



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 522621) LYING SOUTH OF RIGHT OF WAY PLAN R66 DISTRICT LOT 2355 KOOTENAY DISTRICT PLAN 759 EXCEPT (1) PARCEL 1 (REFERENCE PLAN 1003131) 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 N/A	Neighbourhood Commercial in Zoning Bylaw No. 1675, 2004	Commercial in Electoral Area 'F' Official Community Plan Bylaw No. 2214, 2011

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

<input checked="" type="checkbox"/> MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE <input checked="" type="checkbox"/> HABITAT BRANCH (Environment) <input checked="" type="checkbox"/> FRONTCOUNTER BC (Ministry of Forests) <input type="checkbox"/> AGRICULTURAL LAND COMMISSION	REGIONAL DISTRICT OF CENTRAL KOOTENAY DIRECTORS FOR: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input checked="" type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <input type="checkbox"/> K ALTERNATIVE DIRECTORS FOR: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input checked="" type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> H <input type="checkbox"/> I <input type="checkbox"/> J <input type="checkbox"/> K
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<input type="checkbox"/> REGIONAL AGROLOGIST	<input checked="" type="checkbox"/> RDCK FIRE SERVICES
<input type="checkbox"/> ENERGY & MINES	<input type="checkbox"/> RDCK EMERGENCY SERVICES
<input type="checkbox"/> MUNICIPAL AFFAIRS & HOUSING	<input checked="" type="checkbox"/> RDCK BUILDING SERVICES
<input checked="" type="checkbox"/> INTERIOR HEALTH, HBE TEAM	<input checked="" type="checkbox"/> RDCK UTILITY SERVICES
<input type="checkbox"/> KOOTENAY LAKES PARTNERSHIP (FORESHORE DEVELOPMENT PERMITS)	<input type="checkbox"/> RDCK RESOURCE RECOVERY
<input type="checkbox"/> SCHOOL DISTRICT NO.	<input type="checkbox"/> RDCK REGIONAL PARKS
<input type="checkbox"/> WATER SYSTEM OR IRRIGATION DISTRICT	INSERT COMMENTS ON REVERSE . . .
<input checked="" type="checkbox"/> UTILITIES (FORTIS, NELSON HYDRO)	

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:

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

DP2303F 5644 Hwy 3A - Taghum Shell



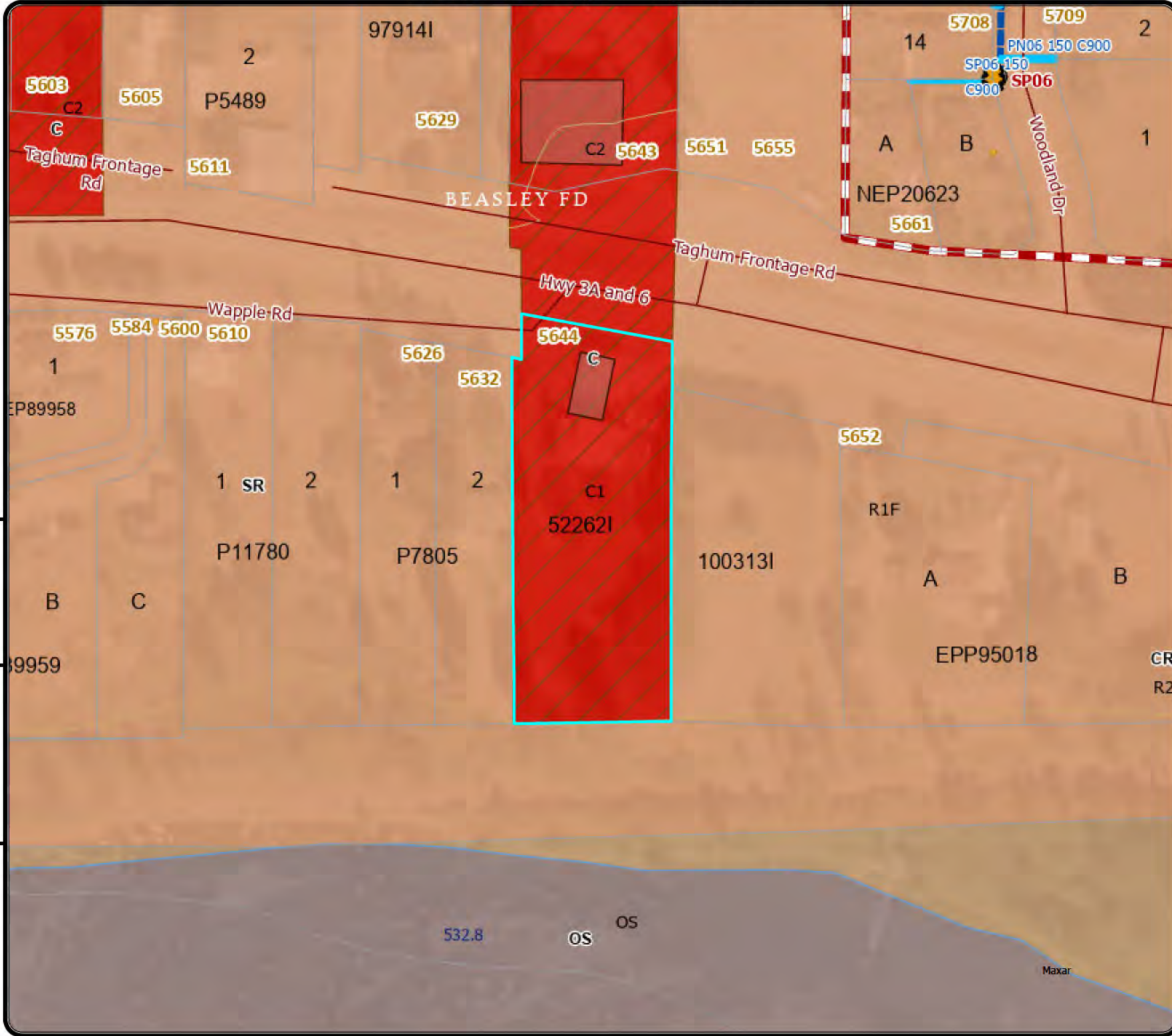
- Legend**
- Official Community Plan
 - Residential 1
 - Residential 2
 - Commercial
 - Country Residential
 - Open Space
 - Suburban Residential
 - Fire Service Areas
 - BEASLEY
 - Valves
 - Water Systems
 - RDCK OWNED
 - Development Permit Areas
 - Main Line
 - Service Connections
 - Hydrants
 - Stand Pipe
 - 20 Meter Contours
 - 20 meter
 - Streams and Shorelines
 - Electoral Areas
 - RDCK Roads
 - Cadastrre
 - Zoning Class
 - Commercial
 - Open Space
 - 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 omissions on this map.



DP2303F 5644 Hwy 3A - Taghum Shell



Legend

- Valves
- 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

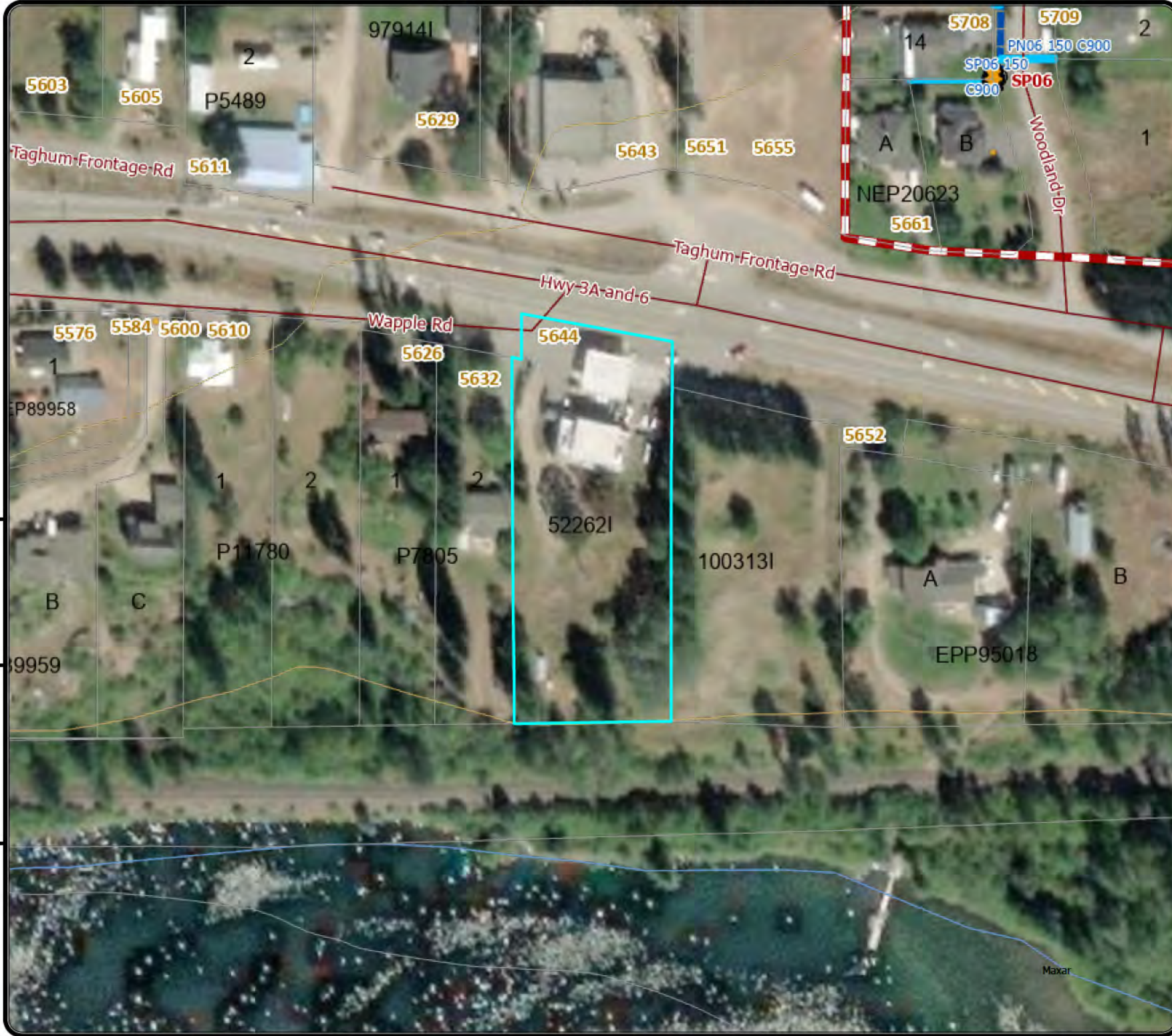


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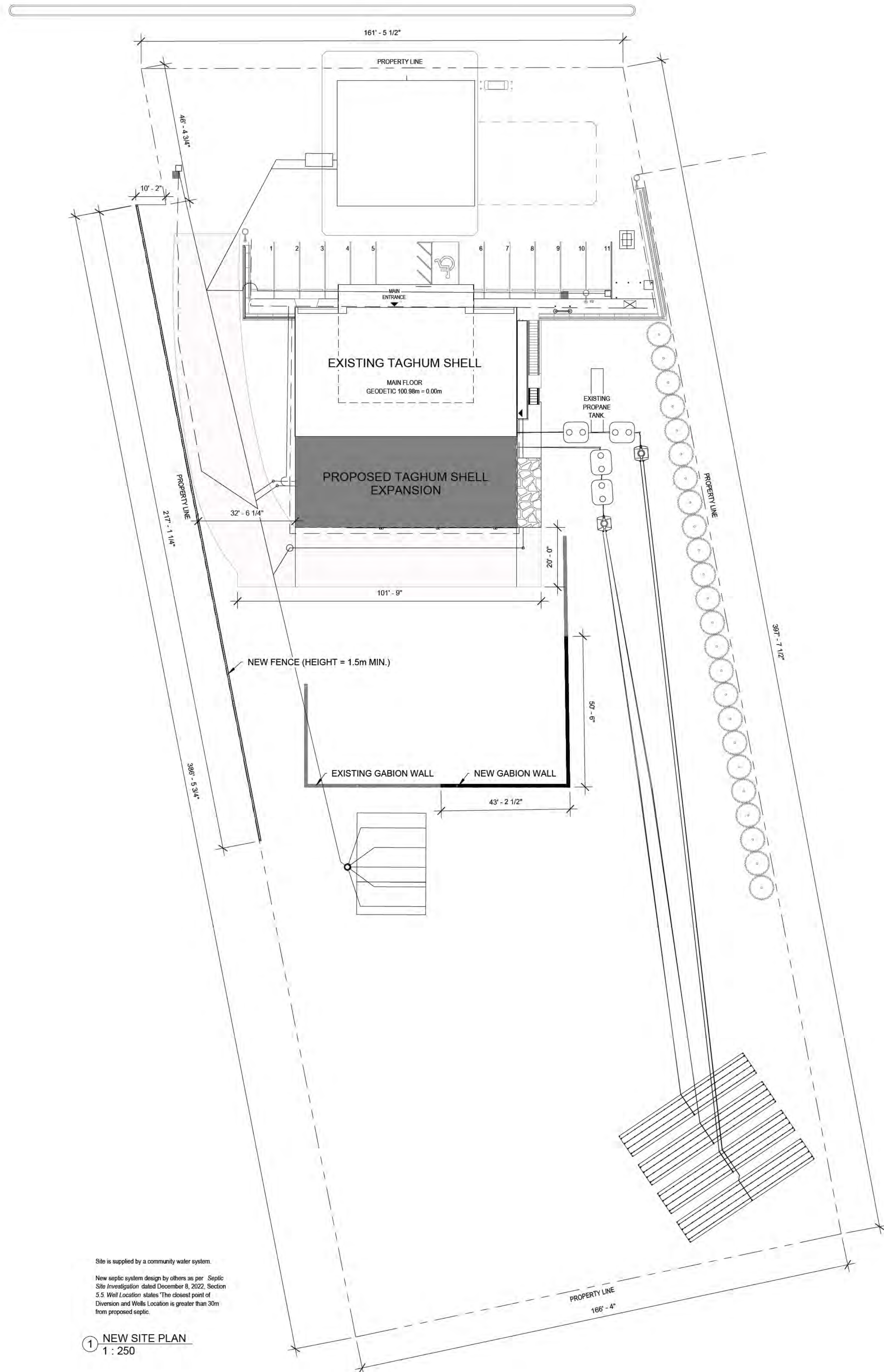


Maxar



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



Site is supplied by a community water system.
 New septic system design by others as per Septic Site Investigation dated December 8, 2022, Section 5.2 Well Location states "The closest point of Diversion and Wells Location is greater than 30m from proposed septic."

1 NEW SITE PLAN
 1 : 250



These drawings are issued for permitting purposes only. Not intended for construction. If they are used for construction, COVER assumes no liability.
 #6-320 Vernon St
 Nelson BC V1L 4E4
 250.364.4446
 info@cover.ca

TAGHUM SHELL - EXPANSION

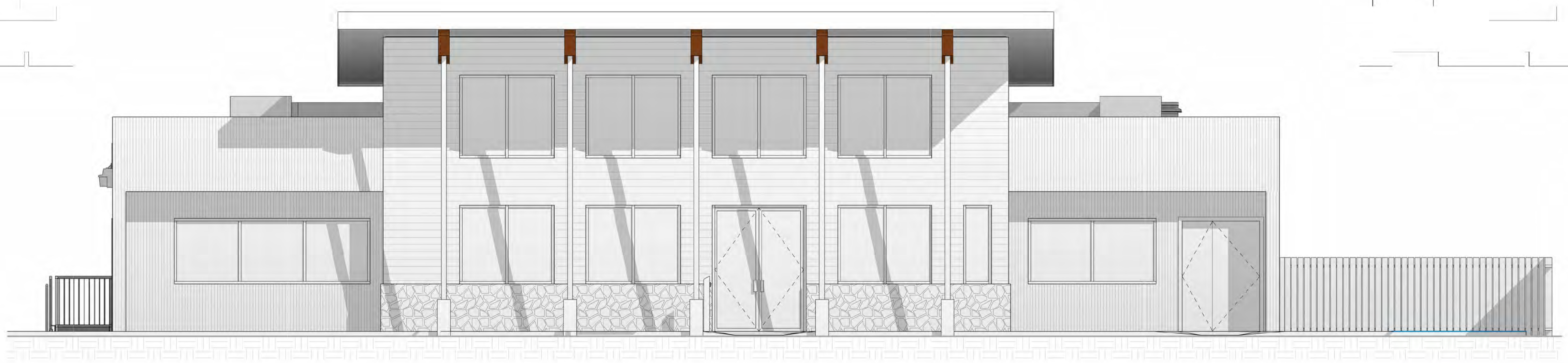
5644 Highway 3A West
 PROJECT CODE 22132 STATUS SCHEMATIC
 SCALE 1 : 250 DATE 01-25-2023

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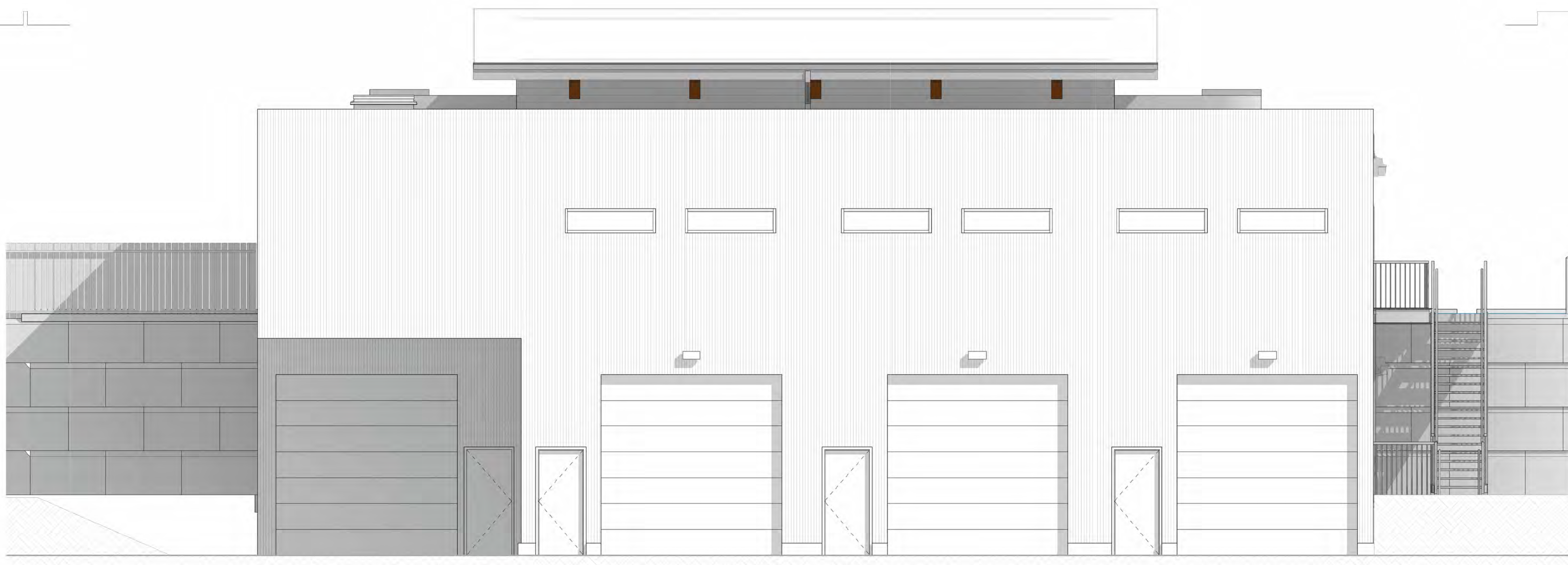
NO	DATE	DESCRIPTION
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EXTERIOR FINISHES KEY

M1	METAL CLADDING SYSTEM - CHARCOAL GREY
M2	METAL CLADDING SYSTEM - LIGHT GREY
M3	PREFINISHED METAL FASCIA - CHARCOAL GREY
ST1	STONE VENEER CLADDING SYSTEM - BLACK SLATE
WD1	WOOD CLADDING SYSTEM
WD2	T&G WOOD SOFFIT
WD3	HEAVY TIMBER WOOD STRUCTURE
GL1	GLAZING UNITS AS SCHEDULED
PT1	STEEL COLUMNS - PAINTED COLOUR TO MATCH CLADDING: CHARCOAL GREY
PT2	METAL DOORS & FRAMES - PAINTED COLOUR TO MATCH CLADDING: CHARCOAL GREY
PT3	PREFINISHED METAL STAIR / RAILING COLOUR TO MATCH CLADDING: CHARCOAL GREY



① NORTH ELEV.
1 : 50



② SOUTH ELEV.
1 : 50



2023-01-25



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**TAGHUM SHELL -
EXPANSION**

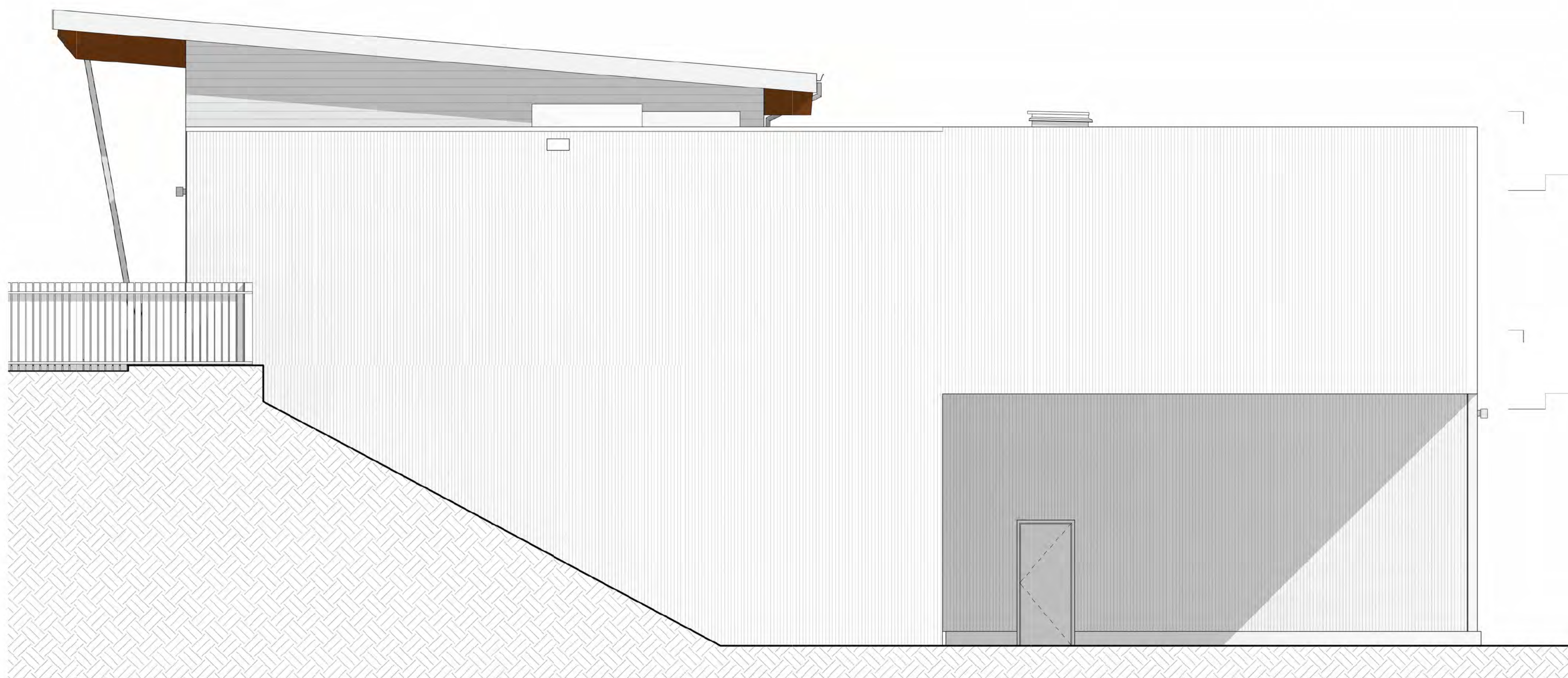
5644 Highway 3A West
PROJECT CODE: 22132 STATUS: SCHEMATIC
SCALE: 1 : 50 DATE: 01-25-2023

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2	23/01/25	ISSUED FOR DEVELOPMENT PERMIT



① EAST ELEV.
1 : 50



② WEST ELEV.
1 : 50



2023-01-25



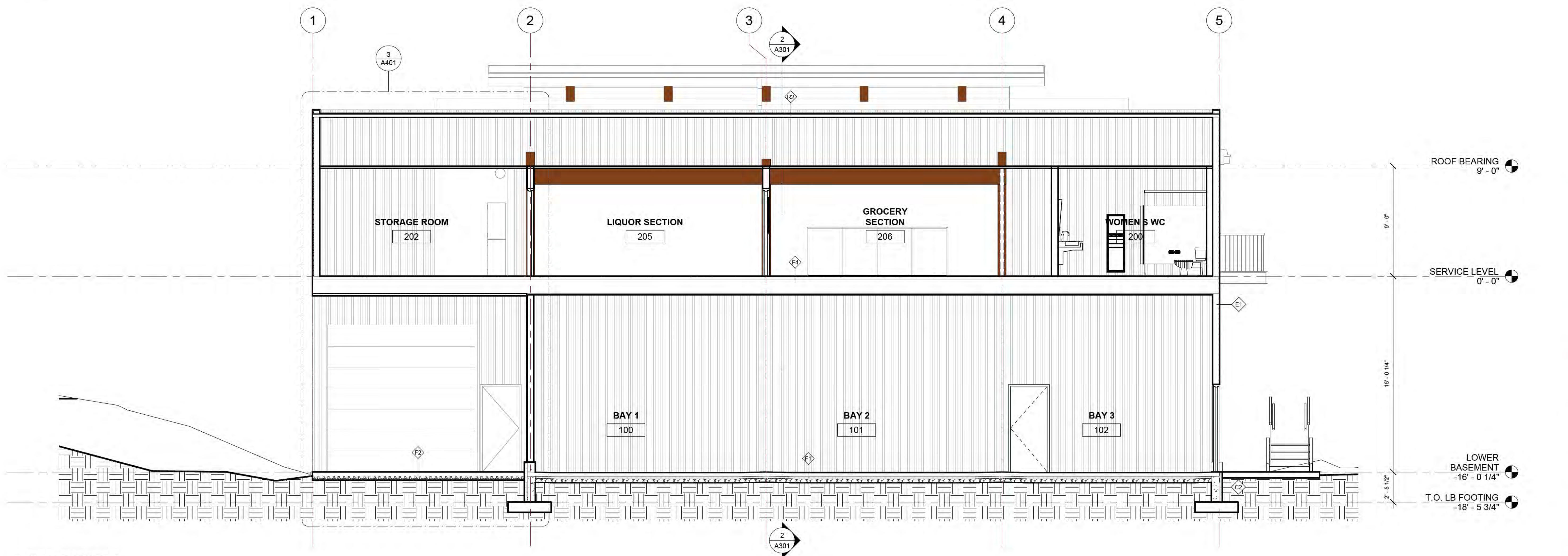
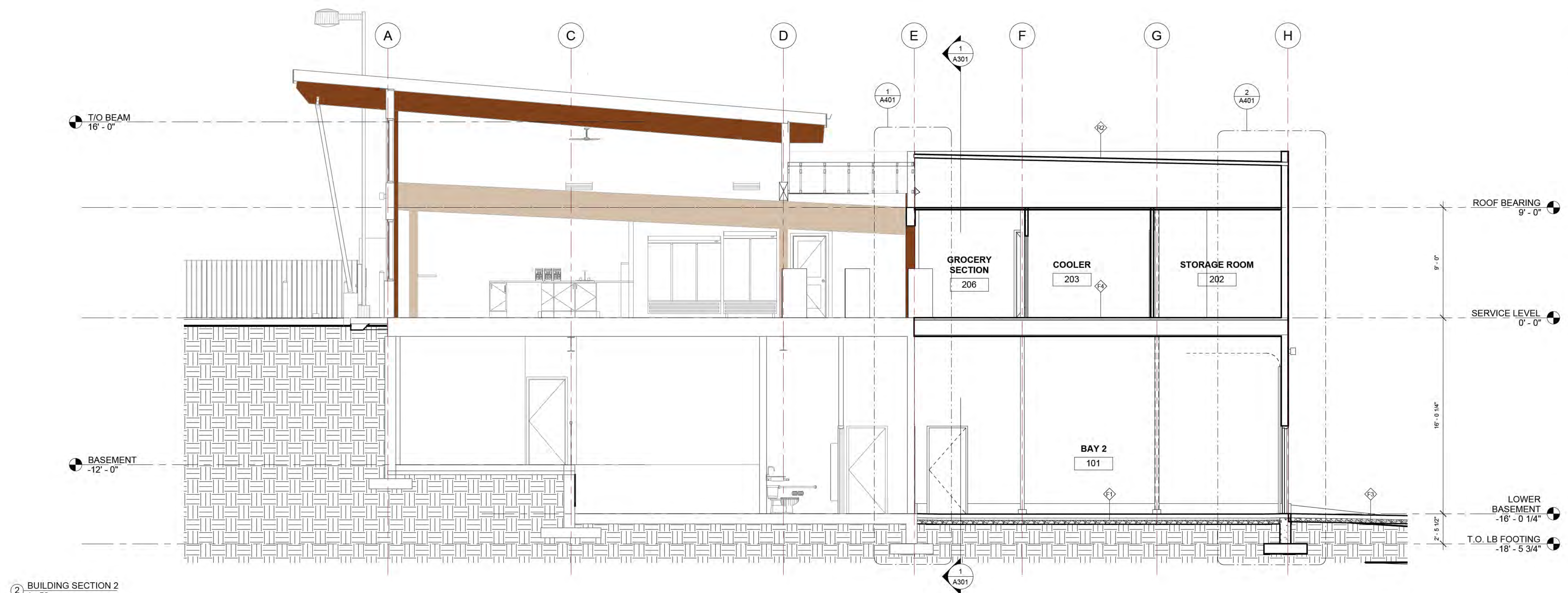
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**TAGHUM SHELL -
EXPANSION**

5644 Highway 3A West
PROJECT CODE: 22132
SCALE: 1 : 50
STATUS: SCHEMATIC
DATE: 01-25-2023

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2	23/01/25	ISSUED FOR DEVELOPMENT PERMIT



2023-01-25



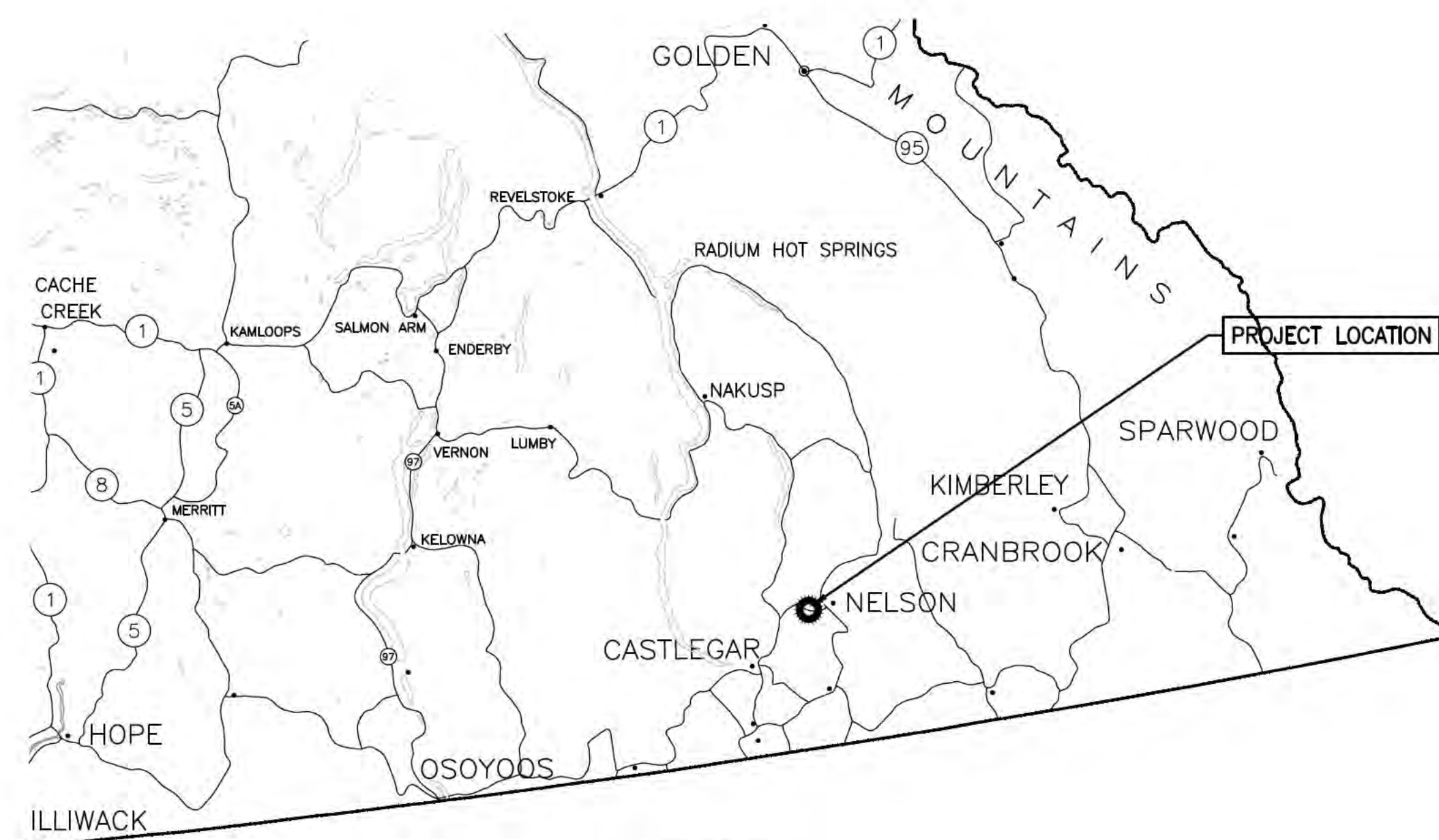
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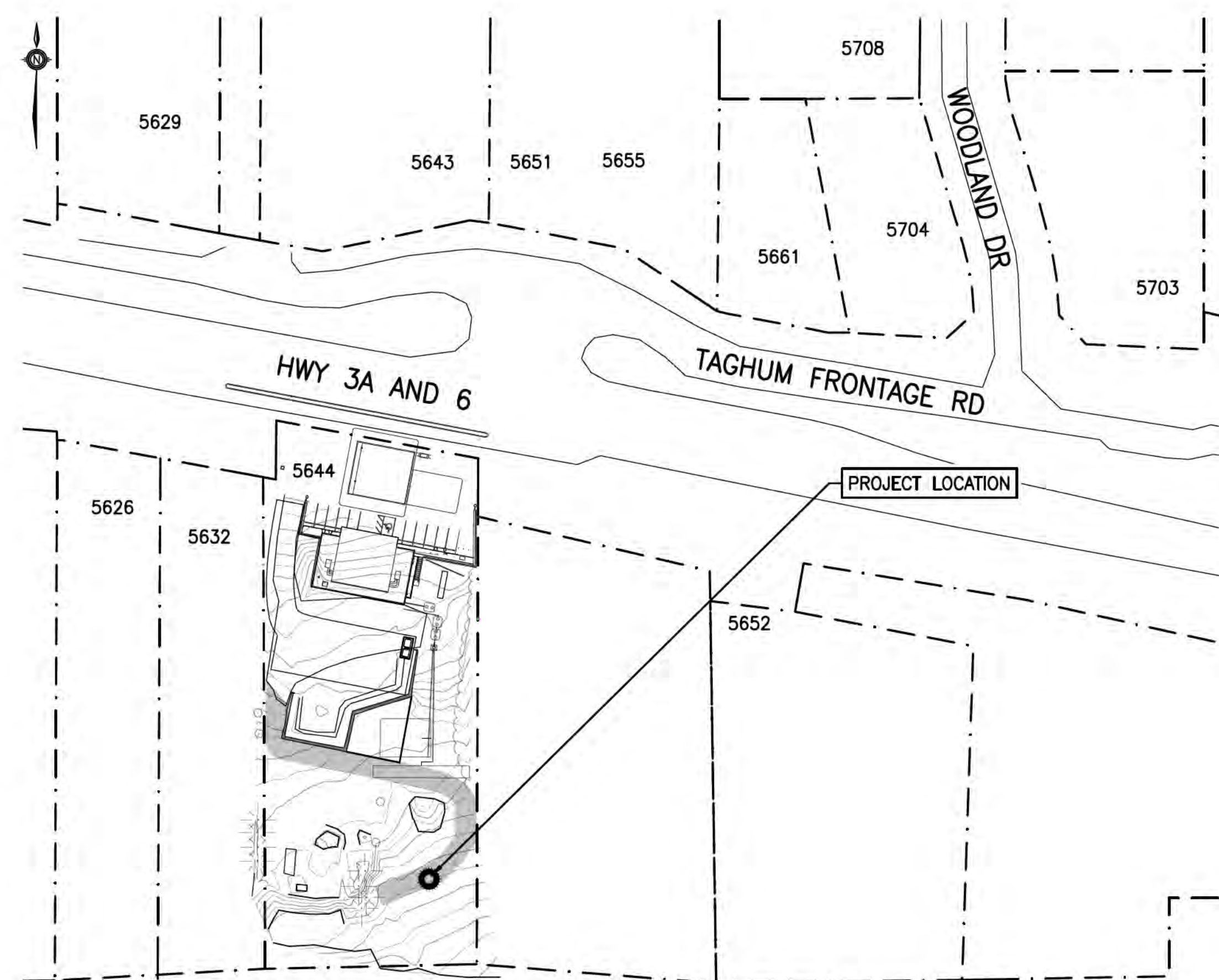
TAGHUM SHELL - EXPANSION

5644 Highway 3A West
 PROJECT CODE 22132 STATUS SCHEMATIC
 SCALE 1:50 DATE 01-25-2023

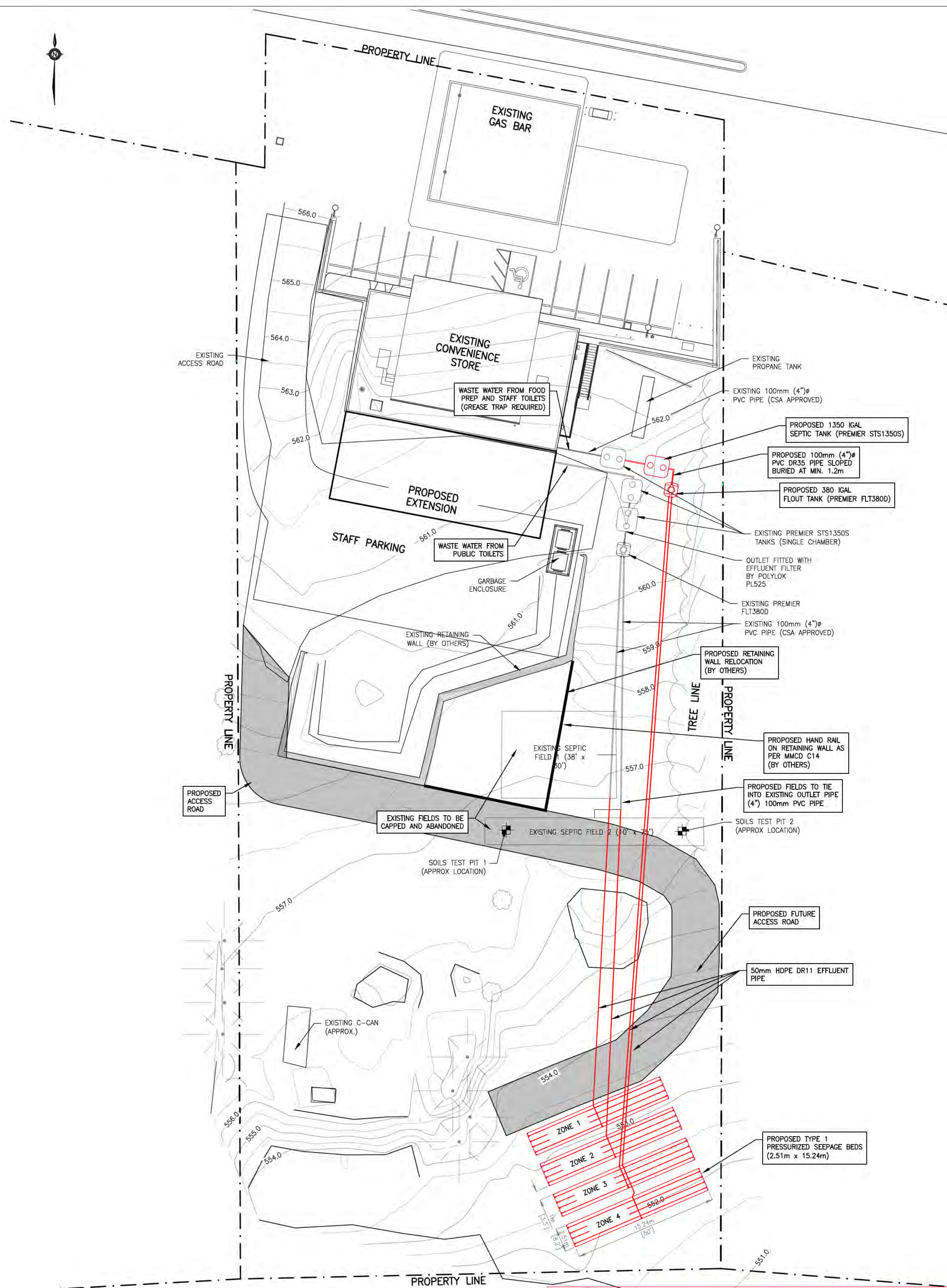
BUILDING SECTIONS
 SHEET
A301



KEY MAP
SCALE-N/Ts



SITE LOCATION
SCALE-1:1000



SITE PLAN VIEW
SCALE-1:250

80% COMPLETE
NOT FOR CONSTRUCTION

GENERAL NOTES:

ALL DIMENSIONS ARE SPECIFIED IN METERS UNLESS OTHERWISE STATED.
 LOT PLAN BASED ON ROCK MAPPING DATA AND SURVEY CARRIED OUT BY CLIENT. HIGHLAND CONSULTING IS NOT LIABLE FOR INACCURACIES IN DRAWING.
 SCALE IS BASED ON ARCH EXPANDED D (24"x36") DRAWINGS.
 NO VARIATION TO THIS DRAWING SHALL BE PERMITTED UNLESS AUTHORIZED BY ENGINEER IN WRITING.
 THIS PLAN SET IS BASED UPON THE EXPECTED FLOWS AND WASTE STRENGTHS PROVIDED HEREIN FOR THE PURPOSE OF SERVING AN 5 PUMP GAS STATION AND A CONVENIENCE STORE WITH 2 TOILETS. ANY CHANGE IN USAGE THAT WOULD AFFECT FLOWS OR WASTE STRENGTH REQUIRES A REVIEW BY THE DESIGNER.
 ONCE A FACILITY IS PLACED INTO OPERATION, THE FLOWS AND WASTE STRENGTHS TO THE FACILITY SHOULD BE MONITORED TO STANDARD PRACTICE MANUAL CRITERIA. IF FLOW OR ANY OF THE INFLUENT WASTE STRENGTHS EXCEED THOSE LISTED IN THE DESIGN, MEASURES SHOULD BE TAKEN TO REDUCE THESE PARAMETERS TO THOSE LISTED ON THE PLAN SET. OTHERWISE ADDITIONAL TREATMENT CAPACITY AND PLANT EXPANSION WILL BE NECESSARY.
 AT CROSSINGS WHERE THE VERTICAL SEPARATION BETWEEN THE WATER MAIN AND THE SEWER MAIN IS LESS THAN 450mm, ALL JOINTS WITH IN 3.0m OF THE CROSSING SHALL BE WRAPPED WITH DENSO TAPE OR EQUIVALENT.
 NO CLEANING CHEMICALS TO BE USED IN HOME CONTAINING ANTIMICROBIAL CHEMICALS INCLUDING (BUT NOT LIMITED TO) FORMALDEHYDE, RESTAURANT CLEANERS, FLOOR WAX, STRIPPER AND OTHER TOXICS.
 SEPTIC TANK TO MEET SPECIFICATIONS OF SEWAGE SYSTEM STANDARD PRACTICE MANUAL AND CURRENT CSA STANDARDS.
 SEWAGE SYSTEM TO BE INSTALLED BY AUTHORIZED PERSONS.
 ALL SETBACKS TO MEET CRITERIA AS SET OUT IN STANDARD PRACTICE MANUAL 3.
 AERIAL IMAGERY FROM ROCK MAPPING IMPORTED DECEMBER 05, 2022.
 FIELD REVIEW BY ENGINEER REQUIRED AT CONSTRUCTION START UP TO CONFIRM DESIGN PARAMETERS. DESIGN MAY REQUIRE AMENDMENTS.

LEGEND:

- CATCHMENT AREA
- PROPOSED STORM
- PROPOSED SEPTIC
- EXISTING PROPERTY LINE
- EXISTING STORM
- EXISTING SEPTIC
- EXISTING CONIFEROUS TREE
- SOILS TEST PIT
- SOILS TEST PIT

REV.	DESCRIPTION	DATE
C	ISSUED TO CLIENT	05-JAN-23
B	ISSUED TO CLIENT	08-DEC-22
A	FOR REVIEW	06-DEC-22



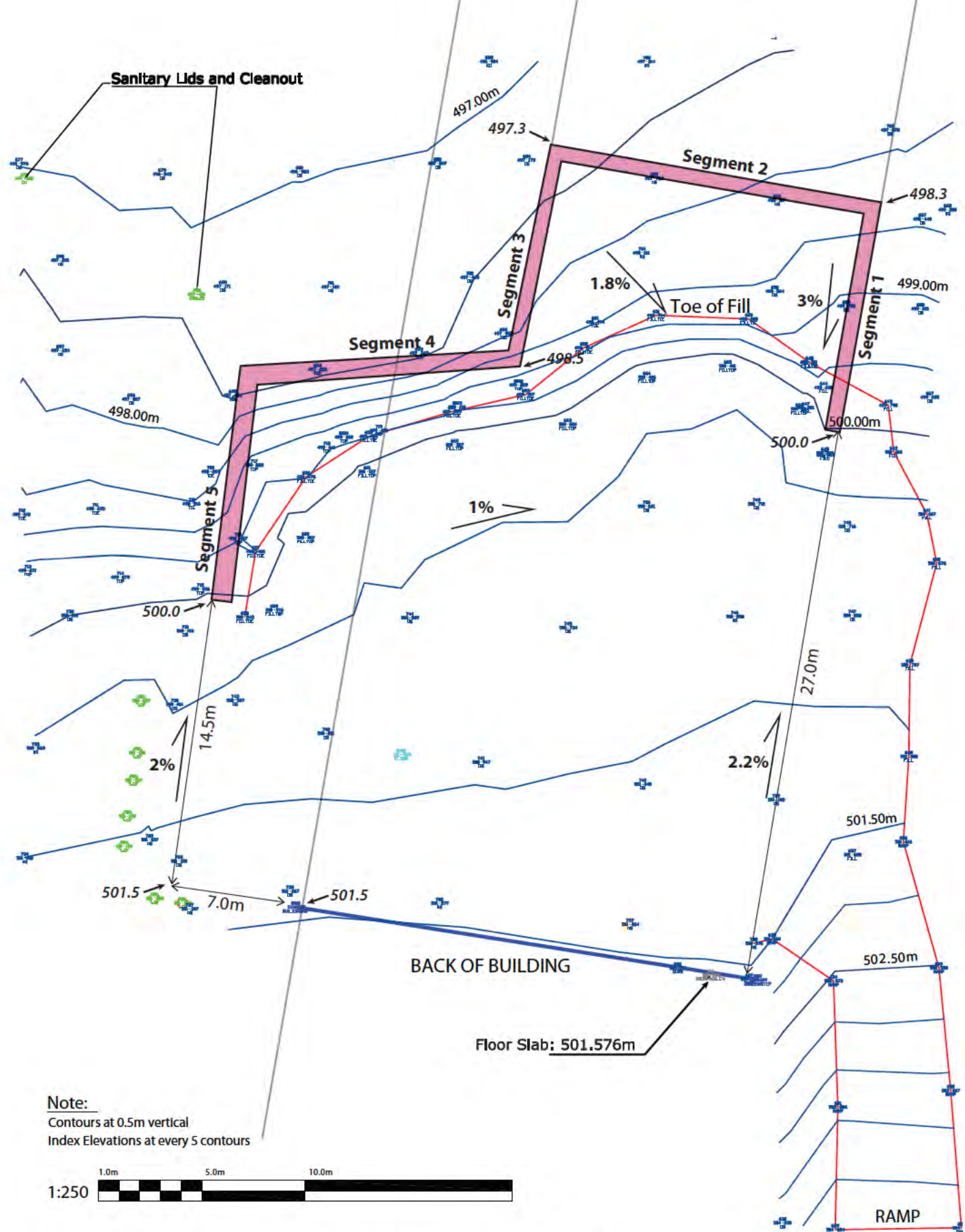
This drawing not to be used for construction purposes until noted and dated 'Issued for Construction'. All measurements must be checked on site and be verified with the drawings by Contractor.
 Copyright reserved. This drawing and design is and at all times remains the exclusive property of Highland Consulting and cannot be used without their written consent. The information contained herein is for use of the client only. Highland Consulting is not liable to any other parties relating to the use of this drawing.

PROJECT TITLE
TAGHUM SHELL SEPTIC

DRAWING TITLE
DETAILS

CLIENT NAME

SCALE: REFER TO DWG	JOB No. 22581
DRAWN: JH	REVISION
CHECKED: PK	DWG. No. C01
DATE: 13-Jan-23	
PLOT: 13-Jan-23	



Wall Design
 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 wall 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%.

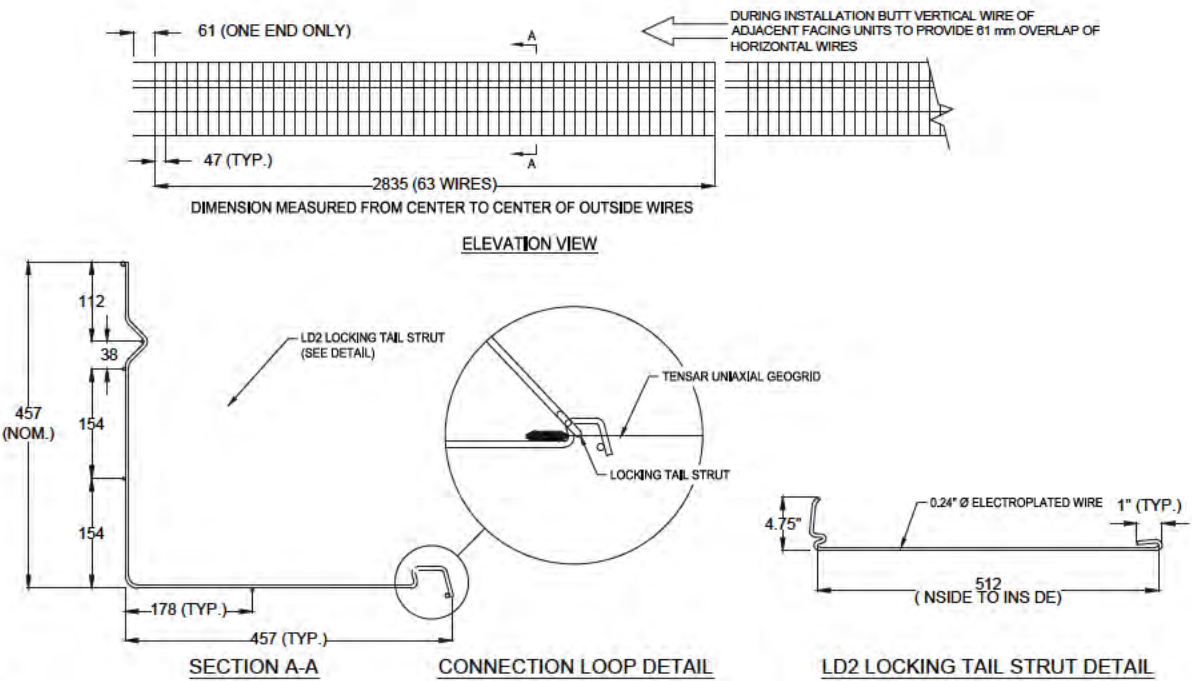
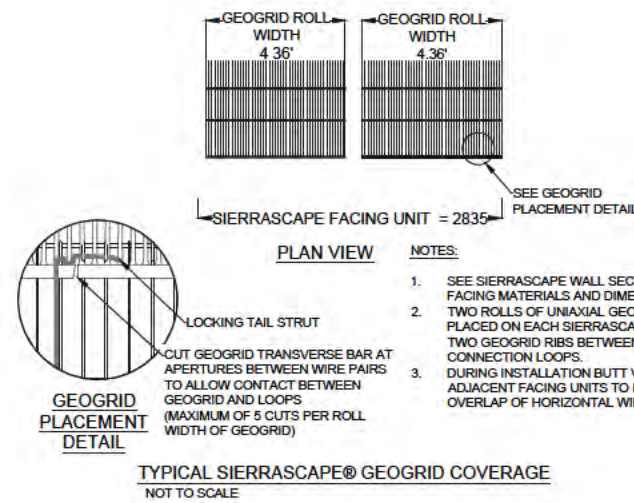
Note:
 Contours at 0.5m vertical
 Index Elevations at every 5 contours



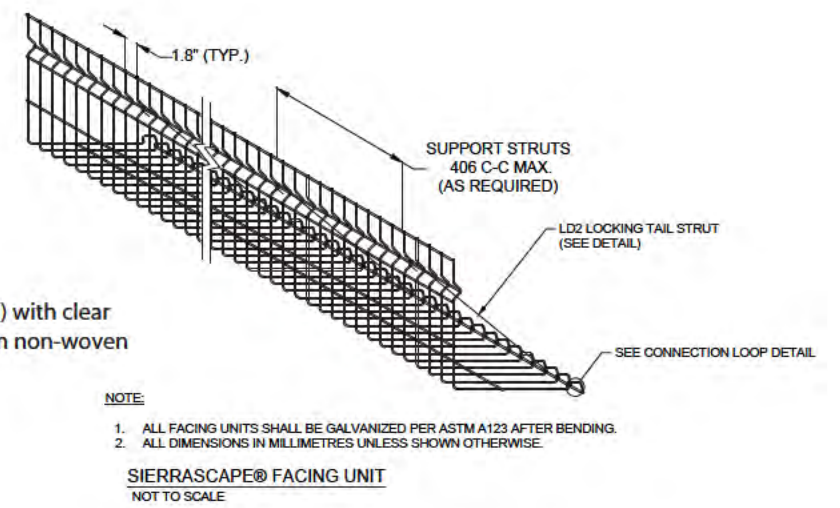
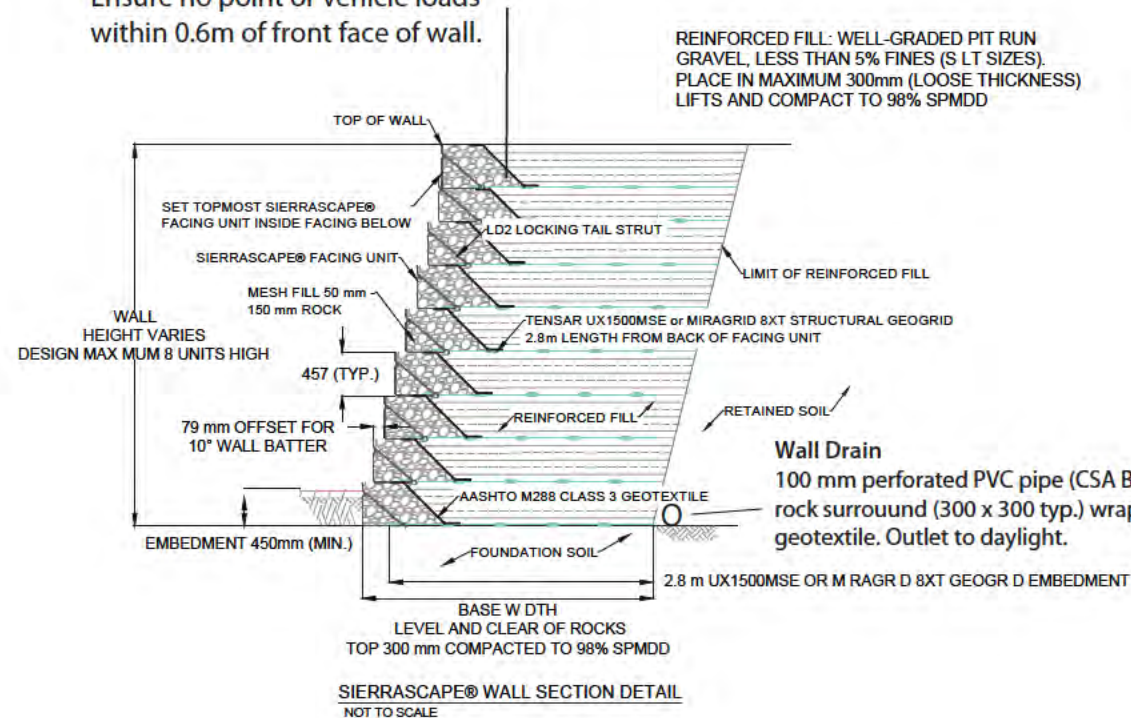
Issued for Construction
 June 9, 2021

 June 9, 2021

		FIGURE 1 - Site Plan and Wall Layout 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 : 250	Job number: DE20-1921



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.



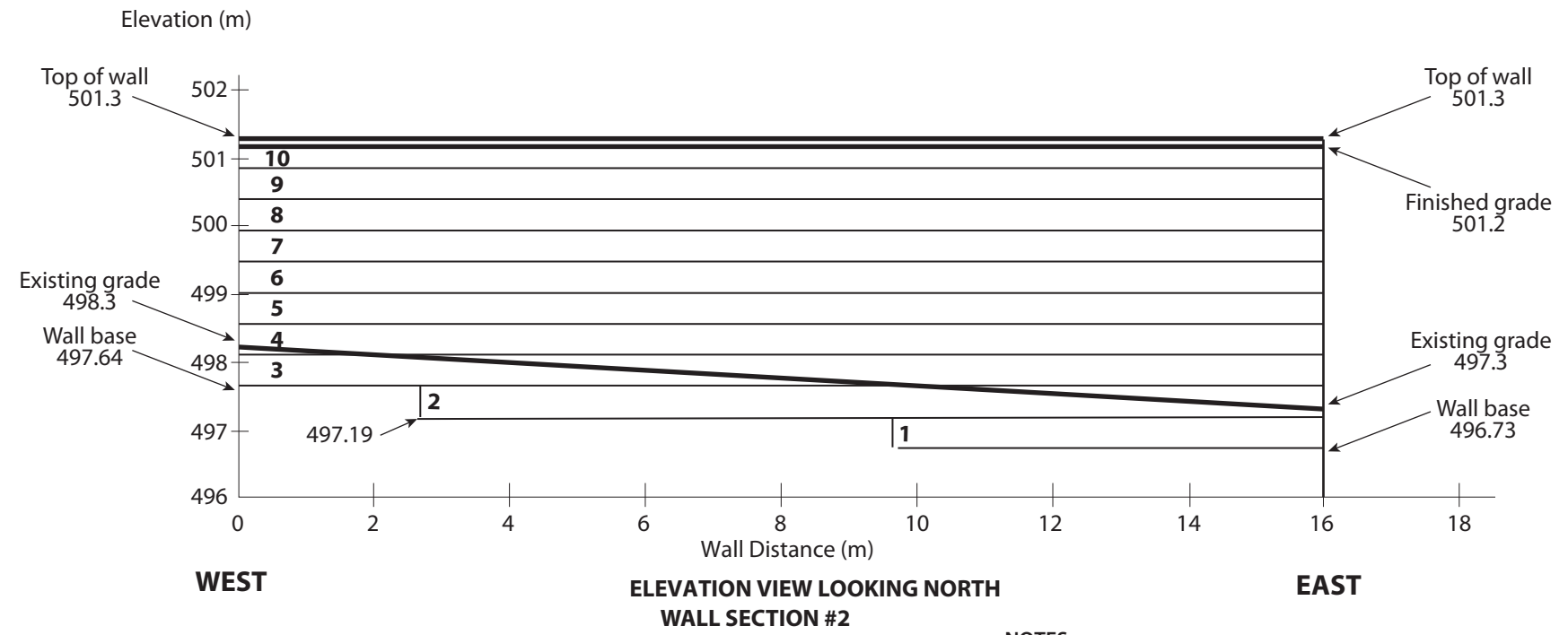
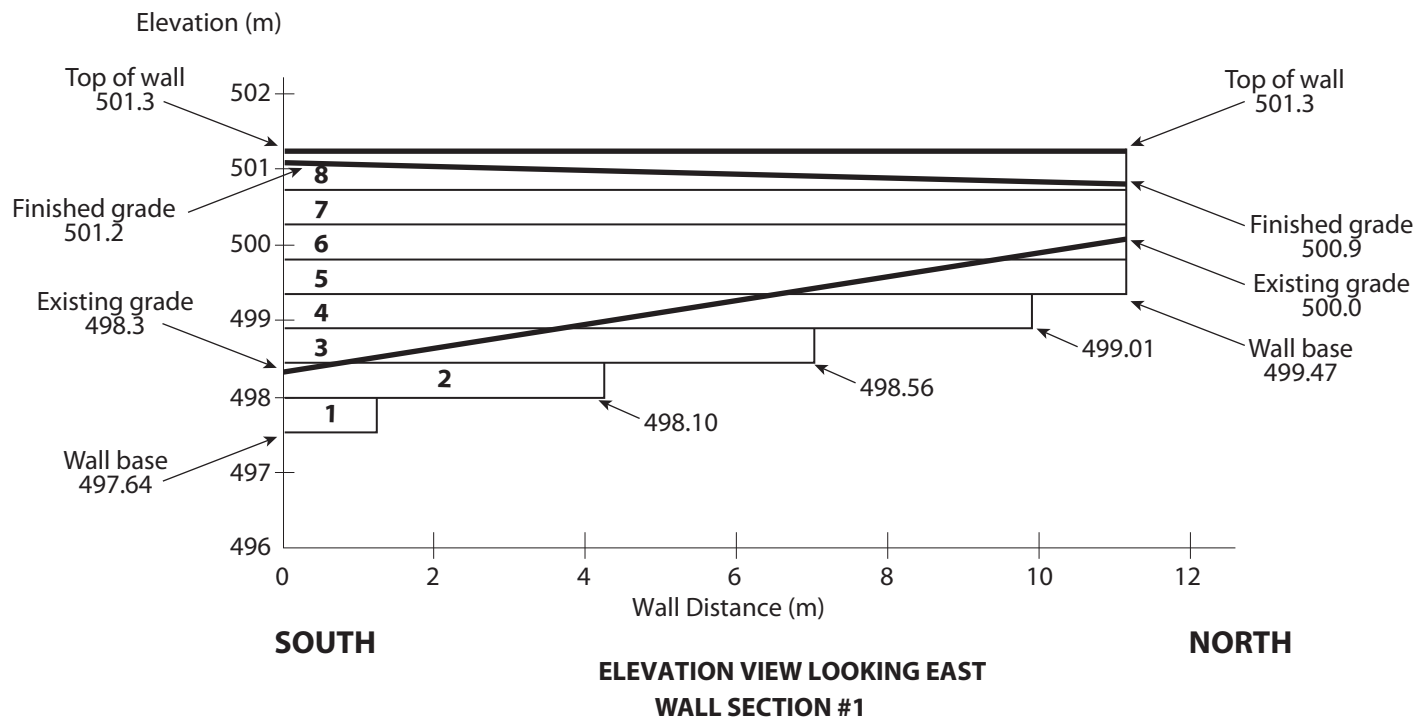
Issued for Construction
June 9, 2021

N. L. Deverney

N. L. DEVERNEY
21553
BRITISH COLUMBIA
ENGINEER

June 9, 2021

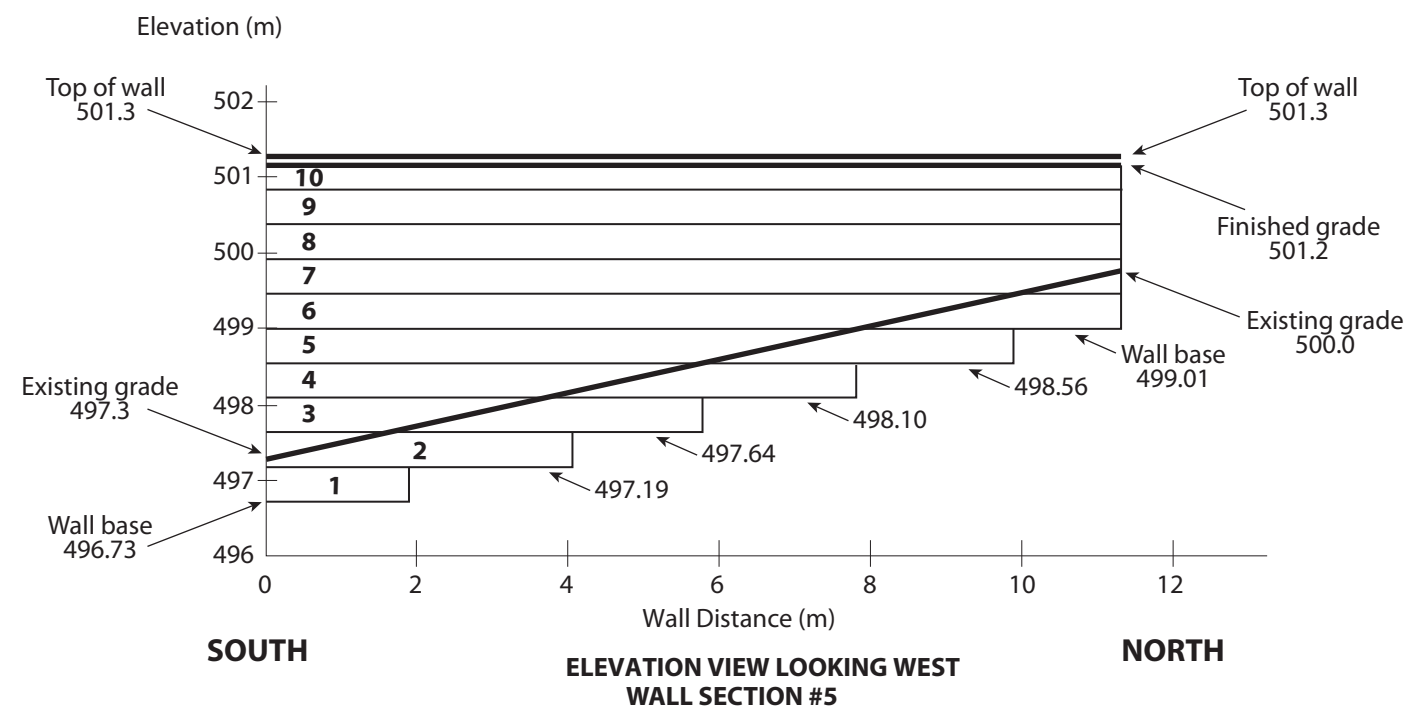
				FIGURE 3 - Installation Details Parking Lot Retaining Structure Design Taghum Shell 5644 Highway 3A, Taghum, BC	
Reference:	Date: June 2021	Designed by: NLD	Drawn by: JCD	Scale: NTS	Job number: DE20-1921



NOTES:

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.



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 #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

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

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 #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

Issued for Construction
June 9, 2021

BRITISH COLUMBIA BUILDING CODE 2018

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*.
(ii) This letter is endorsed by: Architectural Institute of BC, Association of Professional Engineers and Geoscientists of the Province of BC, Building Officials' Association of BC, and Union of BC Municipalities.
(iii) In this letter the words in italics have the same meaning as in the British Columbia Building Code.

To: The *authority having jurisdiction*

Regional District of Central Kootenay

Name of Jurisdiction (Print)

Re: Parking Lot Retaining Structure

Name of Project (Print)

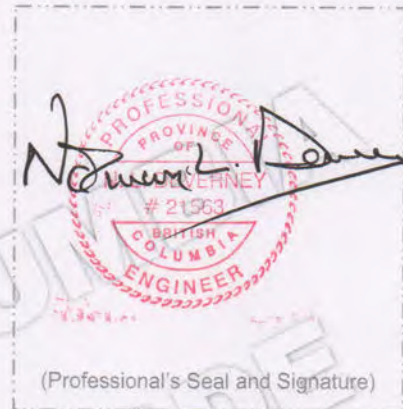
5644 Highway 3A, Taghum, BC

Address of Project (Print)

The undersigned hereby gives assurance that the design of the

(Initial those of the items listed below that apply to this *registered professional of record*. All the disciplines will not necessarily be employed on every project.)

- ARCHITECTURAL
 STRUCTURAL
 MECHANICAL
 PLUMBING
 FIRE SUPPRESSION SYSTEMS
 ELECTRICAL
 GEOTECHNICAL — temporary
 GEOTECHNICAL — permanent



(Professional's Seal and Signature)

June 9, 2021

Date

components of the plans and supporting documents prepared by this *registered professional of record* in support of the application for the *building* permit as outlined below substantially comply with the British Columbia Building Code and other applicable enactments respecting safety except for construction safety aspects.

The undersigned hereby undertakes to be responsible for *field reviews* of the above referenced components during construction, as indicated on the "SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS" below.

CRP's Initials

BRITISH COLUMBIA BUILDING CODE 2018

Schedule B - Continued

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

5644 Highway 3A, Taghum, BC

Project Address

Geotechnical - Permanent

Discipline

The undersigned also undertakes to notify the *authority having jurisdiction* in writing as soon as possible if the undersigned's contract for *field review* is terminated at any time during construction.

I certify that I am a *registered professional* as defined in the British Columbia Building Code.

Norman L. Deverney, P.Eng., FEC

Registered Professional of Record's Name (Print)

Address (Print)

Address (Print) (continued)

Phone Number



June 9, 2021

Date

(If the *Registered Professional 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)

Note: The above letter must be signed by a *registered professional of record*, who is a *registered professional*. The British Columbia Building Code defines a *registered professional* to mean

- (a) a person who is registered or licensed to practise as an architect under the Architects Act, or
- (b) a person who is registered or licensed to practise as a professional engineer under the Engineers and Geoscientists Act.

CRP's Initials

BRITISH COLUMBIA BUILDING CODE 2018

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

- 1.1 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 (Part 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



June 9, 2021

Date

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

BRITISH COLUMBIA BUILDING CODE 2018

Schedule B - Continued

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

5644 Highway 3A, Taghum, BC

Project Address

Geotechnical - Permanent

Discipline

PLUMBING

- 4.1 ~~Roof drainage systems~~
- 4.2 ~~Site and foundation drainage systems~~
- 4.3 ~~Plumbing systems and devices~~
- 4.4 ~~Continuity of fire separations at plumbing penetrations~~
- 4.5 ~~Functional testing of plumbing related fire emergency systems and devices~~
- 4.6 ~~Maintenance manuals for plumbing systems~~
- 4.7 ~~Structural capacity of plumbing components, including anchorage and seismic restraint~~
- 4.8 ~~Review of all applicable shop drawings~~
- 4.9 ~~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~~
- 5.2 ~~Design coverage, including concealed or special areas~~
- 5.3 ~~Compatibility and location of electrical supervision, ancillary alarm and control devices~~
- 5.4 ~~Evaluation of the capacity of city (municipal) water supply versus system demands and domestic demand, including pumping devices where necessary~~
- 5.5 ~~Qualification of welder, quality of welds and material~~
- 5.6 ~~Review of all applicable shop drawings~~
- 5.7 ~~Acceptance testing for "Contractor's Material and Test Certificate" as per NFPA Standards~~
- 5.8 ~~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 sprinklers are installed in all areas where required~~
- 5.11 ~~Fire Department connections and hydrant 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~~
- 6.3 ~~Functional testing of electrical related fire emergency systems and devices~~
- 6.4 ~~Electrical systems and devices maintenance manuals~~
- 6.5 ~~Structural capacity of electrical components, including anchorage and seismic restraint~~
- 6.6 ~~Clearances from buildings of all electrical utility equipment~~
- 6.7 ~~Fire protection of wiring for emergency systems~~
- 6.8 ~~Review of all applicable shop drawings~~
- 6.9 ~~Electrical systems, Part 10 – ASHRAE, NECB or Energy Step Code requirements~~
- 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~~

GEOTECHNICAL — Permanent

- 8.1 ~~Bearing capacity of the soil~~
- 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~~
- 8.6 ~~Permanent dewatering~~
- 8.7 ~~Permanent underpinning~~



June 9, 2021

Date

CRP's Initials

ENGINEER OF RECORD – RETAINING WALL ASSURANCE STATEMENT

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

RETAINING WALL CHECKLIST

General (all Retaining Walls):

Check that the following items have been addressed:

- 1. Reviewed requirements of the governing jurisdiction, and documented all other codes, specifications, and guidelines used.
- 2. Established design criteria based on applicable codes and confirmed criteria with owner.
- 3. 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.
- 12. 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:

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, 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.

Stacked Rock Walls:

Check that the following 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.

Mechanically Stabilized Earth Walls:

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, if applicable.
- 3. Analyzed the adequacy of the wall facing to withstand applicable loads, including the loads from connections to soil reinforcement,
- 4. Provided specifications for soil reinforcement
- 5. Confirmed that the minimum soil reinforcement length is 70% of the wall height, or provided justification for alternate length.
- 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.

Reinforced Concrete Cantilever Retaining Walls:

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, 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.

Submittals:

Check that the following items have been addressed:

- 1. Site Plan showing wall location; wall footprint; existing and proposed ground 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.
- 5. Monitoring and maintenance plan, if applicable.

Reinforced Concrete Cantilever Retaining Walls:

Check that the following item has been addressed:

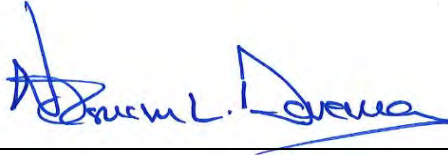
- 1. The obligation for field reviews as per Bylaw 14(b)(3) has been fulfilled to ascertain whether the implementation or construction of the work substantially complies in all material respects with the design.

ENGINEER OF RECORD – RETAINING WALL ASSURANCE STATEMENT

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.

Norman L. Deverney, P.Eng., FEC

Name (print)



June 9, 2021

Signature

Date

[Redacted]

Address

[Redacted]

[Redacted]

[Redacted]

Phone

[Redacted]

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:
- Solar thermal hot water heater;
 - Solar photo-voltaic (PV) panels;
 - Ground-source heat pump.
 - Micro-wind turbine; and
 - 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 an 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:

- subdivision;
- temporary buildings and structures such as construction trailers, temporary scaffolding, and buildings and structures permitted by a Temporary Use Permit;
- 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;
- minor alterations that do not alter or affect requirements for parking, landscaping, access, or alter the building footprint, or

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.