

Development Permit Application

Referral Form - RDCK File DP2303F

Date: March 30, 2023

You are requested to comment on the attached DEVELOPMENT PERMIT for potential effect on your agency's interests. We would appreciate your response WITHIN 30 DAYS (PRIOR TO April 30, 2023). If no response is received within that time, it will be assumed that your agency's interests are unaffected.

LEGAL DESCRIPTION & GENERAL LOCATION:

5644 Highway 3A and 6, Taghum, BC, Electoral Area 'F'

THAT PART OF AMENDED LOT 1 (REFERENCE PLAN 52262I) LYING SOUTH OF RIGHT OF WAY PLAN R66 DISTRICT LOT 2355 KOOTENAY DISTRICT PLAN 759 EXCEPT (1) PARCEL 1 (REFERENCE PLAN 100313I) AND (2) PART INCLUDED IN PLAN 7805 (PID: 013-526-774)

PRESENT USE AND PURPOSE OF PERMIT REQUESTED:

The subject property is a 0.7 hectare (1.7 acre) parcel of land that has been improved with a gas station, retail store and associated parking areas.

The proposed development considered by this Development Permit Application includes the expansion of the existing parking area, construction of retaining walls and the construction of an addition to the existing commercial building.

The purpose of this Commercial, Industrial, and High Density Residential Development Permit (CIHDRDP) Area is to encourage high quality design, building, development, and landscaping standards that maintain and enhance rural character, improve energy efficiency, and maintain high water quality in surface water, groundwater and aquifers.

AREA OF PROPERTY AFFECTED	ALR	ZONING	OCP
0.7 hectares (1.7 acres)	STATUS	Neighbourhood	Commercial in Electoral Area 'F' Official
	N/A	Commercial in Zoning	Community Plan Bylaw No. 2214, 2011
		Bylaw No. 1675, 2004	

APPLICANT: Cover Architecture Collaborative Inc.

OTHER INFORMATION: ADVISORY PLANNING COMMISSION PLEASE NOTE:

If your Advisory Planning Commission plans to hold a meeting to discuss this Development Permit application, please note that the applicants must be provided with an opportunity to attend such meeting, in accordance with Section 461, subsection (8) of the *Local Government Act*, which reads as follows:

"If the commission is considering an amendment to a plan or bylaw, or the issue of a permit, the applicant for the amendment or permit is entitled to attend meetings of the commission and be heard."

Please fill out the Response Summary on the back of this form. If your agency's interests are 'Unaffected' no further information is necessary. In all other cases, we would appreciate receiving additional information to substantiate your position and, if necessary, outline any conditions related to your position. Please note any legislation or official government policy which would affect our consideration of this permit.

ZACHARI GIACOMAZZO, PLANNER REGIONAL DISTRICT OF CENTRAL KOOTENAY

	MEGICIAL DISTRICT OF CENTRAL ROOTERAL
MINISTRY OF TRANSPORTATION AND	REGIONAL DISTRICT OF CENTRAL KOOTENAY
INFRASTRUCTURE	DIRECTORS FOR:
HABITAT BRANCH (Environment)	□ A □ B □ C □ D □ E ⋈ F □ G □ H □ I □ J □ K
FRONTCOUNTER BC (Ministry of Forests)	ALTERNATIVE DIRECTORS FOR:
AGRICULTURAL LAND COMMISSION	□ A □ B □ C □ D □ E ⋈ F □ G □ H □ I □ J □ K

Nelson Office: Box 590, 202 Lakeside Drive, Nelson, BC. V1L 5R4

Phone: 250.352.6665 | Toll Free: 1.800.268.7325 (BC) | Email: info@rdck.ca | Fax: 250.352.9300

REGIONAL AGROLOGIST	RDCK FIRE SERVICES
ENERGY & MINES	RDCK EMERGENCY SERVICES
MUNICIPAL AFFAIRS & HOUSING	RDCK BUILDING SERVICES
☐ INTERIOR HEALTH, HBE TEAM	RDCK UTILITY SERVICES
KOOTENAY LAKES PARTNERSHIP	RDCK RESOURCE RECOVERY
(FORESHORE DEVELOPMENT PERMITS)	RDCK REGIONAL PARKS
SCHOOL DISTRICT NO.	
WATER SYSTEM OR IRRIGATION DISTRICT	INSERT COMMENTS ON REVERSE
UTILITIES (FORTIS, NELSON HYDRO)	

Nelson Office: Box 590, 202 Lakeside Drive, Nelson, BC. V1L 5R4 Phone: 250.352.6665 | Toll Free: 1.800.268.7325 (BC) | Email: info@rdck.ca | Fax: 250.352.9300

The personal information on this form is being collected pursuant to *Regional District of Central Kootenay Planning Procedures and Fees Bylaw No. 2457, 2015* for the purpose of determining whether the application will affect the interests of other agencies or adjacent property owners. The collection, use and disclosure of personal information are subject to the provisions of FIPPA. Any submissions made are considered a public record for the purposes of this application. Only personal contact information will be removed. If you have any questions about the collection of your personal information, contact the Regional District Privacy Officer at 250.352.6665 (toll free 1.800.268.7325), info@rdck.bc.ca, or RDCK Privacy Officer, Box 590, 202 Lakeside Drive, Nelson, BC V1L 5R4.

	RESPONSE SUMMARY FILE: DP2303F APPLICANT: Cover Architecture Collaborative Inc.		
Name:	Date:	J	
Agency:	Title:		

RETURN TO: ZACHARI GIACOMAZZO, PLANNER

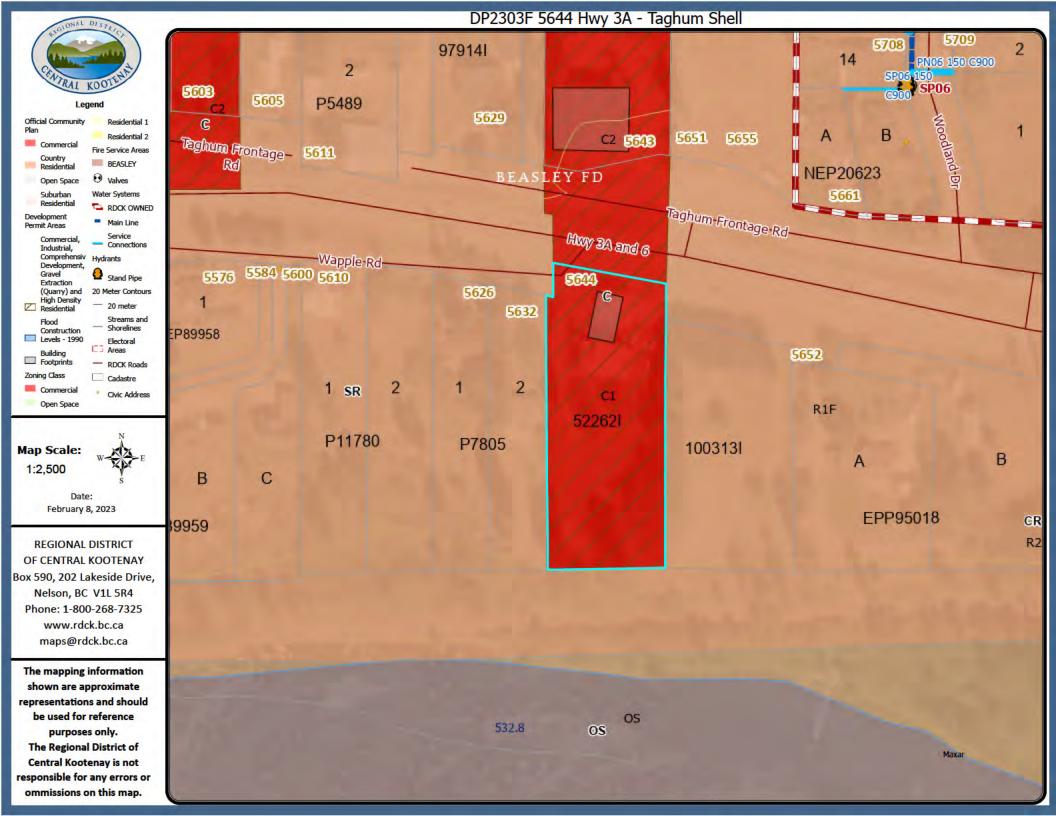
DEVELOPMENT AND COMMUNITY SUSTAINABILITY SERVICES

REGIONAL DISTRICT OF CENTRAL KOOTENAY

BOX 590, 202 LAKESIDE DRIVE

NELSON, BC V1L 5R4 Ph. 250-352-8190

Email: plandept@rdck.bc.ca





Legend

Water Systems

RDCK OWNED

Main Line

Service

Connections

Hydrants

Stand Pipe

20 Meter Contours

20 meter

Streams and **Shorelines**

Electoral Areas

— RDCK Roads

Cadastre

Civic Address

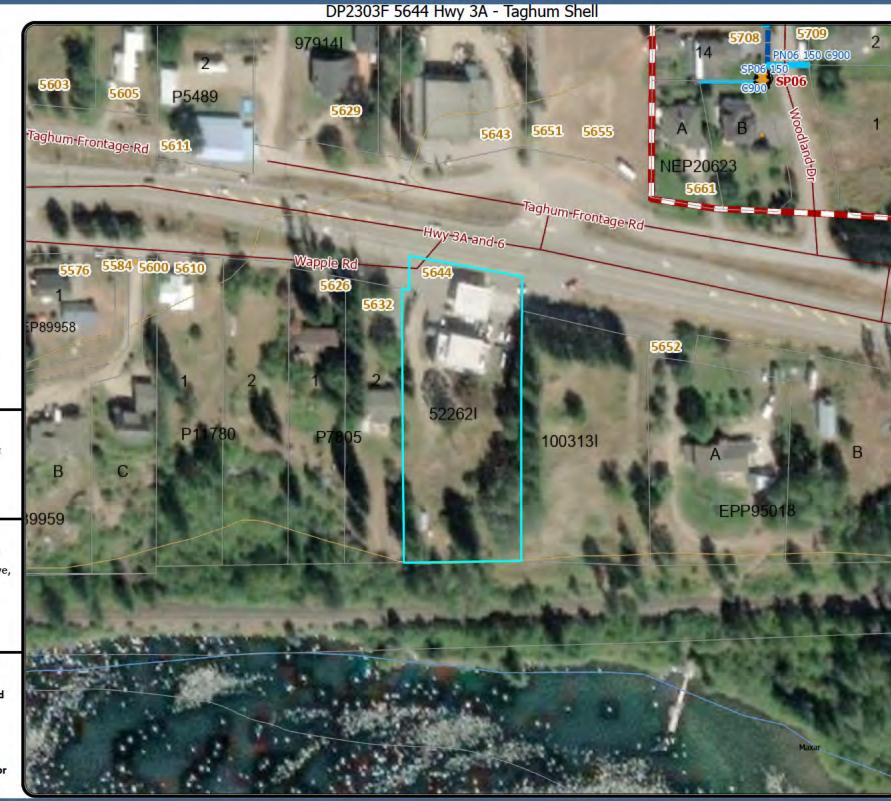
Map Scale: 1:2,500



Date: February 8, 2023

REGIONAL DISTRICT OF CENTRAL KOOTENAY Box 590, 202 Lakeside Drive, Nelson, BC V1L 5R4 Phone: 1-800-268-7325 www.rdck.bc.ca maps@rdck.bc.ca

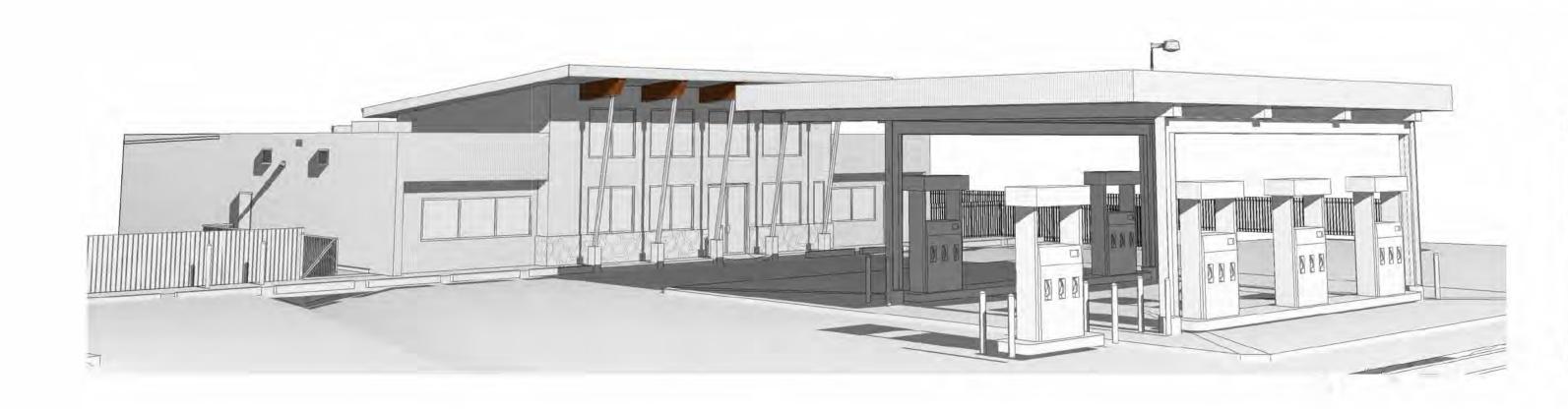
The mapping information shown are approximate representations and should be used for reference purposes only. The Regional District of Central Kootenay is not responsible for any errors or ommissions on this map.

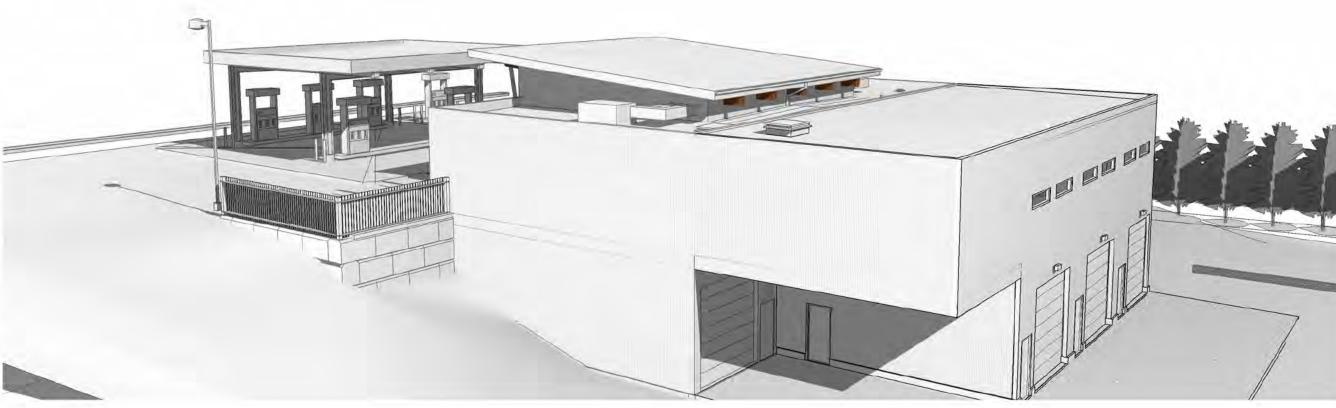


TAGHUM SHELL EXPANSION

5644 Highway 3A West, Nelson, BC

ISSUED FOR DEVELOPMENT PERMIT JANUARY 25, 2023





CLIENT

CONSULTANTS

5644 Highway 3A West Nelson, BC

531131 BC Ltd.

LEGAL ADDRESS

A503

A601

LOT 1 PLAN NEP759 DISTRICT LOT 2355 KOOTENAY LAND DISTRICT -AMENDED (REF PL 52262I) LYING SOUTH OF R/W PL R66 EXC (1) PCL 1 (REF PL (REF PL 100313I) & (2) PL 7805

Architect - Prime Consultant

Cover Architectural Collaborative Inc.

Contact: Lukas Armstrong. Principal email: Cell: Office:

Structural

EffiStruc Consulting Inc.

emaill Office:

Highland Consulting LTD.

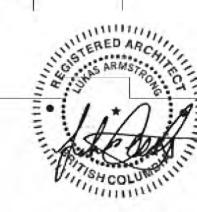
Contact: Paul Kernan emaill Office:

Mechanical

Electrical

Ready Engineering (Design-Build)

Geotech



2023-01-25

DRAWING LIST

Site Electrical Geotech Structural Mechanica Architectural

GENERAL LAYOUT

DETAILS_

Sheet Number Sheet Name

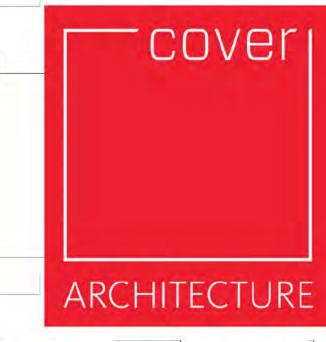
COVER SHEET A002 NOTES & ASSEMBLIES A003 CODE & BYLAW A004 LIFE SAFETY PLAN A101 DEMOLITION PLAN A102 OVERALL SITE PLAN & CONTEXT PLAN A103 **NEW SITE PLAN** A104 FOUNDATION PLAN BASEMENT FLOOR PLAN A105 MAIN FLOOR PLAN A106 A107 **ROOF PLAN** A108 **REFLECTED CEILING PLAN - BASEMENT** REFLECTED CEILING PLAN - MAIN FLOOR A109 **ELEVATIONS** A209 **ELEVATIONS** A301 **BUILDING SECTIONS** A401 WALL SECTIONS A402 STAIR PLAN & SECTION A501 PLAN DETAILS A502 SECTION DETAILS

TYPICAL DETAILS

WASHROOM PLANS

WINDOW & DOOR SCHEDULE

The proposed expansion to the Taghum Shell Gas Station (210m 2) is an extension of the existing use of this Commercially-zoned lot. The expansion has been reviewed to be in alignment with the applicable "Community Guiding Principles" of the Official Community Plan for RDCK Electoral Area `F' (Section 5.3). Further, `12.0 Commercial Land' and 12.3 Policies have been reviewed and form the guiding framework for the proposed development; specifically: accommodating on-site sewage disposal, trees planted along the west property line in consideration of adjacent lot, maintaining and enhancing existing commercial land uses, as well as incorporating the remaining criteria lettered b-d and f-h.



These drawings are issued for permitting purposes only.

Not intended for construction. If they are used for construction COVER assumes no liability. #5-320 Vernon St. Nelson BC V1L 4E4 250.354.4445 info@coverac.ca

TAGHUM SHELL -**EXPANSION**

5644 Highway 3A West

SCHEMATIC PROJECT CODE 22132 scale 1 1/2" = 1'-0" DATE 01-25-2023

COVER SHEET A001

BC BUILDING CODE ANALYSIS – Taghum Shell

The following codes and regulations apply:

BCBC – British Columbia Building Code 2018 BCFC – British Columbia Fire Code 2012

Regional District of Central Kootenay Zoning Bylaw No. 1675 (2004)

Project Information

Building Area: 506.97 m² (5456.98 ft²)
Construction: Combustible & non-combustible

Application of Part 9

Building Height: 2 Storeys
Fire Protection: Non-sprinklered
Streets: Facing 1 street

Major Occupancy: E – Mercantile

1. Part 9 of Division B applies to all *buildings* described in Article 1.1.1.1. of 3 storeys or less in *building* height, having a building area not exceeding 600 m², and used for major occupancies classified as c) Group E, mercantile occupancies

1.4.1.2. Defined Terms

Heavy timber construction means that type of combust ble construction in which a degree of fire safety is attained by placing limitations on the sizes of wood structural members and on the thickness and composition of wood floors and roofs and by the avoidance of concealed spaces under floors and roofs.

Major occupancy means the principal *occupancy* for which a *building* or part thereof is used or intended to be used, and shall be deemed to include the subsidiaryoccupancies that are an integral part of the principal occupancy.

Mercantile occupancy means the *occupancy* or use of a *building* or part thereof for the displaying or selling of retail goods, wares or merchandise.

3.1.17.1. Occupant Load Determination

1. The occupant load of a floor area or part of a floor area shall be based on

c) the number of persons for which the area is designed, but not less than that determined from Table 3.1.17.1. for occupancies other than those descr bed in Clauses (a) and (b), unless it can be shown that the area will be occupied by fewer persons.

Table 3.1.17.1.Business and pers

Business and personal services uses - offices 9.3 p.p. (sq m)
Mercantile uses - first storey 3.7 p.p. (sq m)

Other uses - kitchen 9.3 p.p. (sq m)
Other uses - storage 46 p.p. (sq m)

Occupant loads for the presented design:

Main Level74 occupantsOffice uses (6.5 m2)3 occupantsMercantile uses (250 m2)67 occupantsKitchen (20.36 m2)3 occupantsStorage (41.71 m2)1 occupant

<u>Basement Level</u> Storage (242.2 m2)

3.7.2.2. Water Closets

2. If a single universal toilet room is provided in accordance with the requirements of Section 3.8., the total number of persons in the building used to determine the number of water closets to be provided, is permitted to be reduced by 10 before applying Sentences (6), (7), (8), (12), (13) or (14).

- 4. Both sexes are permitted to be served by a single water closet if the occupant load in an occupancy referred to in Sentence (6), (10), (12), (13), (14) or (16) is not more than 10.
- 12. Except as permitted by Sentence (4), the number of water closets required for a business and personal
- services occupancy shall conform to Table 3.7.2.2.B

 13. Except as permitted by Sentences (4) and (16), the number of water closets required for a mercantile

<u>5 occupants</u>

5 occupants

- occupancy shall be at least one for each 300 males and one for each 150 females.
- 14. Except as permitted by Sentence (4), the number of water closets required for an industrial occupancy shall conform to Table 3.7.2.2.C

 Main Level: mercantile incl. kitchen (48 occupants) 1 Water Closets for Each Sex.
- Main Level: storage incl. office (2 occupants) 1 Water Closets for both sexes according to sentence (4).

 Basement Level: mercantile option (51 occupants) 1 Water Closet for Each Sex.
- Basement Level: office option (21 occupants) 1 Water Closets for Each Sex.

 Basement Level: storage option (4 occupants) 1 Water Closets for both sexes according to sentence (4).

3.7.2.10 Accessible Washrooms

A universal toilet room shall have:

a) a floor space of not less than 3.7m² with no dimensions less than 1700mm when the door swings out and

4.0m² with no dimensions less than 1800 mm when the door swings in.

3.8.2.1 Applications and Exemptions

1. Except as provided in Sentence (2), access shall be provided to all storeys of buildings of new construction.

This subsection does not apply to:

 a) the storey next above or below the accessible storey in a building not more than two storeys in building height, provided the storeys next above or below the access ble storey.

i) is less than 600m² in floor area,
ii) does not contain facilities integral to the principle function of the accessible storey.

3.8.2.3 Specific Requirements

1. Except where stated otherwise buildings and occupancies to which this Subsection applies shall, in addition

to the requirements listed for specific occupancies, have
a) access from the street to at least one main entrance conforming to Article 3.8.3.5.,

b) where off-street parking is provided for persons with disabilities, access from the parking area to an entrance conforming to Article 3.8.3.5. that serves the parking area unless the entrance in Clause (a) is located so as to conveniently serve both the parking area and the street,

c) access to all areas where work functions can reasonably be expected to be performed by persons with disabilities.

d) accessible washrooms conforming to Sentence (2), and

e) on each floor area to which access is required, egress conforming to Article 3.8.3.19.
In buildings and occupancies where water closets are required,

a) at least one universal toilet room that conforms to Sentence 3.7.2.10(9) shall be provided

3.8.2.36. Mercantile Occupancies

b) In Group E *buildings*, *access* shall be provided to all public facilities and to all areas to which the public is admitted.

3.8.3.4 Parking stalls for persons with disabilities

2. Where more than 50 parking stalls are provided, parking stalls for persons with disabilities shall be provided in the ratio of 1 for every 100 or part thereof.

9.5.2.1. General (Access for Persons with Disabilities)

Every building shall be designed in conformance with Section 3.8

9.5.5.5. <u>Doorways to Public Water-Closet Rooms</u>

1. Doorways to public water-closet rooms shall be not less than 810 mm wide and 2030 mm high.

9.10.6.2. Heavy Timber

1. Heavy timber construction shall be considered to have a 45 min fire-resistance rating when it is constructed in accordance with the requirements for heavy timber construction in Article 3.1.4.7.

9.8.2.1. <u>Stair Width</u>

3. Required *exit* stairs and public stairs serving *buildings* of other than *residential occupancy* shall have a width of not less than the greater of

8 mm per person based on the *occupant load* limits specified in Table 3.1.17.1. (N/A)

.3.3. Maximum Height of Stairs

1. The vertical height of any flight of stairs shall not exceed 3.7 m.

.4.1. <u>Dimensions for Risers</u>

Max. 180 mm, min. 125 mm,

9.8.4.2. <u>Dimensions for Rectangular Treads</u>

Run: min. 280 mm Tread depth: min. 280mm

9.8.4.7. Tactile Warning

1. Stairs shall be provided with tactile warning strips conforming to Article 3.8.3.11., except for b) exit stairs not normally used for access purposes, and

b) exit stairs not normally used to 9.8.7.1. Required Handrails

Stairs 1100 mm wide or more: handrails on both sides

9.8.7.4. Height of Handrails

Min. 865 mm, max. 965 mm

9.8.8.3. Height of Guards

Guards for flights of steps, except in required exit stairs, shall be not less than 900 mm high.

9.9.1.3. Occupant Load

1. Except for *dwelling units*, the *occupant load* of a *floor area* or part of a *floor area* shall be the number of persons for which such areas are designed, but not fewer than that determined from Table 3.1.17.1., unless it can be shown that the area will be occupied by fewer persons.

9.9.3.2. Exit Widtl

1. Except for doors and corridors, the width of every*exit* facility shall be not less than 900 mm.

9.9.3.3. Width of Corridors

1. The width of every *public corridor*, corridor used by the public, and *exit* corridor shall be not less than 1100

9.9.4.2. Fire Separation for Exits

1. Except as provided in Sentences (2) and (5) and Article 9.9.8.5., everyexit other than an exterior doorway shall be separated from each adjacent floor area or from another exit

a) where there is a floor assembly above the floor area, by a fire separation having a fire-resistance rating not less than that required for the floor assembly above the floor area (see Article 9.10.9.10.), and b) where there is no floor assembly above the floor area, by a fire separation having a fire-resistance rating not less than the greater of

i) that required by Subsection 9.10.8. for the floor assembly below, or ii) 45 min.

3. A *fire separation* common to 2 *exits* shall be smoke-tight and not be pierced by doorways, duct work, piping or any other opening that may affect the continuity of the separation.

4. A *fire separation* that separates an *exit* from the remainder of the *building* shall have no openings except those for electrical wiring, *noncombustible* conduit and *noncombustible* piping that serve only the *exit*, and for standpipes, sprinkler piping, *exit* doorways and wired glass and glass block permitted in Article 9.9.4.3.

9.9.6.3. Clear Opening Width at Doorways

Exits and access to exits: min. 800mm if one leaf, 1210mm if two active leaves

9.8.2. Number of Required Exits

1. Except as provided in Sentence (2) and Subsection 9.9.9., at least 2exits shall be provided from every floor area, spaced so that the travel distance to the nearestexit is not more than

c) 30 m for all other occupancies.

9.10.2.1. Occupancy Classification

1. Except as provided in Article 9.10.2.2. (N/A), every building or part thereof shall be classified according to its major occupancy as belonging to one of the groups or divisions described in Table 9.10.2.1.

or occupancy as belonging to one of the groups or divisions described in Table 9.10.2.1.

Group E – Mercantile Occupancies 9.9.11.3. Exit Signs

None required.

10.8.1. Fire-Resistance Ratings for Floors and Roofs

Mercantile Occupancy, 2 storeys:
Floors except floors over crawl spaces: 45 min FR

Floors except floors over crawl spaces: 45 min FRR Roofs: N/A

9.10.8.3. Fire-Resistance Ratings for Walls, Columns and Arches

1. Except as otherwise provided in this Subsection, alloadbearing walls, columns and arches in the *storey* immediately below a floor or roof assembly shall have *afire-resistance rating* of not less than that required for the supported floor or roof assembly.

9.10.9.4. Floor Assemblies

1. Except as permitted in Sentences (2) to (4) (N/A), all floor assemblies shall be constructed as fire separations.

9.10.10.3. Separation of Service Rooms

Except as provided in Sentence (2) and Articles 9.10.10.5. and 9.10.10.6. (N/A) service rooms shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 1 h when the floor area containing the service room is not sprinklered.
 Where a room contains a limited quantity of service equipment and the service equipment does not constitute a fire hazard, the requirements in Sentence (1) shall not apply.

<u>9.10.10.6.</u> <u>Storage Rooms</u>

1. Rooms for the temporary storage of *combustible* refuse in all *occupancies* or for public storage in *residential occupancies* shall be separated from the remainder of the *building* by a *fire separation* having not less than a 1 h *fire-resistance rating*, except that a 45 min *fire separation* is permitted where the *fire-resistance rating* of the floor assembly is not required to exceed 45 min, or where such rooms are *prinklered*.

9.10.14.4. Openings in Exposing Building Face

See attached letter regarding exposing building face.

9.10.20.3. Fire Department Access to Buildings

Access for fire department equipment shall be provided to eachbuilding by means of a street, private roadway or yard. (See Appendix A and A-3.2.5.6.(1) in Appendix A.)
 Where access to a building as required in Sentence (1) is provided by means of a roadway or yard, the design and location of such roadway or yard shall take into account connection with public thoroughfares, weight of firefighting equipment, width of roadway, radius of curves, overhead clearance, location of fire hydrants, location of fire department connections and vehicular parking.

9.31.1.1. Application (Plumbing Facilities)

3. In *occupancies* other than *dwelling units*, plumbing facilities, grab bars, floor drains, and floor and wall finishes around urinals shall conform to Subsection 3.7.2. (See also Article 3.7.2.10. regarding *ccessible* plumbing facilities.)

National Energy Code of Canada for Buildings 2015

– Taghum Shell

3.2.2. Above-ground Components of the Building Envelope

Table 3.2.2.2.

Overall Thermal Transmittance of Above-ground Opaque Building Assemblies

Above-ground	Heating Degree-Days of Building Location,
Opaque Building	Celsius Degree-Days
Assembly	Zone 5: 3000 to 3999
Maxim	um Overall Thermal Transmittance, in W/(m2·K)
Valls	0.278 (R20.4)
oofs	0.183 (R31)
loors	0.183 (R31)

3.2.2.3. Thermal Characteristics of Fenestration

Table 3.2.2.3.

Overall Thermal Transmittance of Fenestration

	Heating Degree-Days of Building Location, in Celsius Degree-Days	
Component		
6	Zone 5: 3000 to 3999	
Maximur	num Overall Thermal Transmittance, in W/(m2·K)	
All fenestration	2.2 (R2.6)	

3.2.2.4. Thermal Characteristics of Doors and Access Hatches

Table 3.2.2.4.

Overall Thermal Transmittance of Doors

Component	Heating Degree-Days of Building Location, in Celsius Degree-Days	
	Zone 5: 3000 to 3999	
Maximum	Overall Thermal Transmittance, in W/(m2·K)	
All doors	2.2 (R2.6)	

3.2.3. Building Assemblies in Contact with the Ground

3.2.3.1. Thermal Characteristics of Walls in Contact with the Ground

Table 3.2.3.1.

Overall Thermal Transmittance of Building Assemblies in Contact with the Ground

Above-ground	Heating Degree-Days of Building Location,
Opaque Building	Celsius Degree-Days
Assembly	Zone 5: 3000 to 3999
Maxim	um Overall Thermal Transmittance, in W/(m2·K)
Walls	0.379(R15)
Roofs	0.379 (R15)
Floors	0.757 for 1.2m (R7.5)

BYLAW REVIEW

DIVISION 32 NEIGHBOURHOOD COMMERCIAL (C1)

Permitted Uses

Land, buildings and structures in the Neighbourhood Commercial (C1) zone shall be used for the following purposes only:

Cannabis Retail Stores
Horticulture
Farmer's Market
Mixed Use Developments
Offices
Pubs
Personal Service Establishments
Recycling Depot
Restaurants
Retail Stores
Service Stations
Tourist Accommodation
Accessory Uses:
Accessory Buildings and Structures

One Dwelling Unit.

Development Regulations

3201

The minimum site area for each permitted use shall be provided as follows:

	Community Water Supply and Community Sewer System	Community Water Supply Only	On-Site Servicing Only
Hotel, Motel, Lodge and Similar Uses	0.2 hectares (first unit), 200 square metres for each additional sleeping or housekeeping unit	0.4 hectares, 300 square metres for each additional sleeping unit, 400 square metres for each additional housekeeping unit	1.0 hectare (up to 10 units), 600 square metres for each additional sleeping unit, 0.1 hectares for each additional

housekeeping unit

All Other Uses 0.4 hectare 0.4 hectare 1.0 hectare

For Mixed Use Developments, the minimum site area restrictions identified above

- apply for each permitted principal use within the Mixed Use Development
- The maximum site coverage permitted shall be 50 percent of the lot area.
 The maximum commercial floor area within all buildings on a lot shall be 500 square
- Non-commercial Area: 433.21 m² (4663.03 ft²)

 Landscaping shall comply with the requirements of sections 621 and 622.

Commercial Area: 224.63 m² (2417.90 ft²)



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datums and levels to identify any errors and omissions; ascertain any

bring these items to the attention of the Architect for clarification.

NO DATE

discrepancies between this drawing and the full Contract Documents; and,

2 23/01/25 ISSUED FOR DEVELOPMENT PERMIT

DESCR PTION

ISSUED FOR REVIEW



These drawings are issued for permitting purposes only.
Not intended for construction. If they are used for construction,
COVER assumes no liability.
#5-320 Vernon St.
Nelson BC V1L 4E4
250.354 4445

TAGHUM SHELL -EXPANSION

5644 Highway 3A West

info@coverac.ca

22132 SCHEMATIC

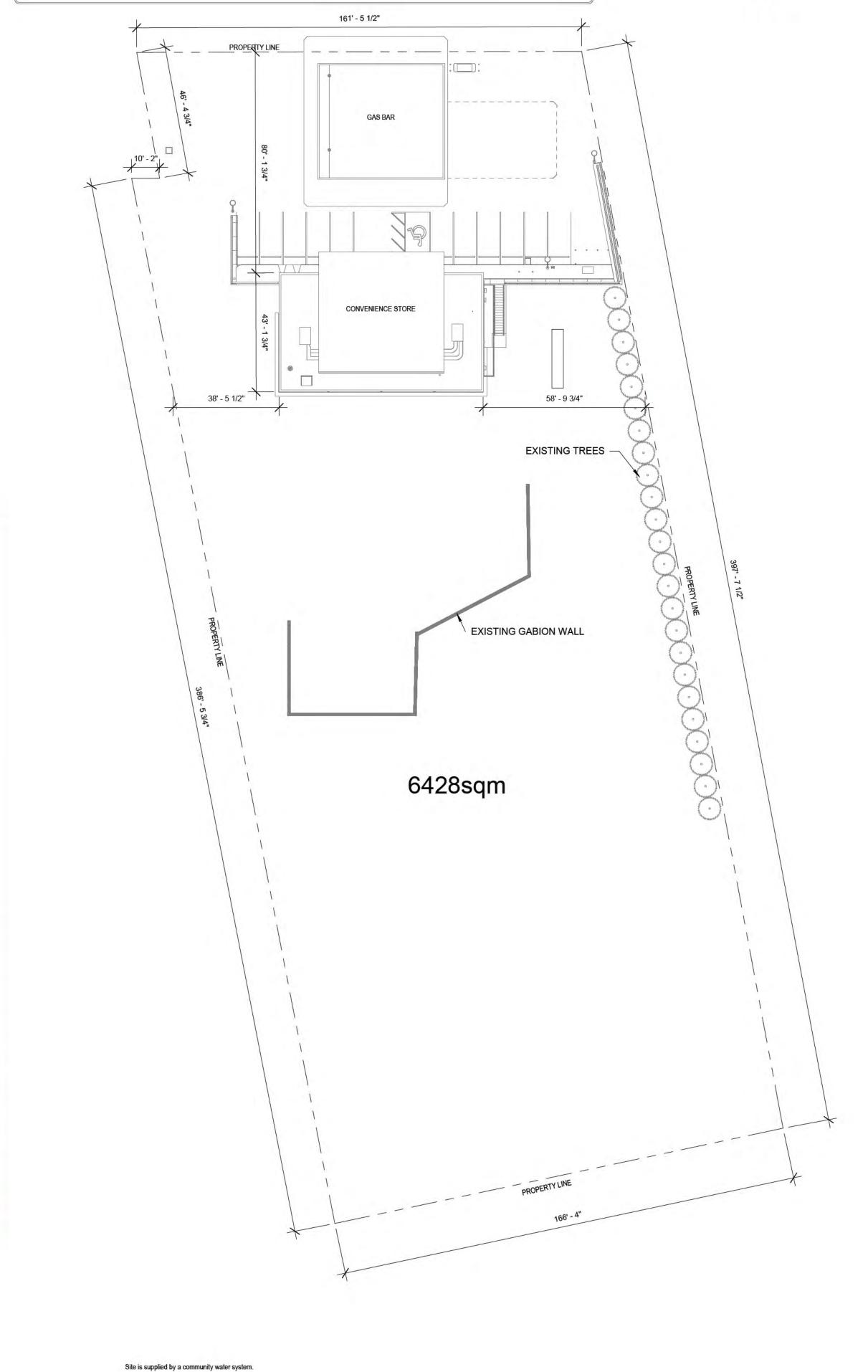
SCALE DATE

1:10 01-25-2023

CODE & BYLAW

SHEET A003





New septic system design by others

2 OVERALL EXISTING SITE PLAN 1:300

2023-01-25

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2 23/01/25 ISSUED FOR DEVELOPMENT PERMIT

DESCR PTION

ISSUED FOR REVIEW

NO DATE

1 22/11/18



These drawings are issued for permitting purposes only.

Not intended for construction. If they are used for construction,

COVER assumes no liability. #5-320 Vernon St. Nelson BC V1L 4E4 250.354.4445 info@coverac.ca

TAGHUM SHELL -**EXPANSION**

5644 Highway 3A West

A102

PROJECT CODE 22132 SCHEMATIC DATE 01-25-2023 As indicated

OVERALL SITE PLAN & CONTEXT PLAN

TOPOGRAPHIC SITE PLAN OF SELECT FEATURES ON THAT PART OF AMENDED LOT 1 (REFERENCE PLAN 52262I) LYING SOUTH OF RIGHT OF WAY PLAN R66 DISTRICT LOT 2355 KOOTENAY DISTRICT PLAN 759 EXCEPT (1) PARCEL 1 (REFERENCE PLAN 100313I) AND (2) PART INCLUDED IN PLAN 7805 DRAFT FOR SCALE 1:250 Bearings are astronomic, derived from Plan 7805. Distances are horizontal ground—scale in metres. Elevations are assumed. O- DENOTES UTILITY POLE.
DENOTES ANCHOR.
DENOTES MONITORING WELL. DENOTES TREE. + DENOTES SPOT ELEVATION.

DENOTES TRAVERSE HUB. HWY 3A & 6 Note: Legal boundaries are only accurate to 100mm. Ward Engineering and Land Surveying Ltd., 2014. No person may copy, reproduce, republish, transmit or alter this document, in whole or in part, without the express consent of Ward Engineering and Land Surveying Ltd. NO STRUCTURES SHOULD BE POSITIONED BASED ON INFORMATION SHOWN ON THIS PLAN. IF BUILDING LAYOUT IS REQUIRED, A FORMAL LEGAL SURVEY SHOULD BE COMPLETED. . ONLY SELECTED SPOT ELEVATIONS HAVE BEEN SHOWN ON THIS DRAWING. LOT 2 SANITARY, STORM WATER, UNDERGROUND POWER, TELEPHONE AND CABLE SERVICES ARE NOT SHOWN ON THIS DRAWING. PLAN 7805 PART OF AMENDED LOT 1 (SEE 52262I) TITLE SUBJECT TO:

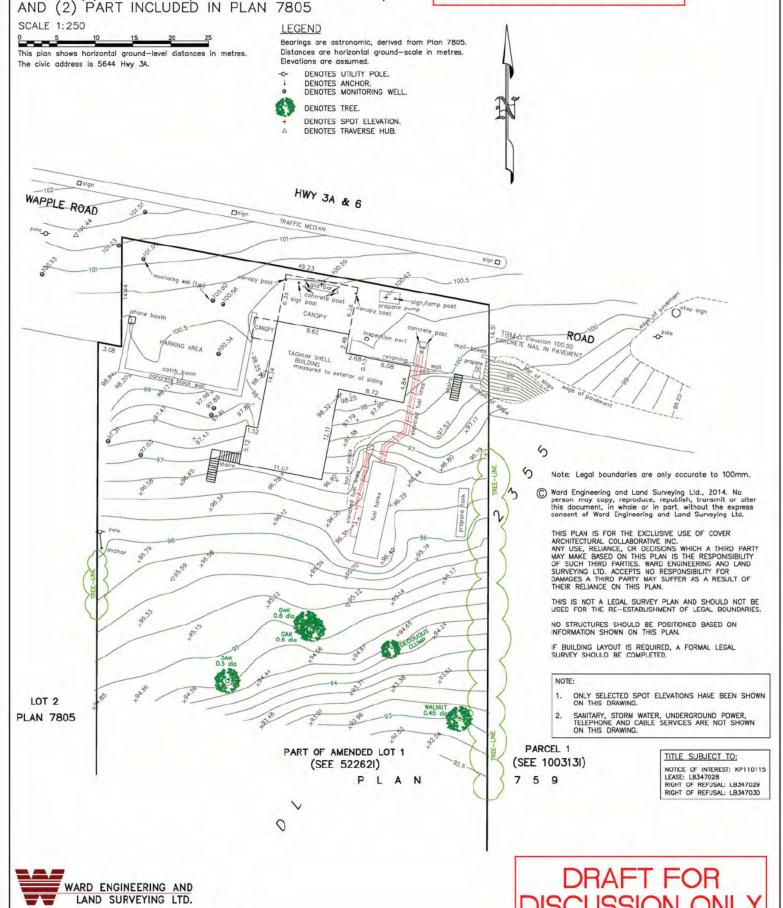
NOTICE OF INTEREST: KP110115
LEASE: LB347028
RIGHT OF REFUSAL: LB347029
RIGHT OF REFUSAL: LB347030 (SEE 100313I) PLAN WARD ENGINEERING AND
LAND SURVEYING LTD.

1014 Seventh Sireet
Nelson, British Columbia
71, 702

Tel: (250) 354–1670
Fax: (250) 354–1670
Web: www.wels.co

Fig.: 14–108
DRAWING: 14–108 TOPO
DATE: SEPTEMBER 16, 2014 DRAFT FOR DISCUSSION ONLY





1 : 500

3 EXISTING SURVEY 1:500



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NO	DATE	DESCR PTION
1	22/11/18	ISSUED FOR REVIEW
2	23/01/25	ISSUED FOR DEVELOPMENT PERMIT
	-	
	-	





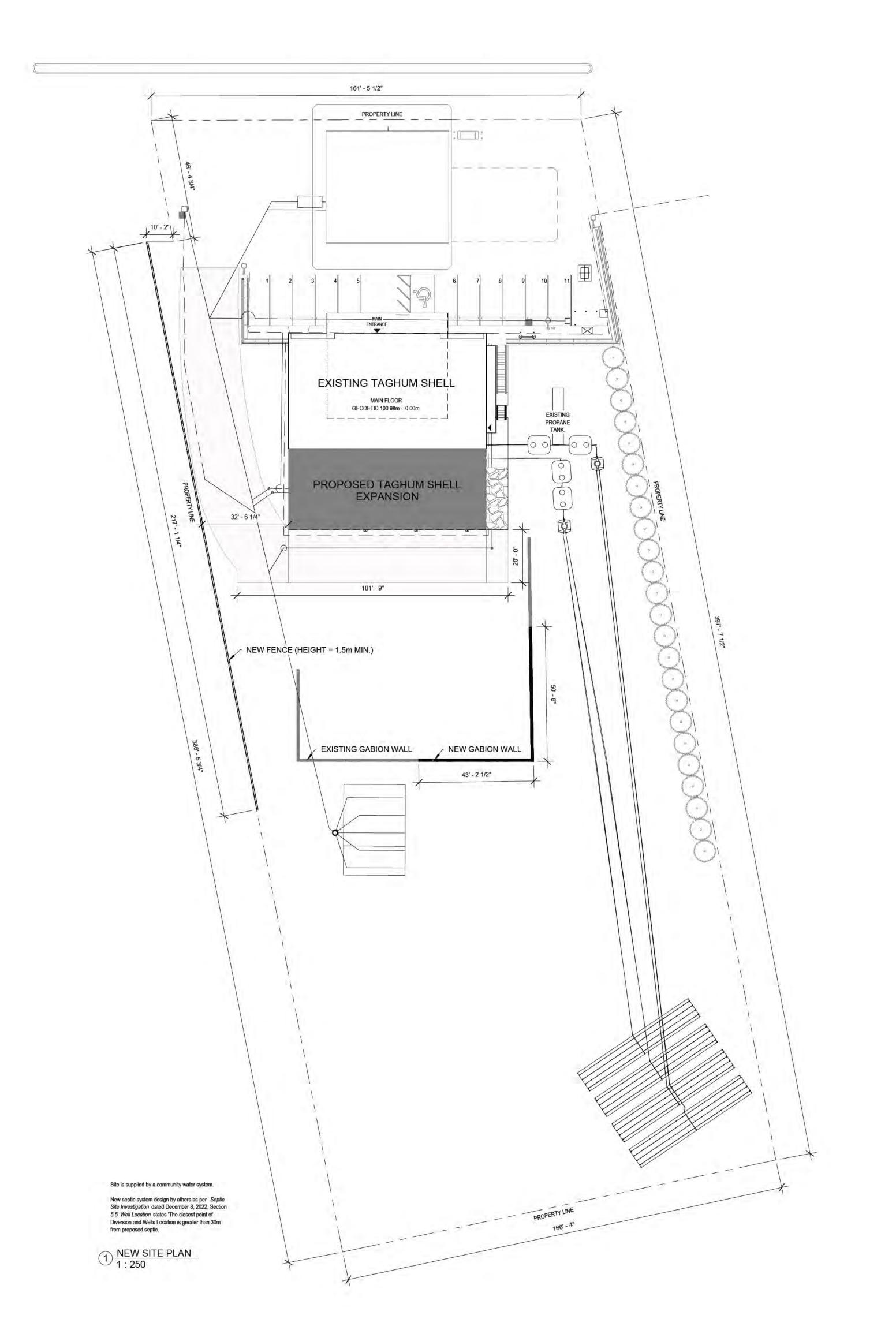
These drawings are issued for permitting purposes only.

Not intended for construction. If they are used for construction,
COVER assumes no liability. #5-320 Vernon St. Nelson BC V1L 4E4 250.354.4445 info@coverac.ca

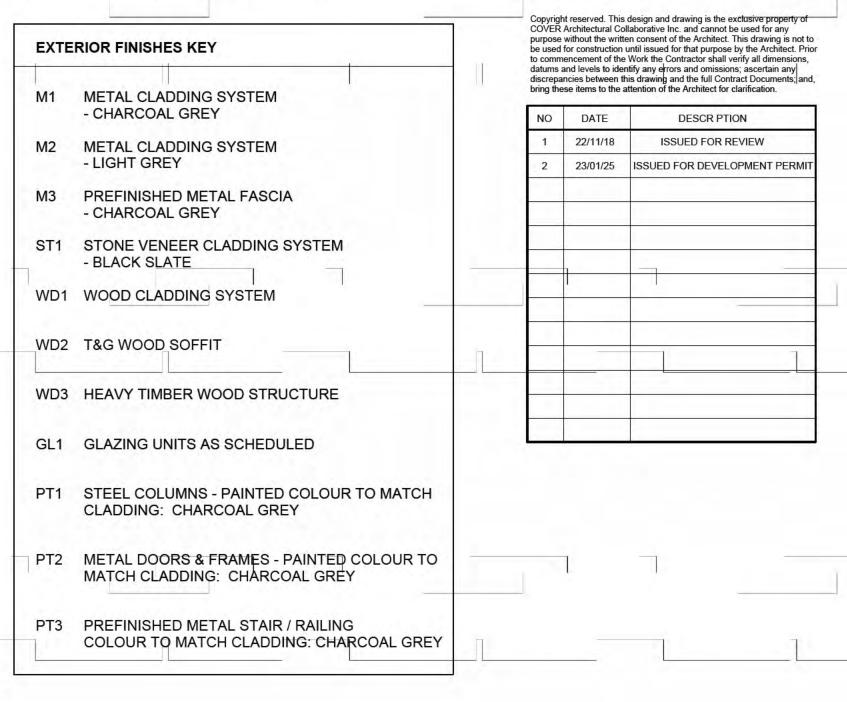
TAGHUM SHELL -**EXPANSION**

PROJECT CODE STA 22132 SC SCALE DAT 1:250 01 SCHEMATIC DATE 01-25-2023

NEW SITE PLAN
SHEET
A103



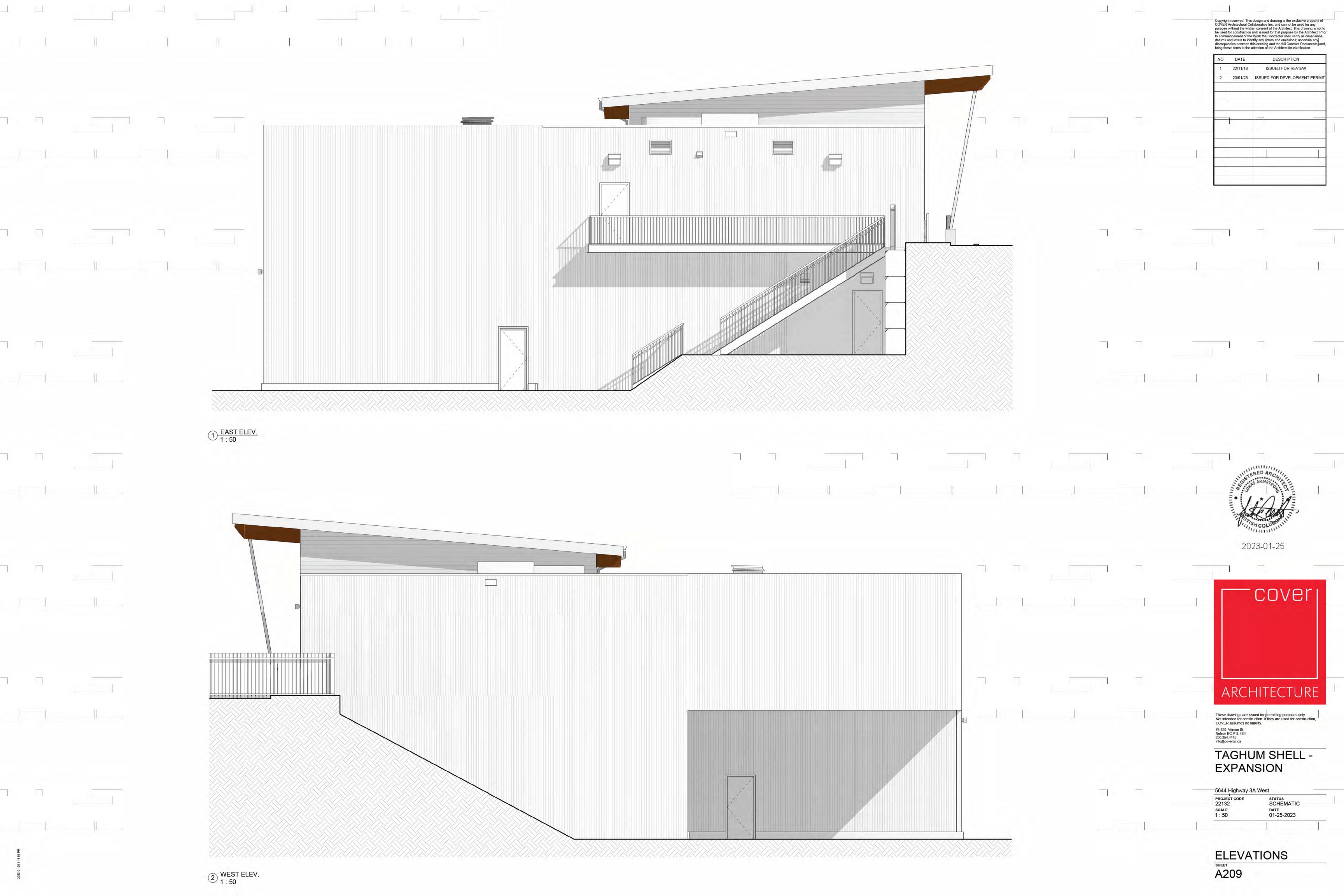


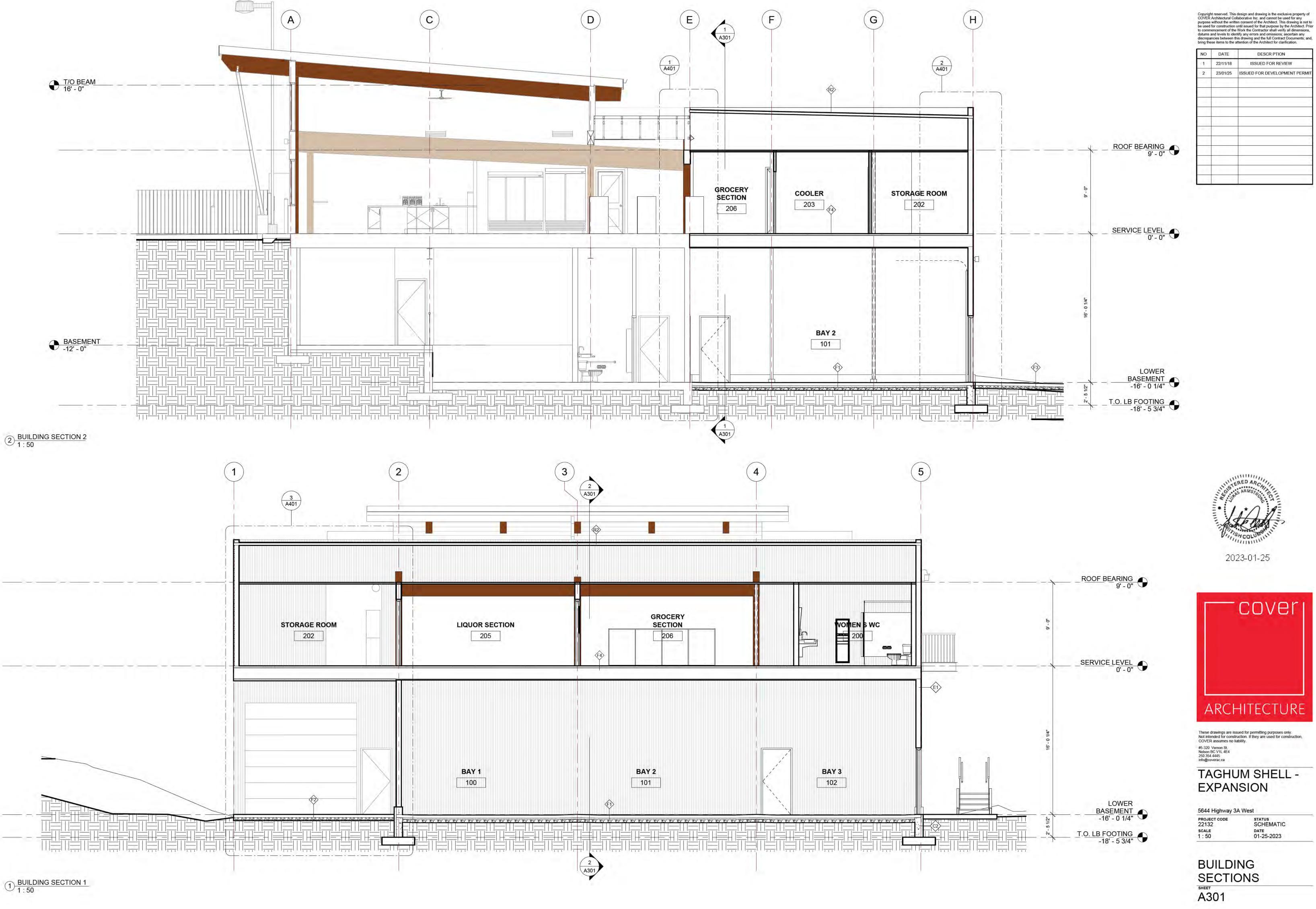




2 SOUTH ELEV

ELEVATIONS A208

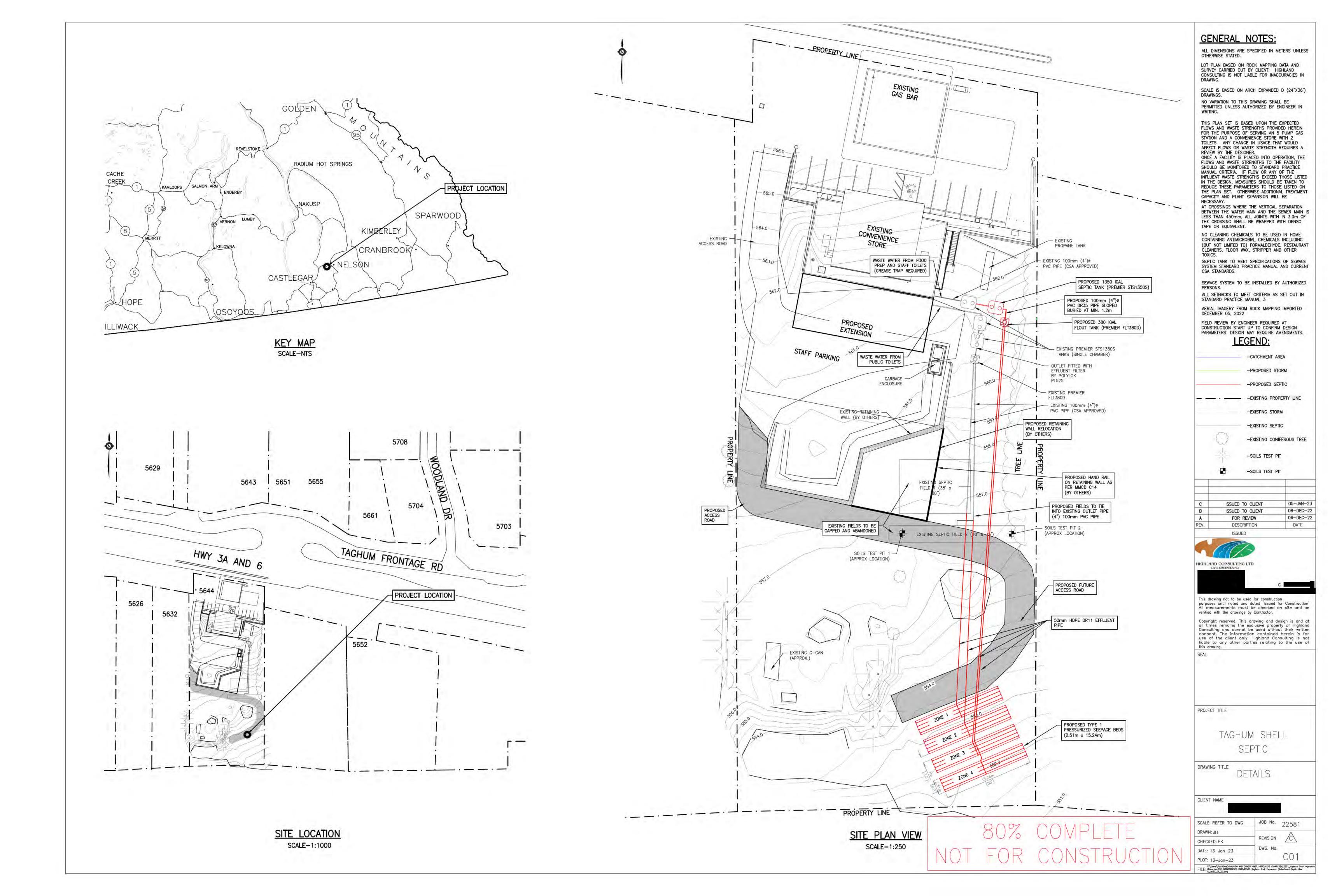


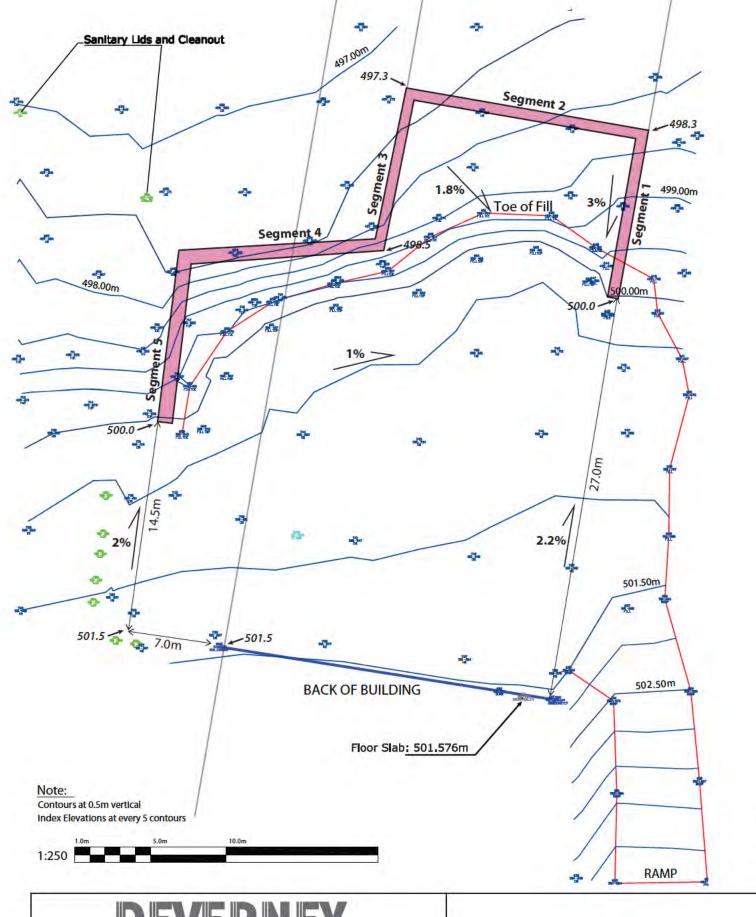


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2 23/01/25 ISSUED FOR DEVELOPMENT PERMIT









Design of this retaining wall has been completed in accordance with EGBC Professional Practice Guidelines - Retaining Wall Design. An Engineer of Record Retaining Wall Assurance Statement has been prepared.

Static global stability exceeds a Factor of Safety of 1.5, and exceeds 1.1 under seismic conditions.

Wall design meets or exceeds acceptable factors of safety in relation to Soil Bearing Capacity, overturning, sliding at base, slip on reinforcement and reinforcement pullout under static and seismic conditions under anticipated surcharge and point loads.

Refer to Figure 1 (PLAN VIEW) for surface grading.

Install guard rails at entire wa; Il perimeter

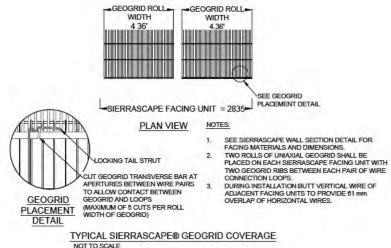
Wall Construction

- 1. Sub-grade to comprise un-disturbed native soils or well compacted granular backfill. Proof compact the subgrade surface before preparing the sub-base.
- 2. MSE wall sub-base to comprise min. 100mm of 19 25mm well graded crushed gravel with less than 5% fines (passing the 0.075mm sieve). Place and compact in lifts as needed to meet base of wall unit elevations.
- 3. Step units with 79mm offset for 10 degree wall batter.
- 4. Place specified geogrid for each course of facing units. Geogrid to be installed with the strong axis perpendicular to the wall face.
- 5. Specified geogrid is Tensar UX1500 MSE or Miragrid 8XT structural geogrid. Alternative geogrids to be pre-approved materials having Ultimate Tensile Strength of 100 kN/m at 5% strain and Long Term Allowable Strength for 120 year Design Life of 40kN/m.
- 6. Install drains as indicated comprising a non-woven geotextile filter wrapped around clear 19 – 25mm drain rock, surrounding a 4" diameter PVC pipe (CSA B-182.1). Outfall to daylight.
- 7. Geogrid to be stretched taut after placement of each facing unit.
- 8. Hold geogrid in place with stakes or pins, or use other means to when placing gravel. Backfill is to be placed starting close to the wall, and spread back from there to avoid creating puckering or slack.
- 9. Backfill to comprise well-graded gravel and sand meeting specification as Select Granular Sub-Base (SGSB) or local materials if pre-approved by the Engineer. Backfill to be placed in maximum 300 mm (loose thickness) lifts and compacted with repeated passes of a vibrating drum roller, vibrating plate compactor or Jumping Jack. Use care when compacting close to the facing units to avoid displacement or excessive rotation.
- 10. Addition of water, if needed to be undertake before compacting.
- 11. Field density testing to be undertaken with at least 2 rounds of testing for each completed wall segment. Additional field density testing may be requested by the Engineer based on review of previous test results or observed materials behaviors and placement methods.
- 12. Target density is 98% of the Standard Proctor Maximum Dry Density. Moisture content not to exceed Optimum value by more than 2%.

Issued for Construction June 9, 2021

FIGURE 1 - Site Plan and Wall Layout Taghum Shell 5644 Highway 3A, Taghum, BC

Parking Lot Retaining Structure Design Engineering services LCD Reference: Google Earth Date: June 2021 Designed by: NLD Drawn by: JCD Scale: 1:250 Job number: DE20-1921



- 0.24" Ø ELECTROPLATED WIRE 1" (TYP.) NSIDE TO INS DE) -178 (TYP.)-LD2 LOCKING TAIL STRUT DETAIL SECTION A-A CONNECTION LOOP DETAIL Note: Install hand rails as per BC Building Code. Establish traffic barrier at wall crest. Ensure no point or vehicle loads within 0.6m of front face of wall. REINFORCED FILL: WELL-GRADED PIT RUN GRAVEL, LESS THAN 5% FINES (S LT SIZES). PLACE IN MAXIMUM 300mm (LOOSE THICKNESS) LIFTS AND COMPACT TO 98% SPMDD TOP OF WALL SET TOPMOST SIERRASCAPE® FACING UNIT INSIDE FACING BELOW D2 LOCKING TAIL STRUT SIERRASCAPE® FACING UN LIMIT OF REINFORCED FILL MESH FILL 50 mi SUPPORT STRUTS 406 C-C MAX. (AS REQUIRED) WALL HEIGHT VARIES TENSAR UX1500MSE or MIRAGRID 8XT STRUCTURAL GEOGRID 2.8m LENGTH FROM BACK OF FACING UNIT DESIGN MAX MUM 8 UNITS HIGH 457 (TYP.) LD2 LOCKING TAIL STRUT (SEE DETAIL) REINFORCED FILL RETAINED SOIL 79 mm OFFSET FOR 10° WALL BATTER Wall Drain 100 mm perforated PVC pipe (CSA B-182.1) with clear AASHTO M288 CLASS 3 GEOTEXTILE rock surrouund (300 x 300 typ.) wrapped in non-woven SEE CONNECTION LOOP DETAIL geotextile. Outlet to daylight. EMBEDMENT 450mm (MIN. FOUNDATION SOIL 2.8 m UX1500MSE OR M RAGR D 8XT GEOGR D EMBEDMENT ALL FACING UNITS SHALL BE GALVANIZED PER ASTM A123 AFTER BENDING.
ALL DIMENSIONS IN MILLIMETRES UNLESS SHOWN OTHERWISE. BASE W DTH LEVEL AND CLEAR OF ROCKS SIERRASCAPE® FACING UNIT TOP 300 mm COMPACTED TO 98% SPMDD SIERRASCAPE® WALL SECTION DETAIL

2835 (63 WIRES)
DIMENSION MEASURED FROM CENTER TO CENTER OF OUTSIDE WIRES

- LD2 LOCKING TAIL STRUT (SEE DETAIL) ELEVATION VIEW

61 (ONE END ONLY)

47 (TYP.)

(NOM.)

DURING INSTALLATION BUTT VERTICAL WIRE OF ADJACENT FACING UNITS TO PROVIDE 61 mm OVERLAP OF HORIZONTAL WIRES

ENSAR UNIAXIAL GEOGRID

Issued for Construction June 9, 2021

N. L. DEVENVEY

N. L. DEVENVEY

21553

JUNE 17, 2021

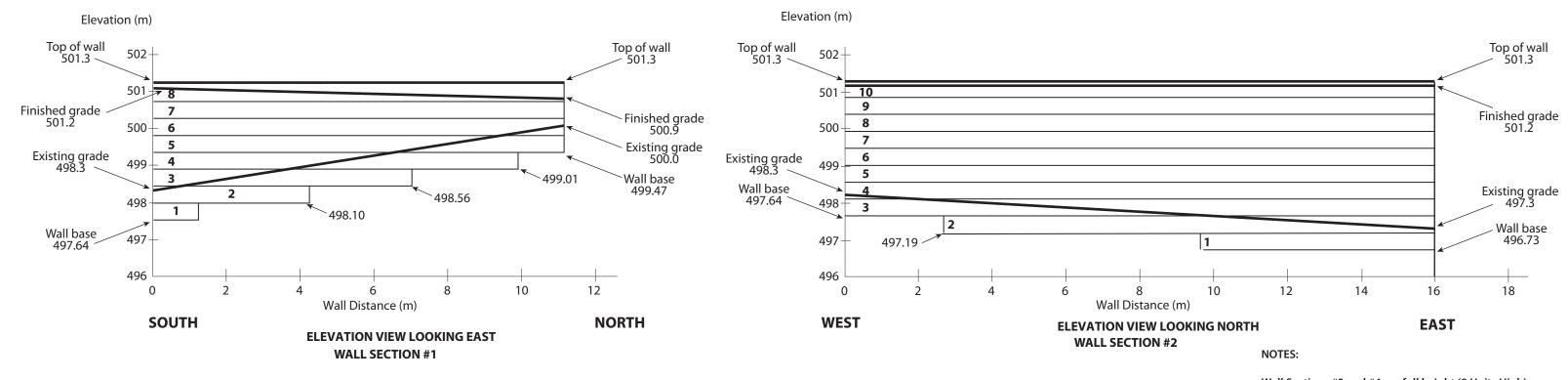
DEVERNEY
ENGINEER LEV
ENGINEER I Lot Retaining Structure Design
Taghum Shell
Taghum Shell
S644 Highway 3A, Taghum, BC

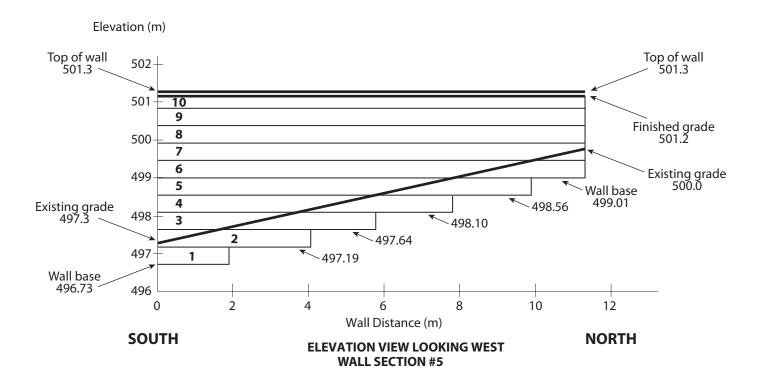
Date: June 2021

Designed by: NLD

Drawn by: JCD

FIGURE 3 - Installation Details
Parking Lot Retaining Structure Design
Taghum Shell
S644 Highway 3A, Taghum, BC





MSE Wall Elevations - Taghum Shell Parking Project

Wall Segment #1			
Row	Base Elevation	Length (m)	
1	497.64	1.3	
2	498.10	4.4	
3	498.56	7.3	
4	499.01	10.2	
5	499.47	11.5	
6	499.93	11.5	
7	500.39	11.5	
8	500.84	11.5	

Wall Segment #3			
Row	Base Elevation	Length (m)	
1	496.73	10.0	
2	497.19	10.0	
3	497.64	10.0	
4	498.10	10.0	
5	498.56	10.0	
6	499.01	10.0	
7	499.47	10.0	
8	499.93	10.0	
9	500.39	10.0	
10	500.84	10.0	

Wall Segment #2			
Row	Base Elevation	Length (m)	
1	496.73	6.4	
2	497.19	13.5	
3	497.64	16.3	
4	498.10	16.3	
5	498.56	16.3	
6	499.01	16.3	
7	499.47	16.3	
8	499.93	16.3	
9	500.39	16.3	
10	500.84	16.3	
<u> </u>		•	

V	Wall Segment #4		
Row	Base Elevation	Length (m)	
1	496.73	12.5	
2	497.19	12.5	
3	497.64	12.5	
4	498.10	12.5	
5	498.56	12.5	
6	499.01	12.5	
7	499.47	12.5	
8	499.93	12.5	
9	500.39	12.5	
10	500.84	12.5	

Wall Sections #3 and #4 are full height (8 Units High) Refer to Figure 1 (PLAN VIEW) for start and end points.

Top of Wall Elevations for ALL sections is 501 3m. Finished gravel surface will be ~ 0.10m below top of wall.

\	Wall Segment #	5
Row	Base Elevation	Length (m)
1	496.73	2.0
2	497.19	4.2
3	497.64	5.9
4	498.10	8.0
5	498.56	10.2
6	499.01	11.5
7	499.47	11.5
8	499.93	11.5
9	500.39	11.5
10	500.84	11.5

Issued for Construction June 9, 2021



DEVERNI Engineering services				FIGURE 2 Elevation Views of Retaining Wall Parking Lot Retaining Structure Design Taghum Shell 5644 Highway 3A, Taghum, BC	
Reference: Google Earth Date: June 2021		Designed by: NLD	Drawn by: JCD	Scale: 1:100	Job number: DE20-1921

SCHEDULE B

Forming Part of Subsection 2.2.7., Division C of the British Columbia Building Code

Building Permit Number (for authority having jurisdiction's use)

ASSURANCE OF PROFESSIONAL DESIGN AND COMMITMENT FOR FIELD REVIEW

Notes: (i) This letter must be submitted prior to the commencement of construction activities of the components identified below. A separate letter must be submitted by each registered professional of record.

	The authority have		
		Central Kootenay	
Nam	e of Jurisdiction (Pri	int)	
Re:		etaining Structure	
	Name of Project (F	Print)	
		3A, Taghum, BC	
	Address of Project	(Print)	
Tho	undersigned bess	by gives assurance that the design of the	
of red	cord. All the disciplin	listed below that apply to this registered professional nes will not necessarily be employed on every project.)	decere
			OF BOVING
		ARCHITECTURAL	Now I love
		STRUCTURAL	# 21563
		MECHANICAL	CONSTON P
		PLUMBING	SONGINEER OF
		FIRE SUPPRESSION SYSTEMS	Theta
		ELECTRICAL	(Professional's Seal and Signature)
	-	GEOTECHNICAL — temporary	
	MN	GEOTECHNICAL — permanent	June 9, 2021
	100	_ SESTESTIMONE — Permanent	Date
		70	
om	conents of the pla	ans and supporting documents prepared by this re	gistered professional of record in support
ne a	other applicable e	building permit as outlined below substantially connectments respecting safety except for construction	mply with the British Columbia Building Co
1 2	11/		
ne	undersigned here truction, as indica	by undertakes to be responsible for field reviews ated on the "SUMMARY OF DESIGN AND FIELD	of the above referenced components durin
1000			NEVIEW NEGOTIENENTO DEIOW.
	_	01/0/0	
		0)	

Schedule B - Continued	
	Building Permit Numb
-	5644 Highway 3A, Taghum, Bo
	Control Power
	Geotechnical - Permaner
The undersigned also undertakes to notify the author undersigned's contract for field review is terminated a	rity having jurisdiction in writing as soon as possible if the at any time during construction.
certify that I am a registered professional as defined	d in the British Columbia Building Code.
Norman L. Deverney, P.Eng., FEC	
Registered Professional of Record's Name (Print)	
	WESSING.
Address (Print)	Buen L. Laver
Address (Print) (continued)	# 21563
(in) (contained)	C BRITISH TO CLUMB
Phone Number	Sea ENGINEE Proper
	300
717	(Professional's Seal and Signature)
(2/7)	1/2/10/18/19/19
	June 9, 2021
-14 M	Date
2001/10	Mil
f the Registered Professional of Record is a member	er of a firm, complete the following.)
am a member of the firm Deverney Engineering	Services Ltd.
and I sign this letter on behalf of the firm.	(Print name of firm)
Note: The above letter must be signed by a registere British Columbia Building Code defines a registered p	d professional of record, who is a registered professional. The professional to mean
(a) a person who is registered or licensed to pra	actise as an architect under the Architects Act, or
(b) a person who is registered or licensed to pro Geoscientists Act.	actise as a professional engineer under the Engineers and
	CRP's Initials
	UAF S IIIIIAIS

Schedule B - Continued

Building Permit Number (for authority having jurisdiction's use)

5644 Highway 3A, Taghum, BC

Project Address

Geotechnical - Permanent

Discipline

SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS

(Initial applicable discipline below and cross out and initial only those items not applicable to the project.)

ARCHITECTURAL

1.\(\) Fire resisting assemblies

1.2\ Fire separations and their continuity

1.3 Closures, including tightness and operation

1.4 Egress systems, including access to exit within suites and floor areas

1.5 Performance and physical safety features (guardrails, handrails, etc.)

1.6 Structural capacity of architectural components, including anchorage and seismic restraint

1.7 Sound control

1.8 Landscaping, screening and site grading

1.9 Provisions for firefighting access

1.10 Access requirements for persons with disabilities

1.11 Elevating devices

1.12 Functional testing of architecturally related fire emergency systems and devices

1.13 Development Permit and conditions therein

1.14 Interior signage, including acceptable materials, dimensions and locations

1.15 Review of all applicable shop drawings

1.16 Interior and exterior finishes

1.17 Dampproofing and/or waterproofing of walls and slabs below grade

1.18 Roofing and flashings

1.19 Wall cladding systems

1.20 Condensation control and cavity ventilation

1.21 Exterior glazing

1.22 Integration of building envelope components

1.23 Environmental separation requirements (Rart 5)

1.24 Building envelope, Part 10 - ASHRAE, NECB or Energy Step Code requirements

1.25 Building envelope, testing, confirmation or both as per Part 10 requirements

STRUCTURAL

- 2.1 Structural capacity of structural components of the building, including anchorage and seismic restraint
- 2.2 Structural aspects of deep foundations
- 2.3 Review of all applicable shop drawings
- 2.4 Structural aspects of unbonded post-tensioned concrete design and construction

MECHANICAL

- 3.1 HVAC systems and devices, including high building requirements where applicable
- 3.2 Fire dampers at required fire separations
- 3.3 Continuity of fire separations at HVAC penetrations
- 3.4 Functional testing of mechanically related fire emergency systems and devices

3.5 Maintenance manuals for mechanical systems

3.6 Structural capacity of mechanical components, including anchorage and seismic restraint

3.7 Review of all applicable shop drawings

- 3.8 Mechanical systems, Part 10 ASHRAE, NECB or Energy Step Code requirements
- 3.9 Mechanical systems, testing, confirmation or both as per Part 10 requirements

M. A. DEVERNEY
21563
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(Professional's Seal and Signature)

June 9, 2021

Date

CRP's Initials

Schedule B - Continued

Building Permit Number (for authority having jurisdiction's use

5644 Highway 3A, Taghum, BC

Project Address

Geotechnical - Permanent

PLUMBING

- Roof drainage systems
- 4.2 Site and foundation drainage systems
- 4.3 Plumbing systems and devices
- Continuity of fire separations at plumbing penetrations 4.4
- Functional testing of plumbing related fire emergency systems and devices
- Maintenance manuals for plumbing systems
- 4.7 Structural capacity of plumbing components, including anchorage and seismic restraint
- Review of all applicable shop drawings 4.8
- Plumbing systems, Part 10 ASHRAE, NECB or Energy Step Code requirements
- 4.10 Plumbing systems, testing, confirmation or both as per Part 10 requirements

FIRE SUPPRESSION SYSTEMS

- 5.1 Suppression system classification for type of occupancy
- Design coverage, including concealed or special areas
- Compatibility and location of electrical supervision, ancillary alarm and control devices

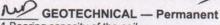
 Evaluation of the capacity of city (municipal) water supply versus system demands and domestic demand, including pumping devices where necessary
- Qualification of welder, quality of welds and material Review of all applicable shop drawings
- Acceptance testing for "Contractor's Material and Test Certificate" as per NFPA Standards Maintenance program and manual for suppression systems
- 5.9 Structural capacity of sprinkler components, including anchorage and seismic restraint
 5.10 For partial systems confirm sprinkler are installed in all areas where required
- 5.11 Fire Department connections and hydran locations
- 5.12 Fire hose standpipes
- 5.13 Freeze protection measures for fire suppression systems
- 5.14 Functional testing of fire suppression systems and devices

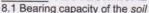
ELECTRICAL

- 6.1 Electrical systems and devices, including high building requirements where applicable
- 6.2 Continuity of fire separations at electrical penetrations
- Functional testing of electrical related fire emergency systems and devices
- Electrical systems and devices maintenance manuals
- Structural capacity of electrical components, including anchorage and seismic
- 6.6 Clearances from buildings of all electrical utility equipment
- Fire protection of wiring for emergency systems
- Review of all applicable shop drawings
- Electrical systems, Part 10 ASHRAE, NECB or Energy Step Code
- 6.10 Electrical systems, testing, confirmation or both as per Part 10 requirements

GEOTECHNICAL — Temporary

- 7.1 Excavation
- 7.2 Shoring
- 7.3 Underpinning
- 7.4 Temporary construction dewatering.





- 8.2 Geotechnical aspects of deep foundations
- 8.3 Compaction of engineered fill
- 8.4 Structural considerations of soil, including slope stability and seismic loading
- 8.5 Backfill

8.7 Permanent underpinning

(Professional's Seal and Signature)

June 9, 2021

CRP's Initials

ENGINEER OF RECORD - RETAINING WALL ASSURANCE STATEMENT

Note: This Assurance Statement must be completed, signed, and sealed by an individual who:

- (i) is a professional engineer or licensee registered or licensed by Engineers and Geoscientists British Columbia (the Association");
- (ii) has read the Association's *Professional Practice Guidelines Retaining Wall Design* (the "Guidelines"), and has considered the guidance provided in the Guidelines;
- (iii) is qualified by education, training, and experience to serve as "Engineer of Record", as that term is defined in the Guidelines; and
- (iv) has undertaken responsibility for the project described below in the capacity of Engineer of Record.

[Print clearly and legibly]

TO:	OWNER	DATE:	June 9, 2021		
	Taghum Shell				
	Name				
	5644 Highway 3A				
	Address				
	Nelson, BC, V1L 6Y3				
FOR:	PROJECT				
	Parking Lot retaining Structure				
	5644 Highway 3A, Nelson, BC				
	_				

In preparing the Retaining Wall design, I confirm that the following tasks have been completed:

RETAINING WALL CHECKLIST

General (all Retaining Walls):

Check th	at the fo	ollowing items have been addressed:
\boxtimes	1.	Reviewed requirements of the governing jurisdiction, and documented all other codes, specifications, and guidelines used.
\boxtimes	2.	Established design criteria based on applicable codes and confirmed criteria with owner

- Completed a site assessment to determine site factors to be incorporated into the Retaining Wall design and construction.
- 4. Conducted geotechnical investigation to determine site conditions and appropriate geotechnical parameters for analysis and design.
- 5. Determined external loading conditions (for example, traffic and construction surcharge loads, potential scour, or flooding).
- 6. Provided lateral earth pressures recommendations for static and seismic loading (these will vary based on the type of wall used).
- 7. Analyzed static global stability of slope minimum factor of safety >1.5 for N! cases where N is the number of terraces
- 8. Analyzed seismic global stability of slope, if applicable minimum factor of safety 1.1 or acceptable wall displacement
- 9. Assessed liquefaction potential (provided mitigation measures, if applicable).
- ☐ 10. Provided recommendations for general site and wall drainage.
- □ 11. Provided recommendations for erosion protection, Slope Protection/Wall Facing.
- Assessed the potential impact of wall construction on the slopes above and below the wall.
- ☐ 13. Assessed the potential impact of the wall on adjacent structures.

Gravity Walls:

 \times

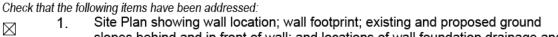
Check that the following items have been addressed:

1.	Analyzed for overturning, sliding, and bearing capacity under static conditions.
2.	Analyzed for overturning, sliding, and bearing capacity under seismic conditions, it applicable.
3.	Completed internal design of the wall (structural design).
4.	Detailed an adequate drainage system.
5.	Provided appropriate information and guidance for wall construction, including placement specifications, temporary slopes, drainage works, quality control requirements.

RETAINING WALL CHECKLIST, Page 2				
Stacked Rock Walls:				
Check tha	t the foll	lowing items have been addressed:		
	1.	Analyzed for overturning, sliding, and bearing capacity under static conditions.		
	2.	Analyzed internal stability, including sliding between rocks at different heights within the wall.		
	3.	Analyzed for overturning, sliding, and bearing capacity under seismic conditions, if applicable.		
	4.	Detailed an adequate drainage system.		
	5.	Demonstrated by previous performance or laboratory testing that the rock proposed for use in the wall will be durable.		
	6.	Provided appropriate information and guidance for wall construction, including placement specifications, temporary slopes, drainage works, quality control requirements.		
Mechai	nically	y Stabilized Earth Walls:		
Check tha	t the foll	owing items have been addressed:		
\boxtimes	1.	Analyzed for overturning, sliding, and bearing capacity under static conditions.		
\boxtimes	2.	Analyzed for overturning, sliding, and bearing capacity under seismic conditions, if applicable.		
\boxtimes	3.	Analyzed the adequacy of the wall facing to withstand applicable loads, including the loads from connections to soil reinforcement,		
\boxtimes	4.	Provided specifications for soil reinforcement		
\boxtimes	5.	Confirmed that the minimum soil reinforcement length is 70% of the wall height, or provided justification for alternate length.		
\boxtimes	6.	Detailed an adequate drainage system.		
	7.	Provided appropriate information and guidance for wall construction, including placement specifications, temporary slopes, drainage works, quality control requirements.		
Reinfo	rced C	Concrete Cantilever Retaining Walls:		
Check tha	t the foll 1.	owing items have been addressed: Analyzed for overturning, sliding, and bearing capacity under static conditions.		
	2.	Analyzed for overturning, sliding, and bearing capacity under seismic conditions, if applicable.		
	3.	Completed internal design of the wall (structural design).		
	4.	Detailed an adequate drainage system.		
	5.	Provided appropriate information and guidance for wall construction, including placement specifications, temporary slopes, drainage works, quality control requirements.		

RETAINING WALL CHECKLIST, Page 3

Submittals:



slopes behind and in front of wall; and locations of wall foundation drainage and other appurtenant drains, including associated discharge locations.

- 2. Profile along the length of the wall showing variations in wall height, fill height behind the wall, invert elevations of wall foundation drains, and all other features that are include in the design or in close proximity to the wall.
- 3. Cross section showing typical wall details, including wall batter, foundation preparation, leveling pad details, drainage provisions, erosion protection of exposed slopes above the wall, guardrail details (if required), and other features that are included in the wall design.
- 4. Specifications for backfill and retained soils gradation, and all other materials to be incorporated into the retaining Wall (i.e. geosynthetics, concrete, anchors, drainage media), placement and compaction requirements, field review and compaction testing to meet stability and performance requirements, drains, erosion control during construction, and concrete, reinforcement, and other structural components.

Reinforced Concrete Cantilever Retaining Walls:

Check that the following item has been addressed:

1. The obligation for field reviews as per Bylaw 1.

 The obligation for field reviews as per Bylaw 14(b)(3) has been fulfilled to ascertain whether the implementation or construction of the work substantially complies in all material respects with the design. Norman L. Deverney, P.Eng., FEC

I certify that I am a professional engineer or licensee registered or licensed by the Association, that I am qualified to serve as Engineer of Record as defined in the Guidelines, and that I have undertaken responsibility for this project in the capacity of Engineer of Record.

7, 0,	
Name (print)	
Adriem L. Dreuco	June 9, 2021
Signature	Date
Address	Meccecia
	COPESSION STA
	N. L. DEVERNEY
	# 21563
	ENGINEER PARTY
Phone	Asses Constitution of the Parket
Email	(Affix Professional seal here)
If the Engineer of Record is a member of a	firm, complete the following:
I am a member of the firm	Deverney Engineering Services Ltd.
and I sign this letter on behalf of the firm.	(Print name of firm)

20.2 General Development Permit Policies

- 1. Development within designated Development Permit Areas will be reviewed by the RDCK in consideration of the objectives identified in this Section. Conditions or restrictions may be imposed on the development accordingly.
- 2. In accordance with the Local Government Act, the RDCK may require a bond to ensure the completion of landscaping, environmental rehabilitation, or other conditions for which it may be held.

20.3 Commercial, Industrial, and High Density Residential Development Permit (CIHDRDP) Area

Designation:

The CIHDRDP Area is designated under Section 488(1) (f), (h) and (e) of the Local Government Act to establish objectives for the form and character of commercial, industrial and multi-family residential development, and the promotion of energy and water conservation.

Area:

The CIHDRDP Area is comprised of all lands designated Commercial, Industrial, Comprehensive Development, Quarry, and High Density Residential on Schedule B.

Justification:

The intent of the CIHDRDP Area is to encourage high quality design, building, development, and landscaping standards that maintain and enhance rural character, improve energy efficiency, and maintain high water quality in surface water, groundwater and aquifers. General supporting objectives are also provided in Section 8.0 (Economic Development), Section 11.0 (Residential Lands and Housing), Section 12.0 (Commercial Land) and Section 15.0 (Energy and Climate Change).

Objectives:

The CIHDRDP Area seeks to achieve the following objectives:

- 1. Guide form and character of new developments.
- 2. Ensure that new development contributes to creating a high quality public realm and that it fits within the rural context of the region.
- 3. Conserve water and energy through the promotion of renewable energy sources.

Prohibition:

Within the CIHDRDP Area construction of, addition to or alteration of a building or other structure must not be started without first obtaining a Development Permit, unless otherwise exempt in this Bylaw.

Guidelines:

Development shall be in accordance with the following guidelines:

All Designations

- 1. Site design should consider:
 - a. impact on farm land;
 - b. the capability of the natural environment to support the proposed development;
 - c. compatibility with adjacent land uses and designations, and the character of the area;
 - d. susceptibility to natural hazards, including but not limited to flooding, slope instability, or wildfire risk; and,
 - e. the size of the property in relation to the proposed activity.
- 2. Any new development should take into account the overall physical aesthetic, ambience or sense of place, respecting the general scale, quality, eclectic variety of architecture and nature of the streetscape.
- 3. Creative use of signs is encouraged. Pedestrian scale front lit or neon designs are permitted, while back lit fluorescent and plastic light boxes are discouraged.

Commercial, Industrial, and Quarry

- 4. The Province is requested to ensure activities involving emission of toxic or irritant material meet the highest standards regarding the protection of groundwater catchment areas, surface water and riparian areas and air-borne industrial pollutants.
- 5. Wherever possible, new activity should be located in close proximity and with direct access to major roads.
- 6. Prior to commencement of activity, a landscape buffer adjacent to non-industrial, non-commercial, and non-high density residential designated properties should be included.
- 7. All activity including parking and storage should be screened and wide buffers should be left along roads and property lines.
- 8. Can include operational guidelines, including hours of operation, noise restrictions, sign requirements, siting of proposed operations, and other measures as identified to ensure that impacts to adjacent properties are mitigated.

Commercial

- 9. New buildings should assume parking will be either parallel or diagonal on the street, as well as potential on-site locations. Provincial regulations require a minimum building setback from an existing road right of way of 4.5 m from the property line for new buildings;
- 10. The maximum building height should be two storeys;
- 11. New buildings should be similar in size and scale to existing buildings;
- 12. Residential dwelling units should be located upstairs or to the rear of commercial buildings, based on the servicing capacity and applicable bylaws;

- 13. Preservation, restoration, and/or infill additions to existing older character buildings is supported;
- 14. The planting and maintenance of vegetation and the recognition of the pedestrian nature of commercial designations is encouraged;
- 15. High quality redevelopment and rehabilitation to promote the economic growth of the area as well as respect the integrity of its historical buildings, as well as a pedestrian oriented environment is encouraged.
- 16. Commercial development that contributes to the economic revitalization of the area, as well as remaining sensitive to the residential component in mixed use buildings is encouraged.

High Density Residential

- 17. Developments should be compatible in scale, form and character with the neighbourhood and consistent with the desired future development plans;
- 18. Developments that serve to preserve and enhance the special natural, historical or aesthetic features which help define the identity of the neighbourhood are encouraged;
- 19. Consideration of ease of access for all of local residents, regardless of physical capabilities is encouraged.

Comprehensive Development

For purposes of this Plan, Comprehensive Development includes development proposals involving more than one of the following land uses; commercial, industrial, parks and recreation or residential. Prior to the development of land designated Comprehensive Development as shown on Schedule B the RDCK shall require the proponent to prepare a comprehensive development plan in the form of a Development Permit.

- 20. Development proposals involving a variety of land should be adequately planned and include measures to mitigate impacts on adjacent landowners.
- 21. When considering a CIHDRDP proposal the RDCK shall have regard to the form and character of the proposed buildings, the siting, size and height of buildings, the design and layout of internal service roads and lots, servicing requirements including water supply and sewage disposal, landscaping and fencing plans that are designed to separate land uses and mitigate impacts on adjacent land uses, signs, exterior lighting, dust suppression, hours of operation, parking and loading requirements and other relevant site development matters.
- 22. Development proposals involving community water and/or sewer systems should include a feasibility study prepared by a Professional Engineer to confirm that the proposal meets accepted engineering practices, provincial requirements and environmental standards.
- 23. As required on a site-by-site basis, the Zoning Bylaw should be amended to provide a 'Comprehensive Development Zone' that reflects the policy provisions identified under these Guidelines.

Sequence of Development

24. Sequence and timing will be considered for phased developments to encourage orderly and cost efficient development, recognizing priorities, market demands and completion sequences. New phases should not be started until previous phases have been completed. The area designated for future phased development should be landscaped, however temporary, and kept clear of debris and construction materials. Construction should follow immediately after any site clearing.

Energy and Water Conservation

- 25. Where possible and within the existing block pattern, new buildings should be designed (oriented and sited) to take maximum advantage of passive solar energy.
- 26. Natural ventilation for buildings should be utilized as much as possible and energy efficient windows should be installed.
- 27. Green roofs are strongly encouraged to help absorb storm water, reduce heat gain. Intensive green roofs, or "rooftop gardens" will be preferred over extensive green roofs.

Renewable Energy

- 28. It is strongly encouraged that all buildings over 1,000 square feet meet at least 10% of their annual combined lighting, space heating and water heating energy demand using one or more of the following renewable energy generation technologies:
 - a. Solar thermal hot water heater;
 - b. Solar photo-voltaic (PV) panels;
 - c. Ground-source heat pump.
 - d. Micro-wind turbine; and
 - e. Geo-thermal
- 29. Facilities that generate onsite energy or heat for mechanical or industrial processes are encouraged to utilize renewable fuels, such as biomass. Where waste heat is generated as a result of and industrial facility's operations, an appropriate location of the facility should be chosen and design features incorporated that allow the waste heat to be captured and used in an existing or new district heating system.

Exemptions:

The CIHDRDP Area does not apply to the following:

- 1. subdivision;
- 2. temporary buildings and structures such as construction trailers, temporary scaffolding, and buildings and structures permitted by a Temporary Use Permit;
- 3. construction of, addition to or alteration of a building or structure involving only: interior renovation, repair or maintenance, façade improvement to an area less than 20% of the existing facade, construction of an accessory building, or an addition to principal building less than 100 m2;
- 4. minor alterations that do not alter or affect requirements for parking, landscaping, access, or alter the building footprint, or

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- 5. replacement of a building that has been destroyed by natural causes, in cases where the replacement building is identical to the original in both form, footprint, and location.
- 6. replacement of one dwelling unit within a manufactured home park, and/or minor alterations to an existing dwelling unit that are consistent with the intent of this OCP.