Sa(2.0)	Sa(5.0)	Sa(10.0)	PGA
0.271	0.261	0.202	0.143	0.0663	0.0327	0.113

4.0 Field Geotechnical Investigation

A field subsurface investigation was conducted on August 11, 2023. A total of two (2) test pits (TP23-01 to TP23-02) were excavated to depths ranging from approximately 1.5 m to 2.4 m below the existing grade. The approximate test pit locations are shown in Figure 2, attached. The test pits were backfilled with the excavated soils and nominally compacted with the bucket of the excavator. It should be noted that the test pits indicate subsurface conditions encountered at the respective test pit locations only. The subsurface conditions may vary outside the test pit locations and below the depth explored.

Test pit TP23-01 encountered Fill to the test pit termination depth of 2.4 m below the existing grade. The Fill consisted of dry to damp, compact to dense angular blast rock fragments mixed with silty sand and occasional rootlets. The consistency at the bottom of the test pit TP23-01 was

very dense. Test pit TP23-02 encountered a 1.05 m thick surficial layer of Fill (damp, compact angular blast rock fragment mixed with silty sand and occasional rootlets) underlined by damp, compact to dense silty sand. Test pit T23-02 was terminated in the native silty sand layer at a depth of 1.5 m below the existing grade due to mechanical refusal. No groundwater was encountered at all test pit locations. A detailed description of subsurface conditions encountered in the test pits is provided in test pit logs, attached. Based on the geotechnical report by Beacon Geotechnical, during their field work, the borehole BH-08, near the subject lot, encountered refusal at 2 m below the existing grade due to cobbles or boulders which could indicate bedrock in the near vicinity.

Site surface conditions including surficial soil, slopes, and surface drainage were visually examined. Field observations are summarized below:

- The property is currently vacant and covered with some grass and shrubs.
- An existing common paved laneway easement with a hammerhead turnaround is located at the west corner of the property.
- A building pad was established which was relatively flat. There were localized steep slopes above the building pad towards the laneway easement to the west and below the building pad towards Collens Hill Road (east).
- The localized steep slopes have a measured inclination of approximately 28 to 33 degrees. The elevation difference in the proposed building area is approximately 20 ft (6.0 m) while the ground surface relief for the entire property is approximately 47.5 ft (14.5 m) according to the topographic site plan.
- Neither surface drainage nor ponding water was noted at the time of our field review.
- Signs (tension cracks and failure scarps) of past landslides on a considerable scale were not identified at the time of our site observation.

Selected photographs showing the current site conditions are attached.

5.0 Slope Stability Assessment

Due to the hilly nature of the site, stability of site slopes is the most important factor in consideration for the proposed development. An adequate setback for the proposed building from steep slopes should be implemented during the design and construction. The near-surface sand contains fines which are prone to erosion if exposed. Erosion control must be implemented during construction. These potential geotechnical concerns will be further addressed in the following sections.

5.1 Slope Stability Analysis

To evaluate the stability of the natural slopes on-site, a global slope stability analysis was performed using commercial software, Rocscience Slide2D. The global slope stability was analyzed using the limit equilibrium method. Two cross sections were selected for the analysis. Cross Section A-A had the most critical slope (32°), and Cross Section B-B was selected in an area where the proposed house is close to the steep slope (approximately 3 m away). The site plan showing the location of the cross sections used for the slope stability analysis is shown in Figure 3, attached. Based on the geotechnical report by Beacon Geotechnical, the recommendation of 3 m setback from house foundation to fill slopes is recommended.

The soil profile for the analysis was based on the results of our field visual observation of the slope and subsurface information collected from the test pits during the field geotechnical investigation.

The Janbu limit equilibrium analysis method was used to analyze the slope. The circular failure mechanism with multiple failure surfaces was assumed.

Soil parameters were estimated based on our field observations and general experience with local soils of a similar type and state. Soil parameters, used in the slope stability analysis, are summarized in Table 2 below.

Table 2. Assumed soil parameters

Soil Type	Unit Weight, kN/m^3	Cohesion, kPa	Friction angle, degrees
Fill (Blast rock fragment mixed with silty sand)	20	0	40
Silty Sand	19	5	37.5

To account for earthquake loading, pseudo-static seismic analysis was conducted together with a static case. The Peak Ground Acceleration (PGA) for this site is 0.113g for a probability of occurrence of 2% in 50 years, which was obtained from the website of National Resources Canada as listed above. In seismic slope stability analysis, the seismic force was introduced as a constant lateral force applied to the centre of gravity of the potential sliding mass.

The results of the analysis are presented in Figures 4 to 7, attached. The safety factors obtained from the analysis are summarized in Table 3 below.

Table 3. Slope stability analysis results

Analysis Case	Criteria Safety Factor	Calculated Minimum Safety Factor
Circular failure, Static conditions, Cross Section A-A	1.5	1.53
Circular failure, Seismic conditions, Cross Section A-A	1.0	1.22
Circular failure, Static conditions, Cross Section B-B	1.5	1.54
Circular failure, Seismic conditions, Cross Section B-B	1.0	1.24

Slope stability analysis is based upon the available soil information from the test pits. If unexpected soil conditions are encountered at the time of site development, further analysis may be required to revise the susceptibility of slope areas to undergo deformation under static and design seismic conditions.

5.2 Discussion and Recommendations

As shown in the slope stability analysis above, the safety factors (SF) against landslides under the static and seismic loading conditions are greater than the criteria SF. Therefore, the slope is considered to be stable in its current conditions. The soil in the slope predominantly comprises blast rock fill and silty sand. In the proposed building area, if loose fill and organic soil is encountered it must be removed to expose natural competent soil or blast rock fill. Granular materials such as gravel, sand and gravel, or blast rock fill may be used for restoring the site to the design grade. The structural fill to be placed in the proposed building area must be compacted adequately and reviewed by geotechnical personnel.

The sand contains fine-grained silt, which is prone to erosion. Therefore, proper measures must be implemented in the design and construction of the proposed development.

Slope Protection

Any fill slopes and disturbed natural slopes must be protected by vegetation or riprap to minimize erosion.

Site Grading and Drainage

Site grading should be designed to prevent the ponding of surface water near foundation walls, paved areas, and slope crests. Sidewalks, pavement areas, or landscaping within a zone of approximately 2 m of the exterior perimeter of the building should be graded to drain water away from the building at a minimum gradient of 2%.

Building Foundation System

Footings for the proposed building founded on the existing blast rock fill, natural silty sand, or compacted structural fill as discussed above, may be designed with a factored Ultimate Limit State (ULS) bearing pressure of 150 kPa (3000 psf) in accordance with Table 8.2 of the Canadian Foundation Engineering Manual (CFEM). The Serviceability Limit State (SLS) pressure is 100 kPa (2000 psf). The minimum width of continuous footings should not be less than 0.45 m (18 inches) and the minimum dimension of column footings should not be less than 0.90 m (36 inches).

Frost Protection

A suitable frost protection depth for the subject site is typically approximately 600 millimeters (2.0 feet).

Retaining Wall

Based on the architectural site plan, an Allan block retaining wall is proposed in the backyard, above the slope, to raise the grade to the house lower-level elevation for a pool to be installed in the backyard. The retaining wall height is 8 ft (2.4 m). Therefore, the retaining wall should be designed by a geotechnical engineer.

Liquefaction

Due to the inferred density and the nature of the observed soil conditions at the subject site, it is not expected that the natural soil deposit on site would be prone to liquefaction during a seismic event.

Further Geotechnical Recommendations

Factors of safety satisfaction only present a baseline assessment of slope conditions at the time of analysis, and may not present an accurate representation of slope conditions over the long term due to man-made processes or natural processes.

Man-made processes with the potential to negatively impact the stability of slopes and/or promote erosion include, but may not be limited to the following:

- Excavations into the slope or slope toe areas;
- Water leakage from onsite and/or offsite waterlines, storm lines, and sanitary sewer lines;
- Excessive vibration from heavy machineries, such as compaction equipment;
- Defective maintenance of slope drainage systems;
- Loading of slopes and/or slope crests (fill, structures, etc.);
- Excessive landscape watering;
- Construction of ponds, pools, or other water retention structures with potential for uncontrolled leakage;
- Removal of trees and vegetation from onsite and/or offsite areas; and

Natural processes with the potential to negatively impact the stability of the steep site slopes include, but may not be limited to the following:

- Extended periods of seasonally wet weather;
- Storm events with exceptionally high rainfall intensity and duration;
- Erosion of slope at toe areas;
- Earthquake events higher than the design event of 1:2475 events; and
- Removal of slope tree and vegetation cover by disease or fire.

Thus, the slope must be maintained as per professional advice, especially the existing vegetation on the slope shall be kept as much as possible.

6.0 Geotechnical Hazard Statement

Given site surface/subsurface conditions and slope stability analysis above, the site is considered to be feasible for the proposed development provided that our geotechnical recommendations in this report are followed in the design and construction of the project. It is our professional opinion that the probability of landslide hazard on the site is Very Low (<1:10,000 per annum) in accordance with the hazard acceptability criteria. The land may be used safely for the use intended. Safe site use is defined as a residential building. The EGBC Landslide Assessment Assurance Statement Appendix D is attached.

7.0 Further Geotechnical Review

All engineering design recommendations presented in this report are based on the assumption that an adequate level of review will be provided during the design and construction.

Evertek requests the opportunity to review the design drawings during design and to advise on the geotechnical aspects of specifications for inclusion in design and contract documents, and the excavation base and bearing surfaces for footing foundations during construction.

8.0 Closure

This report is based on the findings at three test pit locations. Should different subsoil and groundwater conditions be encountered during construction, this office should be notified and recommendations submitted herein will be reviewed and revised as required. This report should be applied only to the presently proposed development. A contingency amount should be included in construction budgets to allow for the possibility of variations in soil conditions that may result in modification of the design and/or changes to construction procedures. Likewise, contingency plans should be developed prior to the start of construction to deal with the potential issues identified by the report.

This report has been prepared for the exclusive use of the client for the specified application to the project described in this report. The City of West Kelowna may also rely on the findings of this report. It has been prepared in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made.

We trust that the information provided in this report meets your requirements. Should you have any questions please do not hesitate to contact this office.

Respectfully submitted,

Evertek Engineering Limited
(EGBC Permit to Practice No. 1000729)

Reviewed by:

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L. DENG
#30737
2023-08-31

Derek Emslie, EIT, M.A.Sc.
Junior Geotechnical Engineer

Larry Deng, M.Sc, P.Eng.
Senior Geotechnical Engineer, Principal

Attachments:

Site Photographs
Figure 1 – Site Location Plan
Figure 2 – Test Pit Location Plan
Test Pit Logs
Figure 3 – Global Stability Analysis – Cross Section Locations
Figures 4 to 6 – Global Stability Analysis Results
Architectural Site Plan by R-tistry Home Design.
Topographic Site Plan by Vector Geomatics Land Surveying Ltd.
EGBC Landslide Assessment Assurance Statement Appendix D

ATTACHMENTS

Photo 01 Lot general view, looking east.

Photo 02 Test pit TP23-01 location, looking north.

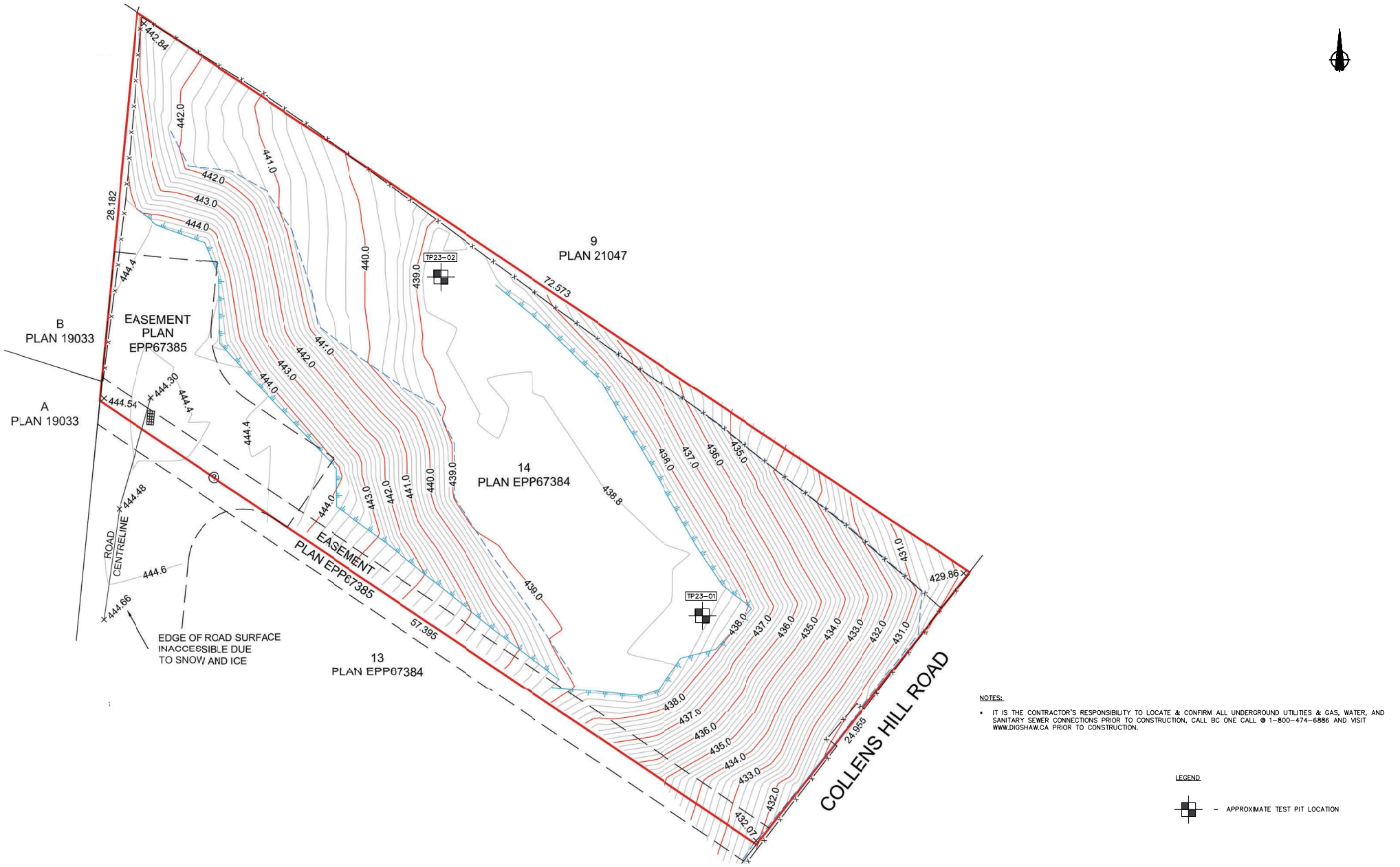
Photo 03 Test pit TP23-01 excavated profile

Photo 04 Test pit TP23-02 excavated profile

Photo 05 Lower, east slope 28-32 degrees, looking north.

Photo 06 Upper, west slope 28-32 degrees, looking north.

Figure 1: Site Location Plan



NOTES:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE & CONFIRM ALL UNDERGROUND UTILITIES & GAS, WATER, AND SANITARY SEWER CONNECTIONS PRIOR TO CONSTRUCTION, CALL BC ONE CALL @ 1-800-474-6886 AND VISIT WWW.DIGSHAW.CA PRIOR TO CONSTRUCTION.

LEGEND

– APPROXIMATE TEST PIT LOCATION

APPLICANT/AGENT:	GIBSON CONTRACTING
ENGINEER:	EVERTEK ENGINEERING 101-2493 MONTROSE AVENUE, ABBOTSFORD, B.C. V2S 0L5 TELEPHONE (604) 776-0222
PROJECT NO:	100864
DATE:	2023-08-11
DWN BY:	DE
DESIGN:	LD
SCALE HORZ:	NTS
SCALE VERT:	NTS
FIGURE NO:	2

NO. | DATE | BY | REVISIONS | TECH | ENG.

City of West Kelowna

TEST PIT LOCATION PLAN
3053 WALES ROAD, WEST KELOWNA, BC

TEST PIT LOG TP23-01

PROJECT NUMBER: 100864
CLIENT NAME: Gibson Contracting
PROJECT: Geotechnical Assessment
SITE ADDRESS: 3053 Wales Road, West Kelowna, BC

DATE: August 11, 2023
EQUIPMENT: Mini Excavator
SURFACE ELEVATION:
DEPTH OF TEST PIT: 2.4 m
DEPTH OF GROUNDWATER:

COMMENTS

LOGGED BY AS

Depth (m)	Graphic Log	Soils Description	Moisture (%) 0 100	DCPT Values 0 100	Depth (ft)
1		FILL: angular blast rock fragments mixed with silty sand, with occasional rootlets, dry to damp, compact to dense, at the bottom very dense.			0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8
2					
3		Termination of test pit at 2.4 m below existing grade due to mechanical refusal. No groundwater was observed upon completion of test pit excavation.			8.5 9 9.5 10 10.5 11 11.5 12 12.5 13

TEST PIT LOG TP23-02

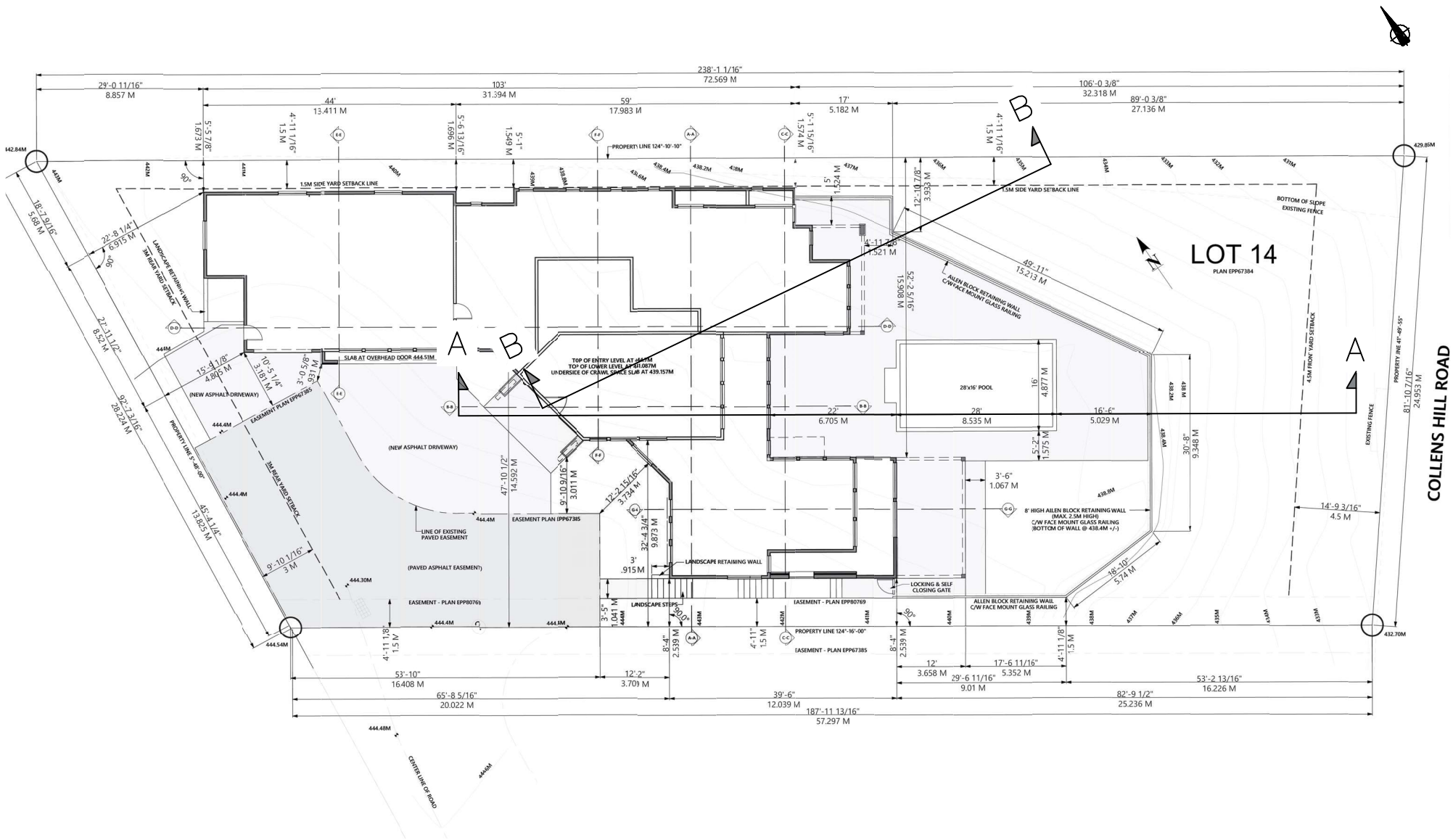
PROJECT NUMBER: 100864
CLIENT NAME: Gibson Contracting
PROJECT: Geotechnical Assessment
SITE ADDRESS: 3053 Wales Road, West Kelowna, BC

DATE: August 11, 2023
EQUIPMENT: Mini Excavator
SURFACE ELEVATION:
DEPTH OF TEST PIT: 1.5 m
DEPTH OF GROUNDWATER:

COMMENTS

LOGGED BY AS

Depth (m)	Graphic Log	Soils Description	Moisture (%) 0 100	DCPT Values 0 100	Depth (ft)
1		FILL: angular blast rock fragments mixed with silty sand, with occasional rootlets, damp, compact.			0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5
		Silty SAND, damp, compact to dense. Some grass at top of layer.			
2		Termination of test pit at 1.5 m below existing grade due to mechanical refusal. No groundwater was observed upon completion of test pit excavation.			5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13
3					



APPLICANT/AGENT: GIBSON CONTRACTING	ENGINEER: EVERTEK ENGINEERING LTD. 101–2493 MONTROSE AVENUE ABBOTSFORD, B.C. V2S 0L5 TELEPHONE (604) 776–0222	NO.	DATE	BY	REVISIONS	TECH	ENG.

PROJECT NO:	100864
DATE:	2023-08-31
DWN BY:	D.E.
DESIGN:	L.D.
SCALE HORZ:	–
SCALE VERT:	–

FIGURE NO: 3

CROSS SECTION LOCATIONS – GLOBAL STABILITY ANALYSIS
3053 WALES ROAD, WEST KELOWNA, BC

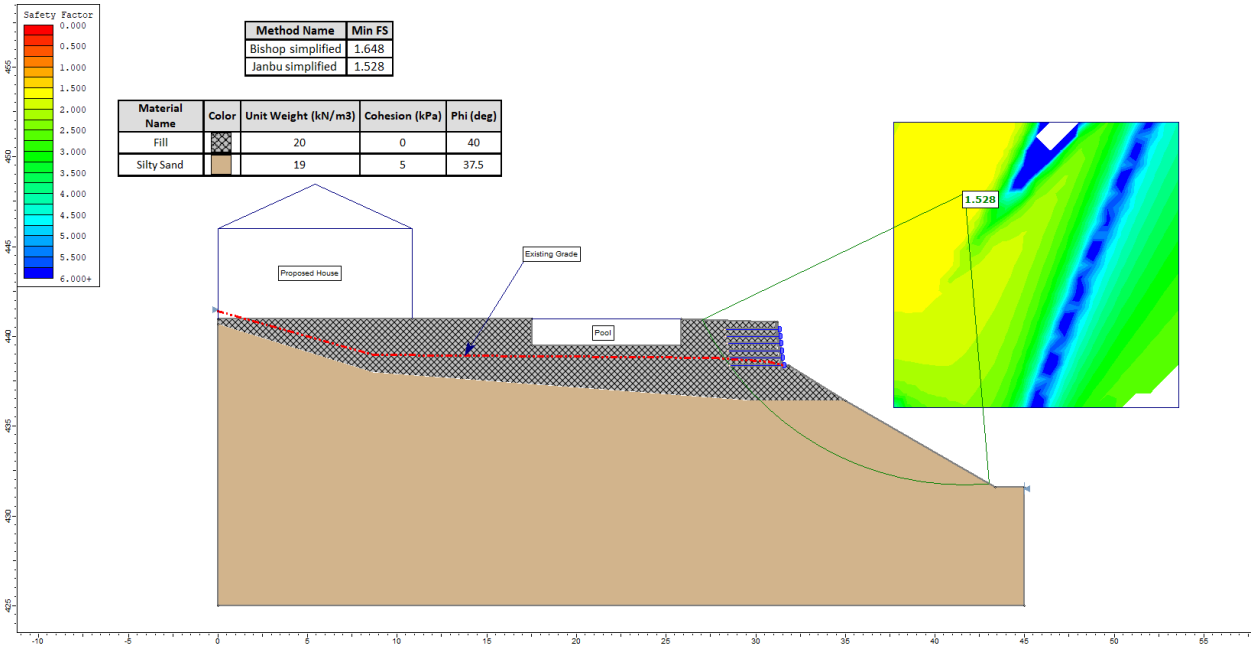


Figure 4. Rocscience Slide2D Analysis – Static Condition (Cross Section A-A)

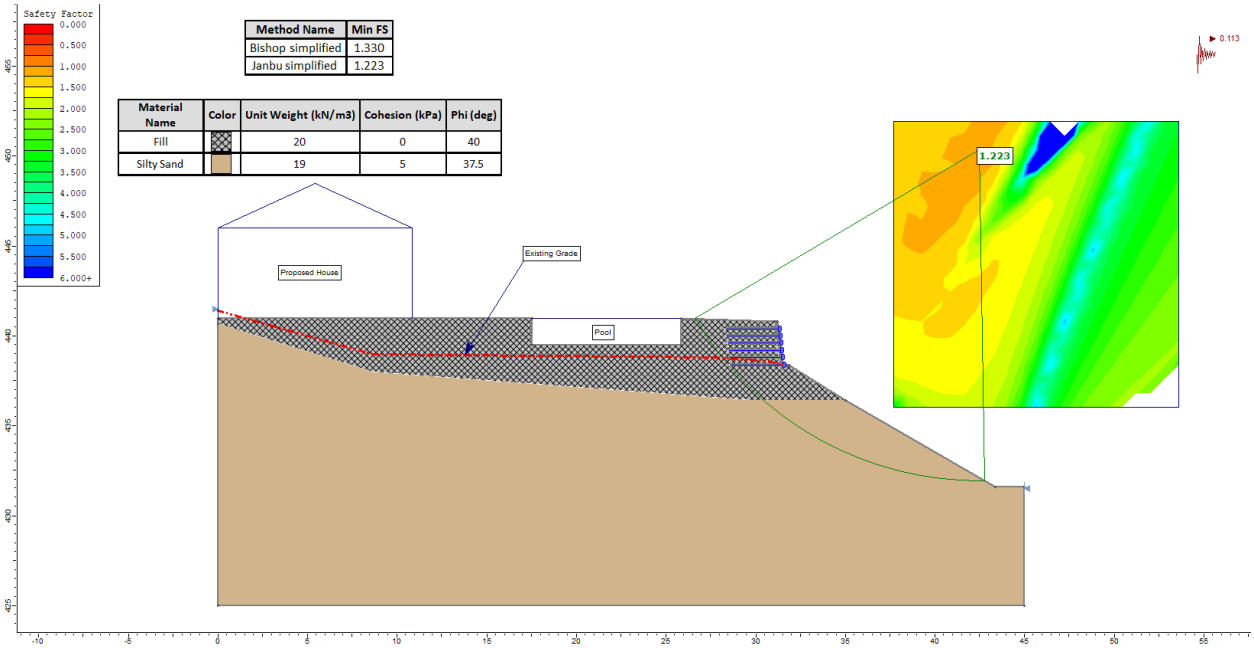


Figure 5. Rocscience Slide2D Analysis – Seismic Condition (Cross Section A-A)

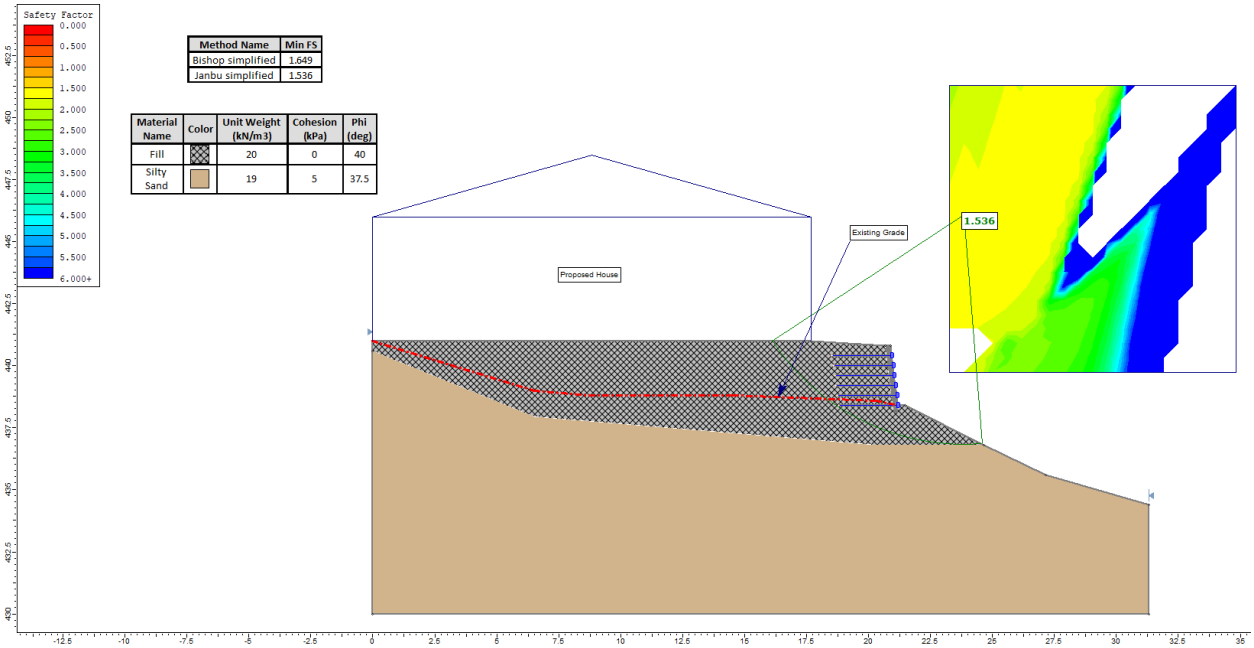


Figure 6. Rocscience Slide2D Analysis – Static Condition (Cross Section B-B)

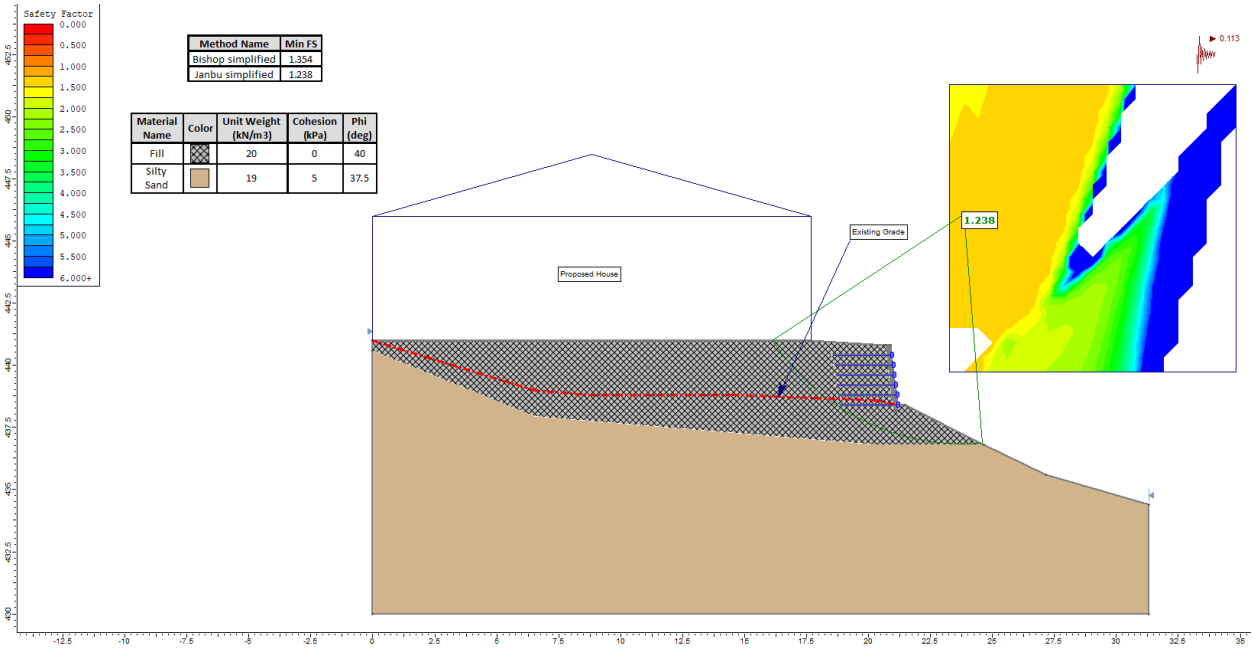
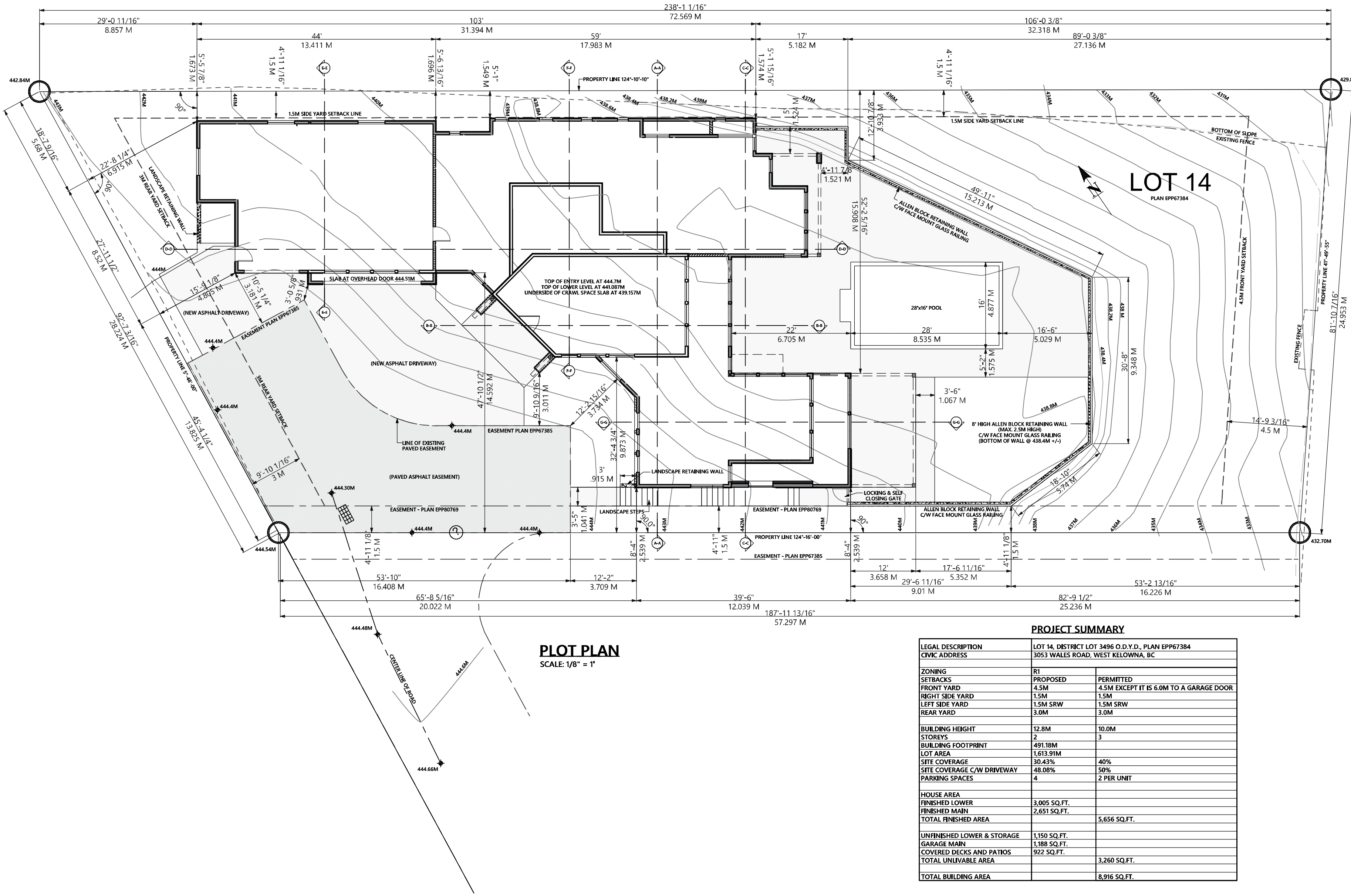


Figure 7. Rocscience Slide2D Analysis – Seismic Condition (Cross Section B-B)



PROJECT SUMMARY

LEGAL DESCRIPTION	LOT 14, DISTRICT LOT 3496 O.D.Y.D., PLAN EPP67384	
CIVIC ADDRESS	3053 WALES ROAD, WEST KELOWNA, BC	
ZONING	R1	
SETBACKS	PROPOSED	PERMITTED
FRONT YARD	4.5M	4.5M EXCEPT IT IS 6.0M TO A GARAGE DOOR
RIGHT SIDE YARD	1.5M	1.5M
LEFT SIDE YARD	1.5M SRW	1.5M SRW
REAR YARD	3.0M	3.0M
BUILDING HEIGHT	12.8M	10.0M
STOREYS	2	3
BUILDING FOOTPRINT	491.18M	
LOT AREA	1,613.91M	
SITE COVERAGE	30.43%	40%
SITE COVERAGE C/W DRIVEWAY	48.08%	50%
PARKING SPACES	4	2 PER UNIT
HOUSE AREA		
FINISHED LOWER	3,005 SQ.FT.	
FINISHED MAIN	2,651 SQ.FT.	
TOTAL FINISHED AREA		5,656 SQ.FT.
UNFINISHED LOWER & STORAGE	1,150 SQ.FT.	
GARAGE MAIN	1,188 SQ.FT.	
COVERED DECKS AND PATIOS	922 SQ.FT.	
TOTAL UNLIVABLE AREA		3,260 SQ.FT.
TOTAL BUILDING AREA		8,916 SQ.FT.

R-tistry Home Design
design@rtistryhomedesign.com
PH: 250-469-1641

ISSUED PLANS:

NO.1	CONSTRUCTION DRAWINGS	JULY 10-2023
NO.2	PRIMARY & BED #2 WINDOW REV.	JULY 20-2023
NO.3	FOUNDATION/ CRAWL SPACE REV.	AUG. 8-2023
NO.4	BUILDING HEIGHT VARIANCE	AUG. 9-2023

GIBSON
CONTRACTING

PROJECT TITLE:
3053 WALES RD.
WEST KELOWNA, BC

DATE: 2023-08-09

SCALE: 1/8" = 1'

SHEET: 11/11

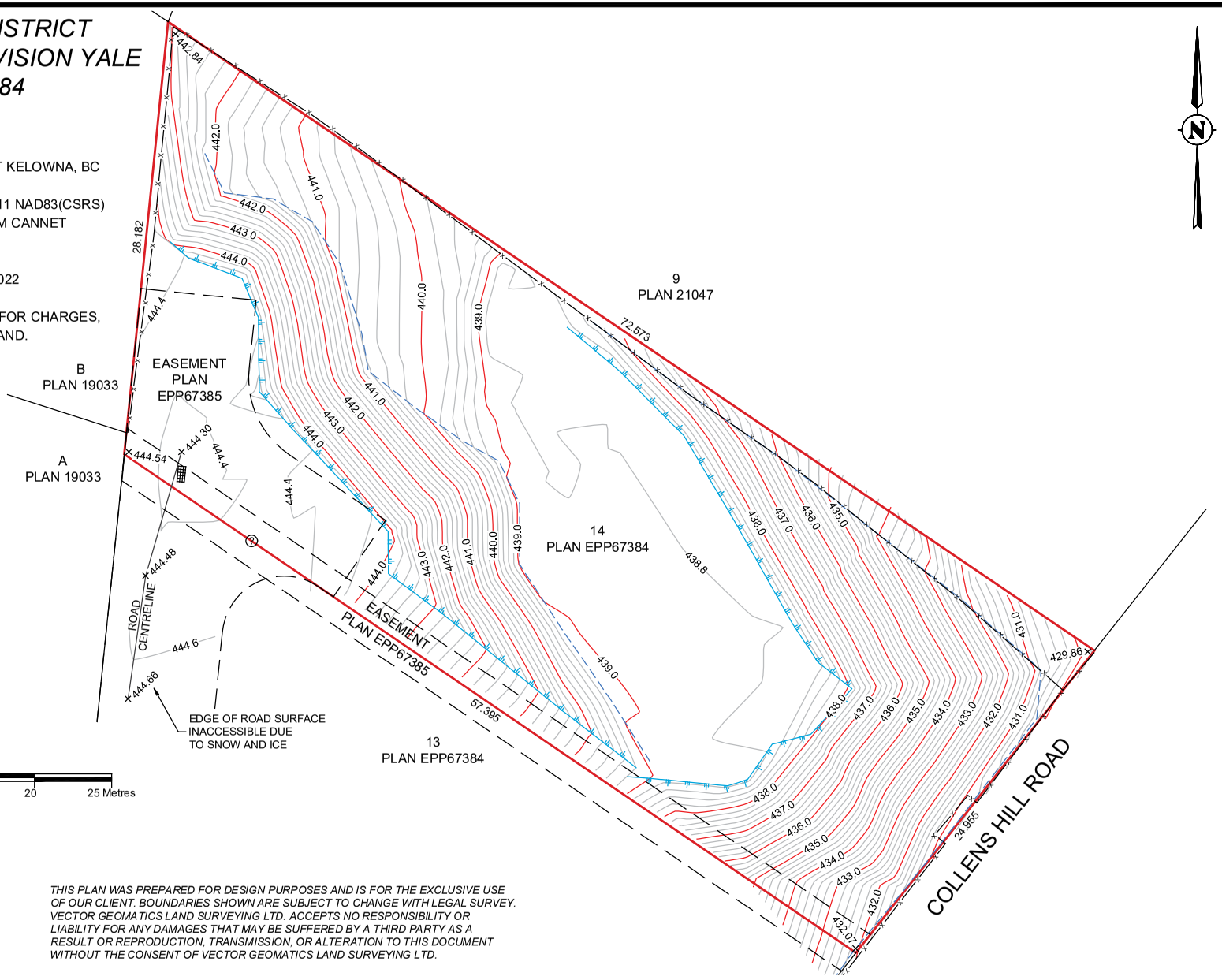
SITE PLAN OF LOT 14 DISTRICT LOT 3496 OSOYOOS DIVISION YALE DISTRICT PLAN EPP67384

PID: 030-392-781
CLIENT: GIBSON CONTRACTING
CIVIC ADDRESS: 3053 WALES ROAD, WEST KELOWNA, BC

HORIZONTAL COORDINATE SYSTEM: UTM 11 NAD83(CSRS)
VERTICAL DATUM: CGVD28 (DERIVED FROM CANNET STATION BC_KELOWNA)

DATE OF FIELD SURVEY: DECEMBER 22, 2022

REFER TO THE CURRENT STATE OF TITLE FOR CHARGES, LIENS, AND INTERESTS AFFECTING THIS LAND.



LEGEND

- Subject Property
- Major Contour (1.0m)
- Minor Contour (0.2m)
- Top Slope
- Bottom Slope
- Fence
- Catch Basin
- Unknown Manhole
- Spot Elevation

SCALE 1:250

0 2.5 5 10 15 20 25 Metres

VECTOR GEOMATICS LAND SURVEYING LTD.
111-810 Clement Ave
Kelowna, B.C. V1Y 7C9
Ph.: (250) 868-0172
www.vectorgeomatics.com

File: 2201831R0 Date: 2023-01-05
Drafted by: EC Checked by: TF

THIS PLAN WAS PREPARED FOR DESIGN PURPOSES AND IS FOR THE EXCLUSIVE USE OF OUR CLIENT. BOUNDARIES SHOWN ARE SUBJECT TO CHANGE WITH LEGAL SURVEY. VECTOR GEOMATICS LAND SURVEYING LTD. ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR ANY DAMAGES THAT MAY BE SUFFERED BY A THIRD PARTY AS A RESULT OR REPRODUCTION, TRANSMISSION, OR ALTERATION TO THIS DOCUMENT WITHOUT THE CONSENT OF VECTOR GEOMATICS LAND SURVEYING LTD.

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Notes: This statement is to be read and completed in conjunction with the Engineers and Geoscientists BC *Professional Practice Guidelines – Landslide Assessments in British Columbia* ("the guidelines") and the current *BC Building Code* (*BCBC*), and is to be provided for Landslide Assessments (not floods or flood controls), particularly those produced for the purposes of the *Land Title Act*, *Community Charter*, or *Local Government Act*. Some jurisdictions (e.g., the Fraser Valley Regional District or the Cowichan Valley Regional District) have developed more comprehensive assurance statements in collaboration with Engineers and Geoscientists BC. Where those exist, the Qualified Professional is to fill out the local version only. Defined terms are capitalized; see the Defined Terms section of the guidelines for definitions.

To: The Approving Authority (or Client) Date: August 31, 2023

City of West Kelowna

2760 Cameron Road, West Kelowna, BC V1Z 2T6

Jurisdiction/name and address

With reference to (CHECK ONE):

- ☐ A. *Land Title Act* (Section 86) – Subdivision Approval
- ☐ B. *Local Government Act* (Sections 919.1 and 920) – Development Permit
- ☑ C. Community Charter (Section 56) – Building Permit
- ☐ D. Non-legislated assessment

For the following property (the "Property"):

3053 Wales Road, West Kelowna, BC

Civic address of the Property

The undersigned hereby gives assurance that they are a Qualified Professional and a professional engineer or professional geoscientist who fulfils the education, training, and experience requirements as outlined in the guidelines.

I have signed, authenticated, and dated, and thereby certified, the attached Landslide Assessment Report on the Property in accordance with the guidelines. That report must be read in conjunction this statement.

In preparing that report I have:

[CHECK TO THE LEFT OF APPLICABLE ITEMS]

✓ 1. Collected and reviewed appropriate background information
✓ 2. Reviewed the proposed Residential Development or other development on the Property
✓ 3. Conducted field work on and, if required, beyond the Property
✓ 4. Reported on the results of the field work on and, if required, beyond the Property
✓ 5. Considered any changed conditions on and, if required, beyond the Property
6. For a Landslide Hazard analysis or Landslide Risk analysis, I have:
✓ 6.1 reviewed and characterized, if appropriate, any Landslide that may affect the Property
✓ 6.2 estimated the Landslide Hazard
✓ 6.3 identified existing and anticipated future Elements at Risk on and, if required, beyond the Property
✓ 6.4 estimated the potential Consequences to those Elements at Risk
7. Where the Approving Authority has adopted a Level of Landslide Safety, I have:
___ 7.1 compared the Level of Landslide Safety adopted by the Approving Authority with the findings of my investigation
___ 7.2 made a finding on the Level of Landslide Safety on the Property based on the comparison
___ 7.3 made recommendations to reduce Landslide Hazards and/or Landslide Risks

8. Where the Approving Authority has **not** adopted a Level of Landslide Safety, or where the Landslide Assessment is not produced in response to a legislated requirement, I have:

✓ 8.1 described the method of Landslide Hazard analysis or Landslide Risk analysis used

✓ 8.2 referred to an appropriate and identified provincial, national, or international guideline for Level of Landslide Safety

✓ 8.3 compared those guidelines (per item 8.2) with the findings of my investigation

✓ 8.4 made a finding on the Level of Landslide Safety on the Property based on the comparison

✓ 8.5 made recommendations to reduce Landslide Hazards and/or Landslide Risks

___ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections

Based on my comparison between:

[CHECK ONE]

☐ the findings from the investigation and the adopted Level of Landslide Safety (item 7.2 above)

☑ the appropriate and identified provincial, national, or international guideline for Level of Landslide Safety (item 8.4 above)

Where the Landslide Assessment is not produced in response to a legislated requirement, I hereby give my assurance that, based on the conditions[1] contained in the attached Landslide Assessment Report:

A. SUBDIVISION APPROVAL

☐ For subdivision approval, as required by the *Land Title Act* (Section 86), "the land may be used safely for the use intended"

[CHECK ONE]

☐ with one or more recommended additional registered Covenants

☐ without an additional registered Covenant(s)

B. DEVELOPMENT PERMIT

☐ For a development permit, as required by the *Local Government Act* (Sections 488 and 491), my report will "assist the local government in determining what conditions or requirements it will impose under subsection (2) of [Section 491]"

[CHECK ONE]

☐ with one or more recommended additional registered Covenants

☐ without an additional registered Covenant(s)

C. BUILDING PERMIT

☑ For a building permit, as required by the *Community Charter* (Section 56), "the land may be used safely for the use intended"

[CHECK ONE]

☐ with one or more recommended additional registered Covenants

☑ without any additional registered Covenant(s)

[1] When seismic slope stability assessments are involved, Level of Landslide Safety is considered to be a "life safety" criteria, as described in Commentary JJJ of the *National Building Code of Canada* (*NBC) 2015*, Structural Commentaries (User's Guide – NBC 2015: part 4 of division B). This states:

> "The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse, nor will its attachments break off and fall on people near the building. This performance level is termed 'extensive damage' because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse."

LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Larry H Deng

Name (print)

August 31, 2023

Date

101-2493 Montrose Avenue, Abbotsford, BC V2S 0L5

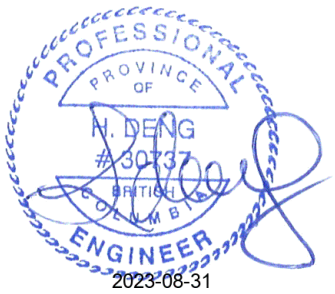
Address

604-776-0222

Telephone

larry.deng@evertekengineering.com

Email



(Affix PROFESSIONAL SEAL and signature here)

The Qualified Professional, as a registrant on the roster of a registrant firm, must complete the following:

I am a member of the firm EVERTEK ENGINEERING LTD.

(Print name of firm)

with Permit to Practice Number 1000729

(Print permit to practice number)

and I sign this letter on behalf of the firm.