District of SECHELT

604 885 1986
PO Box 129, 5797 Cowrie St,
2nd Floor
Sechelt, BC V0N 3A0
www.sechelt.ca

DEVELOPMENT PERMIT NO. 2022 – 25

1. This Development Permit is issued to:

   1349123 BC Ltd.

   9286 - 116th Street

   Delta, BC V4C 5W9

2. This Development Permit is issued subject to compliance with all the applicable Bylaws of the District of Sechelt except as specifically varied or supplemented by this Permit.

3. This Permit supplements, but does not replace, relevant provincial and federal regulations and statutes.

4. This permit applies to the lands within the District of Sechelt described below:

   Parcel Identifier: PID 007-255-705

   Legal Description: Lot 21, Block 10, DL 304, Plan 17781

   Addressed as: 5750 Anchor Road

5. The Property is located in a designated Development Permit Area:

   (a) Development Permit Area #4

   (b) Development Permit Area #5

   (c) Development Permit Area #8

6. This Development Permit applies to following works on the Property subject to signed servicing agreements for all onsite and offsite works and services:

   (a) Constructing two new duplexes, one of which includes an existing dwelling unit already on the property. Constructing a roofed stairway to access all units.

   (b) Constructing an accessory building for solid waste management.

   (c) Creating a looped driveway access and associated parking areas.

      i. Four parking spaces required.
      ii. One Level 2 EV charger required.
      iii. All spaces must be 2.5 m (width) by 6 m (length).
      iv. No small car spaces allowed.

   (d) Installing landscaping improvements – groundcover, shrubs, and trees.

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CONDITIONS OF DEVELOPMENT PERMIT

1. The Property and the works shall be developed strictly in accordance with the following terms, conditions and provisions of this Development Permit and any plans and specifications attached to this Development Permit shall form part of this Development Permit:

    (a) Attachment 1, which contains the Site Location Map.

    (b) Attachment 2, which contains the Site Plan and Cross Section, prepared by Gregory Palamarz, of Panelex/Primex Industries, dated August 15, 2022 (Revised April 5, 2024).

    (c) Attachment 3, which contains the elevations and renderings, prepared by Gregory Palamarz, of Panelex/Primex Industries, dated August 15, 2022 (Revised April 5, 2024, August/September 2024).

    (d) Attachment 4, which contains the Geotechnical Hazard Assessment, prepared by Benjamin Smale, P.Eng., of Boundary Consulting Services Ltd., dated August 30, 2022 (BCS-0081).

    (e) Attachment 5, which contains the Geotechnical Field Review, prepared by Micah Smith, P.Eng., of Boundary Consulting Services Ltd., dated March 22, 2024 (BCS-0081).

    (f) Attachment 6, which contains the Landscape Plan and Cost Estimate, prepared by Zale Design., dated July 5, 2024 (24-02).

        a. All species should be drought tolerant and adhere to Fire Smart guidelines.

        b. Irrigated lawns are not permitted.

        c. Groundcover cannot be grass or sod, and must be one or more of the following:

            i. Trifolium repens var. Pipolina (Microclover)

            ii. Antennaria rosea (Pussytoes)

            iii. Actostaphylos uva-ursi (Kinnickinnick)

            iv. Lonicera spp. (Honeysuckle)

            v. Sedum spp. (Stonecrop)

    (g) The entire access stairway from the ground level to the top level must be covered by a roofed structure that provides weather protection from rain, snow, and sun.

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2. Sensitive operations involving land alteration/excavation are confined to periods of dry weather with minimal traffic and appropriate equipment that will create the least disturbance.

3. Any retaining systems (regardless of height) that are needed for the proposed development must have a detailed design prepared by a qualified professional engineer and approved by the District based on the EGBC Retaining Wall Design Professional Practice Guidelines (Version 1.1 – February 25, 2020) and must include the signed Retaining Wall Assurance Statement. Retaining Structures that exceed 1.2 m or have a horizontal to vertical setback of less than 2H to 1V with a cumulative height greater than 1.2 m require a Building Permit complete with Sealed design and Letters of Assurance from qualified professional engineers with expertise in Geotechnical design and Structural design.

4. Provide a security bond in the amount of $18,846 in the form of an irrevocable letter of credit, bank draft or certified cheque. This security bond will be held to ensure that the works have been satisfactorily completed according to the plans and specifications in Attachments 1 – 4, noted in Condition 1 above.

   Partial releases of the security bond will be considered upon completion of the works outlined in each phase, upon submission of the following reviews, once approved by the District:

   (a) 25% of the security bond may be released after the two following reports have been submitted:

      i. Field review report #1 prepared and signed by the qualified engineering professional confirming that appropriate erosion and sediment control measures are installed. This report is to be submitted; at least four weeks prior to the start of any development activities.

      ii. Field review report #2 prepared and signed by the qualified environmental professional confirming that appropriate tree protection measures are installed. This report is to be submitted; at least four weeks prior to the start of any development activities.

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(b) 50% of the security bond may be released after Final Report #1 and #2 have been submitted.

i. Final Report #1 – Final Review: Prepared and signed by the qualified engineering professional immediately following completion of all land alteration works confirming that all works have been done in accordance with the requirements of this permit.

ii. Final Report #2 – Final Review: Prepared and signed by the qualified environmental professional immediately following completion of all planting and landscape work confirming that all works have been done in accordance with the requirements of this permit.

(c) The remaining 25% of the security bond will be released upon submission of:

i. Final report prepared and signed by the qualified environmental professional after 2 years post-installation of the planted materials as approved in the Landscape Plan contained in Attachment 3 and Condition 1(c)(a – d), confirming at least 80% survival rate of the planted materials.

5. If construction for the development permitted by this Permit does not substantially commence within twenty-four months of the date of issuance, this Permit shall lapse.

6. Notice of this permit shall be filed at the Land Titles Office under the authority of Section 503 of the *Local Government Act* and upon such filing, the terms of this permit or any amendment hereto shall be binding on all persons who acquire an interest in the lands affected by this permit.

District of SECHELT

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www.sechelt.ca

THIS DEVELOPMENT PERMIT IS NOT A BUILDING PERMIT.

Authorizing Resolution of Council:

Date of Resolution:

Date of Approval:

Date of Issue:

Authorizing Signature:

_____

Andrew Allen

Director of Planning & Development

- Attachment – 1
- Attachment – 2
- Attachment – 3
- Attachment – 4
- Attachment – 5
- Attachment – 6

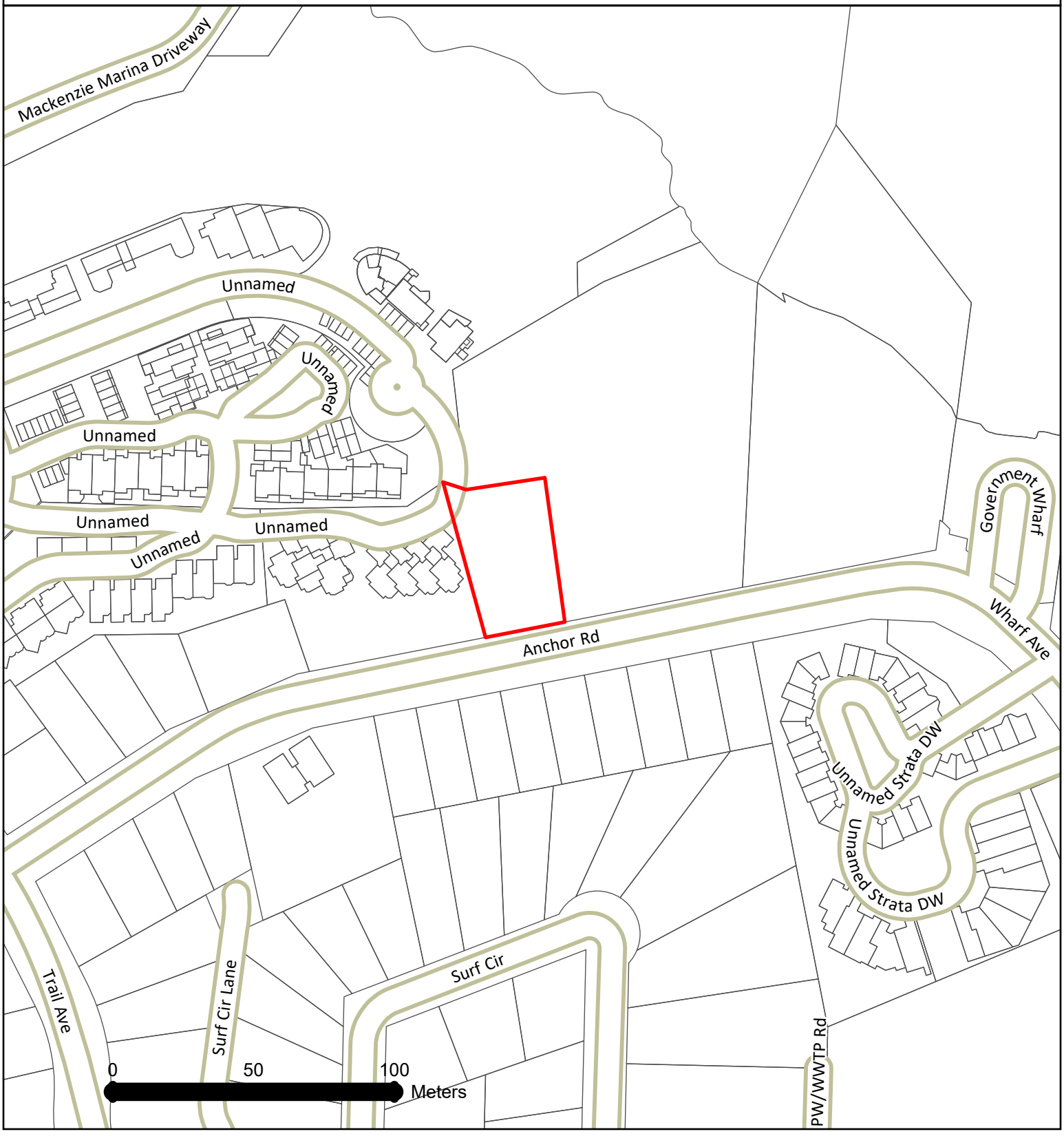
District of SECHELT

Attachment 1
Development Permit 2022-25

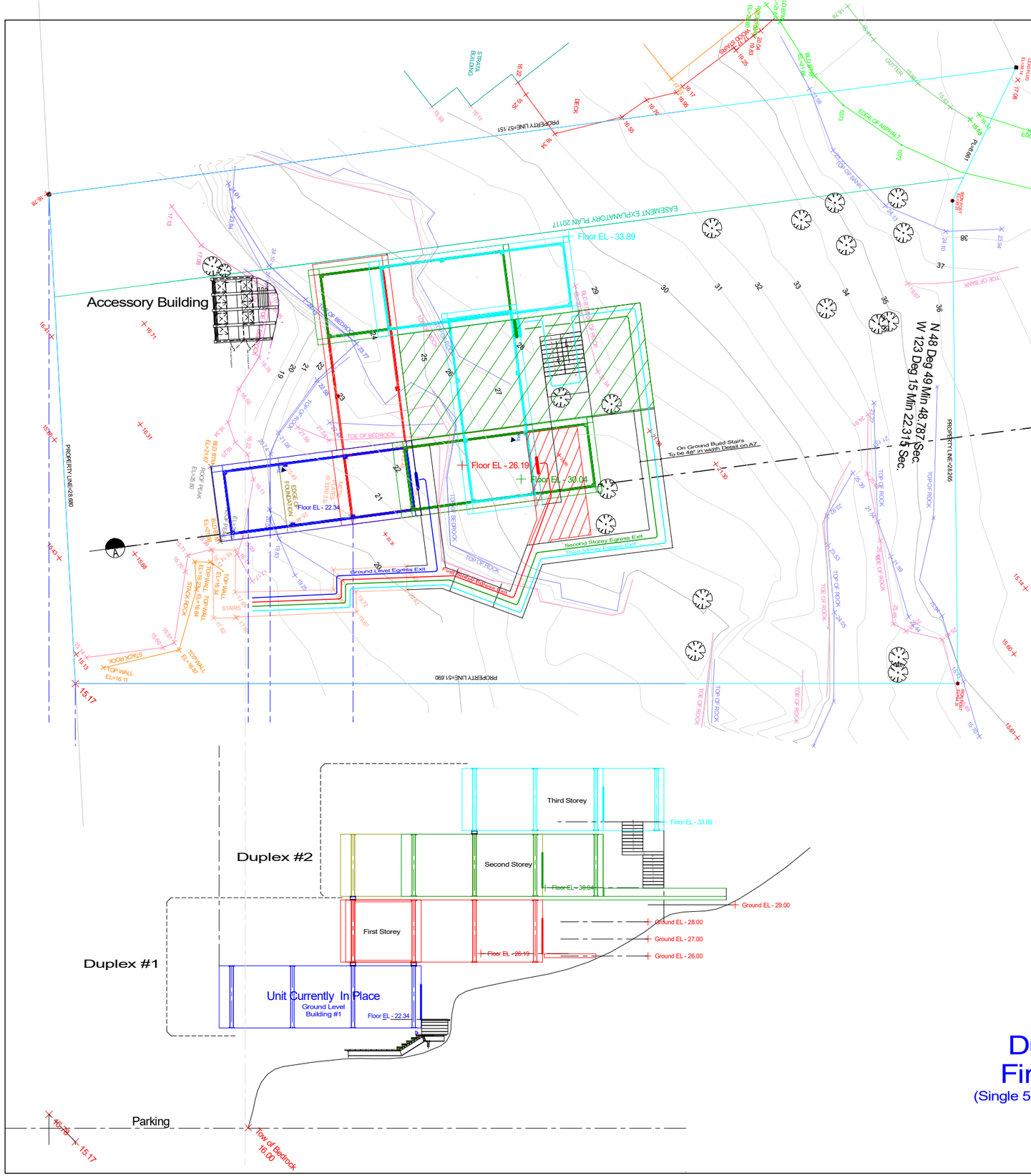
CIVIC: 5750 Anchor Road
LEGAL:
LOT 21 DISTRICT LOT 304 PLAN VAP17781, PID 007-255-705

Subject Property

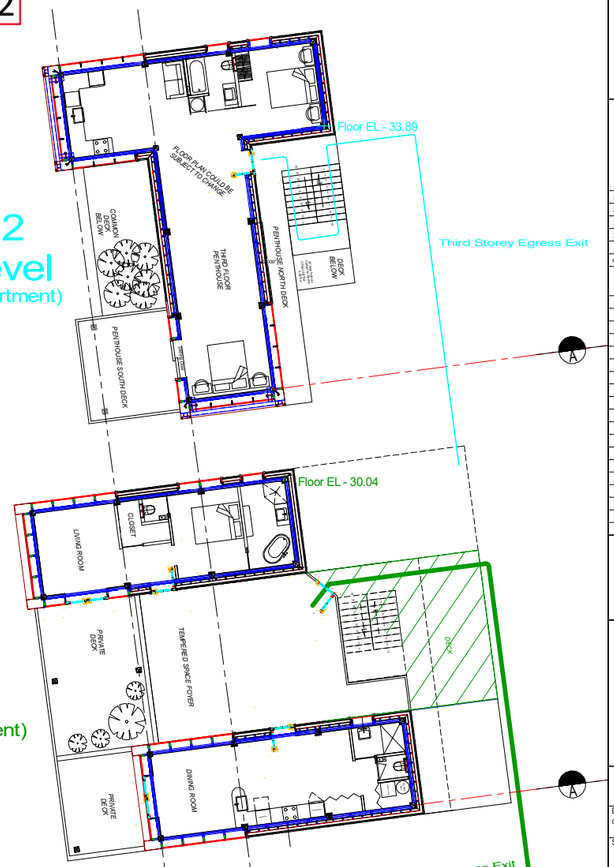
N



ATTACHMENT 2

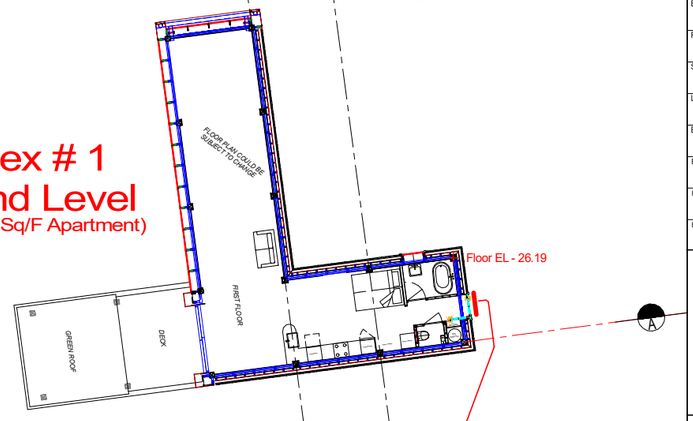


Duplex # 2
Second Level
(Single 1100 Sq/F Apartment)

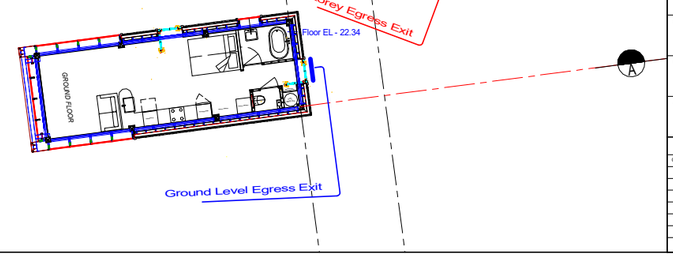


Duplex # 2
First Level
(Single 1100 Sq/F Apartment)

Duplex # 1
Second Level
(Single 1100 Sq/F Apartment)



Duplex 1
First Level
(Single 550 Sq/F Apartment)



DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY, RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
5			
4			
3			
2			
1			

DRAWING LIST

S - 7	
S - 6	Anchoring / Pining Detail
S - 5	Sections & Detail
S - 4	Steel Frame Members Size
S - 3	Structural Modular Layout Location
S - 2	Foundation & Framing
S - 1	General Notes
A - 10	Alternative Solution
A - 9	Egress Pathways
A - 8	Accessory Building
A - 7	
A - 6	Landscape Driveway Utilities & Parking
A - 5	
A - 4	
A - 3	South and North Elevation
A - 2	West Elevation
A - 1	East Elevation

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES
5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

EGRESS PATHWAYS

February 2024 Survey

TEAM

DESIGNER	GREGORY PALAMARZ ENG. R&D
STRUCTURAL	KINTECH ENGINEERING INC. LEO T. TORRENTE P. ENG
GEOTECHNICAL	BOUNDARY CONSULTING SERVICES LTD. BENJAMIN BIMALE P. ENG
BCBC COMPLIANCE	QAI LABORATORIES LISTING # REC 741
FIRE CEILING AND WALLS	QAI LABORATORIES LAWRENCE GIBSON P.ENG
STORM AND SANITARY	SUNCO CIVIL CONSULTING LTD. MICHAEL COSTA C.TECH
LAND SURVEY	BENNETT LAND SURVEYING LTD. SHAUN CARSON
ENERGY EFFICIENCY	ENFORMA ENGINEERING LTD. MIKHAEL HORVATH P.ENG
ELECTRICAL MAIN SERVICE	PARALTYN ENGINEERING INC. GREG LYNCH P.ENG
FIRE PROTECTION (Sprinkler System)	THE GISBORNE GROUP TIM BUSCH (Construction Manager)
BC BC Code Consultant	NOVEN CONSULTING INC. PEDRAM FADAVAR MASc, P. Eng., CP

PROFESSIONAL SEAL

DATE: August 15 2022	PROJECT NO.
SCALE: 1 : 250	DRAWING NO. A - 9
DRAWN BY:	REVISIONS April 5 2024
APPROVED BY:	

IMPORTANT PHONE NUMBERS

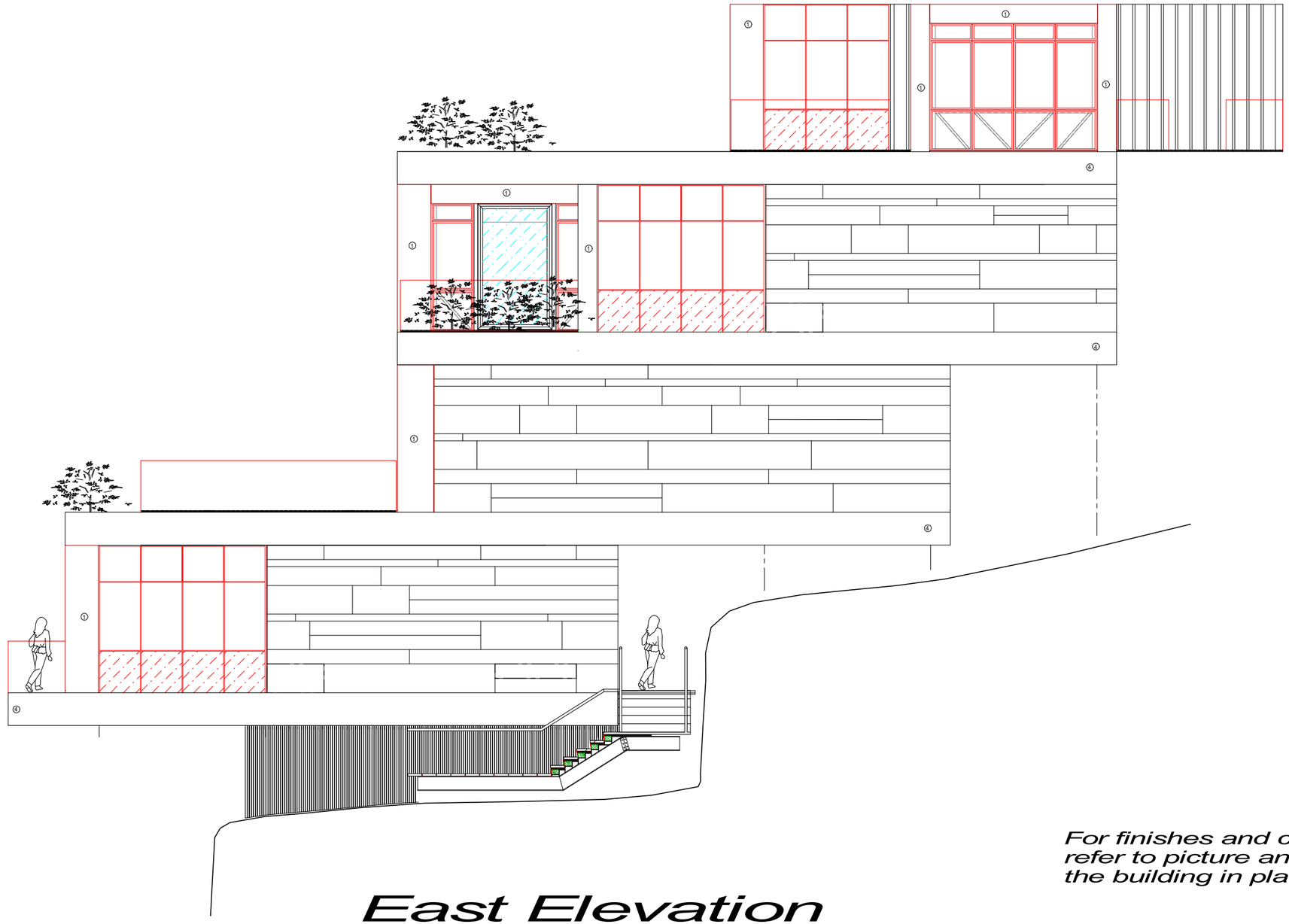
Gregory Palamarz	(604) 307 - 4472

ATTACHMENT 3

COLORS & SURFACES

BULLNOSE GLASS SECTION
DECORATING FACADE

1. ALUMINUM PANEL WHITE
2. WOOD GRAIN METAL TRIM (FRONTIER)
3. NATURAL REAL COPPER PANEL
4. ALUMINUM PANEL GREY
5. ALUMINUM PANEL GREY
6. ALUMINUM PANEL GREY
7. ULTRA CLEAR VISION GLASS
8. GREY SPANDREL GLASS
9. " BOARD & BATTEN " METAL CLADDING (SLATE GREY)
10. ULTRA CLEAR VISION DOOR GLASS
11. 1/2" CLEAR TEMPERED GLASS GUARD RAIL



East Elevation

For finishes and colors refer to picture and / or the building in place

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
5			
4			
3			
2			
1			

DRAWING LIST

S - 7	
S - 6	Anchoring / Pining Detail
S - 5	Sections & Detail
S - 4	Steel Frame Members Size
S - 3	Structural Modular Layout Location
S - 2	Foundation & Framing
S - 1	General Notes
A - 10	Alternative Solution
A - 9	Egress Pathways
A - 8	Accessory Building
A - 7	
A - 6	Landscape Driveways Utilities and Parking
A - 5	
A - 4	
A - 3	South and North Elevation
A - 2	West Elevation
A - 1	East Elevation

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

EAST ELEVATION

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINTECH ENGINEERING INC.
LEO T. TORRIENTE P. ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P. ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA CTECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE OSBORNE GROUP
TIM BUSCH (Construction Manager)

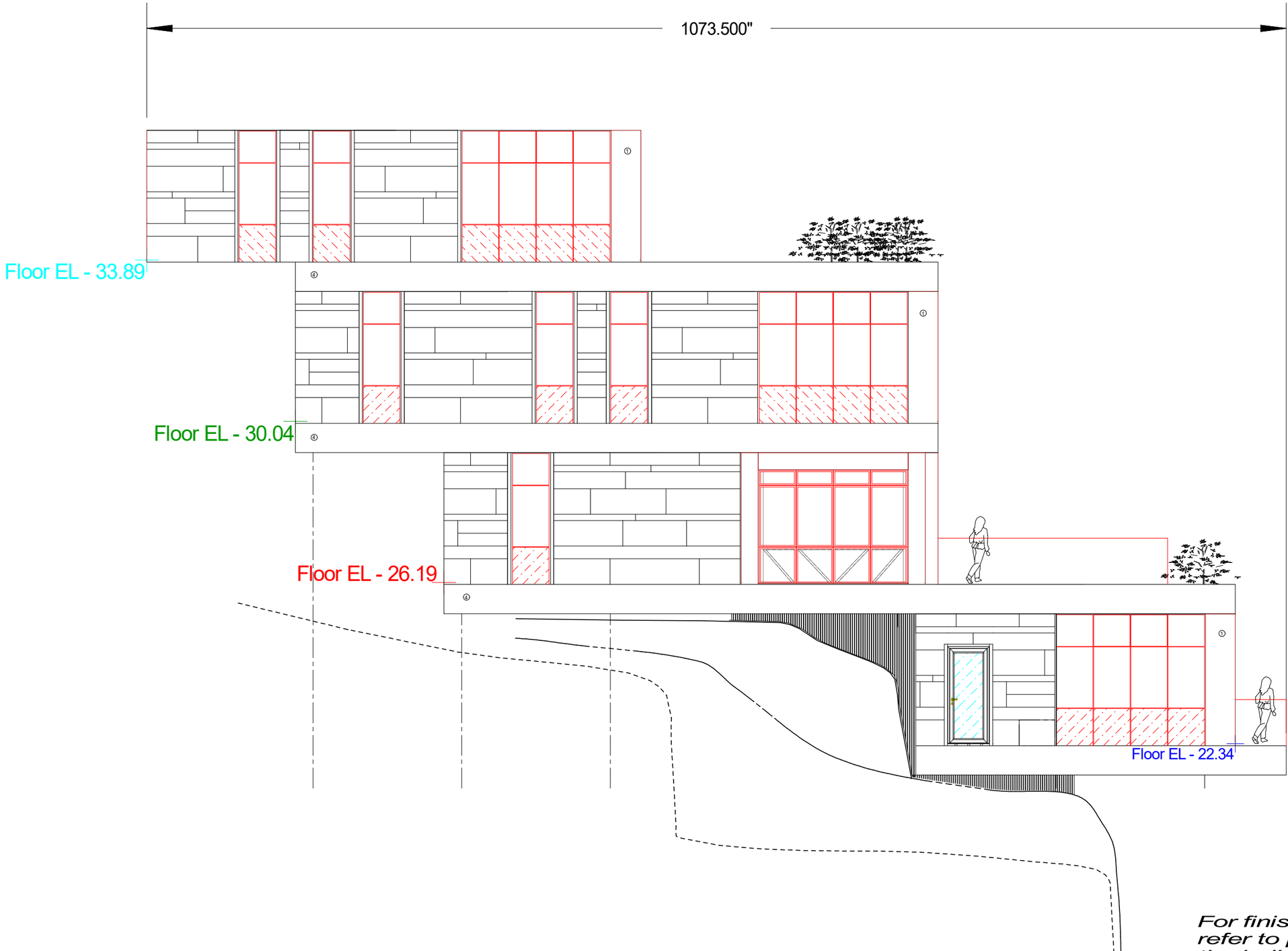
BC BC Code Consultant
NOVEN CONSULTING INC.
PEDRAM FAGHANI MASc, P.Eng., CP

PROFESSIONAL SEAL

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 96	DRAWING NO. A - 1
DRAWN BY :	REVISIONS: April 5 2024
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472



COLORS & SURFACES

BULLNOSE GLASS SECTION
DECORATING FACADE

1. ALUMINUM PANEL WHITE
2. WOOD GRAIN METAL TRIM (FRONTIER)
3. NATURAL REAL COPPER PANEL
4. ALUMINUM PANEL GREY
5. ALUMINUM PANEL GREY
6. ALUMINUM PANEL GREY
7. ULTRA CLEAR VISION GLASS
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10. ULTRA CLEAR VISION DOOR GLASS
11. 1/2" CLEAR TEMPERED GLASS GUARD RAIL

For finishes and colors refer to picture and / or the building in place

West Elevation

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
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DRAWING LIST

S - 7	
S - 6	Anchoring / Pining Detail
S - 5	Sections & Detail
S - 4	Steel Frame Members Size
S - 3	Structural Modular Layout Location
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A - 7	
A - 6	Landscape Driveways Utilities and Parking
A - 5	
A - 4	
A - 3	South and North Elevation
A - 2	West Elevation
A - 1	East Elevation

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

WEST ELEVATION

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINITECH ENGINEERING INC.
LEO T. TORRENTE P. ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P. ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA CTECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINEERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINEERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

BC BC Code Consultant
NOVEN CONSULTING INC.
PEDRAM FAGHANI MASc, P. Eng., CP

PROFESSIONAL SEAL

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 250	DRAWING NO. A - 2
DRAWN BY :	REVISIONS: April 5 2024
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472

COLORS & SURFACES

BULLNOSE GLASS SECTION
DECORATING FACADE

1. ALUMINUM PANEL WHITE
2. WOOD GRAIN METAL TRIM (FRONTIER)
3. NATURAL REAL COPPER PANEL
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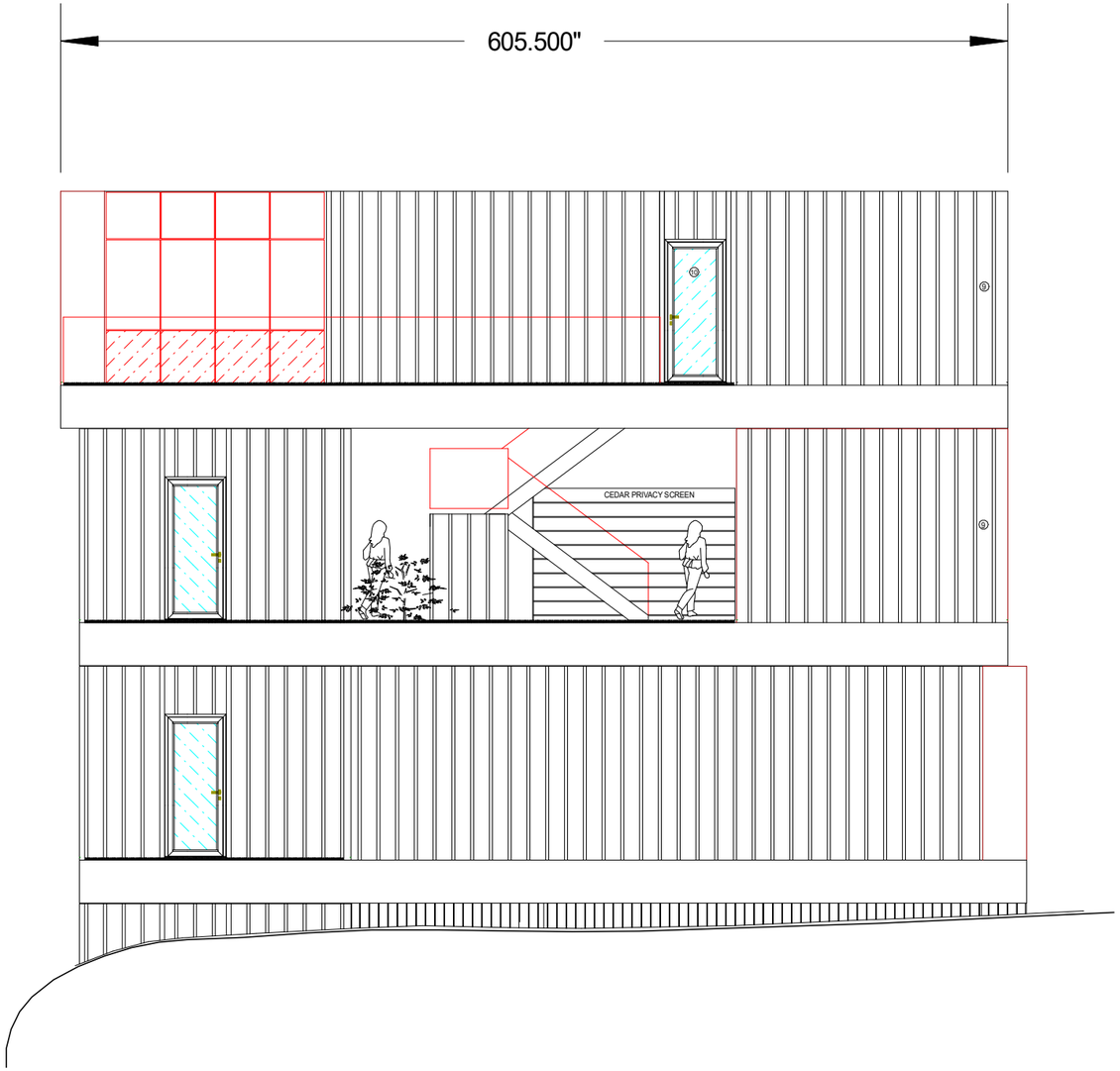
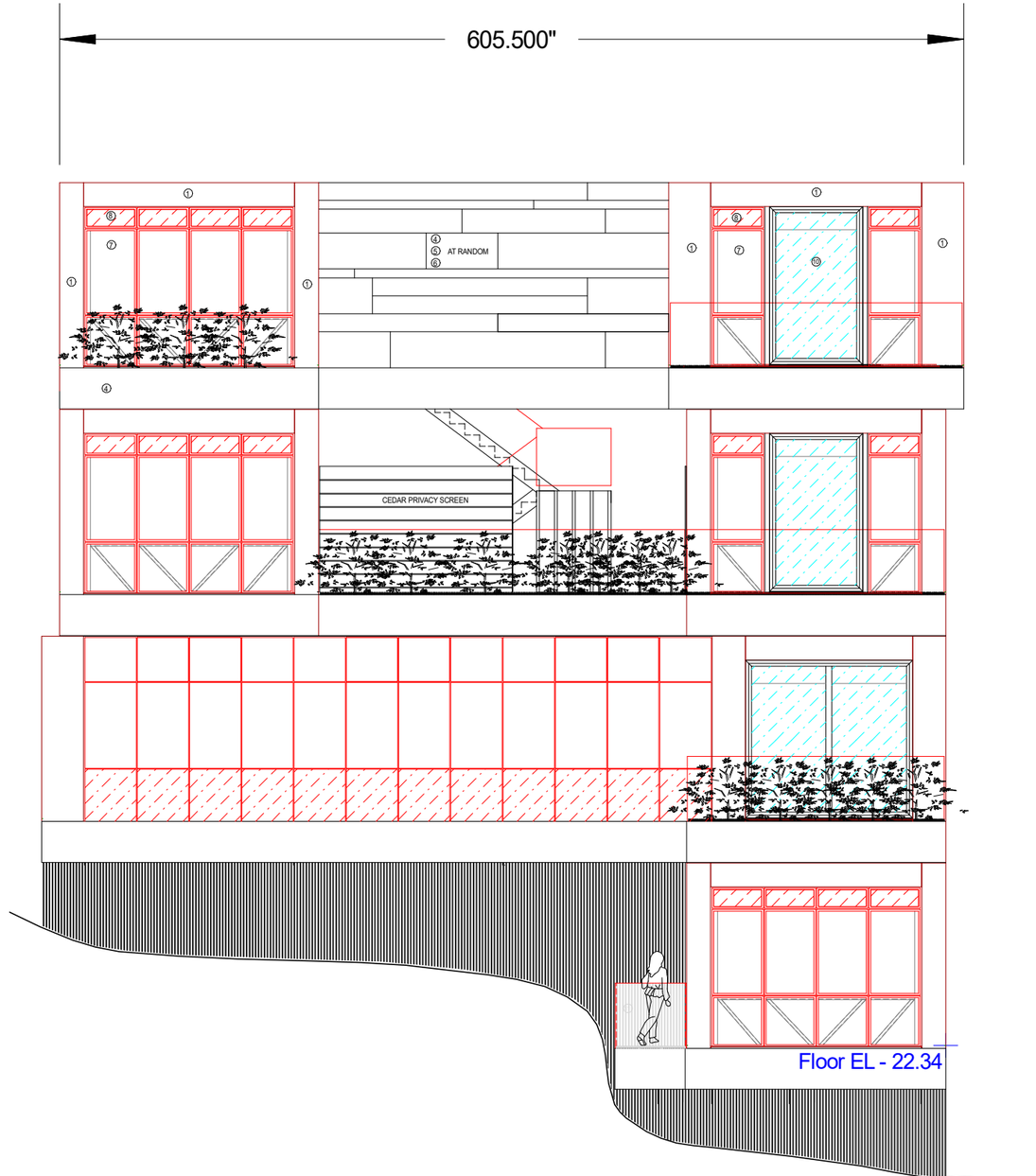
11. 1/2" CLEAR TEMPERED GLASS GUARD RAIL



North Elevation



South Elevation

For finishes and colors refer to picture and / or the building in place

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

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A - 1	East Elevation

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

SOUTH & NORTH ELEVATION

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINITECH ENGINEERING INC.
LEO T. TORRENTE P. ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P. ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA CTECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

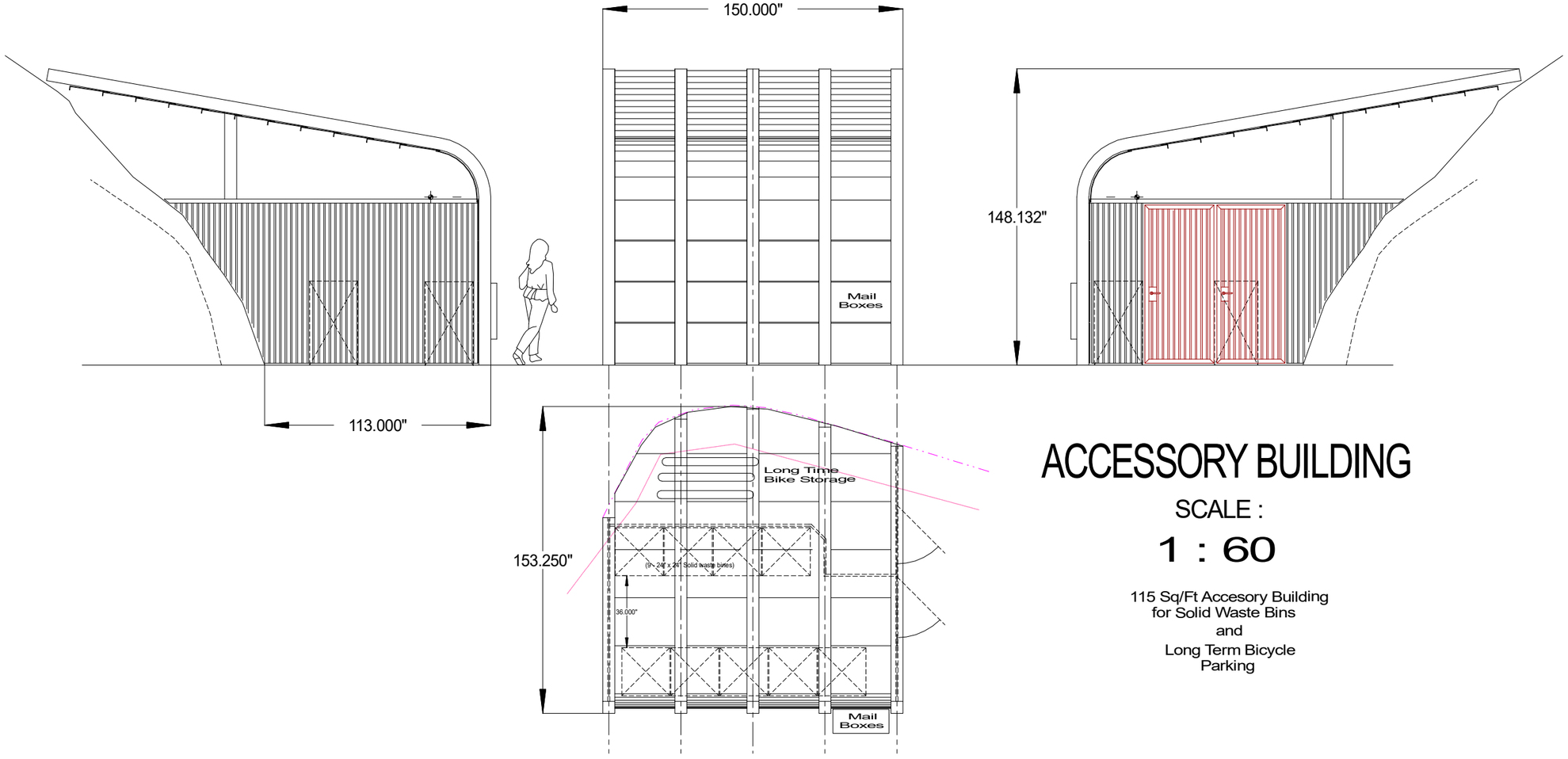
BC BC Code Consultant
NOVIN CONSULTING INC.
PEDRAM FAGHANI MASc, P. Eng., CP

PROFESSIONAL SEAL

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 250	DRAWING NO. A - 3
DRAWN BY :	REVISIONS: April 5 2024
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472



ACCESSORY BUILDING

SCALE :

1 : 60

115 Sq/Ft Accesory Building
for Solid Waste Bins
and
Long Term Bicycle
Parking

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS

CSA W 47.1 CSA A 660 CSA 277

QAI Listing REC 741

15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
5			
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2			
1			

DRAWING LIST

S - 7	
S - 6	Anchoring / Pining Detail
S - 5	Sections & Detail
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A - 7	
A - 6	Landscape Driveways Utilities and Parking
A - 5	
A - 4	
A - 3	South and North Elevation
A - 2	West Elevation
A - 1	East Elevation

PROJECT

BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

ACCESSORY BUILDING

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINTECH ENGINEERING INC.
LEO T. TORRENTE P. ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P. ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA CTECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINEERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINEERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM RUSCH (Construction Manager)

BC BC Code Consultant
NOVEN CONSULTING INC.
PEDRAM FAGHANI MASc , P.Eng , CP

PROFESSIONAL SEAL

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 60	DRAWING NO. A - 8
DRAWN BY :	REVISIONS April 5 2024
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472

ATTACHMENT 4

Boundary Consulting Services Ltd.

August 30, 2022
BCS-0081

Gregory Palamarz
1344128 B.C. Ltd.
1371 Knox Way
Richmond, BC V6V 3A8

e. greg@panelex.ca | t. 604.307.4472

Re: GEOTECHNICAL HAZARD ASSESSMENT – MULTI-FAMILY RESIDENTIAL STRUCTURE
5750 Anchor Road, Sechelt, BC

INTRODUCTION

Boundary Consulting Services Ltd. (BCS) presents the following document summarizing the results of a recent geotechnical hazard assessment performed for a proposed multi-family residential structure on 5750 Anchor Road in Sechelt, BC. The intent of this document is to provide the Client (1344128 B.C. Ltd.) with the information required for design and permitting for the proposed structure.

SCOPE

The scope for this project included:

1. An initial site meeting with the Client's representative to review, conceptually, the Client's plans for development;
2. A surficial site reconnaissance to collect relevant information on lot layout, existing development, proposed development, topography, vegetation, surface water, access, and surficial soil/rock outcropping;
3. A subsurface assessment including test pitting in three locations on the lower bench of the lot where thicker soil deposits are present. This included general observation for geotechnical conditions. Sampling and testing were not required and were not conducted;
4. A background study to review any additional available information regarding topography, vegetation, geologic setting, seismicity, and stratigraphic progression, amongst others;
5. Qualitative hazard analysis to determine the potential for geotechnical hazard development that may impact the proposed development;
6. Quantitative hazard analysis where required to further define potential hazardous conditions that may impact the proposed development;

7. Geotechnical engineering analysis to determine the geotechnical engineering design parameters to provide the Client for structural design; and,
8. Preparing a report summarizing the above details for use by the Client in design and permitting.

METHODOLOGY

A BCS technical representative met with the Client onsite on January 7, 2022. During this site visit, the representative and the Client review the Client's plans for development.

A BCS technical representative returned to site on January 14, 2022 During this site visit, the representative excavated three test pits (location shown in Appendix B). No sampling or laboratory testing was performed during test pitting as it was not required for determination of geotechnical or geotechnical hazard parameters. The representative collected information on topography, lot layout, vegetation, surficial soil/rock outcropping, development layout, and other information relevant to geotechnical engineering.

BCS conducted a background study of the available information on and near the lot to supplement the information collected during site reconnaissance. This included reviewing topographic maps, geologic maps, zoning maps, water well databases, flood maps, and other information critical to geotechnical hazard review and/or geotechnical analysis.

BCS performed a qualitative analysis of hazards to provide a basic determination of what hazards the site may be subject to, and to determine if further analysis would be required for site specific hazard determination or building component design. The qualitative analysis was performed using methodology as described in the Engineers and Geoscientists of British Columbia (EGBC) *Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC* (EGBC, 2010). Quantitative analysis was considered, but not required for the small-scale rock features onsite.

BCS created this report to summarize the results of the above components. This report is structured to provide the Client with the geotechnical engineering information required for design. It is also structured to provide the Client with the information required to apply for a Development Permit (DP) at the Authority Having Jurisdiction (AHJ, the District of Sechelt). Specifically, this is intended to satisfy the pre-development requirements for Development Permit Area (DPA) #3 – Marine Foreshore and Shoreline Areas and DPA #4 – Rocky Beach Front, Escarpments, and Slope Hazards.

LOT DESCRIPTION

The Lot that is the subject of this study is located at 5750 Anchor Road in Sechelt, BC (Lot 21, Block 10, District Lot 304, Plan VAP17781). The Lot is roughly rectangular with a frontage and depth of 29 m and 52 m, respectively. The Lot has an area of approximately 0.17 ha. It is bound on its western lot line with a strata development, on its eastern lot line by a vacant lot, on its northern lot line by a strata street, and

on its southern side by Anchor Road. The Lot's legal frontage currently exists on Anchor Road. Access to the Lot is provided either through its frontage or through its northern confluence with the strata road (SCRD, 2022).

EXISTING DEVELOPMENT

The Lot does not contain any existing development. It has been previously cleared of vegetation and was partially levelled as part of site preparation work in early 2022.

PROPOSED DEVELOPMENT

The Client intends to construct a new multi-family residential structure on the Lot. The development will be constructed out of modular structural units. These units will be assembled on shallow pier foundations pinned directly to bedrock. The Client intends to proceed in a phased development and is currently constructing one unit.

This report covers review of the first unit of the development – a detailed unit layout of the remaining units was not available at the time of this report. Each unit will require individual approval from a qualified geotechnical professional, which can be made in addendum to this report. The layout of the first unit is provided in Appendix C of this report.

The Client intents to develop the Lot with minimal disturbance to the existing rock and soil structures onsite. The lower area of the site has been previously regraded, and the Client is intending this area eventually be developed into a parking lot or similar access. This component should be reviewed when presented (it has not been presented at the time of this report). The remaining units will be placed on pier foundations in a manner that agrees with existing site grade to minimize grading work. The proposed work for this project does not include substantial grading or blasting (greater than 5 m^3).

TOPOGRAPHY

The local topography of the Lot can be described as a benched bedrock surface landing in overburden at the base of site. This surface slopes from northwest downward southeast starting at 39 masl ending at 16 masl on a benched slope with an average gradient of 35%. There is not sufficient resolution on the aerial topographic imagery to describe each bench in detail. These benches extend from southeast to northwest each approximately 20 m wide x 5 m tall. The top two benches consist of bedrock. The bottom bench consists of overburden soil (SCRD, 2022).

The global topography of the area around the Lot generally slopes from west downward east starting near 130 masl in West Sechelt extending to 17 masl near site with an overall gradient of 6%. Near site, the topography delineates into a small knoll. The Lot is situated on the slope of this knoll. The base of the site is near the base of the knoll, the crest of the site is near the crest of the knoll (SCRD, 2022).

VEGETATION

The Lot has been cleared of the natural forest prevalent in the area. There is no established canopy remaining onsite. The remaining vegetation consists of a ground cover of mostly invasive species of herbs, forbs, and woody stemmed plants. Some of this vegetation was stripped and grubbed as part of the site visit described above. Vegetation provides no indication to geotechnical hazard and is not expected to effect geotechnical hazard conditions in an adverse manner.

SURFACE WATER/DRAINAGE

There was no surface water present at the time of the preliminary assessment site reconnaissance. There are no signs of defined surface water features that are a concern for geotechnical conditions.

SOIL AND ROCK

The subsurface investigation included excavation of three test pits. The location of these test pits is provided in the appended documents to this letter (Test Pit Location Map). The results of the test pit investigation indicated the following stratigraphy below site to the maximum excavation depth of 2.0 m:

<u>Podzol/Organic Soil:</u>

A PODZOL/ORGANIC SOIL horizon is present onsite between 0.0 mbgs and 0.3 mbgs. This material consists of sand, some gravel, some silt, some organics, brown to dark brown, non-plastic, non-dilatant, loose, mixed, bedded with rotting organics. This layer is a mixture of natural and non-natural deposits and is expected to vary in thickness throughout site. No laboratory testing was performed on this material. The material is not suitable for use as structural bearing and would not be preferable for use as road or access subgrade. Direction has been provided to the Client to either grub and dispose this material or to stockpile this material for later use.

<u>Gravelly Sand:</u>

A GRAVELLY SAND horizon is present onsite between 0.3 mbgs and 1.9 mbgs. This material consists of gravelly sand, trace cobble, trace boulder, trace silt, brown to light brown, non-plastic, non-dilatant, compact to dense, mixed. This layer is native in origin and varies in thickness throughout site with ground and rock profile. No laboratory testing was performed on this material. This material is suitable for use as structural bearing and would be suitable for use as road or access subgrade. Direction has been provided to the Client that this layer is suitable for bearing or reuse around site as structural fill, where clean.

Gravel:

A GRAVEL horizon was found in TP21-01 only at the very base of the test pit at 1.9 mbgs to 2.0 mbgs. This material consists of gravel, some sand, some cobble, trace boulder, trace silt, brown, non-plastic, non-dilatant, very dense, mixed. This layer is native in origin and cannot be reliably predicted for depth without further test pitting. No laboratory testing was performed on this material. This material is suitable for use as structural bearing and would be suitable for use as a road or access subgrade. The excavator refused in this layer, which is an indication that the profile is likely getting close to encountering rock. Direction has been provided to the client that this layer is suitable for bearing but not likely reuse as structural fill due to its boniness.

Granite:

GRANITE outcropping is present throughout site though was not encountered in the test pits excavated at the base of the middle bench. This rock is generally considered intact, very strong, massive, with closely gapped non-weathered discontinuities. The reviewer could not find any locations of recent bedrock calving, topple, or other instability events. A large pile of granite rubble exists at the eastern base of site, though this is expected to be remnant construction debris from a different project. The rock is considered suitable for structural bearing and would be suitable for use as road or access subgrade.

GROUNDWATER

No groundwater was encountered during the subsurface investigation. If groundwater is encountered during site preparation, it should be reviewed for importance by a qualified professional.

SEISMICITY

The current version of the BC Building Code (British Columbia Municipal Affairs and Housing, 2018) references data and information from the 2015 Earthquake Hazard Calculator (Government of Canada, 2022). The calculator uses site location and the earthquake monitoring database to determine the likely spectral responses to defined return seismic events. These values are provided in below, and in further detail in Appendix B.

Latitude:	49.482° N
Longitude:	123.760° W
Peak Ground Acceleration:	0.357g
Peak Ground Velocity:	0.548 m/s
Spectral Acc. Response Values:	SA(0.2)=0.816g, SA(0.5)=0.736g, SA(1.0)=0.428g, SA(2.0)=0.262g

The interaction between seismic motion and the top 30 m of soil influences seismic design. The current BC Building Code accounts for this by applying a correction to the above values based on soil class type. This allows for these values, which are provided based on an expected Site Class C, to be adjusted to

account for different soil conditions. The soils encountered during the subsurface investigation indicates that the subject lot is Site Class B – Rock. This correlates to the following design coefficients (Canadian Geotechnical Society, 2012):

Seismic Coefficients: FA=0.9, Fv=0.8

The newest proposed version of the National Building Code (2020), which is yet to be released and used provincially, uses information from a newer 2020 Earthquake Hazard Calculator. This tool has improved on the 2015 calculator by adding new data from monitoring programs, new design waveforms from earthquakes internationally, and more tools for data production and interpretation. The 2020 version allows the user to specify Site Class or Vs30 directly to correct for the difference in seismic response caused by difference in Site Class. The BC Building Code does not currently contain the information and equations to use this new calculator, but the data has been included for reference and use in geotechnical analysis. Changes to peak ground acceleration are particularly useful for a more realistic understanding of slope stability responses to seismic movement.

Latitude:	49.482° N
Longitude:	123.760° W
Peak Ground Acceleration:	0.367g
Peak Ground Velocity:	0.332 m/s
Spectral Acc. Response Values:	SA(0.2)=0.832g, SA(0.5)=0.717g, SA(1.0)=0.3g, SA(2.0)=0.192g

QUALITATIVE HAZARD ASSESSMENT

BCS conducted a qualitative assessment of hazards present in the project area. The intent of this qualitative assessment was to determine which hazards are applicable to site, their relative probability of occurrence, and if any further study would be required to determine hazard susceptibility. Qualitative assessments involve the determination of relative susceptibility based on desktop study, field study, sound engineering judgement, and local experience. The results of qualitative analyses are typically used as a precursor to determine if and which quantitative methods should be used for hazard determination.

BCS conducted a qualitative assessment of the project area for the following geotechnical hazards:

1. Creek/river flooding;
2. Creek/river erosion;
3. Debris flow/floods;
4. Small scale localized landslide;
5. Snow avalance;
6. Rock fall/instability; and,
7. Liqeufaction.

Each hazard was reviewed independently to determine the qualitative probability of impact to the proposed project.

The criterion for qualitative evaluation of hazards is generally considered subjective, and there are many applicable standards for use and comparison in qualitative evaluation. It is important to note that the qualitative hazard review for this project is used as a screening tool for further quantitative evaluation.

EGBC (Engineers and Geoscientists of British Columbia, 2010) and the report on *Hazard Acceptability for Development Approvals by Local Government* prepared by Dr. Peter W. Cave (Cave, 1993) provide guidelines for assessment and reporting of qualitative hazard assessment. Qualitative assessment commonly utilizes relative terms and return period ranges to identify potentially hazardous areas, and the associated actions required in assessment.

These relative terms and return period ranges can be compared to the information provided in Table 1 prepared by the Resource Inventory Committee, Government of British Columbia Slope Task Force (Resource Inventory Committee, British Columbia, 1996).

Table 1: Relative terms and ranges of probability of occurrence.

Relative Term of Probability of Occurrence	Estimated Annual Probability of Occurrence	Comments
Very Low	< 1 in 2,500 years	-
Low	1 in 2,500 years to 1 in 500 years	Indicates the hazards is of uncertain significance.
Moderate	1 in 500 years to 1 in 100 years	Indicates the hazard within a given lifetime is not likely, but possible. Signs of previous events, such as vegetation damage, may not be easily noted.
High	1 in 100 years to 1 in 20 years	Indicates that the hazard can happen within the lifetime of a person or typical structure. Events are clearly identifiable from deposits and vegetation but may not appear fresh.
Very High	> 1 in 20 years	Indicates the hazard is imminent and well within the lifetime of a person or typical structure. Events occurring within a return period of 1 in 20 years or less generally have clear and fresh signs of disturbance.

Table 2 provides the results of the qualitative hazard assessment for the site containing the proposed construction. These results are based on the information provided in the site reconnaissance, desktop study, and drawing review.

Table 2: Results of qualitative hazard review of the proposed building site.

Creek/River Flooding	Creek/River Erosion	Debris Flow/Flood	Small Scale Landslide	Snow Avalanche	Rock Instability	Rock Fall	Catastrophic Landslide
Very Low	Very Low	Very Low	Very Low	Very Low	Moderate	Moderate	Very Low

Based on the results of the qualitive assessment, further quantitative analysis was deemed required to determine susceptibility of the proposed construction to rock instability and rock fall.

QUANTITATIVE HAZARD ASSESSMENT

Rock instability and rock fall are of sufficient qualitative probability to merit review from a quantitative perspective. However, the relatively small nature of the rock features onsite limits the creation and progression of either rock instability or rockfall. Additionally, the overall slope at 35% is already barely conducive to propagation of rockfall particles, and even less so across the benches throughout site. Quantitative models at this scale are rarely productive and don't provide further information to the reviewer.

DEVELOPMENT SITING

The results of the geotechnical hazard assessment indicate that the proposed first unit of the multi-family residential structure is situated in a location that is not subject to natural geotechnical hazard.

Most of the rock instability and rockfall hazards present onsite can be attenuated through site specific placement review, site modification (where required), and protection devices (where required). Review of the plans created for this report, for the existing unit, are considered in compliance with the requirements from a rock instability and rockfall perspective, and may be considered safe for intended use with registered covenants requiring:

1. Blasting – All blasting must be performed under the supervision of a qualified blasting professional. This includes registration and review of a blast plan with the District of Sechelt, and registry of that plan under a relevant development permit. All blasting activities should be evaluated for monitoring and/or inspection by a qualified professional.

2. Approval of Future Sites – The placement of all future units must be approved in writing by a qualified geotechnical professional either in the form of a new geotechnical hazard assessment or in addendum to this report.

3. Final Approval of Completed Structures – In case review practices change, this development will always require written review from a qualified geotechnical professional prior to completion of the development permit or provision of the permission to occupy. The

4. Protection of Nearby Structures –Site grading activities, especially those occurring on or above the rock benches, must be accomplished under the scheduled field review of a qualified geotechnical professional to ensure downslope structures or infrastructure is protected from rockfall.

SITE PREPARATION

The first unit of the proposed development will be placed near the centre of the site on a lower bedrock bench. To prepare for construction, the rock surface in the area should be cleared of overburden soil and pressure washed to expose the rock surface. The rock surface must be reviewed by a qualified geotechnical professional to ensure that the discontinuities in the rock surface don't provide localized conditions of rock instability below or above the development. The qualified professional must review the footing locations to ensure intactness of the rock surface. Further recommendations on preparing footing areas is provided in Foundation Design in this report.

EXCAVATION AND BLASTING

The Client is not planning on any major excavation or blasting as part of the work (less than one truckload of material, approximately 5 m^3). Should this change, this must be reviewed by a qualified blasting professional and/or a qualified geotechnical professional. Some minor scaling, chipping, and drilling is planned for the project, but this may be performed without specific specification other than cause no harm to existing structures. The nearby development to the west is situated directly on rock, and is not at risk of undermining from small excavation or blasting.

FOUNDATION DESIGN

The Client has requested that the structures be designed with shallow pier foundation units. These discrete foundation points will be placed directly on bedrock and pinned to the bedrock surface to limit uplift. The first unit of the multi-family residential structure, shown in Appendix B, currently shows all piers placed directly on rock surface. These piers may be designed with an allowable bearing capacity of 500 kPa based on an ultimate bearing capacity (unfactored) of 1,500 kPa (factored) 750 kPa. These values are based on a conservative interpretation of information provided in the Canadian Foundation Engineering Manual. No site-specific coring and testing were performed for the project. This process is generally more expensive than its resultant design change (Canadian Geotechnical Society, 2012).

The design calls for construction of small piers with structural pinning to rock. These appear to be features provided for uplift resistance. The structural design has not provided the assumptions used in design of these features. For the purpose of verification, the Structural Engineer should review this report and utilizing the Estimated Ultimate Bond Strength Rock-Grout of 500 kPa (Ostermayer & Barley, 2002).

SLABS ON GRADE

The proposed multi-family residential structure has a crawl space and is situated above grade. There are no slabs on grade currently planned for this structure or the overall development. Should this change, a qualified geotechnical professional should be contacted to review subgrade conditions and confirm requirements for drainage or envelope protection.

SURFACE AND SUBSURFACE DRAINAGE

Surface drainage features for the proposed multi-family residential structure will be designed by others.

The proposed multi-family residential structure will be situated on a shallow pier foundation and will not involve the construction of earth retaining walls either for basement walls or for grading. The foundation will be situated on a rock foundation not susceptible to frost heave. Accordingly, perimeter drains (foundation walls) or toe drains (retaining walls) may not be required for this project. This should be verified during construction by a qualified geotechnical professional.

All collected surface and subsurface drainage should be routed to an approved storm water collection point. This should be the District of Sechelt storm water sewer system. If no connection to the sewer is available, the Lot may be fitted with a rock pit to control and dissipate collected drainage. This system must be designed and/or reviewed by a qualified geotechnical professional.

BULK CUT/FILL

The proposed multi-family residential structure is currently planned to be placed on a shallow pier foundation directly on rock. The desired bearing subgrade is either at surface or near surface for most of the structure. Little bulk cut or fill (< 0.9 m depth) is planned as part of the construction of the first unit of the multi-family residential structure. Should this change, a cut/fill plan should be created and/or reviewed by a qualified geotechnical professional.

BACKFILL AND COMPACTION OF ENGINEERED BACKFILL

There is little bulk cut/fill planned or the development (< 0.9 m depth). There are no specific features currently visible in the Client's design that would constitute backfill or compaction of engineered fill; other than buried utilities, road access, and pedestrian access features. The Client should make themselves aware of the requirements and specifications required by the facilitators of these features. Where specifications are not provided and required by the Client or the District of Sechelt, they should be created and/or reviewed by a qualified geotechnical professional.

FIELD REVIEW

The recommendations provided in this report are considered to be part of a two phase engineering project including construction review. This office should be contacted upon completion of the architectural and structural drawing set for review in compliance with the geotechnical recommendations provided herein. Following completion of that review, BCS can provide a Schedule B to provide assurance of design and construction review for geotechnical engineering aspects of the project. As part of the scheduled professional process, BCS must be contacted for review of the following project components:

- Site clearing, preparation, and grading;
- Review of structure siting in consideration of geotechnical hazards and other requirements;
- Compacted engineered fill and backfilling;
- Foundation bearing capacity and subgrade;
- Drainage installation and permanent site dewatering (if required); and,
- Closure review following completion of all geotechnical components of construction.

(SCRD, 2022)

Constraints and Limitations

The recommendations in this report are provided with the understanding that the contractor will be suitably qualified and experienced to perform the proposed works. The analysis and recommendations submitted in this report are based in part on reconnaissance level site investigation and survey information's available at the time of the investigation. The nature and extent of variations across the site may not become evident until commencement of construction. If variations then become apparent, it may become necessary to re-evaluate the recommendations of this report. In the event of report revisions, additional funds may be required.

Stratigraphic variations in ground conditions are expected due to the depositional nature of soil deposits. As such, all explorations involve an inherent risk that some subsurface conditions may not be detected. It is the contractor's responsibility to notify this office in the case that unforeseen subsurface conditions are encountered during any stage of the proposed development of the subject site.

No other warranty, either expressed or implied, is made. If the project does not start within two years of the report date, the report may become invalid and further review may be required. This report has been prepared for the exclusive use of 1344128 B.C. Ltd. and their "Approved Users". BCS and its employees accept no responsibility to any party for loss or liability incurred as a result of use of this report. Any use of this report for purposes other than the intended should be approved in writing by BCS. Contractors should rely upon their own explorations for costing purposes.

This report is based on the information provided by the Client and/or the Client's consultant. BCS cannot accept responsibility for inaccuracies, misstatements, omissions and/or deficiencies in this report resulting from the sources of this information. This report assumes that BCS will be retained to review the geotechnical aspects of construction during the development of this lot.

Closure

We hope that this document provides the information required at this time. Should any further information be required please don't hesitate to contact our office.

Sincerely,

Boundary Consulting Services Ltd.

2022.08.30

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. A. SMALE

Benjamin Smale, P.Eng.
Geotechnical Engineer

Appendix A: Standard Limitations (2 pages)
Appendix B: Drawings (1 pages)
Appendix C: External Information (6 pages)
Appendix D: Site Photographs (4 pages)
Appendix E: Project Formwork (6 pages)

The Engineering content of this document has been produced following Boundary Consulting Services Ltd.'s documented quality management progress using engineering standards authenticated by the Professional of Record under Permit to Practice Number 1002593.

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APPENDIX A

Standard Limitations

STANDARD TERMS

Boundary Consulting Services Ltd.

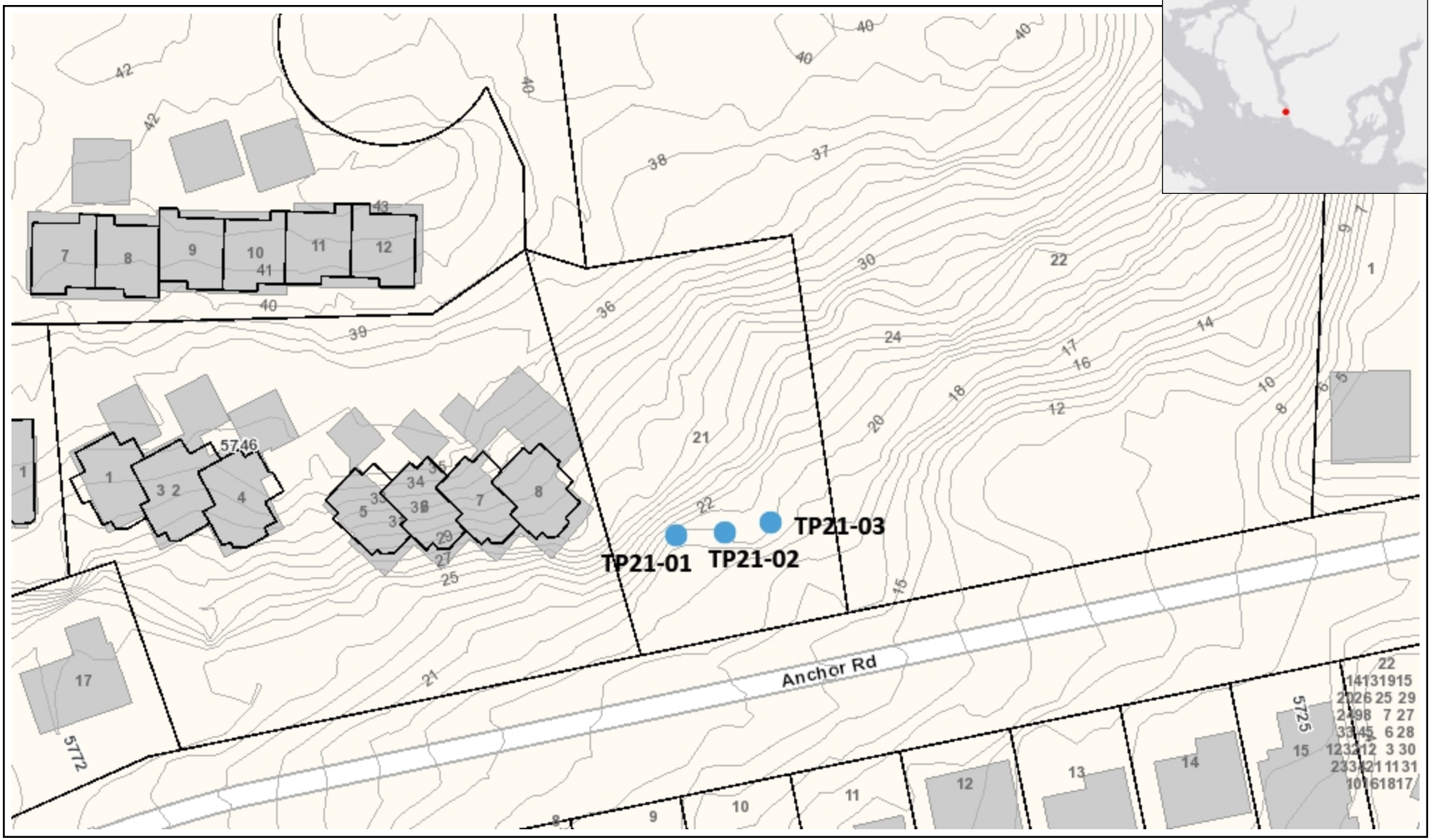
1. **General:** *Boundary Consulting Services Ltd.. (*BOUNDARY*)* shall render the Services, as specified in the attached Scope of Services, to the client for this Project in accordance with the following terms of engagement. BOUNDARY may, at its discretion and at any stage, engage sub-consultants to perform all or any part of the Services.
2. **Representatives:** Each party shall designate a representative who is authorized to act on behalf of that party and receive notices under this Agreement.
3. **Authorization to Proceed:** Ordering of work over the telephone or by written instructions will serve as authorization for BOUNDARY to proceed with the services called for in this proposal and agreement with the terms. This Agreement, including attachments incorporated herein by reference, represents the entire agreement between BOUNDARY and Client. This Agreement may be altered only by written instrument signed by authorized representatives of both Client and BOUNDARY.
4. **Extent of Agreement:** Work beyond the scope of services or redoing any part of the project through no fault of BOUNDARY, shall constitute extra work and shall be paid for on a time-and-materials basis in addition to any other payment provided for in this Agreement. If, during the course of performance of this Agreement, conditions or circumstances are discovered which were not contemplated by BOUNDARY at the commencement of this Agreement, BOUNDARY shall notify Client in writing of the newly discovered conditions or circumstances, and Client and BOUNDARY shall renegotiate, in good faith, the terms and conditions of this Agreement.
5. **Compensation**: Charges for the Services rendered will be made in accordance with BOUNDARY Schedule of Fees and Disbursements in effect from time the services are rendered. BOUNDARY Schedule of Fees and Disbursements are included in BOUNDARY Budget Estimate. All charges will be payable in Canadian Dollars. BOUNDARY shall invoice the Client on a monthly basis for the services performed under this Agreement and shall provide a monthly summary of costs to date. The Client shall pay such invoice upon receipt. Invoices not paid within thirty (30) days of the invoice date shall be subject to a late payment charge of 1.5 percent per month (18% per annum) from date of billing until paid. The invoice amounts shall be presumed to be correct unless Client notifies BOUNDARY in writing within fourteen (14) days of receipt. Overdue accounts over 90 days will be forwarded to a collections agency.
6. **Probable Costs:** BOUNDARY does not guarantee the accuracy of probable costs for providing Engineering Services. Such probable costs represent only BOUNDARY as a Professional and are supplied only for the general guidance of the Client.
7. **Standard of Care:** BOUNDARY shall perform its services in a manner consistent with the standard of care and skill ordinarily exercised by members of the profession practicing under similar conditions in the geographic vicinity and at the time the services are performed. This Agreement neither makes nor intends a warranty or guarantee, expressed or implied.
8. **Indemnity:** Client waives any claim against BOUNDARY, its officers, employees and agents and agrees to defend, indemnify, protect and hold harmless BOUNDARY and its officers, employees and agents from any and all claims, liabilities, damages or expenses, including but not limited to delay of the project, reduction of property value, fear of or actual exposure to or release of toxic or hazardous substances, and any consequential damages of whatever nature, which may arise directly or indirectly, to any party, as a result of the services provided by BOUNDARY under this Agreement, unless such injury or loss is caused by the sole negligence of BOUNDARY.
9. **Limitation of Liability:** Client agrees to limit BOUNDARY and its officers, employees, and agents liability due to professional negligence and to any liability arising out of or relating to this Agreement to Fifty Thousand Dollars ($50,000) or the amount of BOUNDARY fee, whichever is less. This limit applies to all services on this project, whether provided under this or subsequent agreements, unless modified in writing, agreed to and signed by authorized representatives of the parties. No claims may be brought against BOUNDARY in contract or tort more than two (2) years after Services were completed or terminated under this engagement. Note: BOUNDARY will not be responsible for water ingress related problems as our insurance policy contains an Absolute Water Ingress Exclusion.
10. **Additional Limits:** For special projects, higher liability limits are available from our underwriter for an additional fee.
11. **Insurance:** BOUNDARY warrants it is protected by WorkSafe BC Insurance, General Liability Insurance, Professional Errors and Omissions Insurance, and Automobile Liability Insurance. Certificates for such policies of insurance shall be provided to the Client upon request.
12. **Responsibility:** BOUNDARY is not responsible for the completion or quality of work that is dependent upon or performed by the Client or third parties not under the direct control of BOUNDARY, nor is BOUNDARY responsible for their acts or omissions or for any damages resulting therefrom. BOUNDARY shall not be responsible for:
    a. The failure of a contractor, retained by the Client, to perform the work required for the Project in accordance with the applicable contract documents;
    b. The design of or defects in equipment supplied or provided by the Client for incorporation into the Project
    c. Any cross-contamination resulting from subsurface investigations;
    d. Any damage to subsurface structures and utilities which were identified and located by the Client;
    e. Any Project decisions made by the Client if the decisions were made without consultation of BOUNDARY or contrary to or inconsistent with BOUNDARY recommendations;
    f. Any consequential loss, injury, or damages suffered by the Client, including but not limited to loss of use, earnings, and business interruption; and,
    g. The unauthorized distribution of any document or report prepared by or on behalf of BOUNDARY for the exclusive use of the Client.

13. **Exclusive Use:** Services provided under this Agreement, including all reports, information or recommendations prepared or issued by BOUNDARY, are instruments of service for the execution of the Project. BOUNDARY retains the property and copyright in these documents, whether the Project is executed or not. No other use of these documents is authorized under this Agreement without the prior written agreement of BOUNDARY.
14. **Samples:** All non-consumed samples shall remain the property of the Client, and Client shall be responsible for and promptly pay for the removal and lawful disposal of samples, cuttings and hazardous materials, unless otherwise agreed in writing. If appropriate, BOUNDARY shall preserve samples obtained for the project for not longer than thirty (30) days after the issuance of any document that includes the data obtained from those samples.
15. **Environmental**: BOUNDARY's field investigation, laboratory testing and engineering recommendations will not address or evaluate pollution of air, soil and/or groundwater, unless otherwise specifically listed in the attached Scope of Services. BOUNDARY will co-operate with the Client's environmental consultant during field work phase of the investigation.
16. **Field Services:** Where applicable, field services recommended for the Project are the minimum necessary, in the sole discretion of BOUNDARY, to review whether the work of a contractor retained by the client is being carried out in general conformity with the intent of the Services. Any reduction from the level of services recommended will result in BOUNDARY not providing qualified certifications for the work.
17. **Termination:** This Agreement may be terminated by either party upon ten (10) days written notice to the other. In the event of a termination, the Client shall pay for all reasonable charges for work performed and demobilization by BOUNDARY to the date of notice of termination. The limitation of liability and indemnity obligations of this Agreement shall be binding notwithstanding any termination of this Agreement.
18. **Dispute Resolution:** If requested in writing by either the Client or BOUNDARY, the Client and BOUNDARY shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by entering into structured, non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. If a dispute cannot be settled within a period of thirty (30) calendar days with the mediator, the dispute shall be referred to and finally resolved by arbitration under the rules of British Columbia or by an arbitrator appointed by agreement of the parties or by reference to a Judge of the Supreme Court of British Columbia.
19. **Governing Law:** This Agreement is governed by the law British Columbia, and any litigation shall be brought and tried in, the judicial jurisdiction of the BOUNDARY office that entered this Agreement, as stated herein.
20. **Non-Solicitation:** The Client agrees they shall not recruit for employment or hire any BOUNDARY employees who provide services pursuant to this Agreement during the term of this Agreement and for a period of one (1) year following its termination.

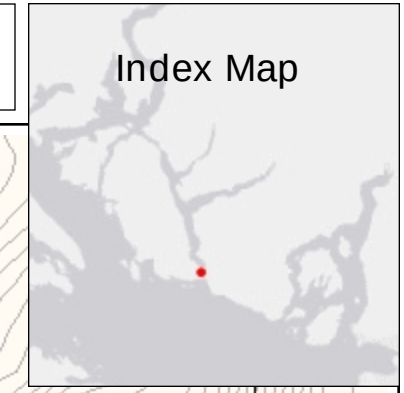
APPENDIX B

Drawings

Test Pit Locations



Index Map



37.3 0 18.63 37.3 Meters

This information has been compiled by the Sunshine Coast Regional District (SCRD) using data derived from a number of sources with varying levels of accuracy. The SCRD disclaims all responsibility for the accuracy or completeness of this information.

1/28/2022

1: 734

Legend

- Parcel Boundaries
- Contours
- Unconstructed Roads
- Golf Courses
- Parks
  - SCRD Park
  - Recreation Site
  - Municipal Park
  - Provincial Park
  - Wharf
  - Cemetery
- Band Lands

APPENDIX C

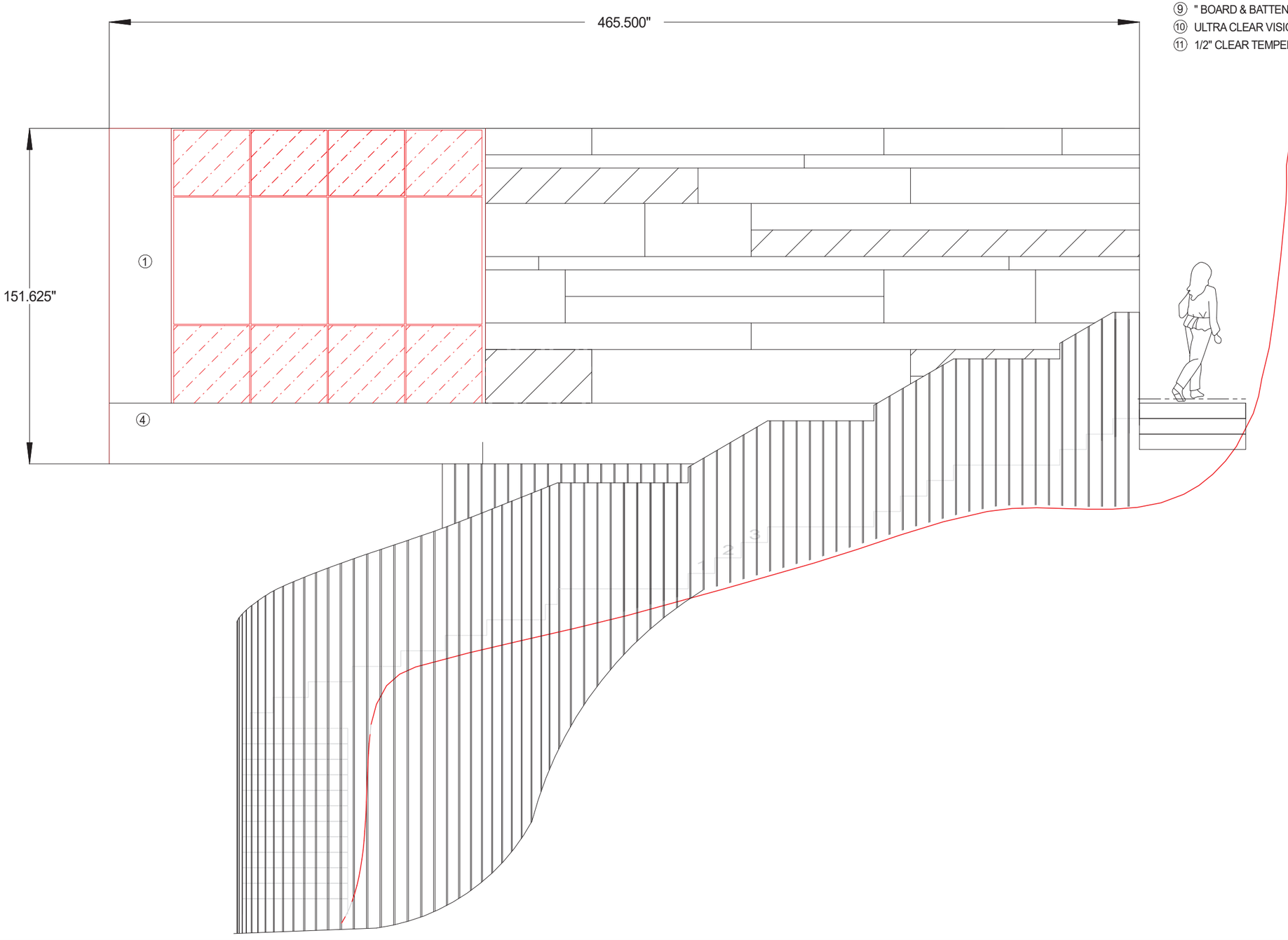
External Information

COLORS & SURFACES

BULLNOSE GLASS SECTION

DECORATING FACADE

1. ALUMINUM PANEL WHITE
2. WOOD GRAIN METAL TRIM (FRONTIER)
3. NATURAL REAL COPPER PANEL
4. ALUMINUM PANEL GREY
5. ALUMINUM PANEL GREY
6. ALUMINUM PANEL GREY
7. ULTRA CLEAR VISION GLASS
8. GREY SPANDREL GLASS
9. " BOARD & BATTEN " METAL CLADDING (SLATE GREY)
10. ULTRA CLEAR VISION DOOR GLASS
11. 1/2" CLEAR TEMPERED GLASS GUARD RAIL



Note: This seal applies to structural components only

PRIMEX INDUSTRIES INC.

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS

CSA W 47.1 CSA A 660 CSA 277

QAI Listing REC 741

15371 KNOX WAY , RICHMOND BC V6V 3A8

(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
10			
9			
8			
7			
6			
5			
4			
3			
2			
1			

DRAWING LIST

S - 4	
S - 3	
S - 2	
S - 1	Foundation - Anchoring Detail
A - 7	
A - 6	
A - 5	Access and Egress Exit
A - 4	Floor Plan
A - 3	Elevation South and North
A - 2	Elevation West
A - 1	Elevation East

PROJECT

BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

Elevation East

TEAM

DESIGNER	GREGORY PALAMARZ ENG. R&D
STRUCTURAL	KINTECH ENGINEERING INC. LEO T. TORRENTE P.ENG
GEOTECHNICAL	BOUNDARY CONSULTING SERVICES LTD. BENJAMIN SMALE P.ENG
BCBC COMPLIANCE	QAI LABORATORIES LISTING # REC 741
FIRE CEILING AND WALLS	QAI LABORATORIES LAWRENCE GIBSON P.ENG
STORM AND SANITARY	SUNCO CIVIL CONSULTING LTD. MICHAEL COSTA CTECH
LAND SURVEY	BENNETT LAND SURVEYING LTD. SHAUN CARSON
ENERGY EFFICIENCY	ENFORMA ENGINEERING LTD. MIKHAEL HORVATH P.ENG
ELECTRICAL MAIN SERVICE	PARALYNX ENGINEERING INC. GREG LYNCH P.ENG
FIRE PROTECTION (Sprinkler System)	THE GISBORNE GROUP TIM BUSCH (Construction Manager)

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER PROVINCE OF L. T. TORRENTE # 48527

August 26, 2022

Permit to Practice # 1002693

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 48 (1/4" = 1')	DRAWING NO. A - 1
DRAWN BY :	REVISIONS
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472

COLORS & SURFACES

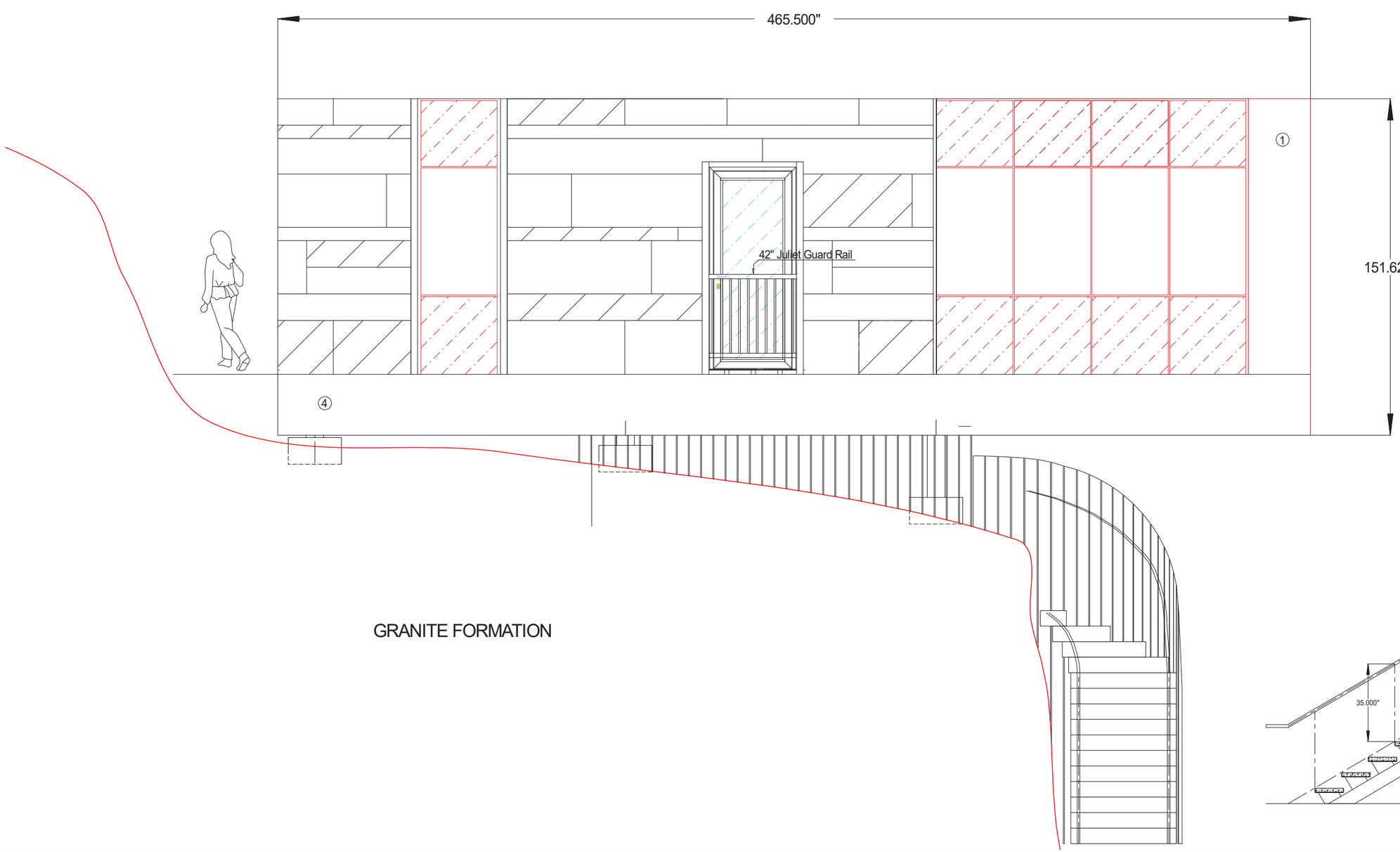
BULLNOSE GLASS SECTION

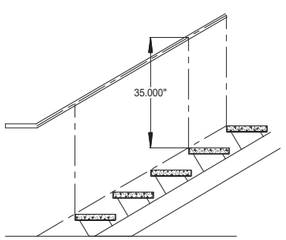
① ALUMINUM PANEL WHITE
② WOOD GRAIN METAL TRIM (FRONTIER)

DECORATING FACADE

③ NATURAL REAL COPPER PANEL
④ ALUMINUM PANEL GREY
⑤ ALUMINUM PANEL GREY
⑥ ALUMINUM PANEL GREY

⑦ ULTRA CLEAR VISION GLASS
⑧ GREY SPANDREL GLASS
⑨ " BOARD & BATTEN " METAL CLADDING (SLATE GREY)
⑩ ULTRA CLEAR VISION DOOR GLASS
⑪ 1/2" CLEAR TEMPERED GLASS GUARD RAIL





Note: This seal applies to structural components only

PRIMEX INDUSTRIES INC.
DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
10			
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1			

DRAWING LIST

S - 4	
S - 3	
S - 2	
S - 1	Foundation - Anchoring Detail
A - 7	
A - 6	
A - 5	Access and Egress Exit
A - 4	Floor Plan
A - 3	Elevation South and North
A - 2	Elevation West
A - 1	Elevation East

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

Elevation West

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINTECH ENGINEERING INC.
LEO T. TORRENTE P.ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P.ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA CTECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINEERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINEERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L. T. TORRENTE
48527

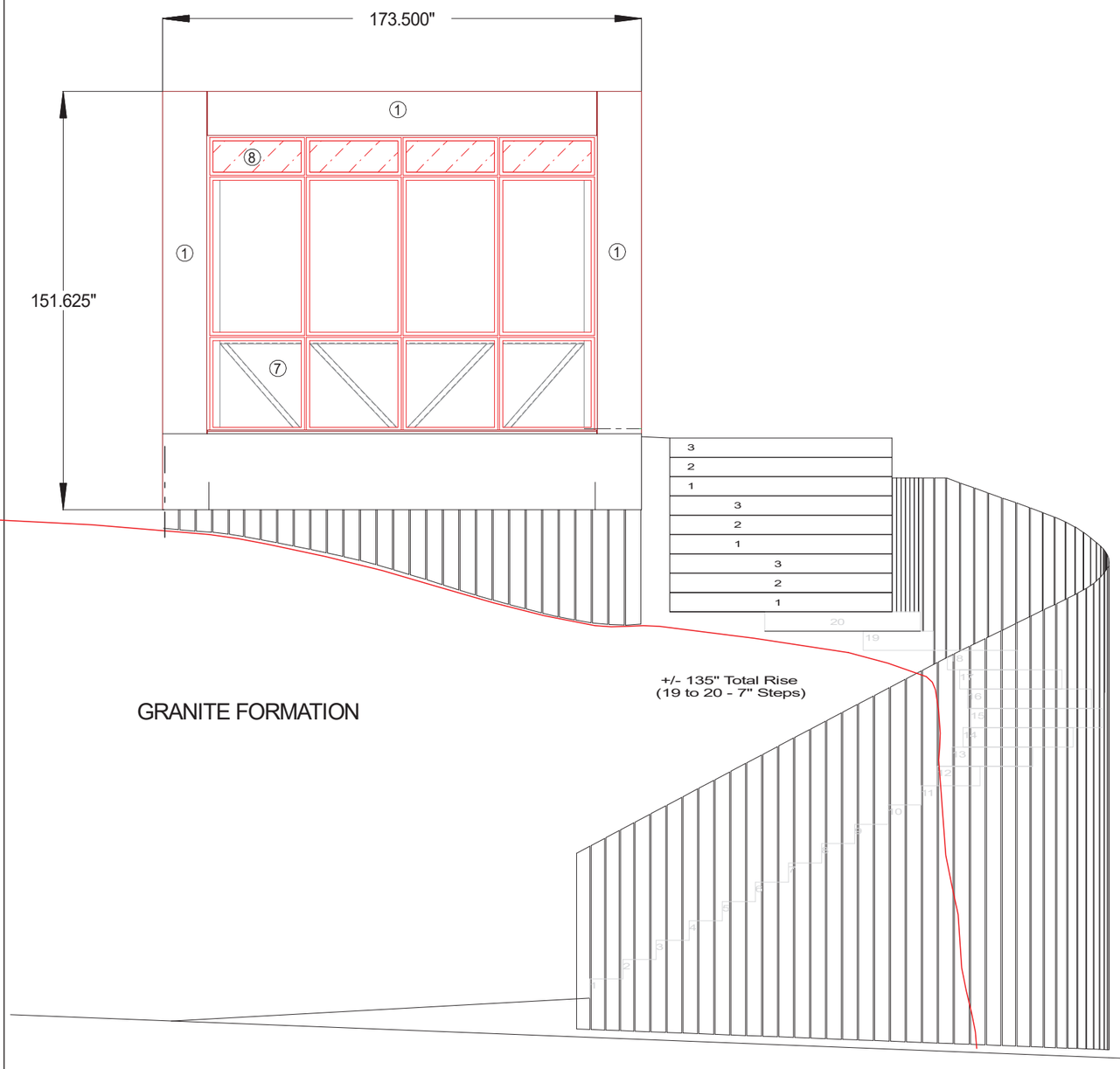
August 26, 2022

Permit to Practice # 1002693

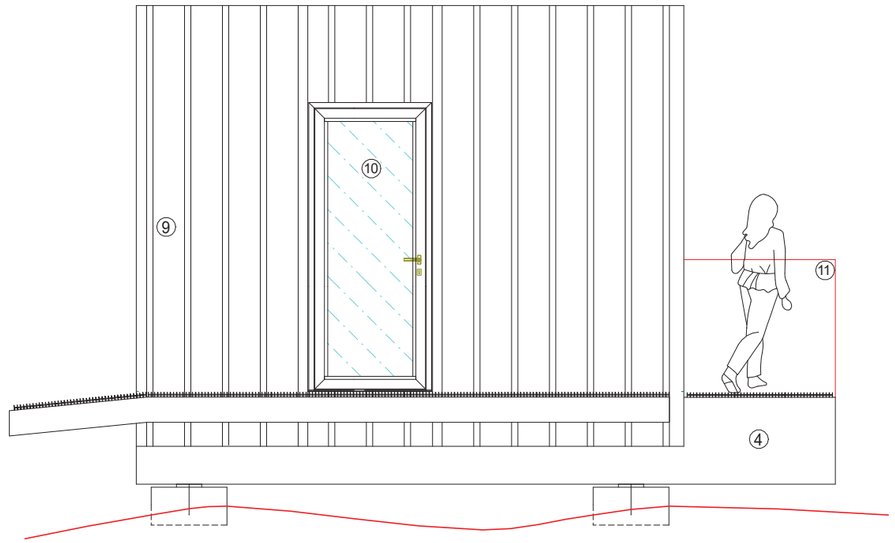
DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 48 (1/4" = 1')	DRAWING NO. A - 2
DRAWN BY :	REVISIONS
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472



SOUTH



NORTH

Note: This seal applies to structural components only

COLORS & SURFACES

BULLNOSE GLASS SECTION

DECORATING FACADE

1. ALUMINUM PANEL WHITE
2. WOOD GRAIN METAL TRIM (FRONTIER)
3. NATURAL REAL COPPER PANEL
4. ALUMINUM PANEL GREY
5. ALUMINUM PANEL GREY
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PRIMEX INDUSTRIES INC.

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS

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No.	ISSUANCE	BY	DATE
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DRAWING LIST

S - 4	
S - 3	
S - 2	
S - 1	Foundation - Anchoring Detail
A - 7	
A - 6	
A - 5	Access and Egress Exit
A - 4	Floor Plan
A - 3	Elevation South and North
A - 2	Elevation West
A - 1	Elevation East

PROJECT

BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

Elevation South and North

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINITECH ENGINEERING INC.
LEO T. TORRENTE P.ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P.ENG

BCBC COMPLIANCE
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FIRE CEILING AND WALLS
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GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L. T. TORRENTE # 48527

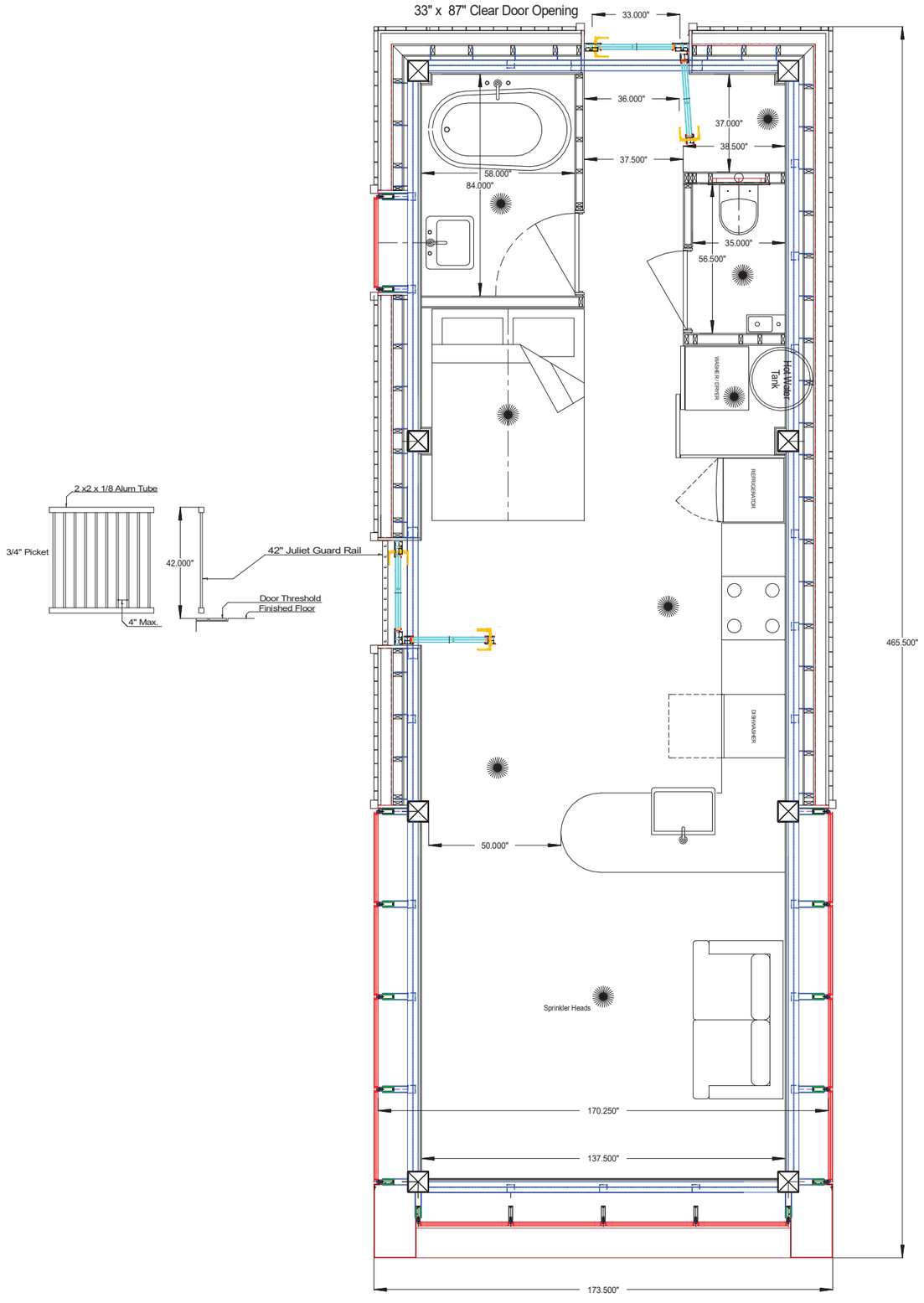
August 26, 2022

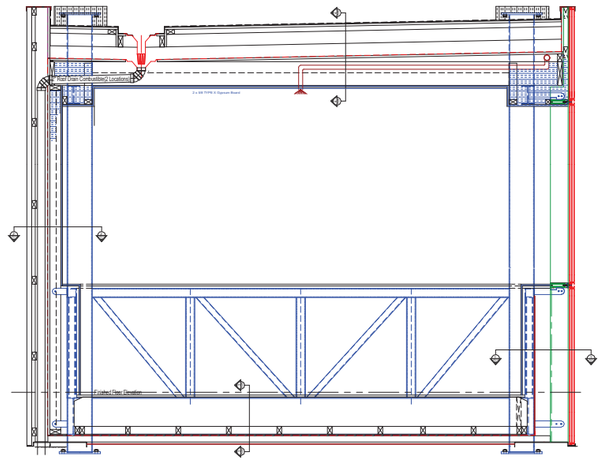
Permit to Practice # 1002693

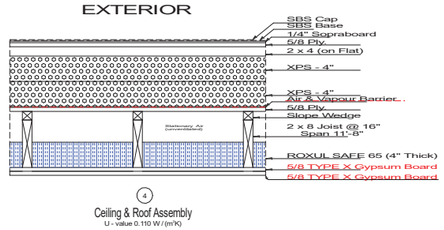
DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 48 (1/4" = 1')	DRAWING NO. A - 3
DRAWN BY : GP	REVISIONS
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472

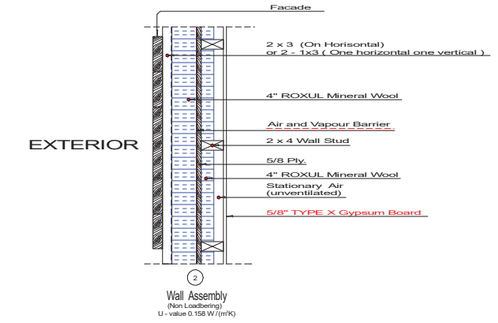






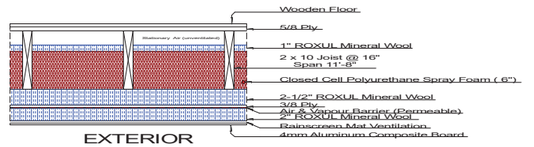
4
Ceiling & Roof Assembly
U - value 0.110 W / (m²K)

1 : 24 (1/2" = 1')



2
Wall Assembly
(Non Loadbering)
U - value 0.158 W /(m²K)

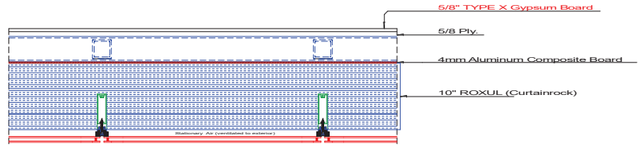
1 : 24 (1/2" = 1')



3
Floor Assembly
U - value 0.105 W / (m²K)

1 : 24 (1/2" = 1')

For Fire-resistance rating refer to Evaluation Report No: T1529-1R1 by QAI Laboratories



1
Spandrel Assembly
U - value 0.114 W / (m²K)

1 : 24 (1/2" = 1')

Note: This seal applies to structural components only

PRIMEX INDUSTRIES INC.
DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS
CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741
15371 KNOX WAY , RICHMOND BC V6V 3A8
(604) 307 4472 greg@ panelex.ca

No.	ISSUANCE	BY	DATE
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4			
3			
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1			

DRAWING LIST

S - 4	
S - 3	
S - 2	S to S5 Kinitech Engineering Drawings
S - 1	Foundation - Anchoring Detail
A - 7	
A - 6	
A - 5	Access and Egress Exit
A - 4	Floor Plan and Cross Sections
A - 3	Elevation South and North
A - 2	Elevation West
A - 1	Elevation East

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

Floor Plan and Cross Sections

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINITECH ENGINEERING INC.
LEO T. TORRENTE P.ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P.ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
MICHAEL COSTA C.TECH

LAND SURVEY
BENNETT LAND SURVEYING LTD.
SHAUN CARSON

ENERGY EFFICIENCY
ENFORMA ENGINERING LTD.
MIKHAEL HORVATH P.ENG

ELECTRICAL MAIN SERVICE
PARALYNX ENGINERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA L. T. TORRENTE 18527

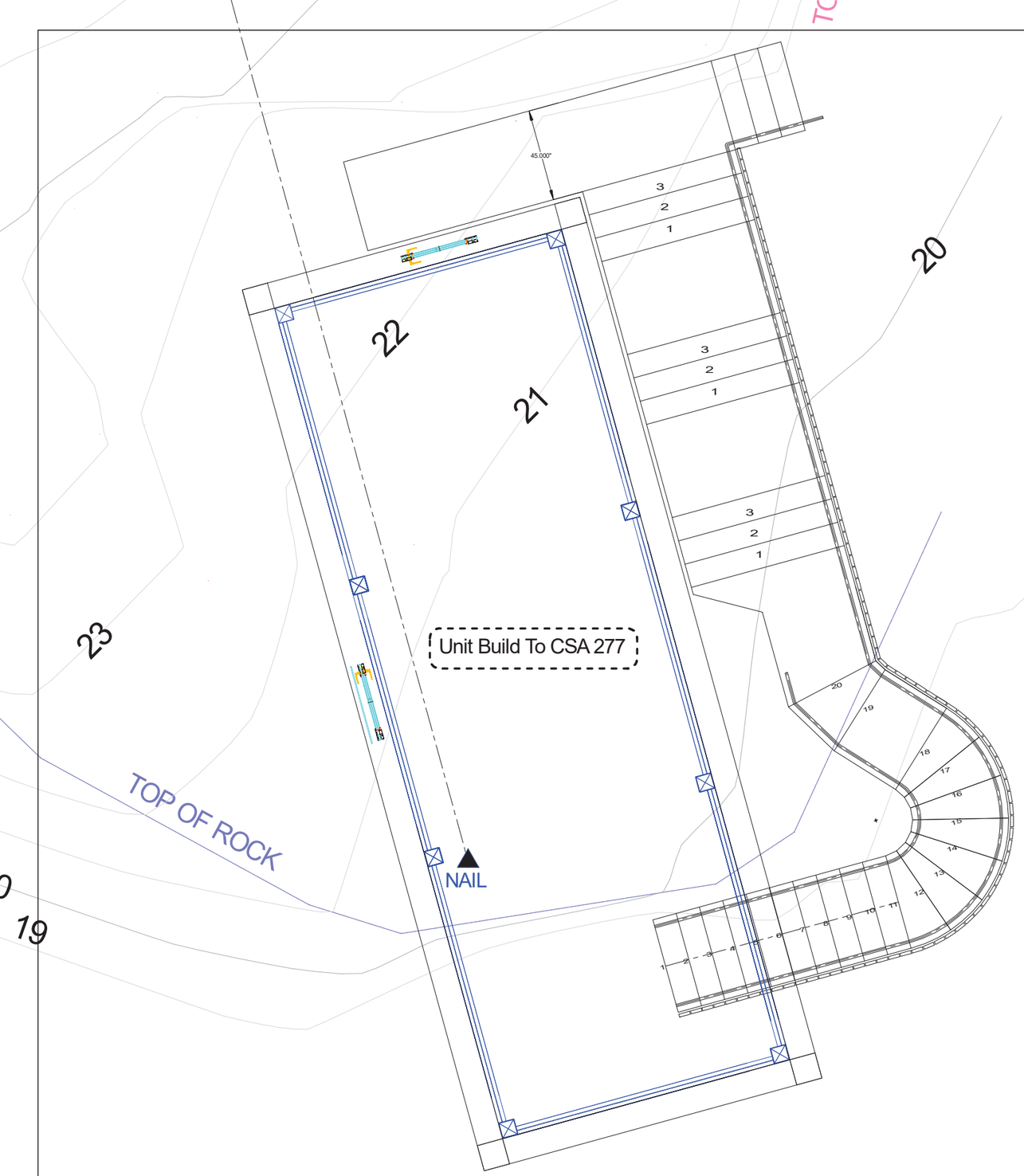
August 26, 2022

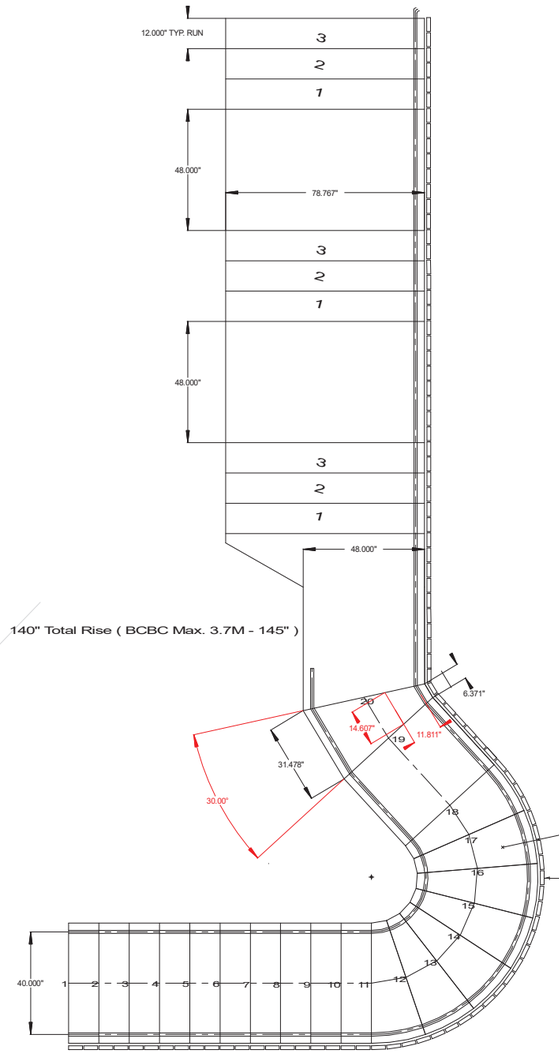
Permit to Practice # 1002693

DATE :	PROJECT NO.
August 15 2022	
SCALE : 1 : 48 (1/4" = 1')	DRAWING NO. A - 4
DRAWN BY :	REVISIONS
APPROVED BY :	

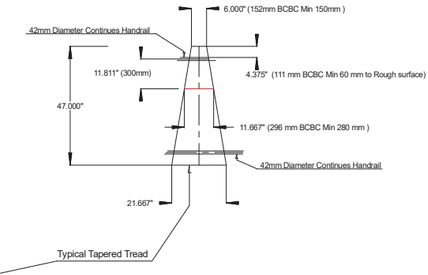
IMPORTANT PHONE NUMBERS

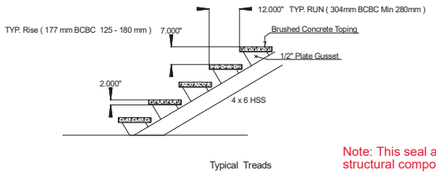
Gregory Palamarz	(604) 307 - 4472





Proposed Access and Egress Exit
(Engineering will be done at shop drawing stage)





Typical Treads

Note: This seal applies to structural components only

PRIMEX INDUSTRIES INC.

DESIGNERS AND FABRICATORS OF CONSTRUCTION SYSTEMS

CSA W 47.1 CSA A 660 CSA 277
QAI Listing REC 741

15371 KNOX WAY , RICHMOND BC V6V 3A8
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No.	ISSUANCE	BY	DATE
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DRAWING LIST

S - 4	
S - 3	
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A - 3	Elevation South and North
A - 2	Elevation West
A - 1	Elevation East

PROJECT
BRASS ANCHOR ESTATE
For
BEFAMAHOMES

5750 ANCHOR ROAD
SECHELT BC

DRAWING TITLE

Acces and Egress Exit

TEAM

DESIGNER
GREGORY PALAMARZ ENG. R&D

STRUCTURAL
KINITECH ENGINEERING INC.
LEO T. TORRENTE P. ENG

GEOTECHNICAL
BOUNDARY CONSULTING SERVICES LTD.
BENJAMIN SMALE P. ENG

BCBC COMPLIANCE
QAI LABORATORIES
LISTING # REC 741

FIRE CEILING AND WALLS
QAI LABORATORIES
LAWRENCE GIBSON P.ENG

STORM AND SANITARY
SUNCO CIVIL CONSULTING LTD.
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ELECTRICAL MAIN SERVICE
PARALYNX ENGINEERING INC.
GREG LYNCH P.ENG

FIRE PROTECTION (Sprinkler System)
THE GISBORNE GROUP
TIM BUSCH (Construction Manager)

PROFESSIONAL SEAL

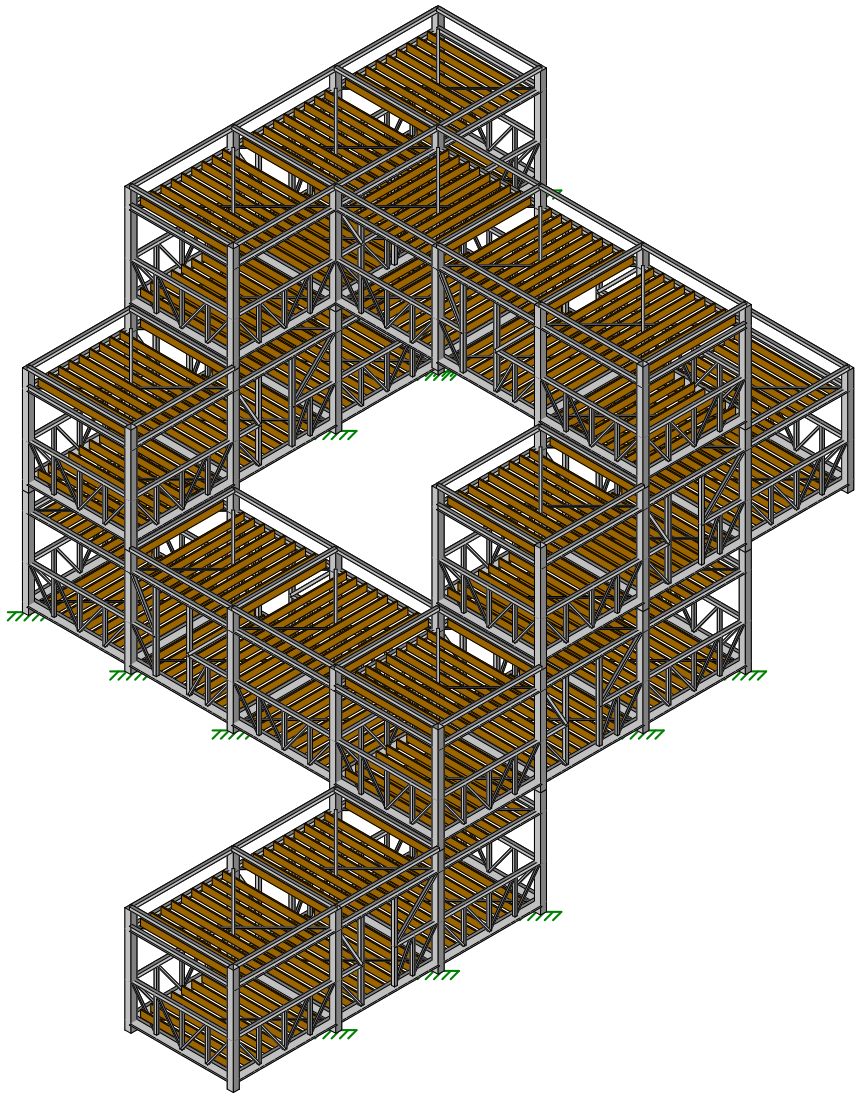
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L. T. TORRENTE
19527

August 26, 2022
Permit to Practice # 1002693

DATE : August 15 2022	PROJECT NO.
SCALE : 1 : 60 (1" = 5')	DRAWING NO. A - 5
DRAWN BY :	REVISIONS
APPROVED BY :	

IMPORTANT PHONE NUMBERS

Gregory Palamarz	(604) 307 - 4472


Y
Z
X

APPENDIX D

Site Photographs

Photograph 1: Showing site access conditions to the west of site.

Photograph 2: Showing site access conditions to the east of site.

Photograph 3: Showing the bedrock surface near the base of the first planned unit.

Photograph 4: Showing the intact rock slope above the base of the first unit.

Photograph 5: Showing the next bedrock bench above the first planned unit.

Photograph 6: Showing the downslope perspective of the area shown in Photograph 5.

Photograph 7: Showing overgrown talus particle on the eastern extent of site.

Photograph 8: Showing talus on the eastern extent of site.

APPENDIX E

Project Formwork

APPENDIX D: LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Note: This Statement is to be read and completed in conjunction with the "APEGBC Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia", March 2006/Revised September 2008 ("APEGBC Guidelines") and the "2006 BC Building Code (BCBC 2006)" and to be provided for *landslide assessments* (not floods or flood control) for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the APEGBC Guidelines

To: The Approving Authority
District of Sechelt
5797 Cowrie Street, Sechelt, BC
Jurisdiction and address

Date: August 30, 2022

With reference to (*check on*):

- ☐ Land Title Act (Section 86) - Subdivision Approval
- ☑ Local Government Act (Sections 919.1 and 920) - Development Permit
- ☐ Community Charter (Section 56) - Building Permit
- ☐ Local Government Act (Section 910) - Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) - Flood Plain Bylaw Exemption
- ☐ Local Government Act (Section 692 (D)) - Provincial Regulation M268, Geotechnical Slope Stability (Seismic) Regulation

For the Property:

5750 Anchor Road, Sechelt, BC (Lot 21, Block 10, District Lot 304, Plan VAP17781)

Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer* or *Professional Geoscientist*

I have signed, sealed and dated, and thereby certified, the attached *landslide assessment* report on the Property in accordance with the *APEGBC Guidelines*. That report must be read in conjunction with this statement. In preparing that report I have:

Check to the left of applicable items

✓ 1. Collected and reviewed appropriate background information
✓ 2. Reviewed the proposed *residential development* on the Property
✓ 3. Conducted field work on and, if required, beyond the Property
✓ 4. Reported on the results of the field work on and, if required, beyond the Property
✓ 5. Considered any changed conditions on and, if required, beyond the Property
6. For a *landslide hazard analysis* or *landslide risk analysis* I have:
✓ 6.1 reviewed and characterized, if appropriate, any *landslide* that may affect the Property
✓ 6.2 estimated the *landslide hazard*
✓ 6.3 identified esisting and anticipated future *elements at risk* on and, if required, beyond the Property
✓ 6.4 estimated the potential consequences to those *elements at risk*
7. Where the *Approving Authority* has adopted a *level of landslide safety* I have:
✓ 7.1 compared the *level of landslide safety* adopted by the *Approving Authority* with the findings of my investigation
✓ 7.2 made a finding on the *level of landslide safety* on the Property based on the comparison
✓ 7.3 made recommendations to reduce *landslide hazards* and/or *landslide* risks
8. Where the *Approving Authority* has **not** adopted a *level of landslide safety* I have:
___ 8.1 described the method of *landslide hazard analysis* or *landslide risk analysis* used
___ 8.2 referred to an appropriate and identified provincial, national or international guideline for *level of landslide* safety
___ 8.3 compared this guideline with the findings of my investigation

___8.4 made a finding on the level of landslide safety on the Property based on the comparison

___8.5 made recommendations to reduce landslide hazards and/or landslide risks

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

Based on my comparison between

check one

☑ the findings from the investigation and the adopted level of landslide safety (item 7.2 above)

☐ the appropriate and identified provincial, national or international guideline for level of landslide safety (item 8.4 above)

I hereby give my assurance based on the conditions[18] contained in the attached landslide assessment report

Check on or more where appropriate

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

Check one

☐ with one or more recommended registered convenants

☐ without any registered covenant

☑ for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit"

☐ for a building permit, as required by the Comunnity Charter (Section 56), "The land may be used safely for the use intended"

Check one

☑ with one or more recommended registered convenants

☐ without any registered covenant

☐ for flood plain bylaw cariance (for debris flows only), as required by the "Flood Hazard Area Land Use Management Guidelins" associated with the Local Government Act (Section 910), "The development may occur safely."

☐ for flood plain bylaw exemption (for debris flows only), as required by the Local Government Act (Section 910), "the land may be used safely for the use intended."

Benjamin A. Smale
Name (print)

August 30, 2022
Date

August 30 2022

Signature

507 Parker Road
Address

Gibsons, BC V0N 1V1

604.989.0031
Telephone

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA B. A. SMALE #18244

(Affix Professional seal here)

If the Qualified Professional is a member of a firm, complete the following.

I am a member of the firm Boundary Consulting Services Ltd.
(Print name of firm)
and I sign this letter on behalf of the firm.

[18] when seismic slope stability assessments are involved, level of landslide safety is considered to be a "life safety" criteria as described in the National Building Code of Cnada (NBCC 2005), Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries, Part 4 of Division B. This states:

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

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*

District of Sechelt
Name of Jurisdiction (Print)

Re: Multi Family Residential Dwelling
Name of Project (Print)

5750 Anchor Road, Sechelt, 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~~
BS	**GEOTECHNICAL — temporary**
BS	**GEOTECHNICAL — permanent**

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. A. SMALE
38244

(Professional's Seal and Signature)

August 30, 2022
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

Schedule B - *Continued*

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

5750 Anchor Road, Sechelt, BC
Project Address

Geotechnical Engineering
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.

Benjamin A. Smale
Registered Professional of Record's Name (Print)

507 Parker Road
Address (Print)

Gibsons, BC V0N 1V1
Address (Print) (continued)

604.989.0031
Phone Number

28/2606/36.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. A. SMALE
38244

(Professional's Seal and Signature)

August 30, 2022
Date

(If the *Registered Professional of Record* is a member of a firm, complete the following.)

I am a member of the firm Boundary Consulting 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

Schedule B - *Continued*

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

5750 Anchor Road, Sechelt, BC
Project Address

Geotechnical Engineering
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

2022/08/30

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. A. SMALE
38244

(Professional's Seal and Signature)

August 30, 2022
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

CRP's Initials

Schedule B - *Continued*

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

5750 Anchor Road, Sechelt, BC
Project Address

Geotechnical Engineering
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

BS **GEOTECHNICAL — Temporary**

7.1 *Excavation*
7.2 Shoring
7.3 Underpinning
7.4 Temporary construction dewatering

BS **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

2021/08/30

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
B. A. SMALE
38244

(Professional's Seal and Signature)

August 30, 2022
Date

CRP's Initials

ATTACHMENT 5

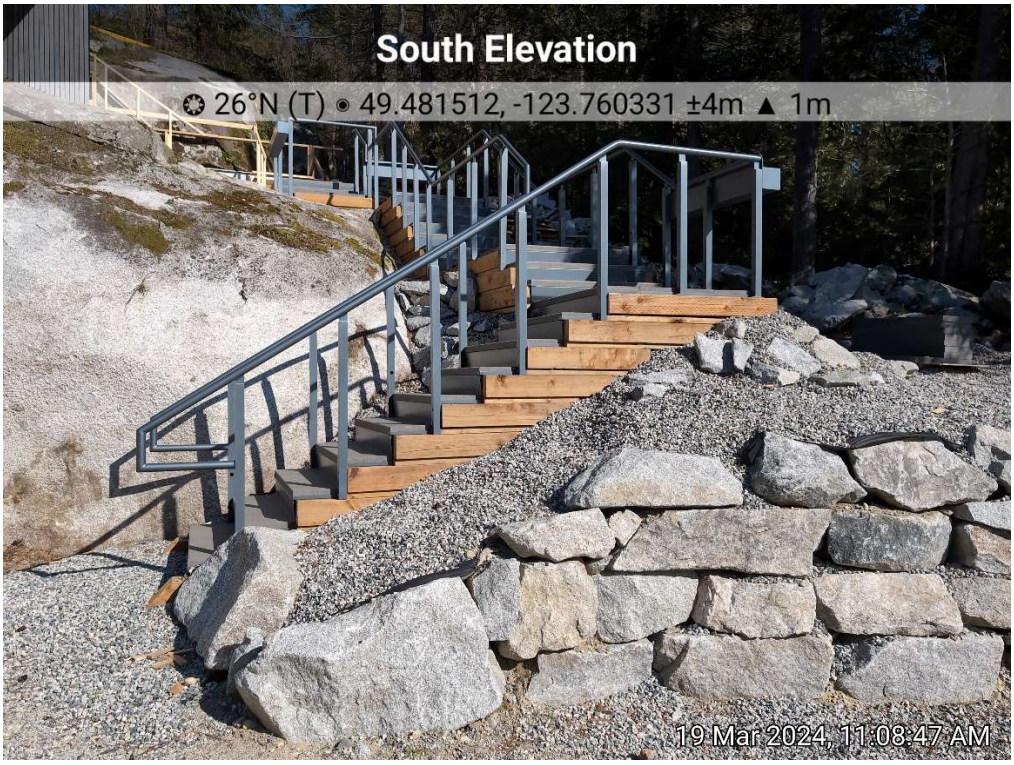
Boundary Consulting Services Ltd.

MEMORANDUM

To:	Gregory Palamarz	**Date:**		March 22, 2024	
		Project No:		BCS-0081	
Company:	1344128 B.C. Ltd.	**T.**	604.307.4472	**F.**	-
		E.	greg@panelex.ca		
Cc:	-	**T.**	-	**F.**	-
		E.	-		
From:	Micah Smith	**T.**	604.671.6518	**F.**	-
		E.	micah@boundaryconsulting.ca		
Subject:	**Field Review of Retaining Wall** **5750 Anchor Road, Sechelt, BC**				

Boundary Consulting Services Ltd. (BCS) presents the following document summarizing the results of a recent post-construction geotechnical review at the above-listed address. This review was initiated by the Client (Gregory Palamarz) to confirm adequate design and construction of a small, stacked rock retaining wall depicted in Photographs 1 & 2. The retaining wall is approximately 8 m long and has a maximum height less than 1.2 m. The wall is located near the southern lot line and extends north approximately 4 m then does a 90 bend towards the west.

The retaining wall is made of large boulders and placed with a negative batter up to a height less than 1.2 m in height. The construction is appropriate for this size and application. It is concluded that it is stable and unlikely to fail. However, in the improbable scenario of a failure, the collapse of this wall would not result in damage to the dwelling or neighboring properties.



Photograph 1 - Showing western portion of the wall.

Photograph 2 - Showing eastern portion of the wall.

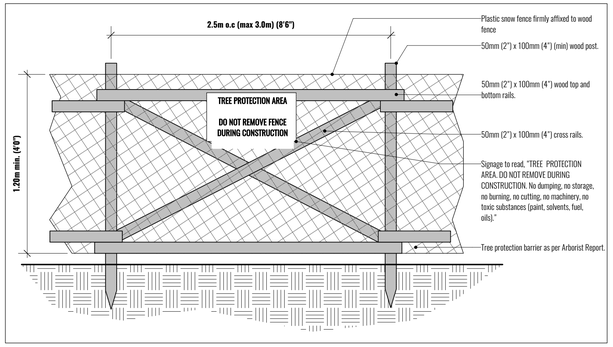
The above reviewed retaining wall may be considered safe for intended use.

Sincerely,
Boundary Consulting Services Ltd.

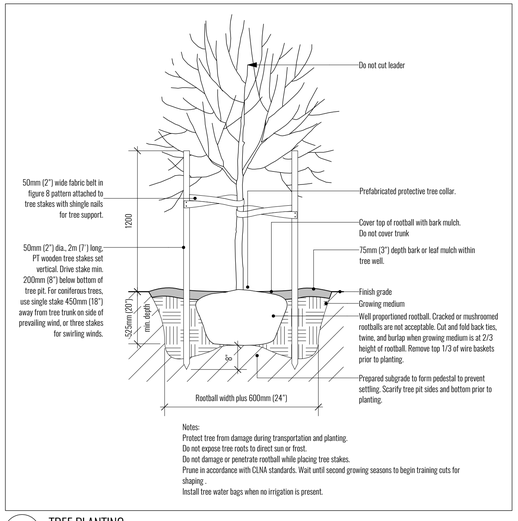
Micah Smith, P.Eng.
Geotechnical Engineer

The Engineering content of this document has been produced following Boundary Consulting Services Ltd.'s documented quality management progress using engineering standards authenticated by the Professional of Record under Permit to Practice Number 1002593.

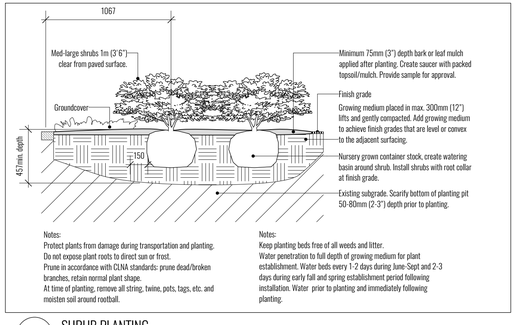
ATTACHMENT 6



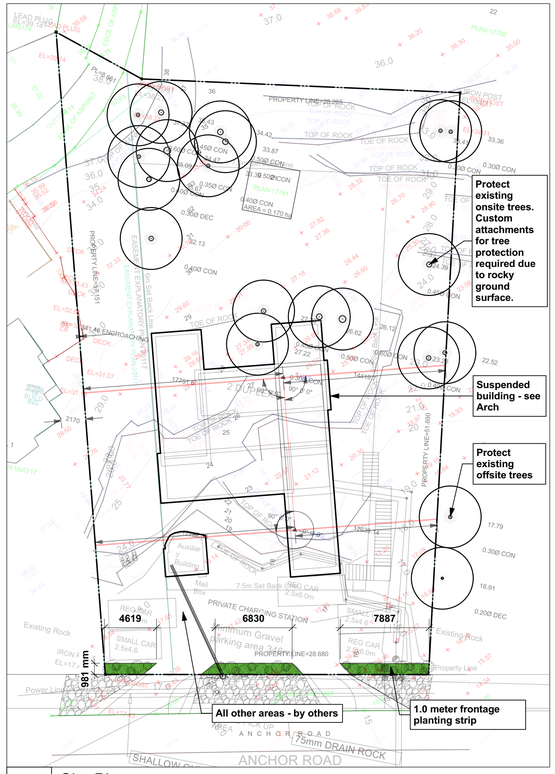
1 TREE PROTECTION FENCING
Scale: 1:24



2 TREE PLANTING



3 SHRUB PLANTING



1 L1 Site Plan
Scale: 1:250

NOTES AS PER CIVIL

- THE LOT IS MOSTLY ROCK AND HAVE LITTLE TO NO SPACE FOR PLANTINGS.
  - A 1.0m STRIP ALONG THE FRONTAGE IS TO BE USED FOR LANDSCAPING
  - TOP SOIL MOUNT TO BE INSTALLED AND USED FOR PLANTINGS
  - SPECIAL CONSIDERATION TO BE PLACED ON PLANT SELECTION AND AVAILABILITY THAT WOULD DO WELL ON ROCK.
  - SHRUBS AND PLANTS WITH SHALLOW ROOT S SYSTEMS ARE TO BE RECOMMENDED.
- IF POSSIBLE FOR A TREE PLACEMENT, THE DEVELOPER IS TO CONTACT THE TOWNS PARKS DEPARTMENT IN THE FINAL SELECTION OF TREES.
- TREES ARE TO HAVE A 5-6cm CAL. MINIMUM
- ALL PLANTING MATERIALS ARE TO BE FROM A CERTIFIED DISEASE FREE NURSERY.
- NURSERIES TO BE CONTACTED REGARDING NATIVE PLANTINGS
- THE DEVELOPER SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED. ALL PLANT MATERIALS NOT SURVIVING OR IN POOR CONDITION DURING THE GUARANTEE PERIOD SHALL BE REPLACED BY THE CONTRACTOR AT NO EXTRA COST TO THE OWNER.
- TREES PHYSICALLY REMOVED BY NEW HOME OWNERS, AFTER BUILD OUT, DURING THIS PERIOD, ARE THE RESPONSIBILITY OF THE TOWN TO DEAL WITH.
- THE DEVELOPER IS TO FOLLOW UP WITH THE TOWNS PARKS DEPARTMENT REGARDING THE PLACEMENT OF NEW TREES.
- THE PARKS DEPARTMENT IS TO BE CONTACTED REGARDING POSSIBLE TREE VARIATIONS OR FROM THE SUGGESTED LIST IN BYLAW 430.
- TREES ARE TO BE PLACED AT AN OFFSET DISTANCE FROM THE FOLLOWING

LAMP POSTS	6.0m
STEEL / WOODEN POLES	3.0m
DRIVEWAYS	2.0m
CATCH BASINS	2.0m
MANHOLES, VALVE BOXES, SERVICES	2.0m
SEWER SERVICES	1.5m
HYDRANTS	2.0m
CORNERS	IN LINE WITH 8.0m SIGHT TRIANGLE

- STREET TREES ARE TO BE SPACE 6-12M APART DEPENDING ON SPECIES.
- TREE ARE TO BE PLANTED AS PER SECHELT PARK RECOMMENDATIONS.
- TOP SOIL DEPTHS
  - 200mm FOR LAWN AREAS
  - 300mm ON ALL SIDES OF THE ROOT BALL FOR TREES
  - 450mm FOR SHRUB AREAS

GENERAL PLANTING NOTES:

1. All work shall meet or exceed the requirements of the current edition of the Canadian Landscape Standards.
2. Plant material to the satisfaction of the Canadian Landscape Standards for nursery stock.
3. Sizes on the planting plan shall be considered minimum sizes.
4. Root balls to be free of pernicious weeds.
5. Sod is to be sand based turf and mesh free. No substitutes.

6. Top soil mixtures shall be tested for particle size, Ph, nutrient levels. Amendments are to follow the test recommendations, and shall bring the soil up to an acceptable horitcultural quality for the trees, shrubs, or turf planting. Provide vertification of fertilizer and lime applications and rates during the installation and maintenance periods. Provide sample of leaf mulch for approval.

7. Top soil depths are to be minimum as follows:
150mm (6") off slab for irrigated lawn, 225mm (9") off slab for non-irrigated lawn, 450mm (18") off slab for shrubs, 900mm (36") for trees. Install 50mm (2") of well composted organic mulch after planting and rake smooth.

8. The Landscape Architect Consultant is to review the prepared sub-grade depths prior to application of top soil mixtures and finish grading. Scarify compacted subgrades minimum 150mm (6") immediate before placing growing medium. Provide positive grades away from buildings and toward drains and catch basins. Slope away from building minimum 2%. Slope towards lawn basins minimum 4%. Slope lawn and grass areas minimum 2% and maximum 3:1 slopes. Slope grass swales that do not have additional erosion protection minimum 1% along invert and maximum 10% along side slopes, and minimum 6:1 slope and maximum 3:1 slope.

9. All soft landscaping to have a temporary irrigation system during 2-year plant establishment, to be high efficiency irrigation system to the IIABC standards. Hand-watering is acceptable by the Contractor for 2 years.

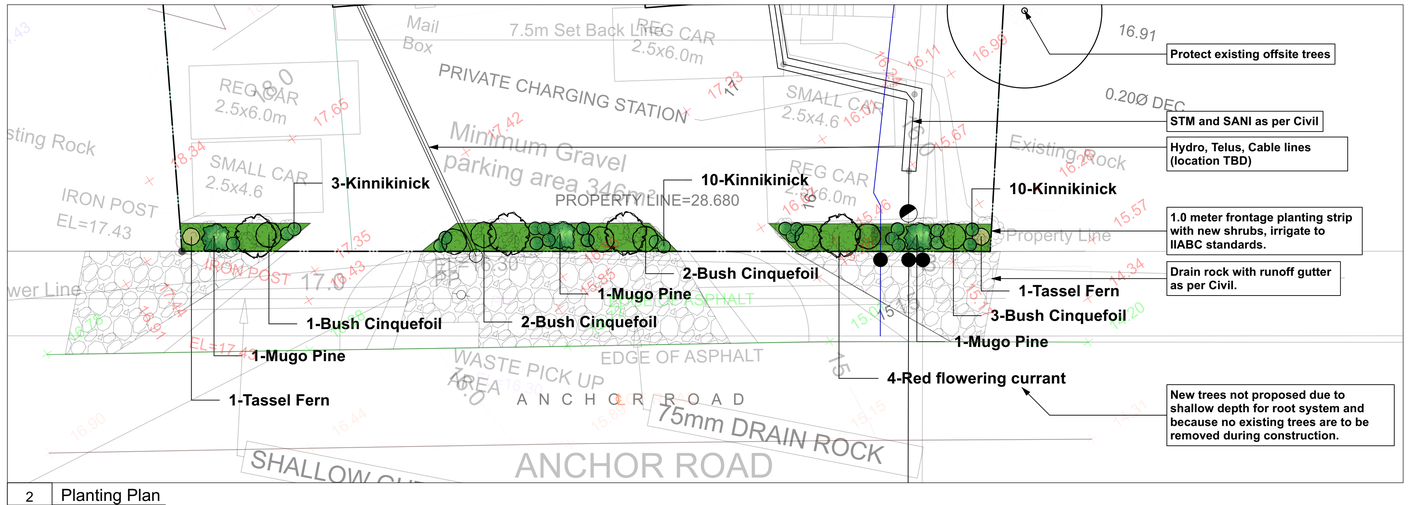
10. Install temporary tree protection fencing for existing hedges, trees, and shrub beds which are to remain. Maintain fence during construction. No storage of materials or equipment, or any other activities, are allowed within the protection zone.

12. Landscape Contractor is to provide **2 years** of maintenance after the date of Substantial Completion. Maintain to Canadian Landscape Standard Level 2 'Groomed'. Contractor is to provide a 1-year warranty for all plant material, and an additional 1-year warranty for subsequent plantings after replacements are made. Plants installed between January 1 and June 1 shall be under extended warranty until June 1 of the following year.

13. Planting on City Boulevard is to have the approval of the Parks Department prior to installation. Size, species, and location require approval at time of installation.

SHRUBS

ID	Quantity	Common Name	Latin Name	Scheduled Size	Mature Height	Mature Spread	Notes
Pot-F	8	Bush Cinquefoil	Potentilla fruticosa-Lemon Meringue	#5 pot	18 - 24 in	24 - 36 in	Cont. B
~~Tv~~	~~24~~	~~Common Thyme~~	~~Thymus vulgaris~~	~~#1 pot~~	~~<= 12 in.~~	~~<= 12 in.~~	~~Cont.~~
~~Arb~~	~~3~~	~~Compact Strawberry Bush~~	~~Arbutus unedo 'Compacta'~~	~~#10 pot~~	~~6 - 10 ft.~~	~~4 - 7 ft.~~	~~Cont.~~
AV.I	23	Kinnikinick	Arctostaphylos uva-ursi 'vancouver Jade'	#1 pot	<= 12 in	24 - 36 in	Cont.
Mp	3	Mugo Pine	Pinus mugo ' Mughus'	#3 pot	2 ft	4 - 7 ft	Cont.
Rs	4	Red flowering currant	Ribes sanguineum	#2 pot	5-10 ft	4-7 ft	Cont. BC native. Specimen size/shape
Poly	2	Tassel Fern	Polystichum polyblepharum	#2 pot	18 - 24 in.	12 - 24 in.	Cont. BC native
	25	Flowering perennials at time of installation		#2 pot			



2 L1 Planting Plan
Scale: 1:100

DATE	DESCRIPTION
Jul 05.24	Issue for Development Permit
Jul 05.24	For Client Review

REVISIONS

NORTH

ANCHOR ROAD DEVELOPMENT

5750 ANCHOR ROAD
SECHELT, BC

PROJECT

SCALE	as noted
DRAWN BY	KZ
PROJECT NO.	24-02

DRAWING

Planting Layout

L1

Review of Estimated Landscape Construction Costs for 5750 Anchor Road Landscaping
Based upon DP drawing prepared by Zale Design July 5, 2024

Soft Landscaping

Premium garden soil for shrubs @ 18"	cu.yds.	$ 70.00	12	$ 836.11
Garden bark mulch for shrub beds @ 2"	cu.yds.	$ 60.00	1	$ 71.67
Potentilla	#5 pot	$ 27.50	8	$ 220.00
Kinnickinick	#1 pot	$ 12.00	23	$ 276.00
Mugo Pine	#3 pot	$ 21.00	3	$ 63.00
Red flowering currant	#2 pot	$ 15.25	4	$ 61.00
Tassel fern	#2 pot	$ 15.25	2	$ 30.50
Perennial	#2 pot	$ 15.25	25	$ 381.25
Subtotal Softscape ground				*$ 1,939.53*
Maintenance of plants, averaged at 6 months/year for spring cultivation, summer watering, and fall bedding over the course of 2 years	per month	$ 400.00	12	$ 4,800.00

SUBTOTAL LANDSCAPING				*$ 6,739.53*
GST @ 5%				$ 336.98
Total Estimated landscape construction				**$ 7,076.50**