



Date: April 22, 2024

# Development Permit Application

Referral Form – RDCK File DP2402E

**You are requested to comment on the attached DEVELOPMENT PERMIT for potential effect on your agency's interests. We would appreciate your response WITHIN 30 DAYS (PRIOR TO May 19, 2024). If no response is received within that time, it will be assumed that your agency's interests are unaffected.**

**LEGAL DESCRIPTION & GENERAL LOCATION:**

389 Park Ave, Kootenay Lake Village, Proctor - Electoral Area 'E'  
STRATA LOT 31 DISTRICT LOT 873 KOOTENAY DISTRICT STRATA PLAN NES3286 TOGETHER WITH AN INTEREST IN THE COMMON PROPERTY IN PROPORTION TO THE UNIT ENTITLEMENT OF THE STRATA LOT AS SHOWN ON FORM V (PID: 027-785-114)

**PRESENT USE AND PURPOSE OF PERMIT REQUESTED:**

The subject property is part of the Kootenay Lake Village subdivision, which was approved at a time when the floodplain setback distance to Kootenay Lake was 7.5 metres, and the Official Community Plan was not yet in place. The lot is vacant, however, it has been modified by the previous owner for future development, including works to create a future building site (e.g. levelling and terracing).

The owners seek to develop a main residence and "sleeping cabin" on the site. This Watercourse Development Permit (WDP) application is required for the proposed residential development within the 15 metre WDP (riparian) area adjacent to Kootenay Lake.

At the April 18, 2024 Regular Open meeting the Regional Board approved an exemption to the floodplain setback from Kootenay Lake from 15 metres to 8.86 metres under the RDCK's *Floodplain Management Bylaw No. 2080, 2009* to allow for the construction of the main residence.

AREA OF PROPERTY AFFECTED	ALR STATUS	ZONING	OCF
0.15 hectares	N/A	N/A	Suburban Residential (RS)

**AGENT:** Dustin Lalik

**OTHER INFORMATION: ADVISORY PLANNING COMMISSION PLEASE NOTE:**

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

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

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

**Stephanie Johnson, PLANNER  
REGIONAL DISTRICT OF CENTRAL KOOTENAY**

- MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
- HABITAT BRANCH (Environment)
- FRONTCOUNTER BC (MFLNRORD)
- AGRICULTURAL LAND COMMISSION
- ARCHAEOLOGY BRANCH
- ENERGY & MINES
- MUNICIPAL AFFAIRS & HOUSING
- INTERIOR HEALTH, HBE TEAM
- KOOTENAY LAKES PARTNERSHIP (FORESHORE DEVELOPMENT PERMITS)
- SCHOOL DISTRICT NO.
- WATER SYSTEM OR IRRIGATION DISTRICT
- UTILITIES (FORTIS, BC HYDRO, NELSON HYDRO, COLUMBIA POWER)

REGIONAL DISTRICT OF CENTRAL KOOTENAY

DIRECTORS FOR:

- A  B  C  D  E  F  G  H  I  J  K

ALTERNATIVE DIRECTORS FOR:

- A  B  C  D  E  F  G  H  I  J  K

- APHC AREA E
- RDCK FIRE SERVICES
- RDCK EMERGENCY SERVICES
- RDCK BUILDING SERVICES
- RDCK UTILITY SERVICES
- RDCK RESOURCE RECOVERY
- RDCK REGIONAL PARKS

INSERT COMMENTS ON REVERSE . . .

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

**RESPONSE SUMMARY**  
**FILE: DP2402E AGENT: Dustin Lalik**

**Name:**

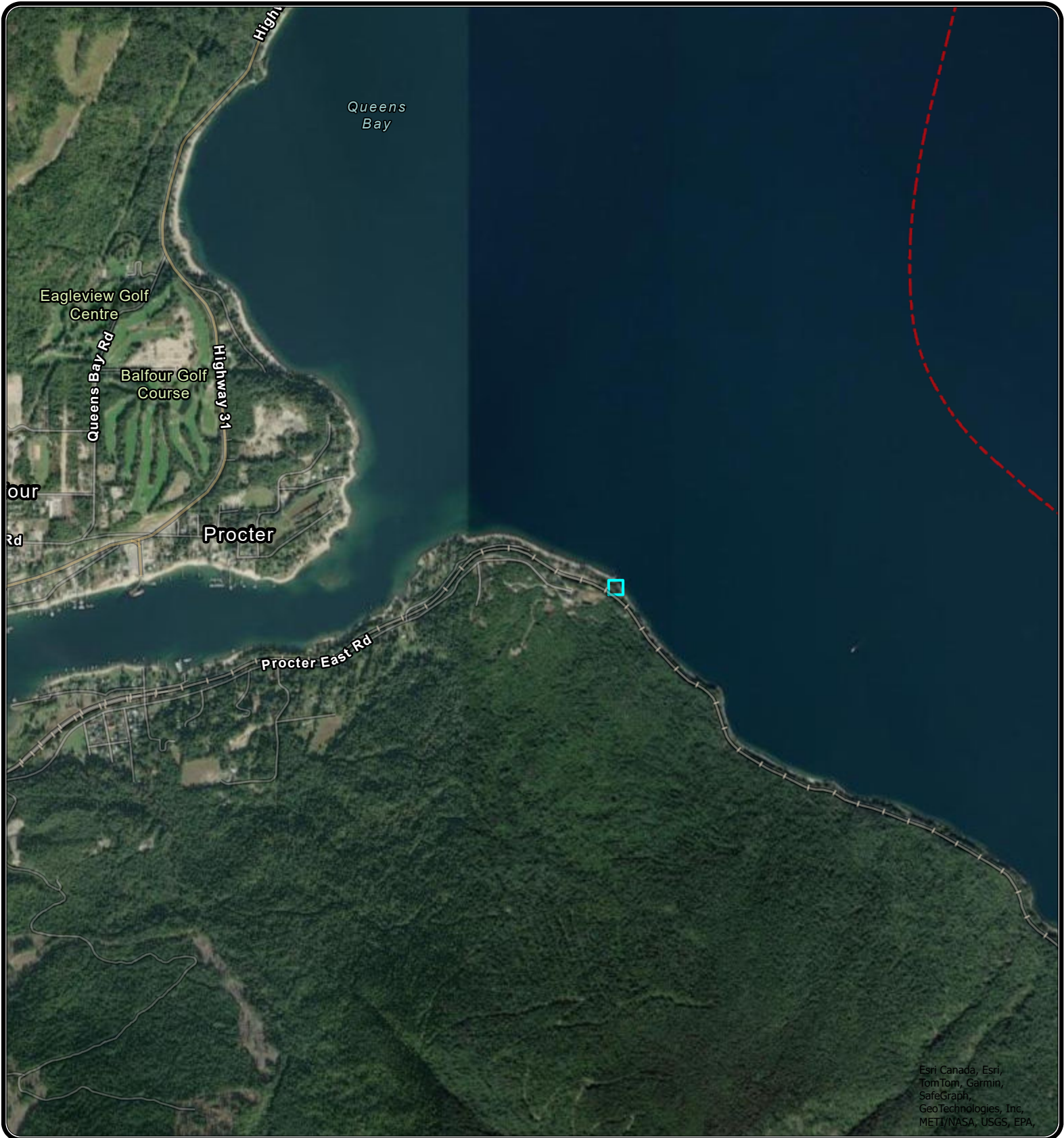
**Date:**

**Agency:**

**Title:**

RETURN TO: STEPHANIE JOHNON, PLANNER  
DEVELOPMENT AND COMMUNITY SUSTAINABILITY SERVICES  
REGIONAL DISTRICT OF CENTRAL KOOTENAY  
BOX 590, 202 LAKESIDE DRIVE  
NELSON, BC V1L 5R4  
Ph. 250-352-8175  
Email: [plandept@rdck.bc.ca](mailto:plandept@rdck.bc.ca)

# RDCK Map



Esri Canada, Esri,  
TomTom, Garmin,  
SafeGraph,  
GeoTechnologies, Inc.,  
METI/NASA, USGS, EPA,



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

## Legend

 Electoral Areas

## Map Scale:

1:36,112

Date: January 5, 2024



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

# RDCK Map



Esri Community Maps  
Contributors, Esri Canada,  
Esri, TomTom, Garmin,  
SafeGraph,  
GeoTechnologies, Inc,



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

## Legend

### 20 Meter Contours

- 20 meter
- Lakes and Rivers

- Streams and Shorelines
- Electoral Areas
- RDCK Streets
- Cadastre
- Address Points

## Map Scale:

1:2,257

Date: January 5, 2024



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

# RDCK Map








Esri Community Maps  
Contributors, Esri Canada,  
Esri, TomTom, Garmin,  
SafeGraph,  
GeoTechnologies, Inc,



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

## Legend

-  Flood Construction Levels - 1990
-  Electoral Areas
-  RDCK Streets
-  Cadastre
-  Address Points

## Map Scale:

1:2,257

Date: January 5, 2024



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



Esri Community Maps  
Contributors, Esri Canada,  
Esri, TomTom, Garmin,  
SafeGraph,  
GeoTechnologies, Inc.



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

### Development Permit Areas

- Industrial and Commercial
- Residential Cluster

### Legend

- Watercourse
- Electoral Areas
- RDCK Streets
- Cadastre
- Address Points

**Map Scale:**

1:2,257

Date: January 5, 2024



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

# RDCK Map



Esri Community Maps  
Contributors, Esri Canada,  
Esri, TomTom, Garmin,  
SafeGraph,  
GeoTechnologies, Inc,



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

## Official Community Plan

- Industrial
- Resource Area

### Legend

- Suburban Residential
- Electoral Areas
- RDCK Streets
- Cadastre
- Address Points

### Map Scale:

1:2,257

Date: January 5, 2024



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



**RE: Development Permit Application for Don and Holly Pruett.  
Strata Lot 31, District Lot 873, Kootenay District Plan, NES3286.  
389 Park Avenue. Proctor, BC.**

To Whom it may concern,

I am writing to submit a development permit application on behalf of the Pruett family and to kindly request your reconsideration on the relaxation of the riparian setback for 389 Park Avenue. Proctor, BC from 15m to 8.86m. The attached proposal relates to the following bylaws:

- 1) Application for a Site Specific Exemption to the Floodplain Management Bylaw, No. 2080, Section 7.2.
- 2) Application for a Watercourse Development Permit pursuant to Electoral Area 'E' Official Community Plan Bylaw No. 2260, Section 18.0.

The Lot 31 has significant challenges for development including its proximity to the lake, geography, and access. Due to the challenging topography of the site, characterized by steep rocky slopes supporting mature forest vegetation beyond the 15-meter setback, and the limited width of the lot on its southern half, the preferred location for constructing the main house has been identified within the area previously designated and disturbed for development. Furthermore, much of the property outside of the 15m riparian setback acts as the structural bank for the access road to Lot 31 and 32.

The building site was originally developed prior to the current floodplain and OCP bylaws, when the designated floodplain setback was 7.5 m from the natural boundary of Kootenay Lake, and as such much of the current riparian zone was disturbed.

The building site chosen has been selected with extensive consultation of both Environmental and Geotechnical professionals. As per the Masse report, from an ecological standpoint, the development when located as proposed, will result in the removal of less riparian vegetation compared to a scenario where the development is entirely situated beyond the 15-meter setback.

We have taken great care in reviewing all feedback gathered from our previous application, and have spent significant time and effort redesigning the Pruett family home to better align with the constraints of the site. This includes but is not limited to:

- Reduction in the total square footage from 2,600 SF to 1,490 SF.
- Reduction of the house footprint within the 15 m WDP area.
- Continued consultation with Masse environmental to limit and rectify any environmental impacts.
- Elevated structures on piles to minimize impacts to natural lake flow movement during flood events, minimize ground disturbance, preservation of small mammal movements and facilitation of plant growth under the front deck structures.

- Increase the Recommended Site Specific Flood Construction Level Elevation (m) G.S.C. to 536.86m (Previously 536.5m)

- The smaller footprint will also minimize mature tree removal with the SPEA by proposing development mostly within existing disturbed areas and/or areas that are rocky with minimal trees.

Please note we also had a legal survey of the site undertaken by Darrin B.C. Connatty B.C.L.S. A.L.S. P.Eng. This was to establish the current Natural Boundary of Kootenay Lake, the plan has been attached and updated in all relevant reports.

Since our last submission, our team has worked diligently to address the concerns set forth by the Advisory planning commission, and we believe our new design balances the best interest of all parties involved on this challenging site.

Moreover, we have sought additional expert advice to ensure that our renewed proposal aligns with the vision and regulations outlined by the RDCK. We have enlisted the help of the following consultants to aid in the redesign of this home:

Builder- Stu Grierson. SG Built.

Geotechnical Engineer- Addison Reist. VAST Resource Solutions.

Environmental Consultant- Fiona Lau. Masse Environmental.

We firmly believe that these adjustments have substantially improved our plan and addressed the previous deficiencies. We sincerely hope that you will consider our revised proposal favourably, taking into account the efforts we have made to rectify past issues.

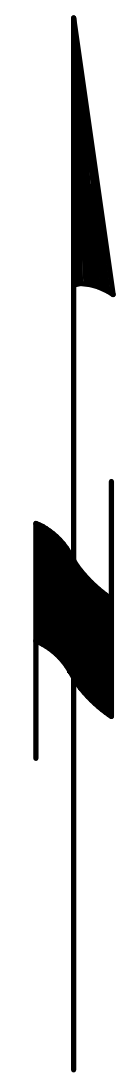
Thank you for your time and consideration. Should you require any further information or clarification, please feel free to contact me at any time.

Sincerely,

**DUSTIN LALIK**

250. 509. 4129

dustinlalik@gmail.com



KOOTENAY LAKE

TITLED BOUNDARY BY PLAN NES3286

STRATA LOT 30  
STRATA PLAN NES3286

D. L. 873

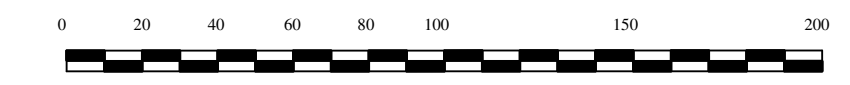
COMMON PROPERTY ACCESS ROUTE  
CANADIAN PACIFIC RAILWAY  
R/W PLAN 1760

STRATA LOT 31

STRATA LOT 32  
STRATA PLAN NES3286

GCM 816652 MARKED 86H1956  
DATUM: NAD 83 (CSRS) 4.0.0.BC.1  
UTM ZONE 11 COORDINATES  
UTM NORTHING: 5496813.102m  
UTM EASTING: 505122.562m  
POINT COMBINED SCALE FACTOR: 0.9995189  
PUBLISHED POSITIONAL ACCURACY 0.363m

TOPOGRAPHIC PLAN OF  
STRATA LOT 31 DISTRICT LOT 873  
KOOTENAY DISTRICT STRATA PLAN NES3286  
B.C.G.S. 82F.066



SCALE = 1 : 200  
The intended plot size is 864mm in width  
and 560mm in height (D size at a scale of 1:200)

LEGEND

- Grid bearings are derived from differential dual frequency GNSS observations and are referred to the central meridian UTM Zone 11.
- The UTM coordinates and estimated absolute accuracy achieved are derived from dual frequency GNSS observations to Geodetic Control Monument 86H1956.
- This plan shows horizontal ground level distances, unless otherwise specified. To compute grid distances, multiply ground level distances by the average Combined Scale Factor 0.9995189. The average Combined Scale Factor has been determined based on an ellipsoidal elevation of 520m at GCM 86H1956
- Denotes Geodetic Control Monument found in place
- Denotes iron post found
- Denotes metal marker post
- Denotes traverse hub placed

This plan lies within the Regional District of Kootenay Boundary

THE FIELD SURVEY REPRESENTED BY THIS PLAN  
WAS COMPLETED ON THE 20TH DAY  
OF OCTOBER, 2021.  
DARRIN B.C. CONNATTY, B.C.L.S. 737

ZONING

DISTRICT: RDCK (AREA E, RURAL)
CIVIC ADDRESS: 389 PARK AVENUE, PROCTER, BC. V0G 1V0.
LEGAL DESCRIPTION: STARTA LOT 31
PLAN NES3286
Folio: 707.02256.131
PID: 027-785-114
District Lot 873
LTO LB551916.
PARCEL SIZE: 0.36 ACRES
ZONING: UNZONED
USE: SINGLE FAMILY DWELLING
SETBACKS: N/A
FIRE DEPARTMENT: HARROP PROCTER

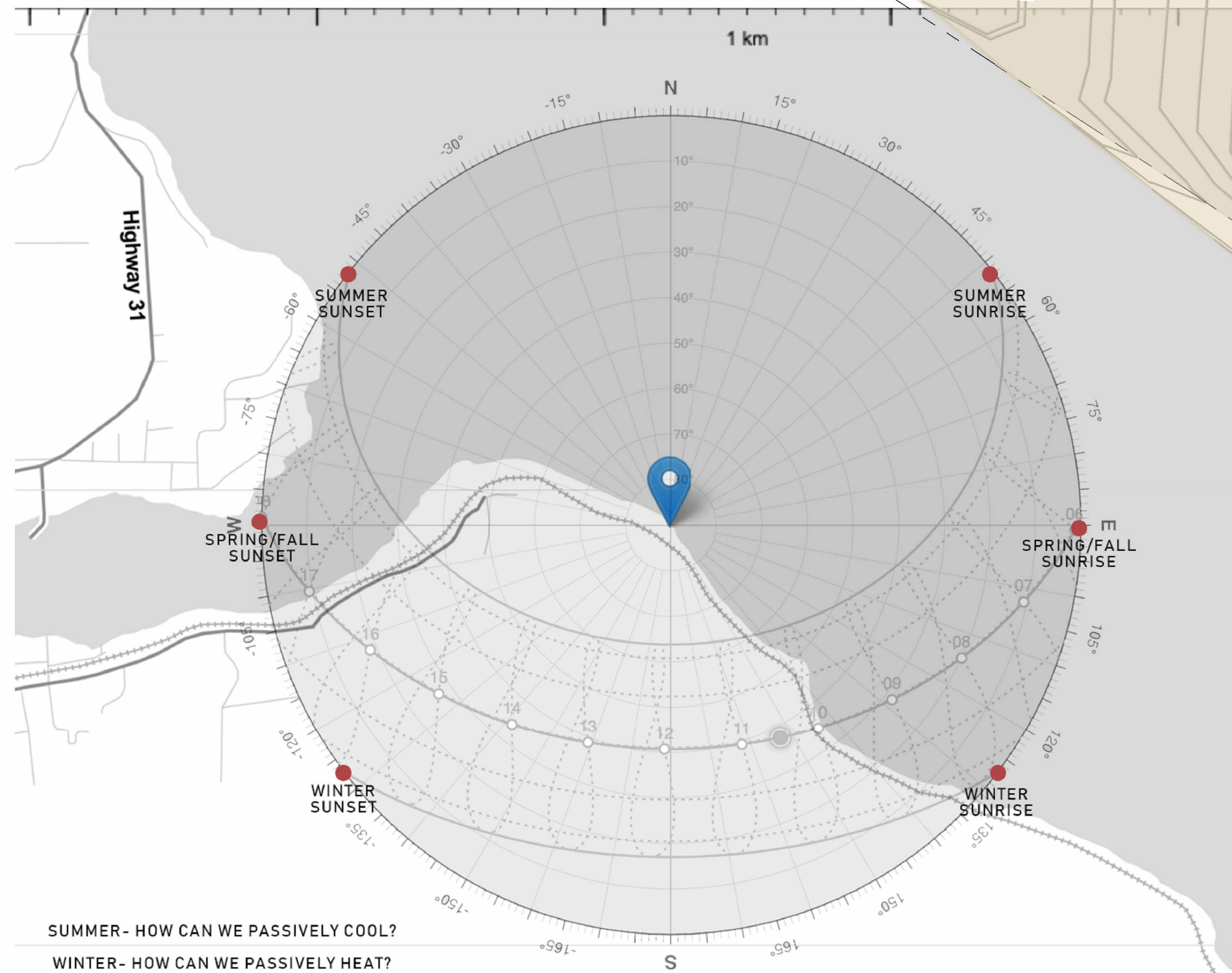
BUILDING CODE

BUILDING CODE: DIVISION B, PART 9 LOT 30

BUILDING INFORMATION

BUILDING CODE: DIVISION B, PART 9
BUILDING AREA: 1536 SF (NO PARCEL COVERAGE RESTRICTION)
WATER: CITY OF PROCTER WATER
SEWER: STRATA SEPTIC
HVAC: RADIANT IN FLOOR HEAT, ERV, MINI SPLIT A/C, FIREPALCE.

SITE CONTEXT



PRUETT | LOT 31- PARK AVE

1 SITE PLAN layout
1/8" = 1'-0"

536.5M FLOORPLAIN
CONSTRUCTION LEVEL

NATURAL BOUNDARY

15m SETBACK
FROM NATURAL BOUNDARY

LOT 31

KOOTENAY LAKE

CURB STOP

STEEL PROPERTY PIN
1786' - 5 1/16"
544.50

ALTERNATIVE FOOTPRINT

707.5 SF
(BUILDING INSIDE 15M
SETBACK)

CANTILEVER DECK

ROCK STEP

PARK AVENUE

WATER VALVE

FIRE HYDRANT

15m SETBACK
FROM NATURAL BOUNDARY

PEBBLE BEACH

STEEL PROPERTY PIN
1754' - 7 5/8"
534.81

APPROX. 10M NATURAL
BOUNDARY SETBACK

536.5M FLOORPLAIN
CONSTRUCTION LEVEL

LOT 32

Revision Schedule table with columns: No., Description, Date.



389 Park Avenue (Lot 31), Procter, BC  
Riparian Assessment



Prepared for:  
**Regional District of Central Kootenay**  
202 Lakeside Drive  
Nelson, BC, V1L 5R4

December 6, 2023

Disclosure Statement

This report has been prepared by Fiona Lau B.Tech., ASCT. and reviewed by Ico de Zwart, PChem. RP Bio.

I, Fiona Lau, hereby certify that:

- a) I am a qualified environmental professional (QEP), as defined in the Riparian Areas Regulation made under the Fish Protection Act;
- b) I am qualified to carry out this part of the assessment of the development proposal made by the developer;
- c) I have carried out my assessment of the development proposal, and my assessment is set out in this Assessment Report; and
- d) In carrying out my assessment of the development proposal, I have followed the assessment methods set out in the Schedule to the Riparian Areas Protection Regulation.

This report has been prepared by a QEP who has not acted for, or as an agent(s) of the RDCK and was at the expense of the property owner.

TABLE OF CONTENTS

Table of Contents ..... i

List of Tables ..... ii

List of Appendices ..... ii

1 Introduction ..... 1

2 Project Overview ..... 2

    2.1 Site Description ..... 2

        2.1.1 Location ..... 2

        2.1.2 Watercourses ..... 2

        2.1.3 Riparian Vegetation ..... 3

        2.1.4 Aquatic Habitat ..... 5

        2.1.5 Wildlife Habitat ..... 6

        2.1.6 Species at Risk ..... 6

        2.1.7 Invasive Species ..... 7

    2.2 Existing Development ..... 7

    2.3 Proposed Development ..... 8

3 Regulatory Overview ..... 10

    3.1 Riparian Area Protection Regulation (RAPR) Review ..... 10

    3.2 Kootenay Lake Shoreline Management Guidelines ..... 11

4 Potential Ecological Effects ..... 12

5 Measures to Protect the Integrity of the SPEA ..... 12

    5.1 Danger Trees ..... 12

    5.2 Windthrow ..... 12

    5.3 Slope Stability ..... 13

    5.4 Protection of Trees and Vegetation in the SPEA ..... 13

    5.5 Encroachment ..... 13

    5.6 Erosion and Sediment Control ..... 13

    5.7 Stormwater Management ..... 14

    5.8 Floodplain Concerns ..... 14

    5.9 Fish and Wildlife Protection ..... 14

    5.10 Invasive Plant Management ..... 15

6 Restoration Plan ..... 15

    6.1 Riparian Revegetation ..... 16

6.2	Recommended Plant Species.....	16
6.3	General Planting Guidelines .....	18
6.4	Maintenance and Monitoring.....	18
7	Conclusion.....	19
8	References .....	20

LIST OF TABLES

Table 1.	Plant species list.....	4
Table 2.	Results of detailed RAPR assessment for Kootenay Lake.....	11
Table 3.	Aquatic and archaeological risk results.....	11
Table 4.	Revegetation Plan Prescription.....	16
Table 5.	Area 1 (Terrace) recommended plant species.....	17
Table 6.	Area 2 (Under deck) recommended plant species.....	17
Table 7.	Acceptable non-native species .....	17
Table 8.	Native Riparian Seed Blend.....	18

LIST OF APPENDICES

- Appendix 1. Site Location Map
- Appendix 2. Legal Survey
- Appendix 3. Proposed Development Site Plan
- Appendix 4. Archaeological Chance Find Procedure.



### 1 INTRODUCTION

Masse Environmental Consultants Ltd. was retained by Holly and Don Pruett (Owners) to conduct a riparian assessment to accompany an application for a Watercourse Development Permit (WDP) on their waterfront property at 389 Park Avenue, Procter, BC (Strata Lot 31 Plan NES3286 District Lot 873; PID 027-785-114).

The development permit is required as residential development is proposed within the 15 m WDP area. The Owner is concurrently seeking a site-specific floodplain exemption in order to develop the property, which involves a relaxation of the floodplain setback from 15 m to 8.86 m, as property characteristics are challenging and present a proposed case of “serious hardship”.

Site visits were completed on April 8, 2021, September 23, 2022 and May 5, 2023 by Fiona Lau B.Tech., ASc T., Jennifer Ross, PChem. and Sylvie Masse, RPBio. to conduct a riparian assessment on the property. The riparian assessment evaluates the existing conditions of the riparian area (up to 30 m from the natural boundary of Kootenay Lake), identifies habitat values, assesses potential environmental impacts, and recommends measures to mitigate or compensate for the alteration of the riparian area to maintain ecological values. It is based on the following regulatory framework and best management practices documents:

- RDCK Electoral Area ‘E’ Rural Official Community Plan Bylaw No. 2260, 2013
- RDCK Floodplain Management Bylaw No. 2080, 2009
- British Columbia Riparian Areas Protection Regulation
- Kootenay Lake Shoreline Management Guidelines
- British Columbia Water Sustainability Act
- British Columbia Wildlife Act
- Federal Migratory Birds Convention Act
- General BMPs and Standard Project Considerations (Ministry of Environment)
- Develop with Care. Environmental Guidelines for Urban and Rural Land Development in British Columbia
- On the Living Edge: Your Handbook for Waterfront Living

## 2 PROJECT OVERVIEW

### 2.1 Site Description

#### 2.1.1 Location

The subject property is in the Procter Point Subdivision in Area E of the Regional District of Central Kootenay (RDCK), (see Appendix 1 for Location Map). The property is 0.36 acres, with ~39.4 m of frontage on Kootenay Lake and is located on the main arm of Kootenay Lake, just south of the outlet into the West Arm. This property has a north-eastern aspect and is exposed to strong southerly winds, and ranges in elevation from ~533 to 547 m above sea level. The property is bordered by private property to the northwest, and south, Park Avenue Road Right of Way (RoW) to the southwest and Kootenay Lake to the east.

The project area is within the Interior Cedar Hemlock dry warm variant 1 (ICHdw1) biogeoclimatic subzone (MacKillop and Ehman 2016). This moist climatic region is characterized by very hot, moist summers; and very mild winters with light snowfall. Soils generally dry out in late summer for varying extents of time ranging from insignificant to extensive. Snowpacks are very shallow to shallow and of short duration and combined with the mild climate result in no significant soil freezing (MacKillop and Ehman 2016).

#### 2.1.2 Watercourses

##### Kootenay Lake

Kootenay Lake borders the subject property along the eastern boundary; it is a long, narrow, and deep lake with a surface area of approximately 400 km<sup>2</sup>. Kootenay Lake's main inflows are the Kootenay River to the south and the Duncan River to the north. The lake drains through the West Arm into the Kootenay River. Lake levels can vary up to 4 m throughout the year, affecting the extent of the exposed shoreline.

The natural boundary of Kootenay Lake was legally surveyed in October 2021 by Darrin B.C. Connatty and is identified on the survey plan (Appendix 2). The natural boundary surveyed varies up to 5 m from the eastern property boundary shown on Parcelmap BC (2023). The natural boundary is commonly referred to as the "high water mark" around a lake or wetland. Based on the definition of high-water mark<sup>1</sup>, the natural boundary shown on the legal survey will be used to delineate the 15 m RDCK WDP area and streamside protection and enhancement area (SPEA) setbacks in accordance with the Riparian Area Protection Regulation (RAPR).

---

<sup>1</sup> High water mark means the visible high water mark of a watercourse where the presence and action of the water are so common and usual, and so long continued in all ordinary years, as to mark on the soil of the bed of the watercourse a character distinct from that of its banks, in vegetation, as well as in the nature of the soil itself, and includes the active floodplain (RDCK 2013).

### 2.1.3 Riparian Vegetation

The subject property supports both undisturbed and disturbed riparian habitat. The undisturbed riparian habitat (northern half and southwestern portion) consists of rocky terrain supporting an Interior Douglas fir (*Pseudotsuga menziesii*), and western red cedar (*Thuja plicata*) forest with a relatively open understory and mixed riparian shrubs and forbes (Photo 1 thru Photo 3). Mosses are dominant throughout the forest floor in this area. The undisturbed rocky shoreline in the northeastern portion supports sporadic trees, shrubs, forbes, and mosses (Photo 4). The disturbed habitat in the south-eastern portion of the property (where vegetation was removed during preliminary development activities) is colonized by agronomic grasses and weeds (Photo 5 and Photo 6). A list of all plant species observed on site is presented in Table 3.

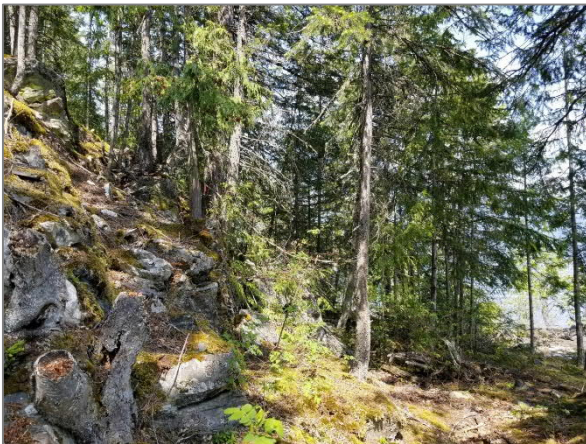


Photo 1. Rocky, steep undisturbed conifer forest on north portion of property.



Photo 2. Rocky, steep undisturbed forest between driveway and Park Avenue on south portion of property.



Photo 3. Rocky area supporting tree and shrub habitat within 15 m of HWM, in north portion of property .



Photo 4. Rocky area supporting tree and shrub habitat within 15 m of HWM, in north portion of property .



Photo 5. Disturbed area for driveway access in south portion of property.



Photo 6. Disturbed grass and weedy area along shore where terrace was created in south portion.

Table 1. Plant species list

Common Name	Scientific Name	Common Name	Scientific Name
Trees		Herbaceous and Low Shrubs	
Douglas-fir	<i>Pseudotsuga menziesii</i>	grasses	<i>Poa</i> sp.
western redcedar	<i>Thuja plicata</i>	kinnikinnick	<i>Arctostaphylos uva-ursi</i>
black cottonwood	<i>Populus trichocarpa</i>	Oregon grape	<i>Mahonia aquifolium</i>
Western hemlock	<i>Tsuga heterophylla</i>	thimbleberry	<i>Rubus parviflorus</i>
Tall Shrubs		pearly everlasting	<i>Anaphalis margaritacea</i>
falsebox	<i>Pachistima myrsinites</i>	princess pine	<i>Chimaphila umbellata</i>
mountain alder	<i>Alnus incana</i>	rattlesnake plantain	<i>Goodyera oblongifolia</i>
Nootka rose	<i>Rosa nutkana</i>	spotted knapweed	<i>Centaurea stoebe</i>
paper birch	<i>Betula papyrifera</i>	tufted vetch	<i>Vicia cracca</i>
red raspberry	<i>Rubus idaeus</i>	twinlineer	<i>Linnaea borealis</i>
red-osier dogwood	<i>Cornus stolonifera</i>	western licorice fern	<i>Polypodium hesperium</i>
rose	<i>Rosa</i> sp.	yarrow	<i>Achillea millefolium</i>
common snowberry	<i>Symphoricarpos albus</i>	yellow clover	<i>Trifolium aureum</i>
soopolallie	<i>Shepherdia canadensis</i>	yellow devil hawkweed	<i>Hieracium glomeratum</i>
water birch	<i>Betula occidentalis</i>	Mosses	
willow sp	<i>Salix</i> sp.	pipecleaner moss	<i>Rhytidiopsis robusta</i>
Herbaceous and low shrubs		red-stemmed feathermoss	<i>Pleurozium schreberi</i>
bull thistle	<i>Cirsium vulgare</i>	rockmoss	<i>Racomitrium</i> sp.
dandelion species	<i>Taraxacum</i> sp.	lichens	
fescue sp.	<i>Fescue</i> sp.		

#### 2.1.4 Aquatic Habitat

The shoreline in front of the property consists primarily of a bedrock outcrop and a mixture of cobbles and angular boulders occupy the littoral zone (Photo 7 and Photo 8). Migration of some of the gravel imported to create a beach area can be observed along the shoreline (Photo 7). Slopes range from almost vertical along the bedrock outcrops to 5-10 % in the littoral zone. Sparse herbaceous and shrubby vegetation is present on and above the rock outcrops, but no submergent vegetation was observed. This area provides rearing habitat for juvenile fish as well as fry that can utilize the cobble and boulder substrate for cover. Shallow foreshore areas may be used for broadcast spawning by non-sport fish species (i.e., peamouth chub (*Mylocheilus caurinus*) and northern pikeminnow (*Ptychocheilus oregonensis*). Species of regional interest that reside in Kootenay Lake are Kokanee (*Oncorhynchus nerka*), Rainbow Trout (*O. mykiss*), Bull Trout (*Salvelinus confluentus*; BC-Blue-Listed; SARA Special Concern), White Sturgeon (*Acipenser transmontanus*; BC Red-Listed, SARA Endangered), Westslope Cutthroat Trout (*O. clarki lewisi*; BC Blue-Listed; SARA Special Concern), and Burbot (*Lota lota*; BC-Red-Listed).

Mussel beds have been identified along the shoreline of Kootenay Lake in multiple locations both on the West Arm and main body of the lake. No evidence of mussels was seen on the shoreline (i.e., mussel shells). A mussel survey was not conducted to determine presence or absence, as no works are proposed below the HWM.

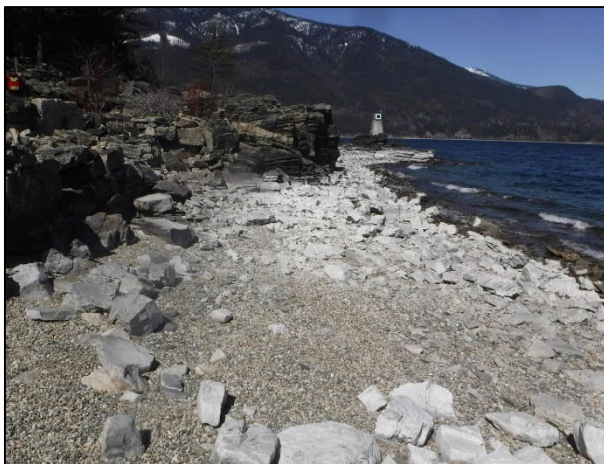


Photo 7. North view of foreshore with angular boulders in littoral zone and bedrock outcrop. Note imported gravel from beach creation along foreshore.



Photo 8. South view of bedrock outcrops at north end of property.

### 2.1.5 Wildlife Habitat

Riparian ecosystems offer important habitat features for wildlife, affording them essential resources like water, shelter, and food. These areas frequently serve as migration corridors connecting aquatic, riparian, and upland environments, playing a pivotal role in the life cycles of numerous species.

The rocky foreshore may provide habitat for northern alligator lizards (*Elgaria coerulea*), garter snakes (*Thamnophis* spp.) and western skink (*Plestiodon skiltonianus*). The subject property is likely visited by songbirds, waterfowl, and raptors particularly during the spring breeding season, as well as may provide habitat for ungulates, bears and small mammals.

No significant incidental wildlife observations were made during the site visits.

### 2.1.6 Species at Risk

A 10 km buffer around the subject property was used to query BC Conservation Data Center species at risk (SAR) records using the CDC iMap tool (BC 2023) and Habitat Wizard (BC 2023). In addition, a 5 km buffer around the subject property was used to query recorded observations on iNaturalist (2023). Based on these queries, five species at risk occurrences are known within the 10 km buffer around the project area. These are white sturgeon (*Acipenser transmontanus*; BC Red listed, SARA Schedule 1), western skink (*Plestiodon skiltonianus*, BC Blue listed), Western toad (*Anaxyrus boreas*; BC blue listed), Southern Mountain Caribou (*Rangifer tarandus*; BC Red listed; SARA Endangered) and wild licorice (*Glycyrrhiza lepidota*, BC blue listed). None of these species are likely to occur on the property as the specific habitat attributes that require are not present

In addition to this list, many bat species are blue-listed in BC (e.g.: little brown myotis (*Myotis lucifugus*), Western small-footed myotis (*Myotis ciliolabrum*), and the Yuma myotis (*Myotis yumanensis*). The little brown myotis is also listed as ‘endangered’ under the Species At Risk Act. Bat roosting habitat includes tall, live or dead trees with crevices, peeling bark, or cavities. No significant habitat features for bats were observed.

The subject property is within a critical habitat polygon (matrix range) for Southern Mountain Caribou (EC 2014). Matrix range is the area adjacent to core habitat that has periodic or low use by caribou but supports primary prey and associated predators that have the potential to affect the caribou subpopulation. Critical habitat attributes for matrix range are those that provide “ecological conditions that allow for low predation risk, defined as wolf population densities of < 3 wolves/1000km<sup>2</sup>” (EC 2014).

### 2.1.7 Invasive Species

Central Kootenay Invasive Species Society (CKISS) manages invasive species regionally using a prioritized approach. The management strategy for a specific species is based on a number of factors including the phase of invasion and the potential impacts of the species (CKISS 2023). Priority species lists can be found at <https://ckiss.ca/species/invasive-plant-priority-lists/>.

Based on the CKISS 2023 Priority List, there were no species identified on the subject property that are actively managed regionally.

### 2.2 Existing Development

The property was created as part of the 182 ha Procter Point Subdivision, formerly called Kootenay Lake Village. The lot was modified and prepared for development into a series of small terraces and pathways protected by rock walls prior to purchase by the current owners. The building site was leveled into two terrace areas between a steep slope below the Park Avenue ROW and the rugged shoreline of Kootenay Lake (Photo 9 thru Photo 12).

In the southeast corner at the upper margin of the high water mark (HWM), two 12 m long, tiered rock stack retaining walls have been constructed to form a 6 m wide terrace colonized with non-native grasses (Appendix 3, Photo 11 and Photo 12). The terrace is showing signs of erosion indicating that flood levels have extended beyond the Natural Boundary (Photo 13). Gravel was imported into an area at the south end of the property to create a “beach area” measuring approximately 6 m x 10 m (Photo 14). The remainder of the property is relatively undisturbed with a mature forest and open understory.

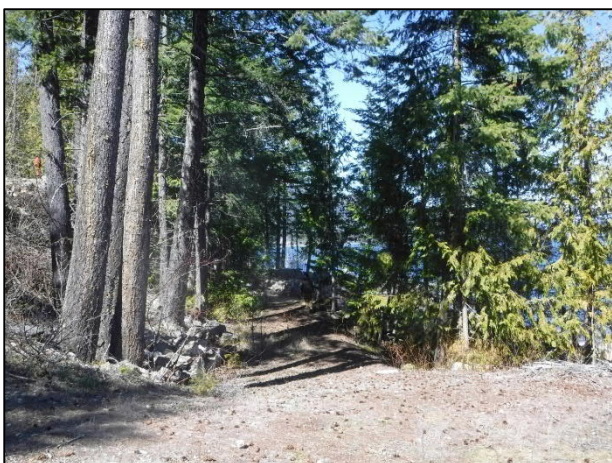


Photo 9. Existing access from Park Avenue, looking north.



Photo 10. Existing access and tiered area, looking north.



Photo 11. Rugged foreshore with rock retaining walls.



Photo 12. Tiered rock stack retaining walls supporting greenspace terrace.



Photo 13. View of erosion along edge of terrace.

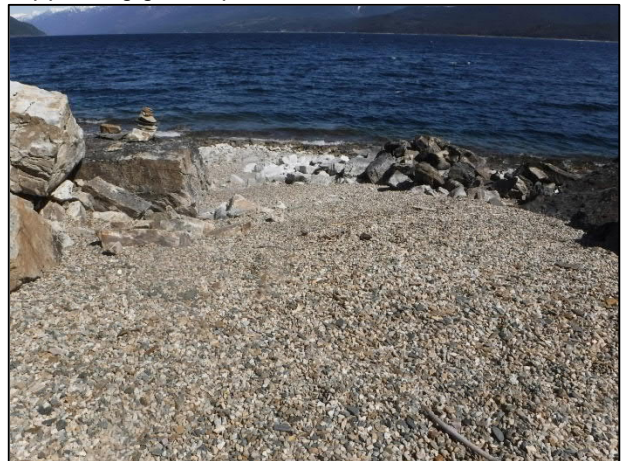


Photo 14. Imported gravel to create beach area.

### 2.3 Proposed Development

Proposed development on the subject property includes the construction of a residential home consisting of a main house and sleeping cabin and new water and sewer lines connecting to existing infrastructure on Park Avenue.

Proposed development within the 15 m WDP area includes:

- Construction of a main house (66m<sup>2</sup>) with an elevated/cantilevered deck (41 m<sup>2</sup>) along the east and north side of the home totalling 107 m<sup>2</sup>. This will require the removal of 6 small to medium sized trees (ranging from 50 mm- 270 mm diameter at breast height(dbh)).



Beyond the 15 m setback, but within the 30 m riparian assessment area, the proposed development includes:

- Construction of the remaining section of the main house (47m<sup>2</sup>).
- Construction of a sleeping cabin and deck (46 m<sup>2</sup>), which requires the removal of 7 small to medium sized trees (50 mm-200 mm dbh).
- Installation of a new water line and septic line along driveway and connected to the community system located along Park Avenue.



Photo 15. Aerial image of subject property (RDCK Mapping 2023).



Photo 16. View of a proposed building area for main house looking southeast.

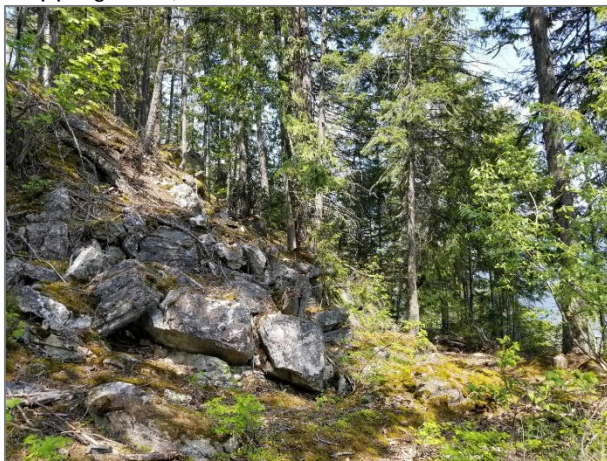


Photo 17. View of proposed area for sleeping cabin and deck.

The site plan provided by the Architect (Dustin Lalik), and marked up to show relevant setbacks is provided in Appendix 3. The building designs have incorporated both geotechnical and environmental recommendations, which involve constructing the main house and sleeping cabin on piers and

cantilevering the deck along the frontside of the house. The front side of both the house and sleeping cabin are elevated by up to 2 meters above the ground. This design feature serves several purposes:

- Allowing waves to pass beneath the structure during extreme flood events.
- Minimizing ground disturbance, including the need for blasting and rock removal.
- Facilitating the growth of vegetation under the deck areas.
- Preserving the movement of small mammals and reptiles below the elevated structures.

Due to the challenging topography of the site, characterized by steep rocky slopes supporting mature forest vegetation beyond the 15-meter setback, and the limited width of the lot on its southern half, the preferred location for constructing the main house has been identified within the area previously designated and disturbed for development. Please refer to Section 2.2 for a detailed description of the existing site conditions.

The building site was developed prior to the current floodplain and OCP bylaws, when the designated floodplain setback was 7.5 m from the natural boundary of Kootenay Lake. The Owners are requesting a site-specific floodplain exemption from the RDCK, seeking a reduction of the floodplain and riparian setbacks from 15 meters to 8.86 meters due to a case of “serious hardship”, in order to facilitate property development. The proposed relaxation of the setback is supported by the VAST Solutions Flood Assessment Report (2023), which provides development specific recommendations for residential construction within the floodplain.

### 3 REGULATORY OVERVIEW

#### 3.1 Riparian Area Protection Regulation (RAPR) Review

The 15 m WDP setback from the boundary of Kootenay Lake was compared with the Riparian Area Protection Regulation (RAPR) criteria by conducting a detailed assessment of the subject property and determining the Streamside Protection and Enhancement Area (SPEA) setback. Results for the Zones of Sensitivity (ZOS) and SPEA are presented in Table 1 and Appendix 3.

As per the RAPR, the large woody debris (LWD) and litter ZOS were plotted 15 m inland from the HWM of Kootenay Lake with the shade ZOS plotted 11-28 m south from the HWM of Kootenay Lake. The SPEA setback is determined based on the ZOS with the greatest width. Therefore, within the subject property the SPEA from the HWM of Kootenay Lake ranges from 15 m -28 m (Table 1). The SPEA is 15 m at the south end and increases to 28 m at the north end.

Table 2. Results of detailed RAPR assessment for Kootenay Lake.

Feature Type	SPVT <sup>1</sup>	Zones of Sensitivity			SPEA <sup>3</sup>
		LWD <sup>2</sup>	Litter fall	Shade	
Kootenay Lake	TR	15 m	15 m	11-28 m	15-28 m

<sup>1</sup> SPVT: site potential vegetation type (TR-tree)

<sup>2</sup> LWD- large woody debris

<sup>3</sup> SPEA- streamside protection and enhancement area

Proposed development within the 15- 28 m SPEA is the construction of a main house and sleeping cabin totaling 164 m<sup>2</sup> and requiring the removal of 13 trees.

### 3.2 Kootenay Lake Shoreline Management Guidelines

The Kootenay Lake Foreshore Integrated Management Planning (FIMP; Schleppe and McPherson 2022), the Foreshore Inventory Mapping (FIM; KLP 2023) and the Kootenay Lake Shoreline Management Guidelines (KLP 2020) were used to help determine site-specific risks for riparian habitat, Ktunaxa Nation cultural values, and archaeological resources along the shoreline (Table 3). The property is within FIM segment 214. The aquatic habitat index rating was rated high in this segment because of the high value juvenile rearing habitat and potential for kokanee spawning habitat. Based on the Ecological Activity Risk Matrix (Table 3a Shoreline Guidance Document KLP 2020), any “Native vegetation modification/removal” within the riparian area is considered ‘very high risk’.

Table 3. Aquatic and archaeological risk results

Aquatic Habitat Index Rating (AHI)	Aquatic Sensitivity	Archaeological Risk	Enhanced Engagement Required (Work below HWM)
High	Yes	Yellow	No

According to the Kootenay Lake Shoreline Management Document, the proposed activities on the subject property area have high archaeological risk. Further assessment of archaeological risk is beyond the scope of this report. For further information please consult the Kootenay Lake Shoreline Guidance Document (KLP 2020).

Kootenay Lake is part of the traditional territory of the Ktunaxa, Sinixt and Syilx (Okanagan) First Nations and archaeological evidence is documented at multiple sites along the shoreline and mountain sides of Kootenay Lake. Archaeological Chance Find Procedures are provided in Appendix 4 for guidance on which protocols to follow in the event of a chance archaeological find to ensure that archaeological sites are documented and protected as required for compliance with the BC Heritage Conservation Act.

#### 4 POTENTIAL ECOLOGICAL EFFECTS

Potential ecological effects directly associated with the proposed development include:

- Reduction of suitable wildlife habitat (i.e. potential nesting and perch habitat), biodiversity, and nutrient cycling within the development footprint.
- Change in cover habitat from natural forest to anthropogenic structures within development footprint.
- Increased risk of sedimentation into Kootenay Lake during construction and from stormwater run-off.
- Increased human presence and activity, which may lead to decreases of wildlife presence and increases in human-wildlife contact.
- Increased biodiversity within a previously disturbed area along the shoreline by removal of weeds and planting of native vegetation. This will positively effect fish habitat by creating some shade habitat during high water levels and leaf-litter and insect drop.
- Increased risk of invasive weed introduction from construction equipment and exposed soils.

Mitigation measures to help minimize the potential negative effects are detailed in Section 5 and a restoration plan to help mitigate and restore the degraded riparian area is prescribed in Section 6.

#### 5 MEASURES TO PROTECT THE INTEGRITY OF THE SPEA

This section provides measures to protect the integrity of the SPEA as described in the RAPR, as well as recommended best management practices to minimize the potential effects of the development.

##### 5.1 Danger Trees

No danger trees around the proposed home were identified. Further assessment of potential danger trees is outside the scope of this report. Any proposed danger tree removal should be assessed by a certified arborist, prior to removal.

##### 5.2 Windthrow

No significant clearing of trees is proposed on the property; therefore, changes to windthrow risk are minimal. Additional assessment of windthrow risk is beyond the scope of this report, and any such assessment should be led by a Registered Professional Forester (RPF).

### 5.3 Slope Stability

No signs of slope instability were observed on the property. Further assessment of geotechnical hazard is beyond the scope of this report, and any such assessment should be led by a P.Geo, or P.Eng.

### 5.4 Protection of Trees and Vegetation in the SPEA

The following protection measures have been incorporated into the design to minimize impacts to existing and potential trees and vegetation within the SPEA:

- The proposed development requires limited tree removal (13 trees with a DBH ranging from 50-270 mm).
- The sleeping cabin is sited within an area of the SPEA that is mostly rocky with minimal trees compared to other vegetated areas within SPEA.
- The proposed construction of both the main house and sleeping cabin on piers minimizes ground disturbance and protects existing tree roots. This design allows for light penetration below the front side of the structures to facilitate the growth of vegetation under the deck areas.
- Install snow fencing along the alignment shown on the site plan to protect existing riparian vegetation.

### 5.5 Encroachment

Protection measures to minimize effects of the encroachment within the SPEA are:

- Development footprint within 15-28 m of Kootenay Lake has been minimized.
- Structures are elevated and supported by piers to allow for unobstructed wave migration under the structures during flood events, facilitation of plant growth under structures and small mammal wildlife movement.

### 5.6 Erosion and Sediment Control

In order to prevent erosion of the property and to prevent sediment from entering Kootenay Lake, soil disturbance will be minimized as much as possible and exposed soils will be re-vegetated as soon as possible. This site is mostly rocky, therefore erosion and sedimentation are expected to be minimal.

The following mitigation measures should be implemented to reduce the risk of sediment input to Kootenay Lake:

- Any surface water coming into the site will be conveyed around any development area where exposed soils are present.

- During construction, activities should be suspended during periods of heavy rain if there is any risk that continued work could result in sediment delivery to Kootenay Lake. Where required, additional mitigation measures, such as sediment fencing, ditching, check dams, or covering soils may be required to manage turbid wastewater generated by construction or heavy rain events. Turbid wastewater will not be permitted to leave the construction site.
- Soils will be safely stockpiled in a manner that eliminates the possibility of erosion and sediment transport and stockpiles will be located as far away from Kootenay Lake as possible.
- Disturbed soils should be revegetated as soon as possible after construction.

### 5.7 Stormwater Management

The re-development of the property will result in an increase in the total impervious area. The following mitigation measures will help decrease stormwater impacts to the SPEA:

- Groundwater and surface water will be conveyed around any area where disturbed/exposed soils may occur.
- Pervious materials (e.g., gravel) are recommended for driveways, parking areas, and pathways. This minimizes stormwater runoff from impervious materials (e.g., asphalt and concrete), which must be managed using natural hydrologic pathways. Storm water will not be permitted to discharge directly into Kootenay Lake.
- Design roof rainwater collection systems that direct rainwater into suitable landscape features which can absorb and utilize runoff. Roof runoff is not permitted to discharge directly into Kootenay Lake.
- Stormwater discharges must adhere to the Water Sustainability Act or any other applicable legislation.

### 5.8 Floodplain Concerns

Refer to Flood Hazard Assessment Prueett 389 Park Avenue report completed by Vast Resource Solutions Inc (2023).

### 5.9 Fish and Wildlife Protection

To minimize disturbance to fish, wildlife, and their habitat, the following measures will be implemented:

- Adhere to erosion and sediment control and stormwater best management practices outlined in this report to ensure that there is no release of deleterious materials into Kootenay Lake.

- Clearing of vegetation shall be completed outside of the songbird breeding season (mid August – end of March) (ECCC 2023b). If clearing of vegetation is completed within the breeding window, confirm that no active nests are present.
- Follow the Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (MOE 2013) if any active raptor nests are discovered within 100 m of the subject property. Active raptor nests are legally protected at all times of the year and some inactive nests (ex: Bald Eagle nests) are similarly protected.
- Avoid any modifications to the beach substrate and preserve the remaining riparian vegetation.

#### 5.10 Invasive Plant Management

Construction activities can potentially increase prevalence of invasive plant species which can out-compete native riparian vegetation, causing damage to habitat and ecosystem function. The following mitigation measures are recommended in order to reduce the establishment and proliferation of invasive plant species on site:

- All equipment should be thoroughly washed and inspected before entering the project site to prevent the import of new invasive plant seeds and root fragments.
- Amount of vegetation clearing, and soil disturbance should be minimized.
- All exposed soils should be re-vegetated immediately following construction.

## 6 RESTORATION PLAN

The Shoreline Management Guidelines for Kootenay Lake outlines general principles for shoreline development in order to achieve a “No Net Loss” of habitats present. The principle is achieved by applying the following priority sequence of mitigation options: 1. Avoidance of environmental impacts; 2. Minimization of unavoidable impacts; 3. On-site restoration; and 4. Offset residual impacts that cannot be minimized through compensation (KLP 2018).

Avoidance was not achievable with the proposed re-development; therefore, Minimization of unavoidable impacts and On-site restoration is being proposed. Minimization is achieved by constructing the residential structures on piles to minimize impacts to natural ground and facilitating vegetation growth below the deck area and onsite restoration for the direct loss of 13 trees is achieved by revegetating a previously degraded area.

## 6.1 Riparian Revegetation

The on-site restoration opportunities are limited on the subject property; however, two areas have been identified for revegetation: Area 1 (Terrace Area -26 m<sup>2</sup>) and Area 2 (Under Front Decks- 28 m<sup>2</sup>) totalling 54 m<sup>2</sup>. Refer to Appendix 3 for revegetation areas.

Table 4. Revegetation Plan Prescription

Restoration Area	Size (m <sup>2</sup> )	Prescription
Area 1: Terrace Area	~26	<ul style="list-style-type: none"> <li>Strip and remove grass and weeds.</li> <li>De-compact soil, add topsoil and soil amendments (compost and mycorrhizae to planting area. Additional rock may need to be placed in areas of high erosion along edge of terrace to protect plants.</li> <li>Plant a mixture of &gt;20 native trees and shrubs, with additional herb species in between (Table 5).</li> <li>Trees and shrubs shall be 1 gallon pot size or larger.</li> </ul>
Area 2: Under Front Decks	~28	<ul style="list-style-type: none"> <li>Add top soil and soil amendments including compost and mycorrhizae to planting areas.</li> <li>Plant a mixture of &gt;20 native shrubs and ferns (Table 6)</li> </ul>

## 6.2 Recommended Plant Species

A list of recommended plant species that will be used for revegetation is provided in Table 5 and Table 6. Acceptable non-native plant species that can be substituted (no greater than 15 % of total plants) is provided in Table 7. Final species selection is at owners' discretion. Native plants can be purchased from Sagebrush Nursery located in Oliver BC (<https://sagebrushnursery.com>), Peels Nursery located in Mission, BC (<https://www.peelsnurseries.com/>) and potentially other nurseries within the local area if stock is available. Recommended seed mix to be used on disturbed soils is presented in Table 8 and can be purchased through Masse Environmental for small quantities (if available) and Interior Seed and Fertilizer (<https://interiorseedandfertilizer.ca/>) for larger quantities.

Plant species were selected based on their suitability for the property (ecoregion, exposure, and moisture regime) and based on the following resources:

- Conservation, Restoration and Stewardship of Low Elevation Brushland (GB), Grassland (Gg) and Dry Forest Ecosystems in the West Kootenay Region (McKenzie and Hill 2023).
- British Columbia FireSmart Landscaping Guide
- Invasive Species Council of BC Grow Me Instead Guide
- The EcoGarden Project Plant List for West Kootenay Gardens (CKISS N.D.)
- Riparian Factsheet No. 6 – Riparian Plant Acquisition and Planting (Ministry of Agriculture 2012).



- A Resource for Kootenay Lake Living

Table 5. Area 1 (Terrace) recommended plant species.

Common Name	Scientific Name	Common Name	Scientific Name
Trees		Shrubs (Cont'd)	
Western white pine	<i>Pinus monticola</i>	blue elderberry	<i>Sambucus caerulea</i>
Interior Douglas fir	<i>Pseudotsuga menziesii</i>	thimbleberry	<i>Rubus parviflorus</i>
paper birch	<i>Betula papyrifera</i>	blueberry	<i>Vaccinium ovalifolium</i>
Shrubs		common snowberry	<i>Symphoricarpus albus</i>
red osier dogwood	<i>Cornus stolonifera</i>	soopalalie	<i>Shepherdia canadensis</i>
sandbar willow	<i>Salix exigua</i>	Herbaceous	
Scouler's willow	<i>Salix scouleriana</i>	blue joint grass	<i>Calamagrostis canadensis</i>
nootka rose	<i>Rosa nutkana</i>	Idaho fescue	<i>Festuca idahoensis</i>
mountain alder	<i>Alnus incana</i>	junegrass	<i>Koeleria macrantha</i>
water birch	<i>Betula occidentalis</i>	nodding onion	<i>Allium cernuum</i>
Douglas maple	<i>Acer glabrum</i>	pink spirea	<i>Spirea douglasii</i> spp. <i>Menziesii</i>
mallow ninebark	<i>Physocarpus malvaceus</i>	Canadian goldenrod	<i>Solidago lepida</i>
oceanspray	<i>Holodiscus discolor</i>		

Table 6. Area 2 (Under deck) recommended plant species.

Common Name	Scientific Name	Common Name	Scientific Name
Shrubs		Ferns and Forbs	
kinnikinnick	<i>Arctostaphylos uva-ursi</i>	deer fern	<i>Blechnum spicant</i>
common snowberry	<i>Symphoricarpus albus</i>	Western sword fern	<i>Polystichum munitu,</i>
falsebox	<i>Pachistima myrsinites</i>		
Thimbleberry	<i>Rubus parviflorus</i>		

Table 7. Acceptable non-native species

Common Name	Scientific Name
Forbs	
bleeding heart	<i>Lamprocapnos spectabilis</i>
Elijah blue fescue	<i>Festuca glauca</i>
hosta spp. <sup>1</sup>	<i>Hosta</i> sp.
'Karl Foerster' feather reed grass	<i>Calamagrostis acutifolia</i>

<sup>1</sup>Suitable only for Area 2 under front deck.

Table 8. Native Riparian Seed Blend

Native Riparian Blend 1	% weight	% by species
slender wheatgrass	25.0%	18%
streambank wheatgrass	25.0%	18%
fringed brome grass	24.7%	9%
northern wheatgrass	20.0%	14%
sheep fescue	3.0 %	10%
tufted hairgrass	1.0 %	11%
fowl bluegrass	1.0 %	9%
yarrow	0.3 %	3%

### 6.3 General Planting Guidelines

General planting guidelines for revegetation are:

- Conifer trees shall be planted at minimum 3 m spacing.
- Deciduous trees and shrubs shall be planted at 0.5 – 1.0 m spacing. Planting in clusters vs. grid formation is preferred and produces a more natural appearance.
- Herbs shall be planted between shrubs and trees and can be spaced as little as 30 cm apart depending on the size.
- Planting shall occur in the early spring or fall and will not occur during the hottest summer months unless the owners are prepared to irrigate this area daily.
- Shrub and tree roots shall be inoculated with mycorrhizae during installation.
- Mix 50% compost and topsoil with onsite soils into each planting hole.
- Inoculate plant roots with mycorrhizae.
- Irrigate initially and throughout the growing season (May-September) until plants are established and thereafter as required.

### 6.4 Maintenance and Monitoring

The anticipated maintenance required for the revegetation plan includes the following:

- Annual weeding and brushing around potted stock.
- Irrigate initially and throughout the growing season (May-September) until plants are established and thereafter as required.
- Any dead plants shall be replaced within the first 3 years.

The anticipated effort for environmental monitoring and professional guidance on this project includes the following:

- QEP to provide guidance during revegetation, as required.

- QEP will conduct a post site visit once revegetation is complete to assess compliance and completion of the project and submit an environmental summary report to the RDCK.
- QEP will conduct an inspection 3 year's post development to evaluate the health and condition of the revegetation areas.

## 7 CONCLUSION

The Owners seek a reduction in the floodplain and WDP setback from 15 m to 8.86 m due to the unique features of the property which present challenging building terrain (steep rocky forested area) beyond the 15 m floodplain and WDP setbacks, and because the proposed development area within the 15 m setback is relatively flat and has been previously disturbed. The lot was subdivided at a time when the required floodplain setback was 7.5 m, and other building site alternatives would result in greater disturbance.

From an ecological standpoint, the development when located as proposed, will result in the removal of less riparian vegetation compared to a scenario where the development is entirely situated beyond the 15-meter setback. The proposed development has a footprint of 164 m<sup>2</sup> within the SPEA and will require the removal of 13 small to medium sized trees, contributing to cumulative local losses of wildlife and fish habitat within local riparian areas.

To help reduce the ecological effects caused by the land development the Owners have incorporated these four important mitigation measures:

- Minimization of the house footprint within the 15 m WDP area.
- Elevated structures on piles to minimize impacts to natural lake flow movement during flood events, minimize ground disturbance, preservation of small mammal movements and facilitation of plant growth under the front deck structures.
- Minimization of mature tree removal with the SPEA by proposing development mostly within existing disturbed areas and/or areas that are rocky with minimal trees.
- Revegetation of disturbed areas to help mitigate loss of habitat and help restore riparian function on the subject property.

Sincerely,



Fiona Lau, BTech., ASCT

[fiona@masseenvironmental.com](mailto:fiona@masseenvironmental.com)

Reviewed by:



Ico de Zwart, PChem, RPBio

Masse Environmental Consultants

## 8 REFERENCES

- [BC]. 2019. Riparian Areas Protection Regulation. B.C. Reg. 178/2019, Last amended February 5, 2021 by B.C. Reg. 11/2021. Victoria, British Columbia, Canada.
- [BC]. 2023. iMap BC Mapping Application. Available online at:  
<https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc>
- [EC] Environment Canada. 2014. Recovery Strategy for the Woodland Caribou, Southern Mountain population (*Rangifer tarandus caribou*) in Canada. Species at Risk Act Recovery Strategy Series. Environment Canada, Ottawa. viii + 103 pp
- Gov BC. 2022. Requirements and Best Management Practices for Making Changes In and About a Stream in British Columbia, V. 2022.01. Government of British Columbia.
- Kipp, S. and Callaway, C. 2002. On the Living Edge. Your Handbook for Waterfront Living.
- [KLP] Kootenay Lake Partnership. Ktunaxa Nation Council, Regional District of Central Kootenay, Ministry of Forests, Lands, and Natural Resource Operations, Ecoscape Environmental Consultants Ltd., Tipi Mountain Eco-Cultural Services Ltd. The Firelight Group Ltd., Wayne Choquette. 2020. Shoreline Guidance Document – Kootenay Lake. Prepared for Kootenay Lake Partnership.
- [KLP]. Kootenay Lake Partnership. 2023. Kootenay Lake Shoreline Inventory Mapping Interactive Map. Available online at: <http://kootenaylakepartnership.com/>
- [LTSA] Land Title and Survey Authority of British Columbia. 2023. ParcelMap BC Mapping Application. Available online at: <https://ltsa.ca/products-services/parcelmap-bc/>
- Mackillop, D. and Ehman, A. 2016. A Field Guide to Site Classification and Identification for Southeast British Columbia: the South-Central Columbia Mountains. Province of B.C., Victoria, B.C. Land Management Handbook 70.
- [MFLNRORD] BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 2019. Riparian Areas Protection Regulation Technical Assessment Manual. V 1.1. November 2019.

[MoE] BC Ministry of Environment. 2014. Develop with Care 2014. Environmental Guidelines for Urban and Rural Land Development in British Columbia. Province of British Columbia. Victoria, British Columbia, Canada.

[RDCK] Regional District of Central Kootenay. 2009. Floodplain Management Bylaw No. 2080, 2009. Last updated December 2019.

[RDCK]. 2013. Electoral Area 'E' Official Community Plan Bylaw No. 2260, 2013.

[RDCK]. Regional District of Central Kootenay N.D. A Resource for Kootenay Lake Living. Available online at:  
[https://www.rdck.ca/assets/Services/Land-Use-and-Planning/Documents/2021-04-20-KLDPA\\_Resource-V5.pdf](https://www.rdck.ca/assets/Services/Land-Use-and-Planning/Documents/2021-04-20-KLDPA_Resource-V5.pdf)

Schleppe, J.<sup>1</sup>, and S. McPherson<sup>2</sup>. 2022. Kootenay Lake Foreshore Integrated Management Planning. Prepared for Living Lakes Canada. Prepared by: Ecoscape Environmental Consultants Ltd.<sup>1</sup>, and Lotic Environmental Ltd.<sup>2</sup>

VAST Resource Solutions Inc. (2023). Pruet Flood Hazard Assessment. Prepared for Ms. Holly Pruet.

APPENDIX 1. SITE LOCATION MAP

# RDCK Map



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen,



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

### Legend

 Electoral Areas

**Project Location Map**  
 Lot 31, Kootenay Lake Village  
 (389 Park Avenue)  
 Procter, BC

### Map Scale:

1:72,224

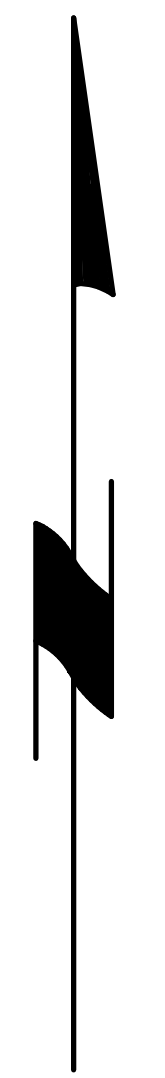
Date: April 26, 2021



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

## APPENDIX 2. LEGAL SURVEY

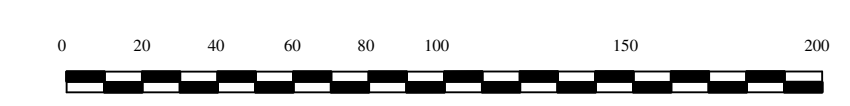




# KOOTENAY LAKE

GCM 816652 MARKED 86H1956  
 DATUM: NAD 83 (CSRS) 4.0.0.BC.1  
 UTM ZONE 11 COORDINATES  
 UTM NORTHING: 5496813.102m  
 UTM EASTING: 505122.562m  
 POINT COMBINED SCALE FACTOR: 0.9995189  
 PUBLISHED POSITIONAL ACCURACY 0.363m

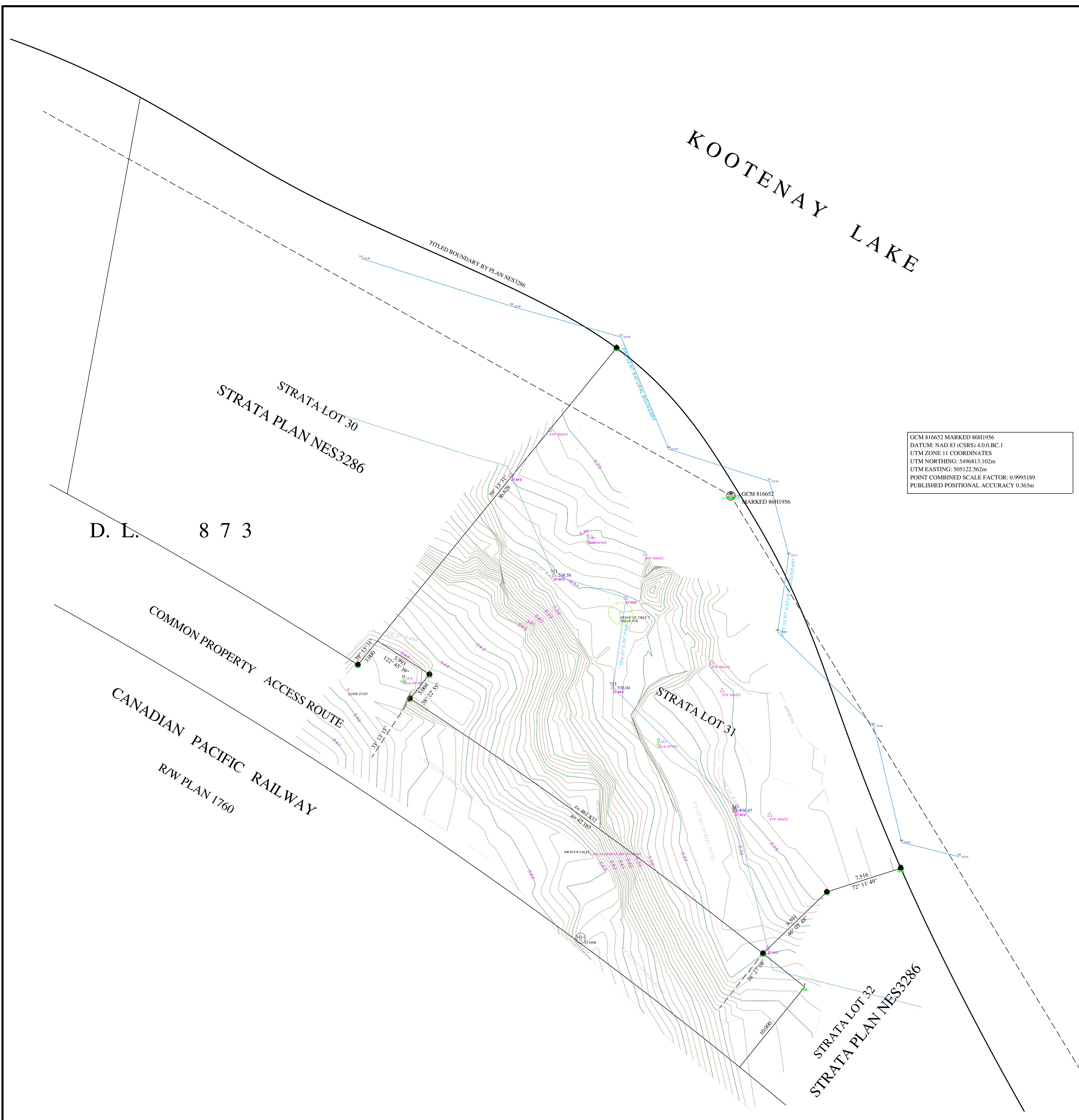
## TOPOGRAPHIC PLAN OF STRATA LOT 31 DISTRICT LOT 873 KOOTENAY DISTRICT STRATA PLAN NES3286 B.C.G.S. 82F.066



SCALE = 1 : 200  
 The intended plot size is 864mm in width  
 and 560mm in height (D size at a scale of 1:200)

### LEGEND

- Grid bearings are derived from differential dual frequency GNSS observations and are referred to the central meridian UTM Zone 11.  
 The UTM coordinates and estimated absolute accuracy achieved are derived from dual frequency GNSS observations to Geodetic Control Monument 86H1956.  
 This plan shows horizontal ground level distances, unless otherwise specified. To compute grid distances, multiply ground level distances by the average Combined Scale Factor 0.9995189. The average Combined Scale Factor has been determined based on an ellipsoidal elevation of 520m at GCM 86H1956
- ▲ Denotes Geodetic Control Monument found in place
  - Denotes iron post found
  - Mp Denotes metal marker post
  - △ Denotes traverse hub placed



This plan lies within the Regional District of Kootenay Boundary

THE FIELD SURVEY REPRESENTED BY THIS PLAN  
 WAS COMPLETED ON THE 20TH DAY  
 OF OCTOBER, 2021.  
 DARRIN B.C. CONNATY, B.C.L.S. 737

APPENDIX 3. PROPOSED DEVELOPMENT SITE PLAN

ZONING

DISTRICT: RDCK (AREA E, RURAL)
CIVIC ADDRESS: 389 PARK AVENUE, PROCTER, BC. V0G 1V0.
LEGAL DESCRIPTION: STARTA LOT 31
PLAN NES3286
Folio: 707.02256.131
PID: 027-785-114
District Lot 873
LTO LB551916.
PARCEL SIZE: 0.36 ACRES
ZONING: UNZONED
USE: SINGLE FAMILY DWELLING
SETBACKS: N/A
FIRE DEPARTMENT: HARROP PROCTER

BUILDING CODE

BUILDING CODE: DIVISION B, PART 9 LOT 30

BUILDING INFORMATION

BUILDING CODE: DIVISION B, PART 9
BUILDING AREA: 1536 SF (NO PARCEL COVERAGE RESTRICTION)
WATER: CITY OF PROCTER WATER
SEWER: STRATA SEPTIC
HVAC: RADIANT IN FLOOR HEAT, ERV, MINI SPLIT A/C, FIREPALCE.

SITE CONTEXT

RIPARIAN ASSESSMENT LEGEND:

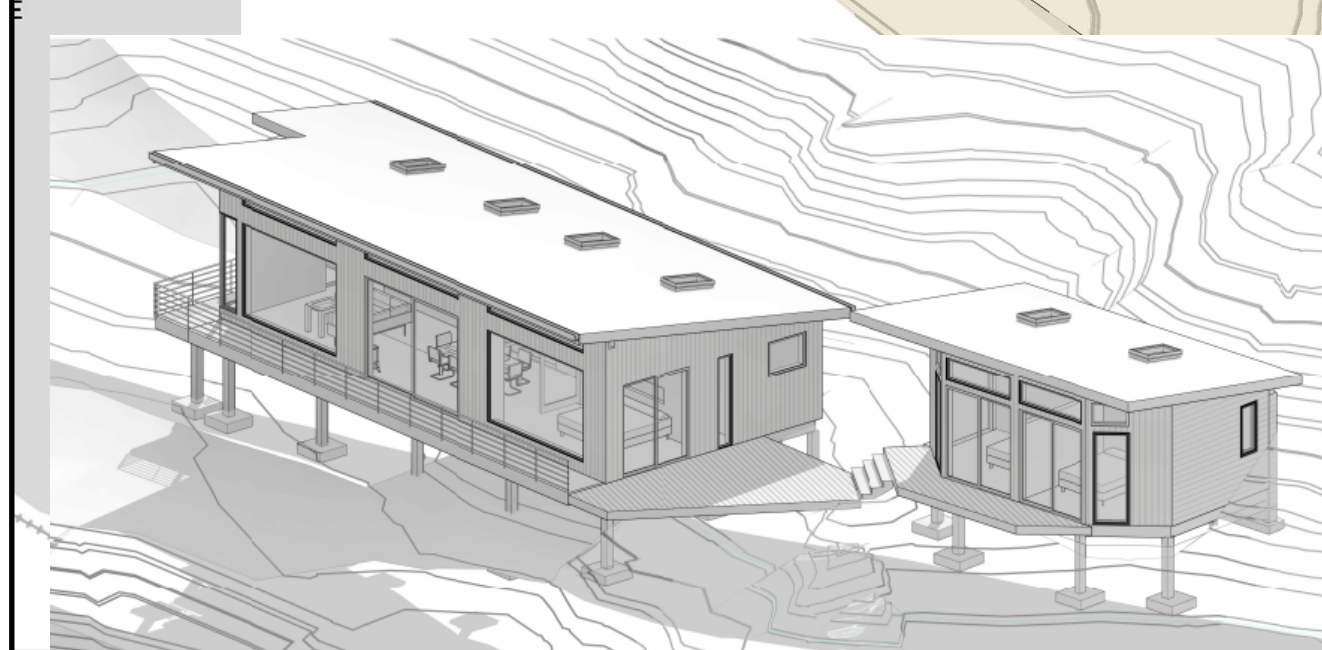
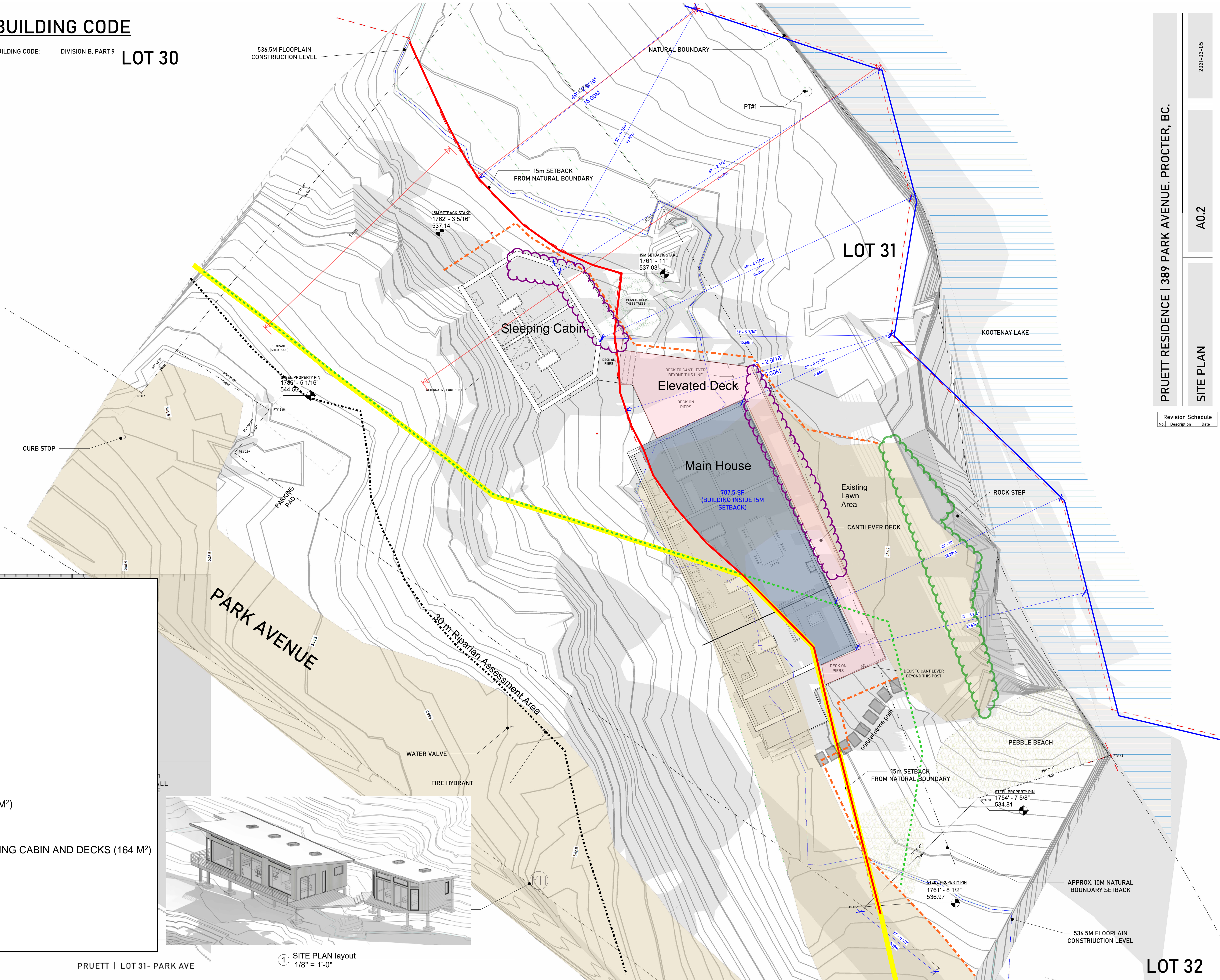
- NATURAL BOUNDARY (LEGAL SURVEY)
SNOW FENCING
ENVIRONMENTAL SETBACKS
WDP AREA, LITTERFALL AND LWD ZOS (15M)
SHADE ZOS (11 - 28 M)
SPEA (15- 28 M)
RIPARIAN ASSESSMENT AREA (30 M)

PROPOSED DEVELOPMENT

- WITHIN 15 M WDP AREA (107 m²):
MAIN HOUSE FOOTPRINT WITHIN WDP AREA (66 M²)
ELEVATED AND CANTILEVERED DECK (41 M²)
WITHIN SPEA (15-28 m SETBACK): MAIN HOUSE, SLEEPING CABIN AND DECKS (164 M²)

REVEGETATION PLAN ( 54 m²)

- AREA 1: TERRACE AREA (~26 m²)
AREA 2: UNDER FRONT DECKS (~28 M²)



SITE PLAN layout
1/8" = 1'-0"

Revision Schedule table with columns for No., Description, and Date.

APPENDIX 4. ARCHAEOLOGICAL CHANCE FIND PROCEDURE.

## Chance Find Procedures for Archaeological Material

This document provides information on how a developer and/or their contractor(s) can manage for potential archaeological material discoveries while undertaking construction and/or maintenance activities. This document can provide assistance to in-field contractors in the identification of archaeological remains and the procedures to follow if a discovery is made. The discovery of human remains initiates a different course of action and is outlined separately.

Under the provincial *Heritage Conservation Act (HCA)*, archaeological sites that pre-date 1846 are automatically protected whether on public or private land. Protected sites may not be damaged, altered or moved in any way without a Section 12 or 14 Permit as issued through the *HCA*. It is illegal to collect or remove any heritage object from an archaeological site unless authorized to do so under permit.

### **1. Activities occurring outside of known Archaeological Sites:**

When archaeological material is encountered outside of known archaeological site areas work in the vicinity must stop immediately no matter what type of material or feature has been identified. Alteration to an archaeological site can only occur under a Section 12 (Site Alteration Permit) or Section 14 (Heritage Inspection Permit) *Heritage Conservation Act* permit. Such permit applications should be prepared by a professional archaeologist.

If archaeological material is discovered during the course of construction activities:

**1.1 Stop Work:** Halt all work in the area of the discovery and safely secure the area. Contact the project manager or site foreman.

**1.2 Contact an Archaeologist:** An archaeologist should be contacted as soon as possible. For a list of qualified archaeologists in the area, the proponent is directed to the BC Association of Professional Consulting Archaeologists website: [www.bcapa.ca](http://www.bcapa.ca). The proponent may also wish to contact the Ktunaxa Nation Council's Archaeology Technician Nathalie Allard for direction (1-250-426-9549; [nallard@ktunaxa.org](mailto:nallard@ktunaxa.org)).

**1.3 Archaeologist provides guidance:** The archaeologist will direct the proponent on the next courses of action, which will include notifying the Archaeology

Branch and First Nations with interest in the area.

## **2. Activities Occurring within Known Archaeological Site Boundaries:**

Land altering activity within a previously recorded archaeological site must be conducted under a Section 12 HCA Site Alteration Permit (SAP), in some cases with an onsite archaeological monitor. It is common for additional archaeological material and features to be encountered during activities occurring within previously recorded archaeological sites. Minor finds (lithic flakes, diffuse charcoal or fire altered rock) may not require work to stop, however significant finds require a level of assessment by a professional archaeologist, and it is up to the onsite project manager to determine the level of significance based on criteria presented below.

### **2.1 Significant Cultural Finds that Require a Professional Archaeologist (described in detail in Section 4)**

- Intact archaeological features, which can include but are not limited to hearths, cultural depressions (e.g. cache pits, house depressions) and rock alignments or forms (e.g. tipi rings, cairns, blinds)
- Significant archaeological materials, which include but are not limited to, the presence of formed lithic tools (e.g. projectile point, microblade core, scraper), a dense concentration of lithic waste flakes, or artistic items
- Human Remains (described in detail in Section 3)

### **2.2 Archaeological Site Management Options**

- 2.2.1 **Site Avoidance:** If the boundaries of a site have been delineated, redesign the proposed development to avoid impacting the site. Avoidance is normally the fastest and most cost effective option for managing archaeological sites. Site avoidance could also be achieved through minimizing ground disturbance by looking for alternative constructive methods.
- 2.2.2 **Mitigation:** If it is not feasible to avoid the site through project redesign, it is necessary to conduct systematic data collection and analysis within the site prior to its loss. This could include surface collection and/or excavation. This work can be time-consuming and therefore expensive to conduct.
- 2.2.3 **Protection:** It may be possible to protect all or portions of the site which will be impacted through installation of barriers during the development period and possibly for a longer period of time. Methods for barrier construction could include fencing around site boundaries or applying

geotextile to the ground surface and capping it with fill. The exact method used would be site-specific.

### **3. Chance Find Procedures for Identified Human Remains**

Procedures in the event of the discovery of human remains during construction are covered in depth by an Archaeology Branch Policy Statement, found on their website at [www.for.gov.bc.ca/archaeology](http://www.for.gov.bc.ca/archaeology), and are summarized below.

- 3.1 Stop all construction activities immediately in the area of found or suspected human remains and contact the RCMP and/or Office of the Coroner.
- 3.2 The coroner must determine whether the remains are of contemporary forensic concern or archaeological/aboriginal.
- 3.3 If the remains are found to be of aboriginal ancestry then the next step involves the relevant First Nations collaboratively determining the appropriate treatment of those remains.

The key to respectfully dealing with ancient aboriginal remains is to involve the appropriate First Nations as early as possible in the process. However this must be done in a manner that does not interfere with the coroner's office ability to conduct their business in the manner that they see fit.

### **4. Site Identification Guide**

The following are characteristics typical to site types found within the Ktunaxa Traditional Territory.

#### **4.1 Artifact Scatters**

Lithic (stone) scatters from the production and maintenance of stone tools are the most common type of archaeological site found in the region. Other materials that may be represented in artifact scatters are Fire Broken Rock (FBR), bone, antler and tooth.

Lithics: What to look for

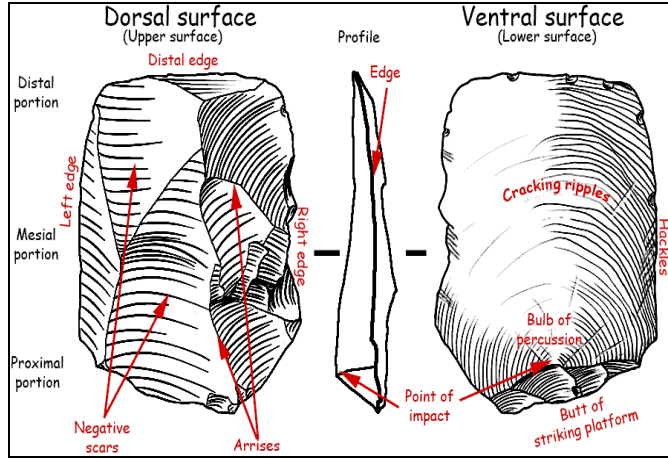


Image 1: Basic flake morphology



Image 2: Examples of lithic flakes

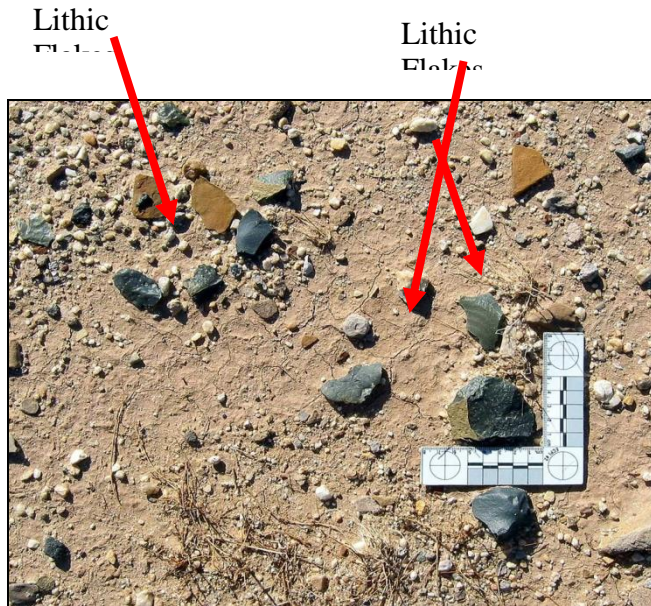


Image 3: Example of lithic scatter found on ground surface



Image 4: Example of formed lithic artifacts

*Zakōqnuuk*

*Zaqam*

*Lower Kootenay*

*Tobacco Plains*



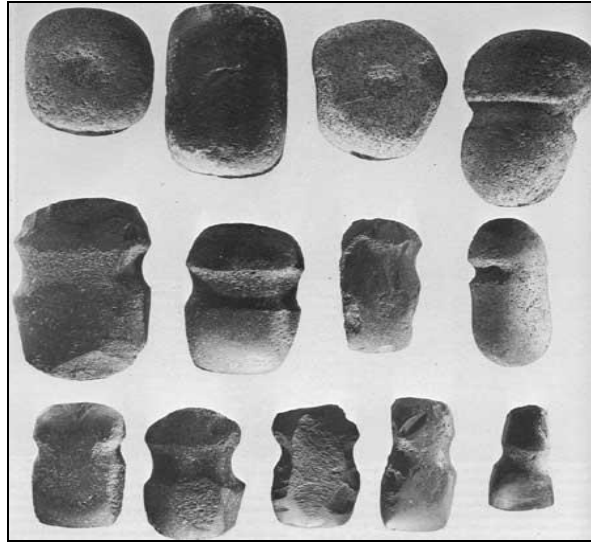


Image 5: Ground stone artifacts

Bone, Tooth and Antler Artifacts: What to Look For

- Obvious shaping
- Incising
- Unnatural holes



*ᑕᓕᓐᓂᓂᓂᓂ*

*ᑕᓕᓂᓂ*

*Lower Kootenay*

*Tobacco Plains*

## Image 6: Bone and Antler artifacts

### 4.2 Fire Broken Rock and Hearths

Fire-broken rock (FBR) results from the use of fire during cooking, heating and processing activities. FBR is often associated with other features including hearths and cultural depressions, but can also be thinly scattered in concentrations away from the features with which they were first associated.

When looking for FBR, note concentrations of roughly fractured rock from rapid heating and cooling, rock showing signs of burning or oxidation and/or reddening or blackening of surrounding matrix.

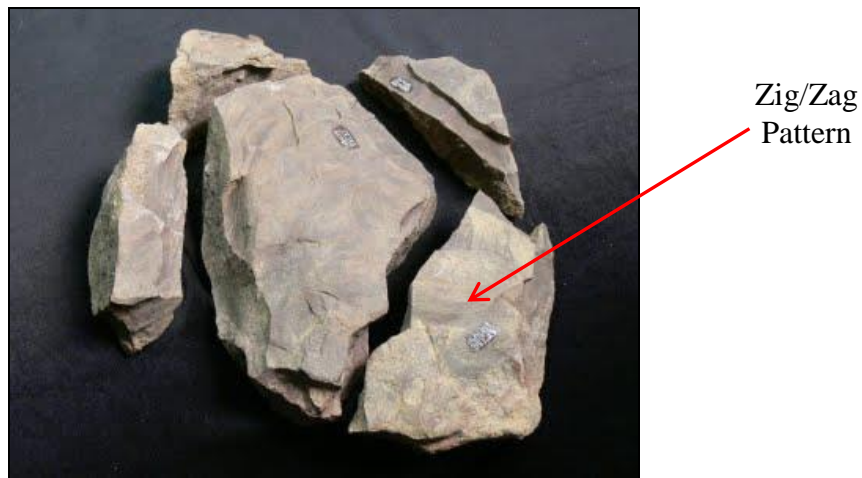


Image 7: Example of FBR; note the zig/zag pattern of breakage common to FBR. A hearth feature is evidence of a fire pit or other fireplace feature of any period. Hearths were used for cooking, heating, and processing of some stone, wood, faunal, and floral resources and may be either lined with a wide range of materials like stone or left unlined. Occasionally site formation processes (e.g., farming or excavation) deform or disperse hearth features, making them difficult to identify without careful study.

Hearths: What to look for

- FBR
- reddening or blackening of the associated soil/sediment
- charcoal
- layering of FBR and charcoal, and
- depressions in the earth associated with FBR, reddened or blackened matrix and charcoal.



Image 8: Example of a hearth uncovered along the wall of an excavation unit

#### 4.3 Cultural Depressions

Any depression seen on the ground surface that appears to have been excavated by man can be a cultural depression and have archaeological significance. These “pits” were dug for a variety of reasons such as for food storage, cooking or as a base for a dwelling.

They can range in size from 1m across to 7-10m across, and are usually found associated with other artifacts such as FBR and lithic scatters.

To identify a cultural depression, look for:

- Subtle to deep scours on the ground surface that are circular to rectilinear in shape
- A raised rim along the edge of a depression
- Depressions associated with artifacts and FBR
- Depressions associated with fire reddening and blackening of the matrix



Image 9: Example of a large cultural depression in a natural setting

#### 4.6 Rock Alignments

There are several types of rock alignments that occur within the culture area, which include tipi rings, medicine wheels, cairns and blinds. When attempting to identify rock alignments, look for a group of rocks that look purposefully placed as in a circle, pile or line; isolated groups of rock that do not seem to belong to that landscape; and/or rocks which form a pattern.



Image 10: Example of a Cairn or piling of rocks



Image 11: Example of a tipi ring in a natural setting

*Takisóqnuuk*

*Taqam*

*Lower Kootenay*

*Tobacco Plains*



**April 28, 2021**

Dustin Lalik  
North Mountain Construction Ltd.  
523 Josephine St.  
Nelson, BC V1L 1W5

**RE: Archaeological Overview Assessment and Preliminary Field Reconnaissance of the 389 Park Avenue, Kootenay Lake Village Strata Lot 31, Procter, B.C.**

This letter reports the findings of the Archaeological Overview Assessment (AOA) and Preliminary Field Reconnaissance (PFR) of 389 Park Avenue, Kootenay Lake Village Strata Lot 31 in Procter, B.C. (Figure 1). The AOA and PFR was requested by Dustin Lalik of North Mountain Construction Ltd., on behalf of the lot owners to satisfy conditions of permitting for the residential development of the lot. Fraser Bonner, BA of Ursus Heritage Consulting Ltd. (Ursus) conducted the PFR portion of the study on March 16, 2021.

The objectives of the AOA and PFR are to:

- Identify and evaluate any areas of archaeological potential within the subject lot that warrant detailed archaeological investigation;
- Provide recommendations regarding the need and appropriate scope of further archaeological studies.

Archaeological sites can be defined as physical evidence of past human use of an area that, in the subject region, is typically represented by artifacts, lithic debitage (by-products of stone tool production), faunal remains, fire altered rock, hearth/fire pit features, and habitation and subsistence features.

**Lot Description**

The subject lot at 389 Park Avenue, Kootenay Lake Village (PID 027-785-114, DL 873 Plan NES3286 Lot 31), is located along the western shoreline of the main body of Kootenay Lake south of the entrance to the West Arm of Kootenay Lake, approximately 2.25 km eastward of the village of Procter (Figure 1).

The lot and its foreshore shoreline have been previously modified and landscaped as part of the initial development and lot preparation by the developers of Kootenay Lake Village. A building site / landing area have been created, a rudimentary road and trail constructed to provides access to the lot, and underlying community septic service line installed. Along the foreshore geotextile and imported pea gravel have been laid to provide a beach-like area and more hospitable access to the lake. Observing the remaining portions of natural shoreline adjacent to the lot, prior to the landscaping the shoreline would have consisted of convoluted, rocky shoreline characterised by bedrock outcrop and talus boulders and cobble backed by steep east aspect talus slope. Photos 1 and 2 provide views of the subject lot.





Photo 1. View northeast of the lot showing the built access road previous landscaping work undertaken as part of the preparation of the Kootenay Lake Village strata lots. Note the large talus boulders and cobbles and the steep slope talus that backs the property.








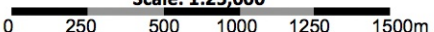


Photo 2. View southeast of the foreshore of the lot. Note the foreground where geotextile has been overlaid with imported pea gravel to improve access to the naturally rocky shoreline.





Figure 1. Kootenay Lake Village Strata Lot 31 AOA-PFR Location Map

	Mapped	16-03-21	F.B.	<b>Legend:</b>  Project Location  Previously Rec'd Arch Site  Previously Rec'd Historic Shipwreck  Highway - Highway Ferry	
	Site Visit	01-04-21	F.B.		
					
Base Map Source: Google Earth 2020		HIP # n/a Borden # n/a		Scale: 1:25,000 	



## Previously Recorded Sites

A search of the BC Remote Access to Archaeological Data (RAAD) application revealed that no previously recorded archaeological sites are recorded within the subject lot. The closest previously recorded precontact archaeological site is DjQf-2 a large shoreline site located along the north shore of the entrance to the West Arm (Figure 1). The site extends from west of the Kootenay Lake ferry terminal at Balfour, eastward to the entrance of the West Arm and consists of surface and subsurface artifacts, as well as hearth features.

Historic shipwreck site DjQf-6 is located offshore, approximately 200 m north of the subject lot. This is the site of the CPR Railroad Barge *Procter*, which sank in 1902 with a load of six rail cars.

## Proposed Development

The proposed residential development of Strata Lot 31 consists of the construction of a residence and landscaping of the surrounding yard.

## AOA/PFR Methodology

The current AOA was conducted in accordance with the *British Columbia Archaeological Impact Assessment Guidelines* (Apland and Kenny 1998) issued by the Archaeology Branch at the Ministry of Forests, Lands, and Natural Resource Operations (MFLNRO). For the current project, the AOA involved:

- A review of pertinent regional archaeological, historical, ethnographic, geological, and biophysical literature;
- A review of the property's biophysical and topographic characteristics;
- An evaluation of the previous impacts to the natural landscape of the property; and
- An evaluation of archaeological site potential.

The archaeological site potential assessment process considers several criteria to establish potential ratings for a given landscape. This AOA employs a two-tiered rating system with either low or high potential values assigned based on topographical and biophysical characteristics coupled with the examination of several cultural and archaeological criteria.

A correlation exists between particular biophysical characteristics and the incidence of archaeological sites. The presence of particular biophysical characteristics can be used to predict the likelihood of a location being used prehistorically. Generally, people gravitate toward areas with access to water, shelter, and food and raw material resources, seeking out locations that are relatively level, well-drained, with solar aspect, and provide a good vantage point. As such the biophysical characteristics that are considered are:







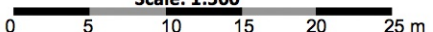
- Presence and nature of water features;
- Wildlife and fish values;
- Slope, aspect, and topography;
- Presence of bedrock exposures, karst, talus, or boulders suitable for rock art locations, caves, rock shelters, or lithic raw material sources; and
- Vegetation and forest cover composition and age.







Figure 2. Kootenay Lake Village Strata Lot 31 AOA-PFR Detailed Map

	Mapped	16-03-21	F.B.	<b>Legend:</b>  Lot Boundary  Road RoW  CPR Rail Line	
	Site Visit	01-04-21	F.B.		
		HIP # n/a Borden # n/a		Scale: 1:500 	
Base Map Source: Google Earth 2020					



Archaeologically it is important to not only examine these biophysical characteristics as they appear currently but to also consider the changes in these biophysical characteristics over time, from the Late Pleistocene through to the Holocene.

Further to the biophysical characteristics, a number of cultural and archaeological criteria are considered to further refine the archaeological site potential assessment included:

- Connection of study area to First Nations' traditional use localities, oral history, and/or known traditional place names;
- Proximity of study area to previously recorded archaeological sites;
- Prehistoric settlement and resource use of the region with a specific emphasis on the nature and characteristics of Kootenay Lake archaeological sites;
- Level and type of past historic land use and the resulting impacts; and
- The previous archaeological experience of the researcher.

PFR survey was conducted to supplement, ground truth and refine the potential evaluation as determined in the AOA, through a detailed in-field examination of the proposed project area. The field survey consisted of two archaeologists traversing the lot. Ground surfaces were intensively examined for the presence of artifacts, cultural materials, and other evidence of past human settlement and land use. The landscape was examined for archaeologically significant landforms such as beaches, level benches, terraces and/or promontories. Landforms, vegetation, aspect, and sources of potable water were noted in the field; natural and manmade disturbance was examined and evaluated.

## Results

No archaeological remains were identified during the PFR of the subject lot and the archaeological potential of the location is low. This potential rating is based on the natural terrain of the lot prior to lot preparation, which consisted of convoluted, rocky shoreline terrain backed by steep talus slope. Additionally, there was an absence of archaeologically significant landforms such as level well-drained benches, terraces, and/or promontories within the lot.

## Recommendations

The subject lot is assessed with low potential for the presence of archaeological sites. Based on these results, no further archaeological work is warranted for Kootenay Lake Village Strata Lot 31.

The AOA and PFR are concerned with identification of archaeological potential and archaeological within the subject property. It does not address potential for traditional use sites within the subject property. It is not the intent of this report to document First Nations' interest in the land. The study was conducted without prejudice to First Nations' treaty negotiations, Aboriginal rights, or Aboriginal title.

Users of this report should be aware that even the most thorough investigation may fail to reveal all archaeological remains, including sites protected by the BC *Heritage Conservation Act*, that exist in an area. All users of this report should also be aware that: (1) archaeological remains in BC are protected from disturbance, intentional or inadvertent, by the *Heritage Conservation Act*; (2) in the event that archaeological remains are encountered, all ground disturbance in the immediate vicinity must be suspended at once; (3) it is the individual's responsibility to inform the Archaeology Branch, and appropriate First Nations as soon as possible, about the location of the archaeological remains and the nature of the disturbance; and (4) the *Heritage Conservation Act* may incur heavy fines and imprisonment for failing to comply with these requirements.



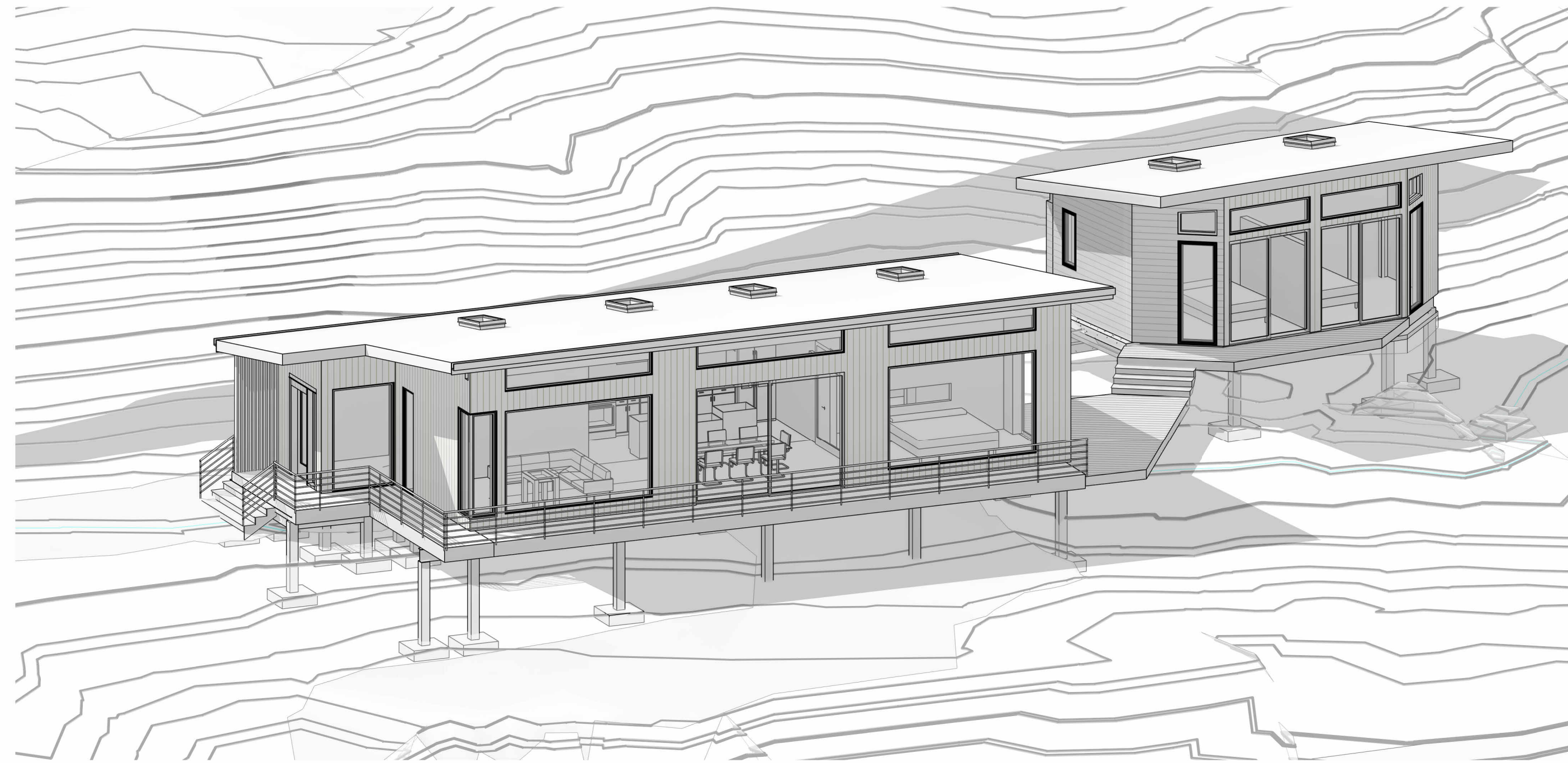
The project area is assessed as having low potential for the presence of archaeological sites and it is the authors' opinion that no further archaeological work is warranted for the project area. For more information on this review of archaeological potential, please contact Ursus Heritage Consulting Ltd.

With respect,



Fraser Bonner, BA  
Archaeologist / Project Manager  
Ursus Heritage Consulting Ltd.





# CONSULTANTS

STRUCTURAL- EFFISTRUC

GEOTECHNICAL- VAST

ENERGY CONSULTANT- 3 WEST

SEPTIC/STORMWATER- HIGHLAND CONSULTING

ENVIRONMENTAL- MASSE

# AREA

MAIN WING- 1100 SF

KIDS WING- 390 SF

TOTAL- 1490 SF

# PRUETT RESIDENCE

Sheet List	
Sheet #	Sheet Name
A0.0	COVER SHEET
A0.1	NOTES
A0.2	SITE PLAN
A0.3	LIMITING DISTANCE
A0.4	3D VIEWS
A0.5	LANDSCAPE PLAN
A1.0	FOUNDATION LAYOUT
A1.1	MAIN WING FOUNDATION
A1.2	KIDS WING FOUNDATION
A2.0	FLOOR PLAN LAYOUT

Sheet List	
Sheet #	Sheet Name
A2.1	MAIN WING FLOOR PLAN
A2.2	KIDS WING FLOOR PLAN
A4.0	ROOF PLAN
A6.0	ELEVATIONS- MAIN WING
A6.1	ELEVATIONS- MAIN WING
A6.2	ELEVATIONS- KIDS WING
A6.3	ELEVATIONS- KIDS WING
A7.0	SECTIONS- MAIN WING
A7.1	SECTIONS- KIDS WING
A8.0	DETAILS
A9.0	SCHEDULES

# ABBREVIATIONS

A/C: Air Conditioner	Cont.: Continuous	Floor: Fluorescent	Jct.: Junction	PCS: Pieces	S.SK.: Service Sink	WS: Weatherstripping or Water Stop
A.C.: Asphaltic Concrete	CRS: Corrosion-Resistant Steel	F.O.C.: Face of Concrete	Jst.: Joint	Pl.: Plaster	Std.: Standard	Wt.: Weight
Acous.: Acoustical	CSINK: Countersink	F.O.F.: Face of Finish	JT.: Joint	P.L.: Plastic Laminate	Stl: Steel	Wtr. Htr.: Water Heater
Adj.: Adjustable	Ctr.: Center	F.O.S.: Face of Stud	Kit.: Kitchen	P.L.: Property Line (or Parts List)	Stor.: Storage	&: And
A.F.F.: Above Finished Floor	FT.: Cubic Feet	FRPF: Fireproof	KW: Kilowatt	Plywd.: Plywood	Susp.: Suspended	L: Angle
A.F.G.: Above Finished Grade	YD: Cubic Yard	FS: Far Side	Lav.: Lavatory	PR.: Pair	S.Y.: Square Yard	@: At
Al: Aluminum	DN: Down	FT: Feet or Foot	LDL: Limited Dimension Drawing	P.S.F.: Pounds per Square Foot	Temp'd: Tempered	L: Centerline
Approx.: Approximate	DR: Door	FTG: Fitting	LFT: Linear Feet	P.S.I.: Pounds per Square Inch	T&B: Top and Bottom	O: Diameter
Arch.: Architectural	DP: Deep	GA: Gauge	LH: Left Hand	Pld.: Painted	T&G: Tongue and Groove	#: Pound/Number
Bd.: Board	D.S.: Downspout	Galv.: Galvanized	LL: Live Load	PT: Point	THK: Thick	O/J: Over
Bldg.: Building	DWG: Drawing	G.C.: General Contractor	LM: List of Materials	PT: Pressure Treated	TLT: Toilet	
Blk.: Block	DWR: Drawer	G.F.C.I.: Ground-Fault Circuit-Interrupter	Lt.: Light	PVC: Polyvinyl Chloride	T.O.: Top	
Bkg: Blocking	Ea.: Each	GL: Glass	Ltg.: Lighting	QTY: Quantity	T.O.B.: Top of Beam	
Bm.: Beam	E.D.: Edge Distance	GPM: Gallons Per Minute	L.V.L.: Laminated Veneer Lumber	R: Radius	T.O.C.: Top of Curb or Top of Concrete	
B.O.F.: Bottom of Footing	E.F.: Exhaust Fan	G.T.: Glazed Tile	Mas.: Masonry	RC: Reinforced Concrete	T.O.F.: Top of Footing	
B.O.M: Bill of Material	E.J. Expansion Joint	Gyp.: Gypsum	MAX: Maximum	RD: Roof Drain	T.O.J.: Top of Joist	
BOT: Bottom	Elev.: Elevation	H.: High	MBW: Measurement Between Wires	R.D.L.: Roof Drain Leader	T.O.M.: Top of Masonry	
B.O.W: Bottom of Wall	E.Q.: Equal, or Equally	H.B.: Hose Bib	Mech.: Mechanical	REBAR: Reinforcing Bar	T.O.W.: Top of Wall	
BP: Blue Print (or B/P)	E.GMT.: Equipment	H.C.: Hollow Core	Membr.: Membrane	Ref.: Refrigerator	TR: Tread	
Brc.: Bronze	E.H.: Each Way	HDPE: High-Density Polyethylene	MFG: Manufacturing	REDD: Required	T.S.: Top Set	
BV: Butterfly Valve	Elev. of Electric	HDWE: Hardware	MFR.: Manufacturer	RH: Right Hand	TTC: Telephone Terminal Closet	
Cab.: Cabinet	E.Q.: Equal, or Equally	H.M.: Hollow Metal	MH: Manhole	RI: Riser	TYP.: Typical	
CBOR: Counterbore	E.GMT.: Equipment	Horiz.: Horizontal	Min.: Minimum	R.O.: Rough Opening	UDN: Unless Otherwise Noted	
C.C.: Center to Center	E.H.: Each Way	HRS: Hot Rolled Steel	Misc.: Miscellaneous	R.O.W.: Right of Way	UNF: Unfinished	
C.D.: Construction Document	E.W.C.: Electric Water Cooler	HR: Hour	MOW: Measurement Over Wires	Reinf.: Reinforced	VA: Voltage	
Cem.: Cement	Exc.: Excavate	H.V.: High Voltage	MTL: Metal	San.: Sanitary	V.B.: Vapor Barrier	
Cer.: Ceramic	(E) Exist.: Existing	H.V.A.C.: Heating, Ventilation, and Air Conditioning	MTD.: Mounted	S.B.N.: Surface Bullnose	Vert.: Vertical	
C.F.M.: Cubic Feet per Minute	Ext.: Exterior	H.W.: Hot Water	NEC: National Electrical Code	SC: Sharp Corners	V.I.F.: Verify in Field	
CFS: Cubic Feet per Second	FACP: Fire Alarm Control Panel	I.A.W.: In Accordance With	N.I.C.: Not in Contract	S.C.: Solid Core	W.C.: Water Closet (Toilet)	
C.I.: Cast Iron	ID: Inner Diameter	IE: Invert Elevation	NOM: Nominal	S.D.: Smoke Detector	W: Wide	
CL: Closet	F.A.O.: Finish All Over	F.C.O.: Floor Cleanout	N.T.S.: Not to scale	Sh: Sheet	Wd: Wood	
CL: Center Line	F.D.: Floor Drain	Insul.: Insulation	O/J: Over	SH: Shelf	Wdw: Window	
CLG: Ceiling	FDN: Foundation	Int.: Interior	O.C.: On Center	Sh'g.: Sheathing	W.I.: Wrought Iron	
CLR: Clear	F.F.L.: Finished Floor Level	Inv.: Invert	O.D.: Outside Diameter	Sim.: Similar	W.I.C.: Walk-in Closet	
CMU: Concrete Masonry Unit	F.G. Finish Grade	Jan.: Janitor	OPNG: Opening or Rough Opening	Specs: Specifications	WL: Water Level	
C.O.: Cleanout	Fin.: Finish	J-Box: Junction Box	PCC: Portland Cement Concrete	FT: Square Feet	W/D: Without	
Col.: Column	FL: Floor Level			IN: Square Inches	Wp: Weatherproof	
Conc.: Concrete				SS: Stainless Steel, Setscrew, Soil Stack, Service Sink, or Slop Sink	W.R.: Water Resistant	

# CONSTRUCTION NOTES

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON DIFFERENT DRAWINGS AND ON THE BUILDING SITE BEFORE COMMENCING CONSTRUCTION.

EVERY EFFORT IS MADE TO ENSURE CONSISTENCY BETWEEN ALL DRAWINGS IN THIS PLAN SET; HOWEVER IN THE EVENT OF A DISCREPANCY BETWEEN SCALED DIMENSIONS AND THOSE NOTED ON THE DRAWINGS, THE LATTER SHALL TAKE PRECEDENCE.

ALL LABOUR, MATERIALS, AND PRODUCTS TO COMPLY WITH THE REQUIREMENTS OF THE BRITISH COLUMBIA BUILDING CODE 2018 EDITION (BCBC) AND ALL OTHER APPLICABLE CODES, STANDARDS AND BY-LAWS.

LUMBER SPECIES AND GRADES TO BE AS FOLLOWS:  
 BLOCKING, BRIDGING, AND MISC.: DOUGLAS FIR OR HEM/FIR #3 & BETTER.  
 STUDS: STUD GRADE. SILLS, SLEEPERS AND PLATES IN CONTACT WITH CONCRETE: BORATE-TREATED SPF.  
 POST, BEAMS AND HEADERS: #1 DOUGLAS FIR, OR LVL ENGINEERED WOOD PRODUCTS.

ALL FOOTING TO BEAR ON FIRM, UNDISTURBED NATIVE SOIL MIN (2'-8") BELOW GRADE. ASSUMED SOIL BEARING PRESSURE OF 72 KPA (1500 PSF).

SOLID BLOCKING REQUIRED BETWEEN JOISTS AND TRUSSES AT BEARING WALLS.

NAILING SCHEDULE FOR FRAMING TO CONFORM TO NATIONAL STANDARDS.

ALL CERAMIC WALL TILE INSTALLED IN AREAS PRONE TO WATER AND/OR PHYSICAL IMPACT TO BE UNDERLAID WITH 12.7MM (1/2") REINFORCED CONCRETE BACKER BOARD.

CONTRACTOR TO VERIFY FRAMING WITH HEATING AND PLUMBING CONTRACTORS TO ENSURE PROPER INSTALLATION OF DUCTING AND PLUMBING.

SMOKE/ CO DETECTORS TO BE CONNECTED TO THE RESIDENCE POWER SOURCE (110V).

CONTINUOUS ULTRA-VIOLET RESISTANT 6 MIL POLY VAPOUR BARRIER TO BE INSTALLED ON THE WARM SIDE OF INSULATION IN EXTERIOR WALLS AND CEILINGS. JOINTS TO BE LAPPED 152MM (6") AND SEALED WITH TAPE OR ACCOUSTICAL SEALANT.

BUILDING CODE, SAFETY STANDARDS, AND REGULATORY STATUTE REFERENCES ON DRAWINGS ARE FOR AUTHORITY REVIEW PURPOSES ONLY.

THE PRESENCE OF THE AFOREMENTIONED NOTES DOES NOT RELEASE THE CONTRACTOR AND ALL OTHERS INVOLVED IN THE CONSTRUCTION OF THE PROJECT FROM THEIR LEGAL AND STATUTORY RESPONSIBILITY TO CONFORM TO THE LAW OF THE LAND IN CONSTRUCTION AND THE CONSTRUCTION OF THE BUILDING.

ALL DIMENSIONS ARE TO FACE OF CONCRETE, FACE OF STUDS, OR TO GRIDLINE UNLESS NOTED OTHERWISE.

CONTRACTOR SHALL PROVIDE SOLID BLOCKING AS REQUIRED IN PARTITION WALLS TO SUPPORT SHELVING, HANGER RODS, MILLWORK, SINKS, ACCESSORIES AND OTHER ITEMS THAT ARE PART OF THIS CONTRACT OR PROVIDED BY OTHERS.

FRAMING IS TO BE PLUMB AND LEVEL WITHOUT SIGNIFICANT TWISTING IN STUDS. FLOORS ARE TO BE MADE LEVEL PRIOR TO ANY FLOORING INSTALLATION.

ALL NEW AND EXISTING PENETRATIONS AND WALLS ARE TO BE SEALED TO PREVENT AIR LEAKAGE.

# LEGEND

MATERIALS							LINES									
ANNOTATIONS																

Revision Schedule		
No.	Description	Date

ZONING

DISTRICT: RDCK (AREA E, RURAL)
CIVIC ADDRESS: 389 PARK AVENUE. PROCTER, BC. V0G 1V0.
LEGAL DESCRIPTION: STARTA LOT 31
PLAN NES3286
Folio: 707.02256.131
PID: 027-785-114
District Lot 873
LTO LB551916.
PARCEL SIZE: 0.36 ACRES
ZONING: UNZONED
USE: SINGLE FAMILY DWELLING
SETBACKS: N/A
FIRE DEPARTMENT: HARROP PROCTER

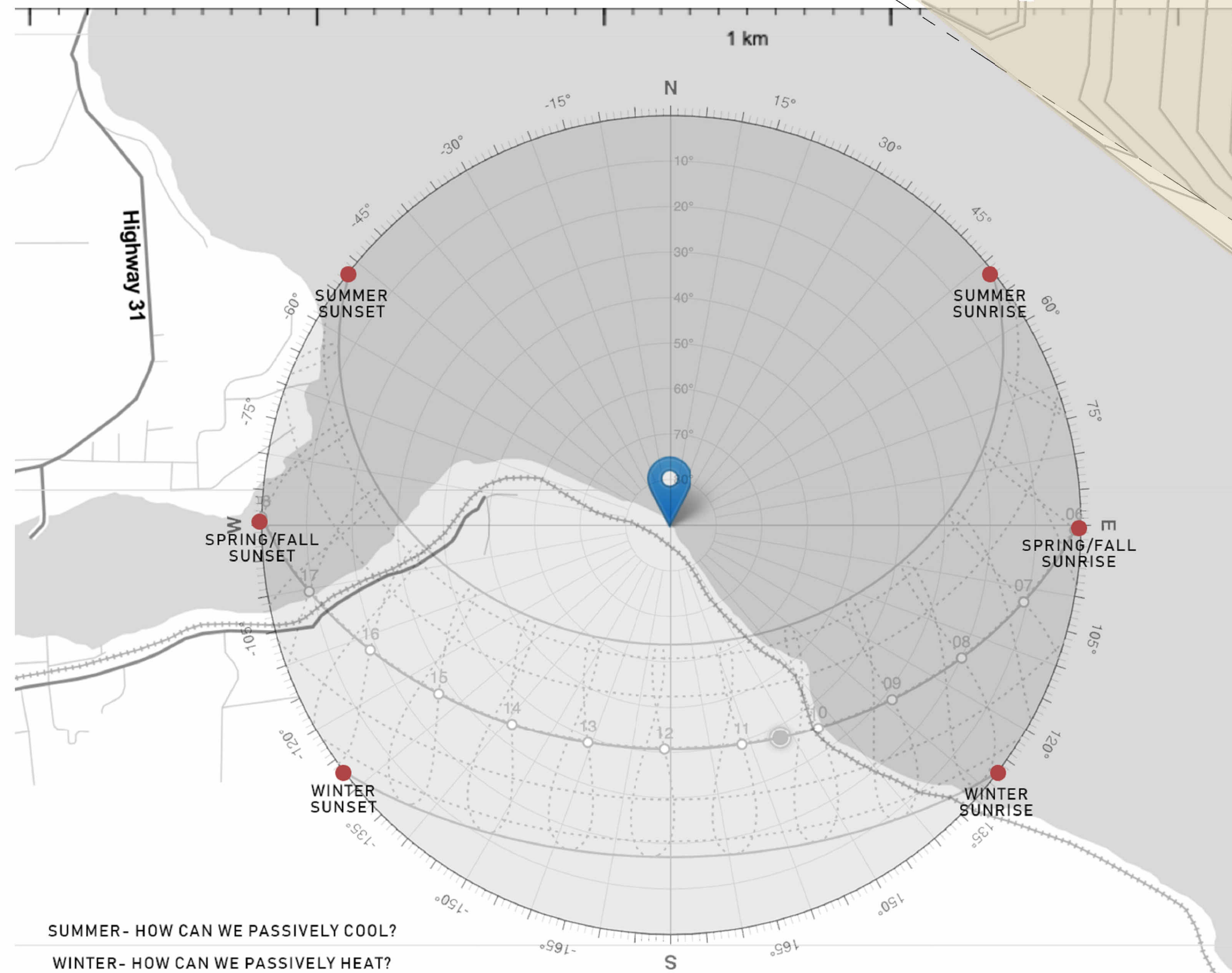
BUILDING CODE

BUILDING CODE: DIVISION B, PART 9 LOT 30

BUILDING INFORMATION

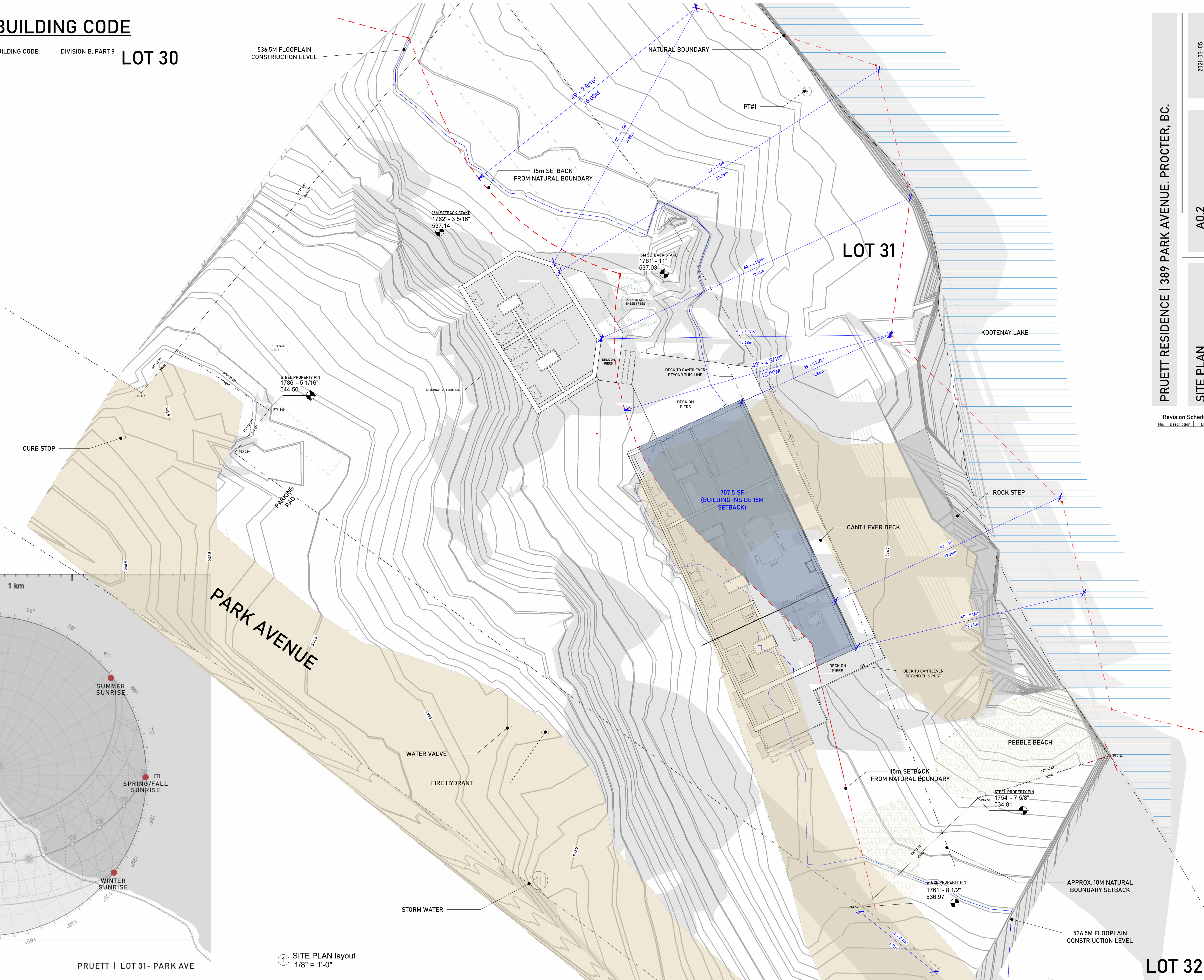
BUILDING CODE: DIVISION B, PART 9
BUILDING AREA: 1536 SF (NO PARCEL COVERAGE RESTRICTION)
WATER: CITY OF PROCTER WATER
SEWER: STRATA SEPTIC
HVAC: RADIANT IN FLOOR HEAT, ERV, MINI SPLIT A/C, FIREPALCE.

SITE CONTEXT



PRUETT | LOT 31- PARK AVE

1 SITE PLAN layout
1/8" = 1'-0"



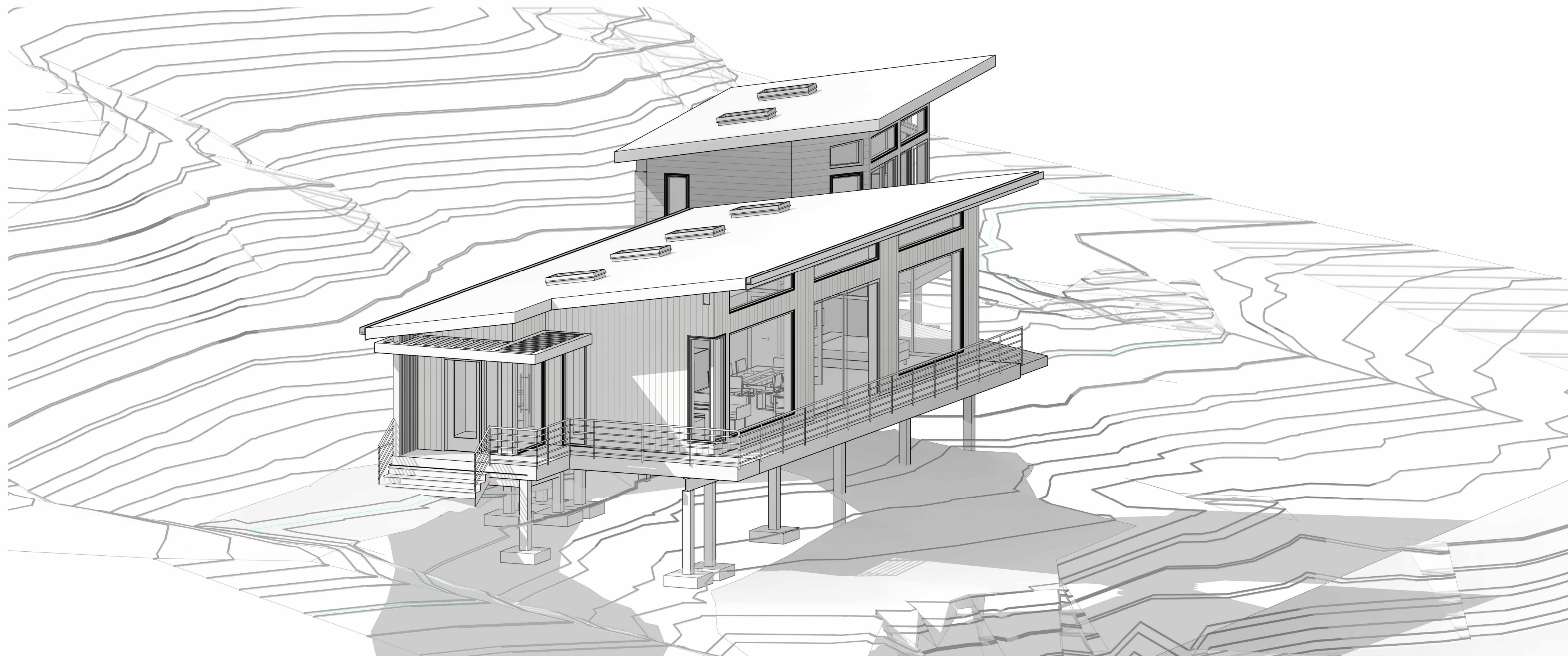
PRUETT RESIDENCE | 389 PARK AVENUE, PROCTER, BC.

A0.2

SITE PLAN

Revision Schedule table with columns for No., Description, and Date.

LOT 32



# NATIVE REVEGETATION

## NET REVEGETATION AREA- 582 SF (54 sqm)

### TREES

Western red cedar- *Thuja plicata*  
 Western white pine- *Pinus monticola*  
 Interior Douglas fir- *Pseudotsuga menziesii*  
 Paper birch- *Betula papyrifera*

### SHRUBS

Red osier dogwood- *Cornus stolonifera*  
 Sandbar willow- *Salix exigua*  
 Sitka willow- *Salix sitchensis*  
 Nootka rose- *Rosa nutkana*  
 Mountain alder- *Alnus incana*  
 Water birch *Betula occidentalis*  
 Douglas maple- *Acer glabrum*  
 Mallow ninebark- *Physocarpus malvaceus*  
 Oceanspray- *Holodiscus discolor*  
 Blue elderberry- *Sambucus caerulea*  
 Thimbleberry- *Rubus parviflorus*  
 Blueberry- *Vaccinium ovalifolium*  
 Common snowberry- *Symphoricarpos albus*

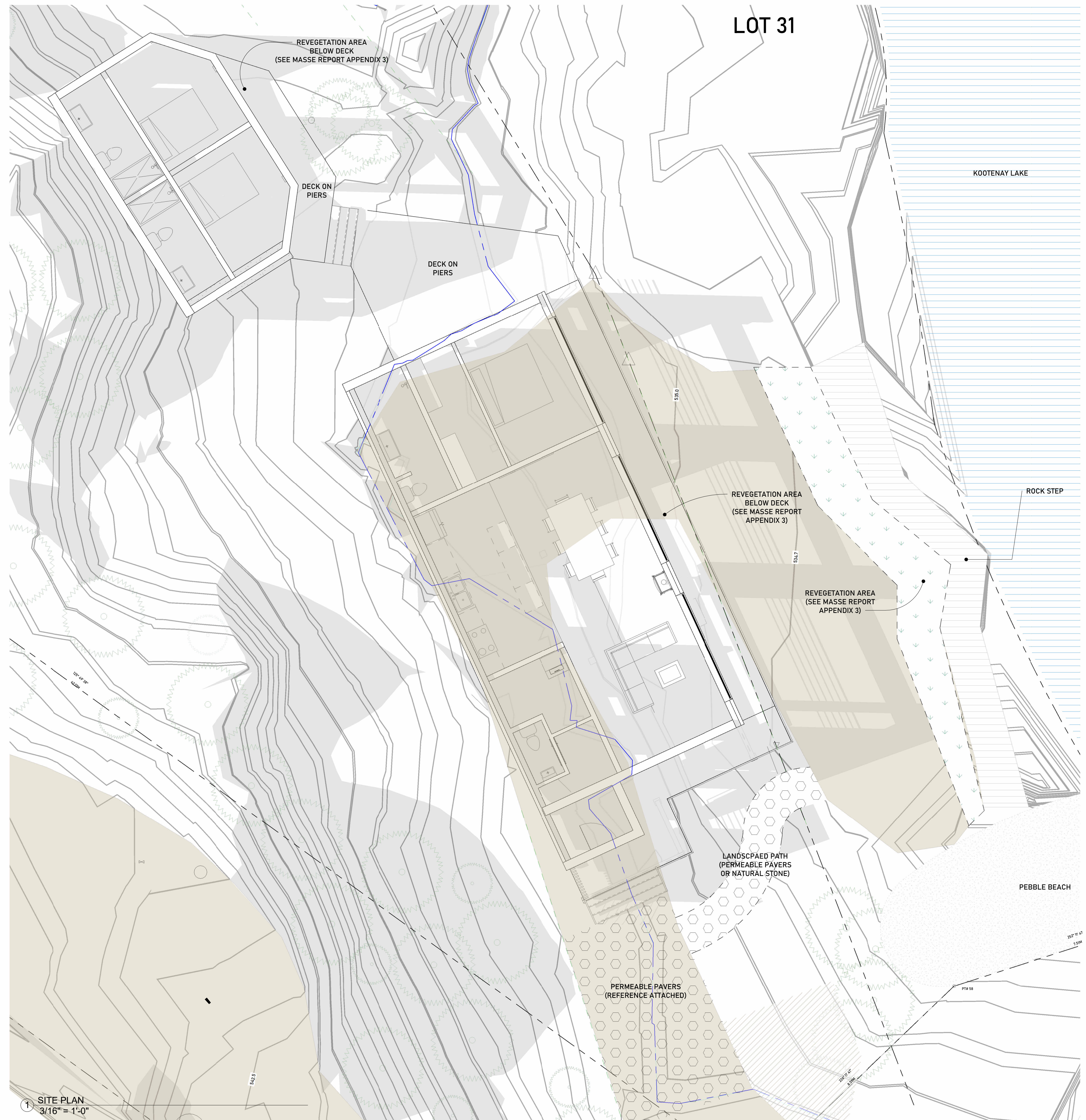
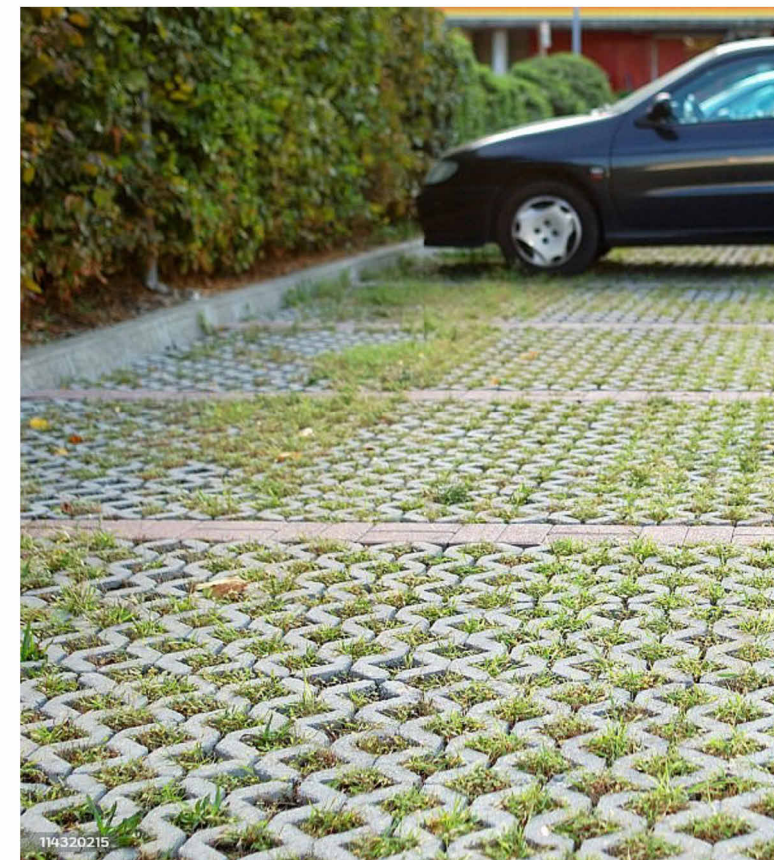
### HERBACEOUS

Blue joint grass *Calamagrostis canadensis*  
 Idaho fescue *Festuca idahoensis*  
 Junegrass *Koeleria macrantha*  
 Nodding onion *Allium cernuum*  
 Pink spirea *Spirea douglasii* spp. *Menziesii*  
 Canadian goldenrod *Solidago lepida*

In order to minimize further impacts to the SPEA the best management practices outlined in Section 6 should be adhered to. Although on-site restoration opportunities are limited on the property, native shrubs could be incorporated into the landscaping of the terrace area.

- Plant at least 20 native shrubs/trees within the areas proposed for revegetation on the existing terrace next to the house (Appendix 2). Species listed in Table 5 are recommended, which are known to occur in the local area and provide the necessary riparian function. Additional native tree or shrub species could be substituted under direction from a QEP. Plantings which do not survive should be replaced to ensure that long term establishment of the target quantity of native trees and shrubs is achieved.
- Plant stock should be a minimum of 1 gallon potted stock.
- Direction from a qualified landscaper will increase the likelihood of success.
- Planting should not occur during periods of hot dry weather unless they are irrigated daily.
- Regularly irrigate new plantings during the plant establishment period, minimum 3 years.
- In addition to incorporating riparian vegetation along the terrace, all disturbed areas around the home and any landscape features should be planted entirely with native plant species such as those listed in Table 6.
- Replanting of riparian and upland vegetation around the proposed buildings should adhere to principles of rural residential fire protection (for more information see the FireSmart Homeowner's Manual MFLNR0 N.D.).
- Trees and shrubs listed in Table 6 are available from Sagebrush Nursery in Oliver (<https://sagebrushnursery.com>), or Nupqu Native Plants (<https://nupqu.com/native-plantsnursery-home/>) near Kimberley.
- A recommended native seed mix blend specifically formulated for the Kootenay Lake foreshore is available at Nupqu Native Plants ([http:// https://nupqu.com/native-plants-nursery-home](http://https://nupqu.com/native-plants-nursery-home)) near Kimberley (Table 7).
- The landscaping plan will need to incorporate measures to address the erosion observed on the lake side of the terrace.

## PERMEABLE PAVERS



LOT 31

KOOTENAY LAKE

ROCK STEP

PEBBLE BEACH

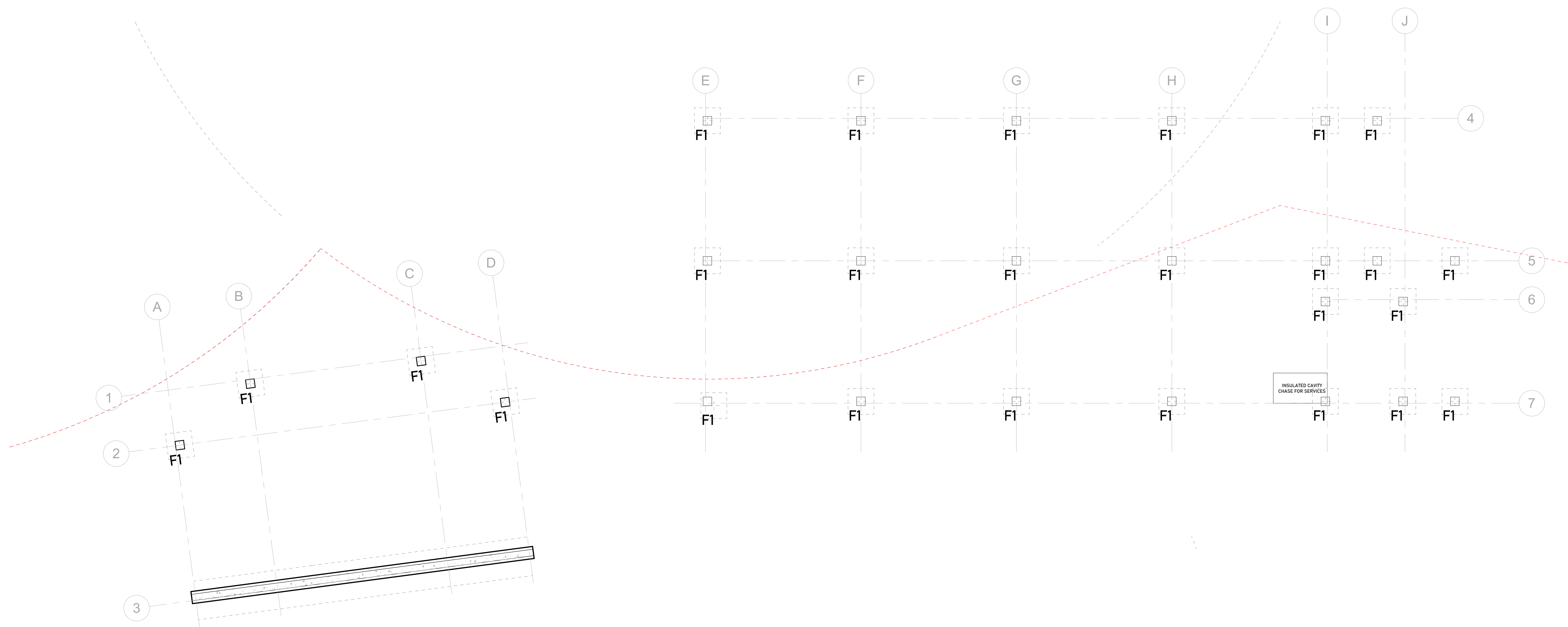
1 SITE PLAN  
 3/16" = 1'-0"

Revision Schedule		
No.	Description	Date



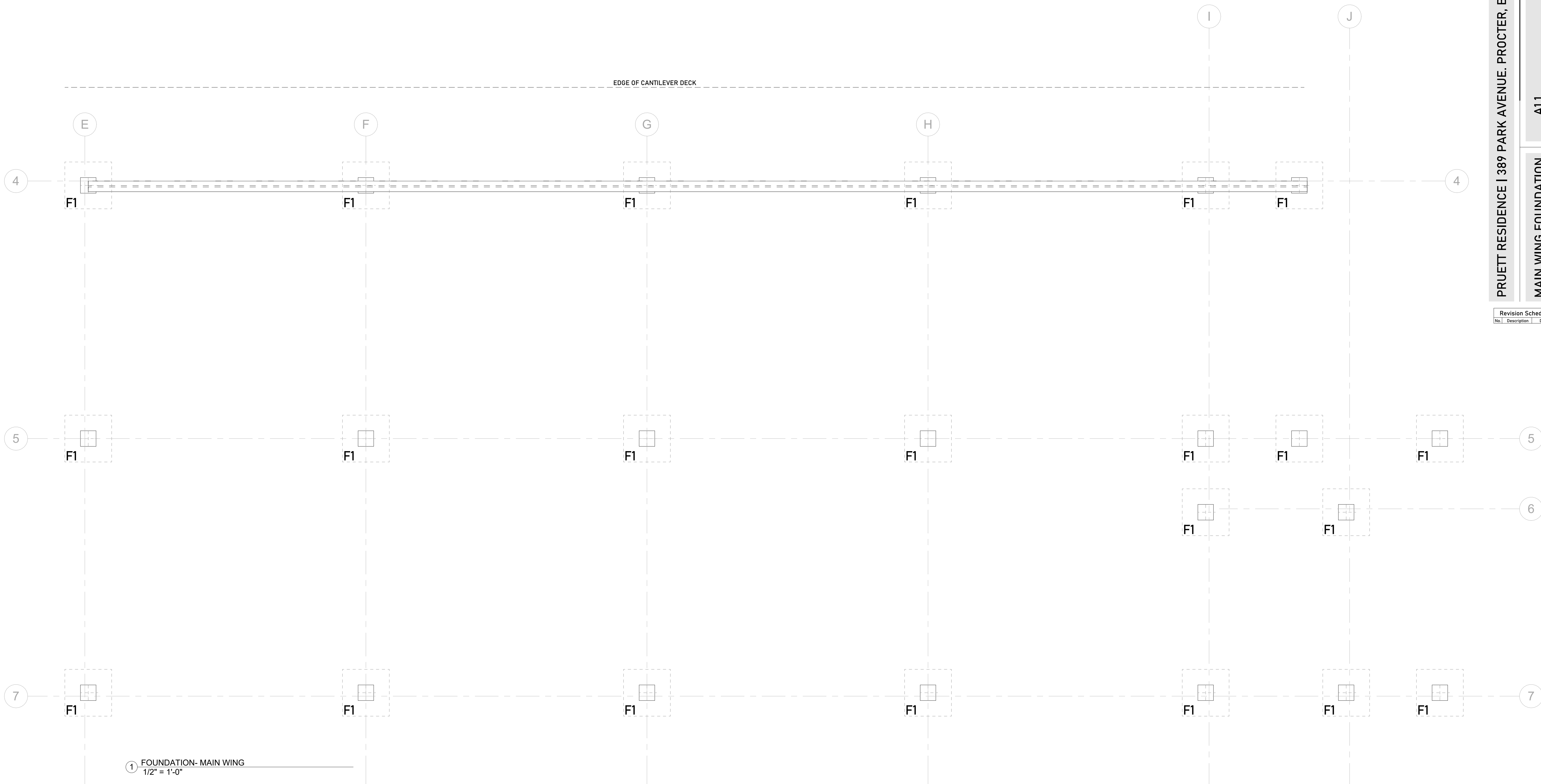
CONCRETE WALL SCHEDULE			
MARK	WALL TYPE	VERT. REINF.	HORIZ. REINF.
FW2	6" THK. CONC.	10M @ 12" O.C.O.F.	10M @ 12" O.C.O.F.
SEE SECTION			

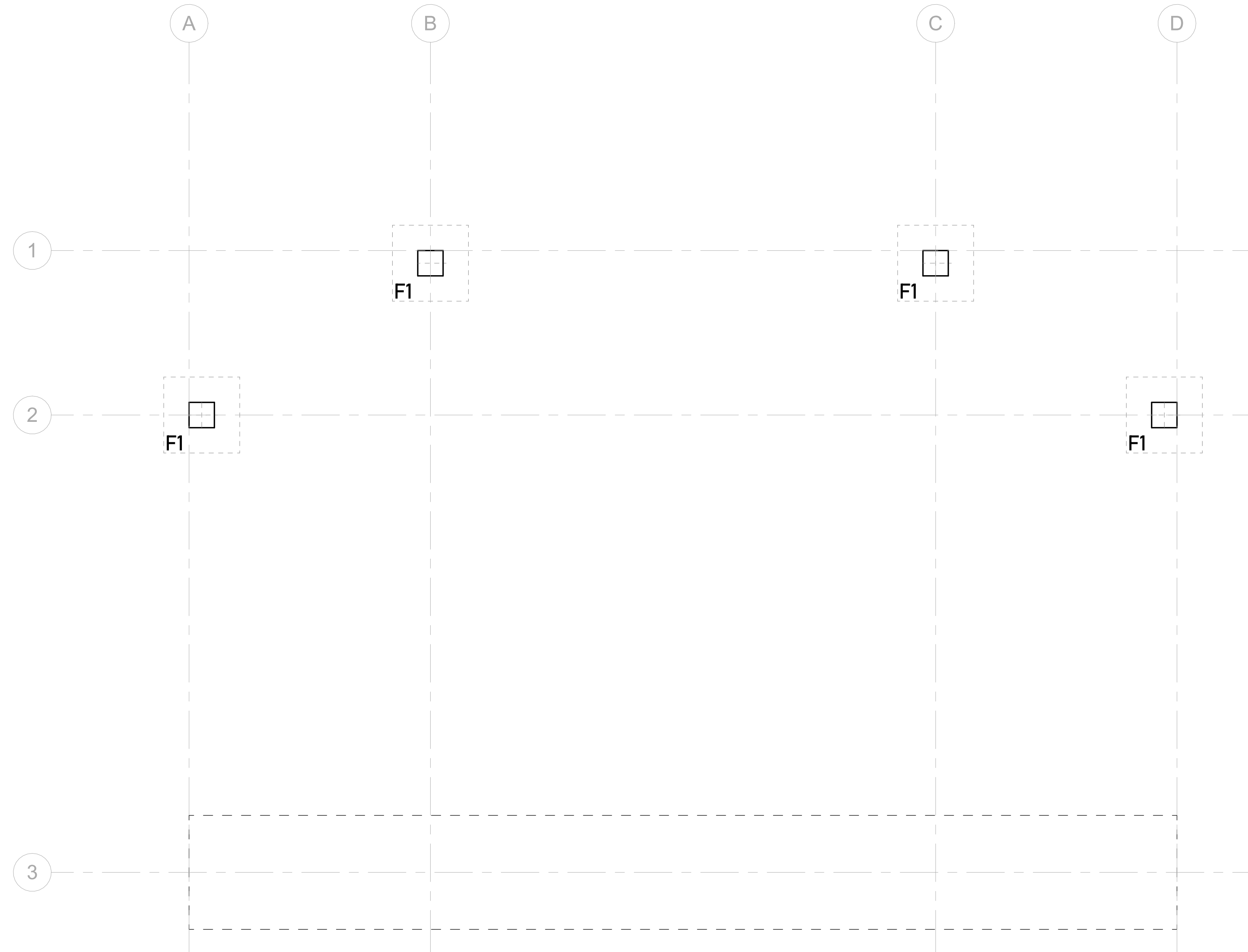
FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	NOTES
F2	24" X 8" DP. STRIP FOOTING	2-15M CONT. BOT.	SEE SECTION



1 FOUNDATION- LAYOUT  
1/4" = 1'-0"

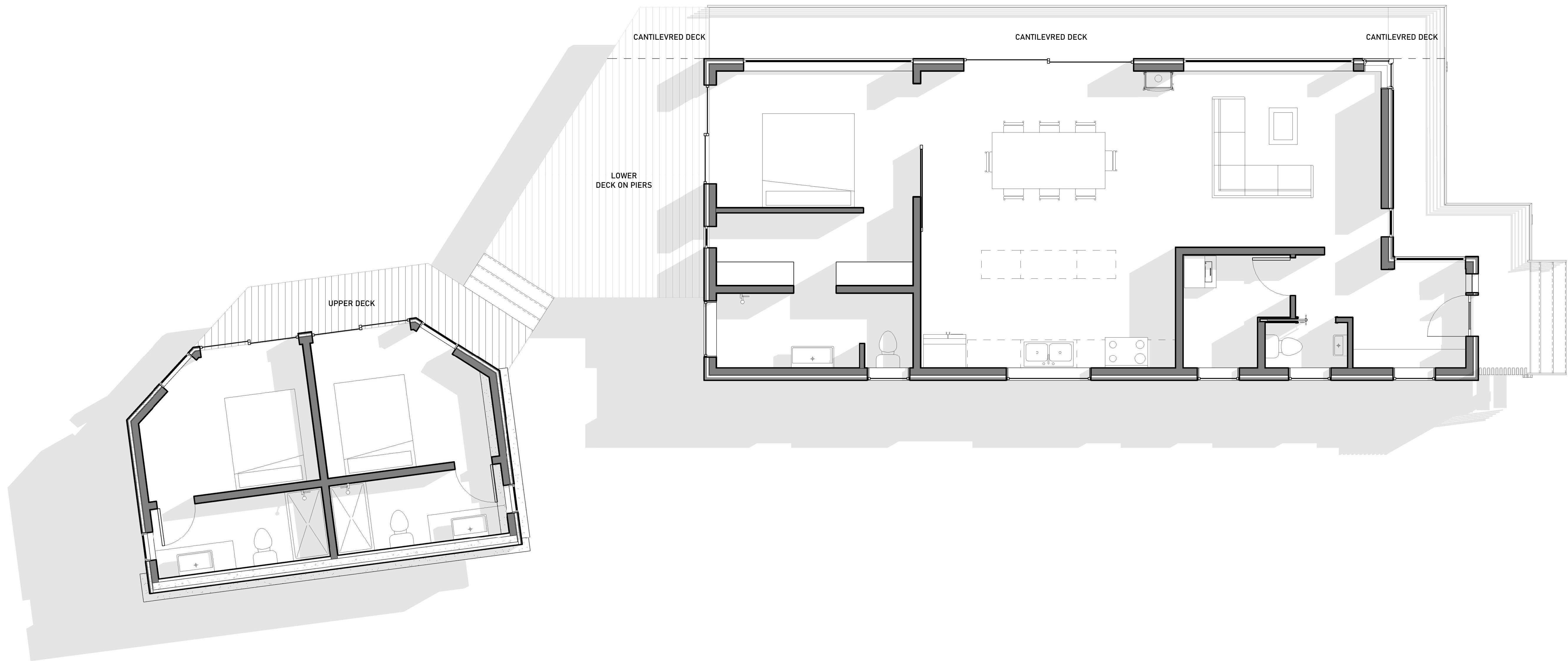
Revision Schedule		
No.	Description	Date





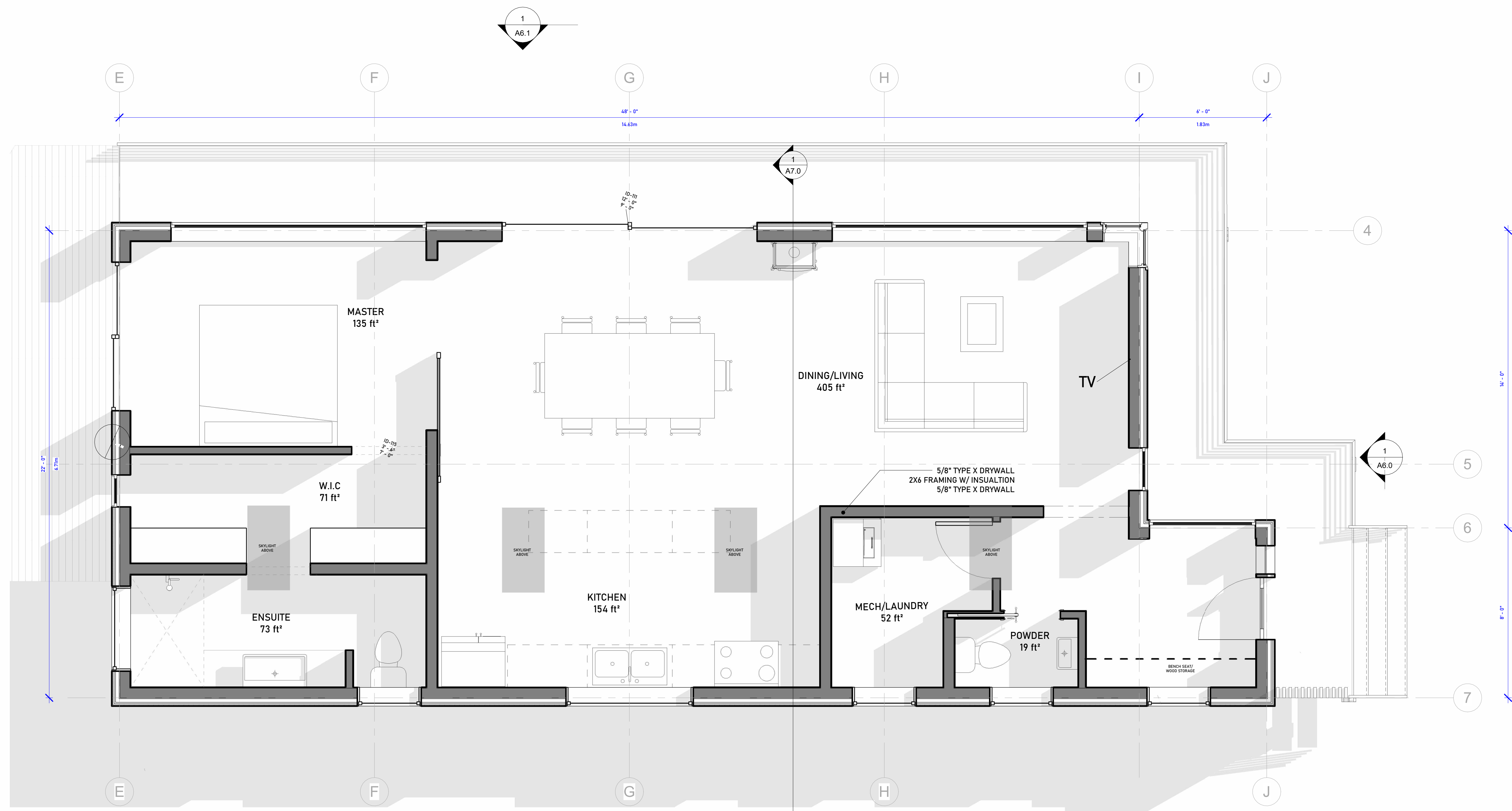
① FOUNDATION- KIDS WING  
 1/2" = 1'-0"

Revision Schedule		
No.	Description	Date



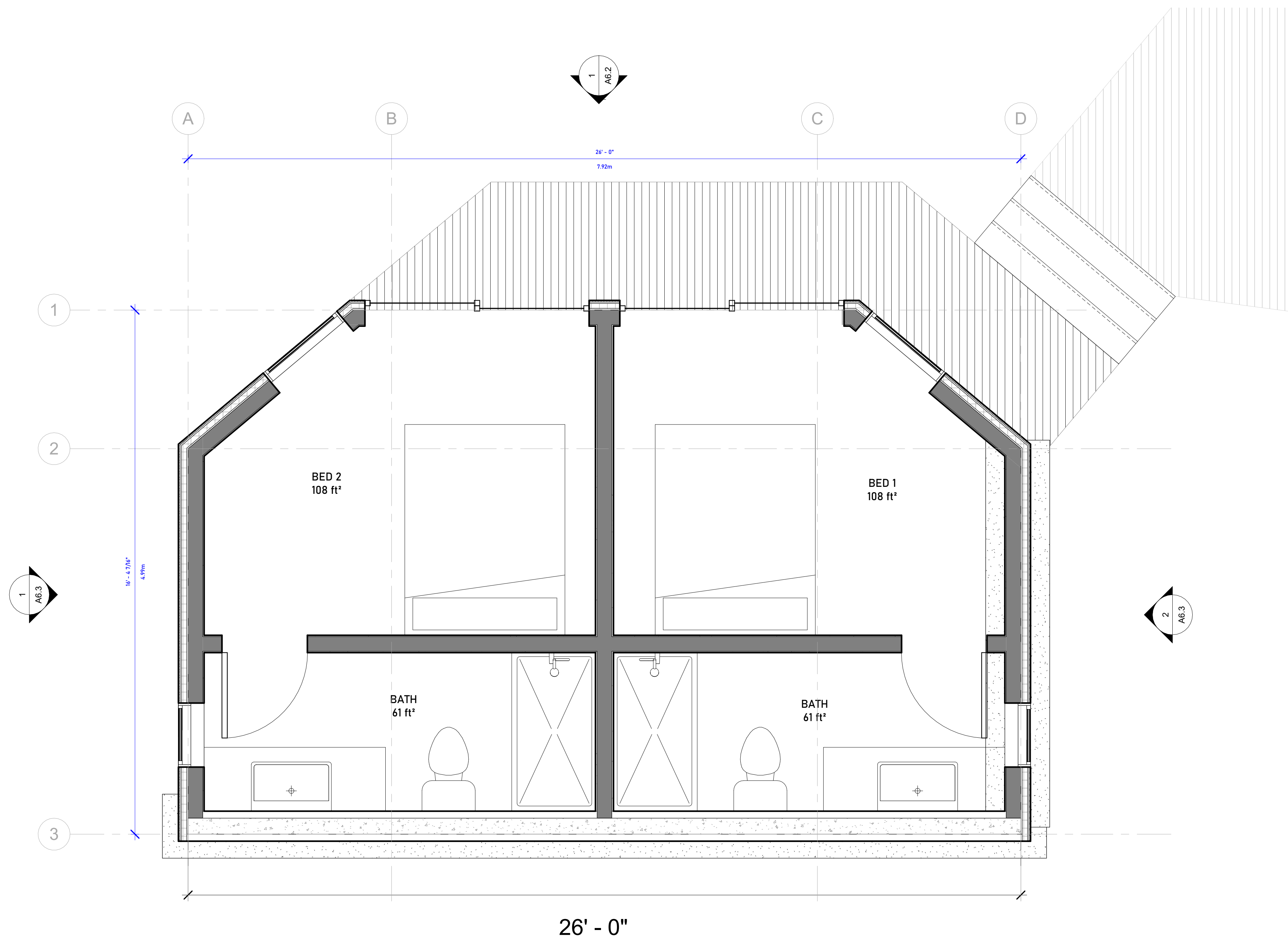
① FLOOR PLAN-LAYOUT  
1/4" = 1'-0"

Revision Schedule		
No.	Description	Date



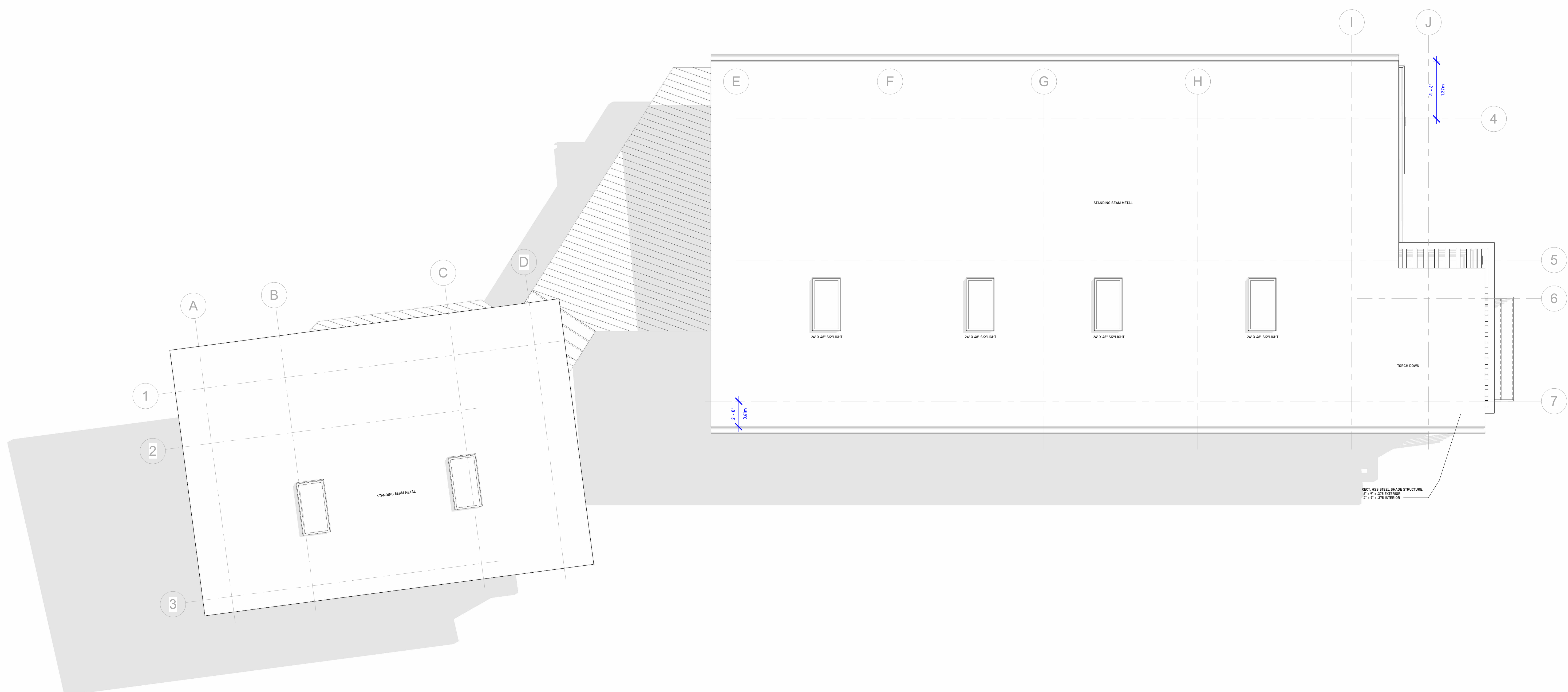
1 FLOOR PLAN- MAIN WING  
3/8" = 1'-0"

Revision Schedule		
No.	Description	Date
1	A6.0	
1	A7.0	
1	A6.1	



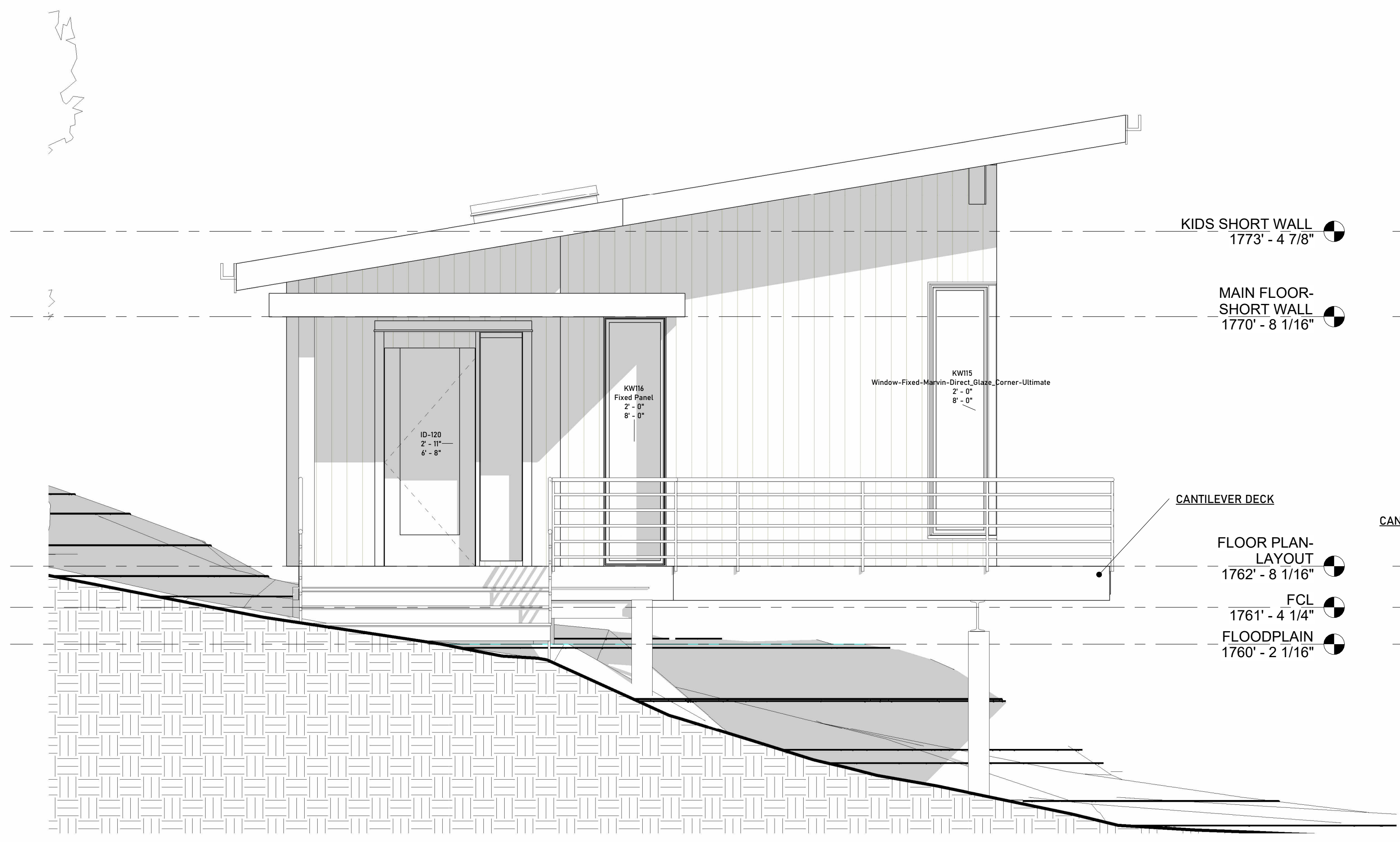
① FLOOR PLAN- KIDS WING  
1/2" = 1'-0"

Revision Schedule		
No.	Description	Date

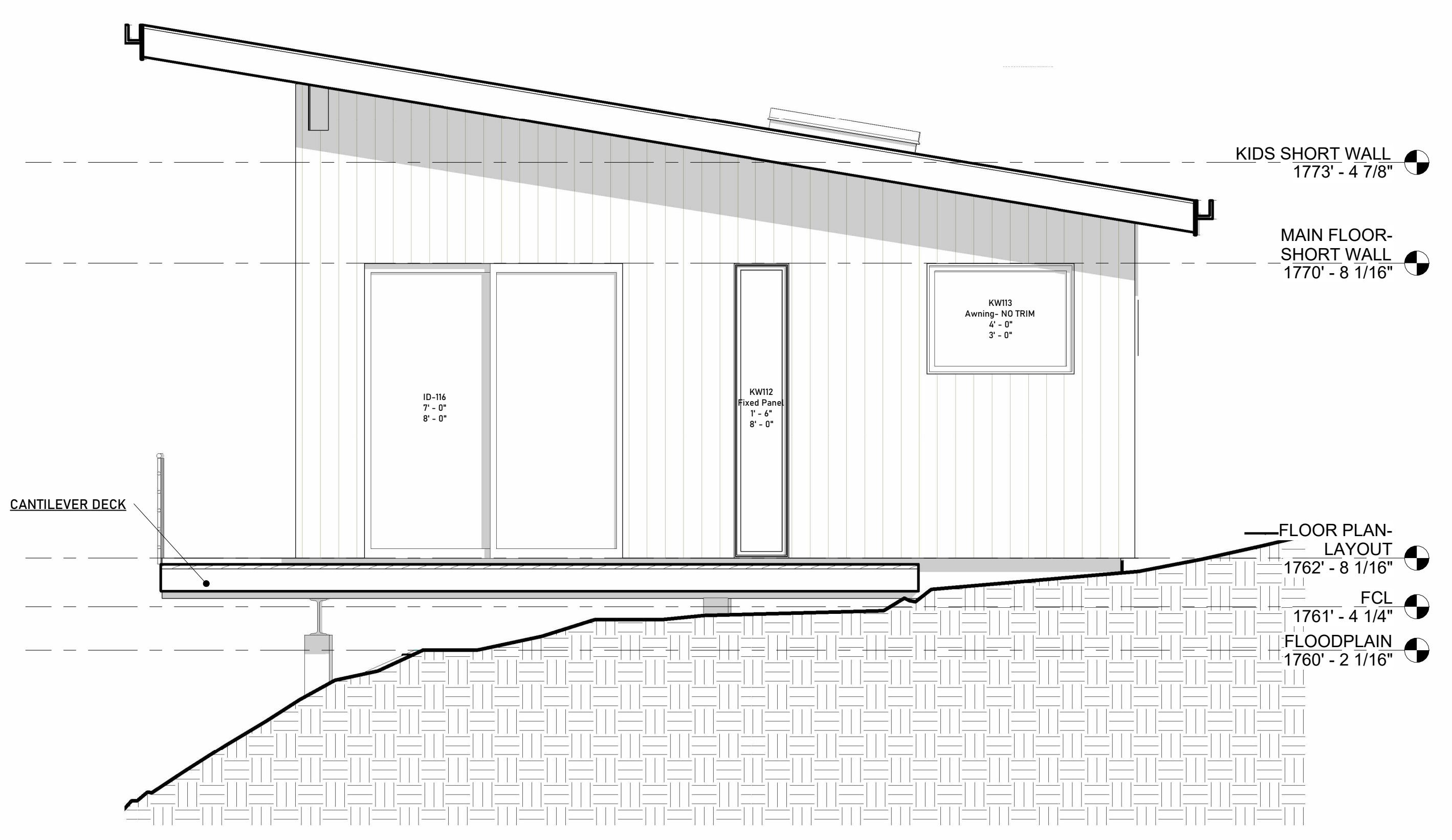


① ROOF PLAN  
 1/4" = 1'-0"

Revision Schedule		
No.	Description	Date

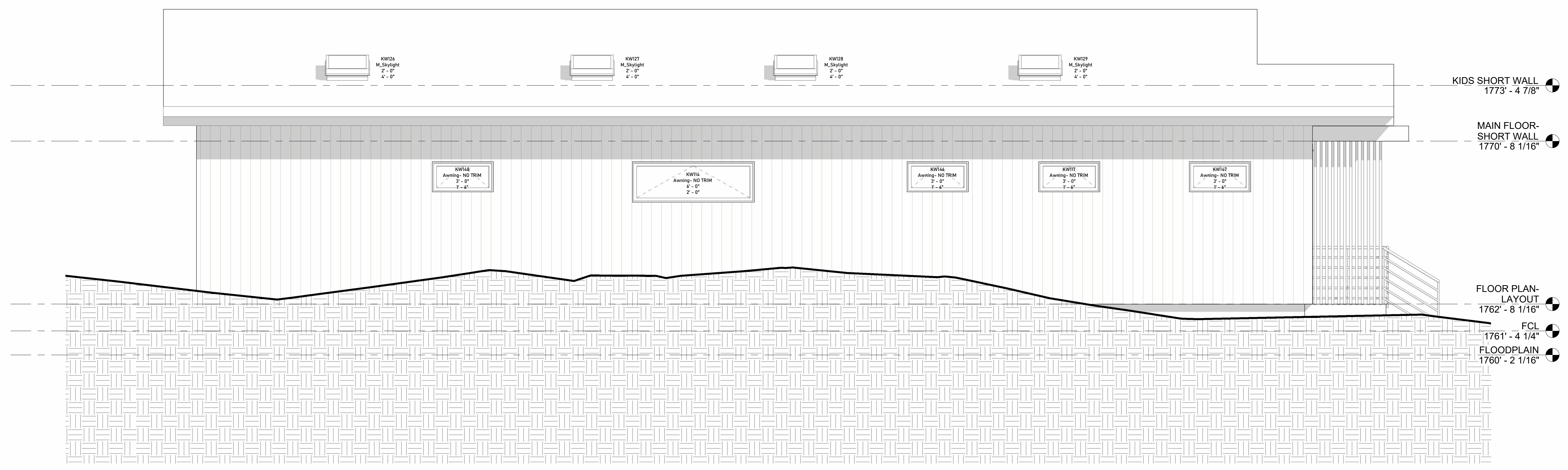
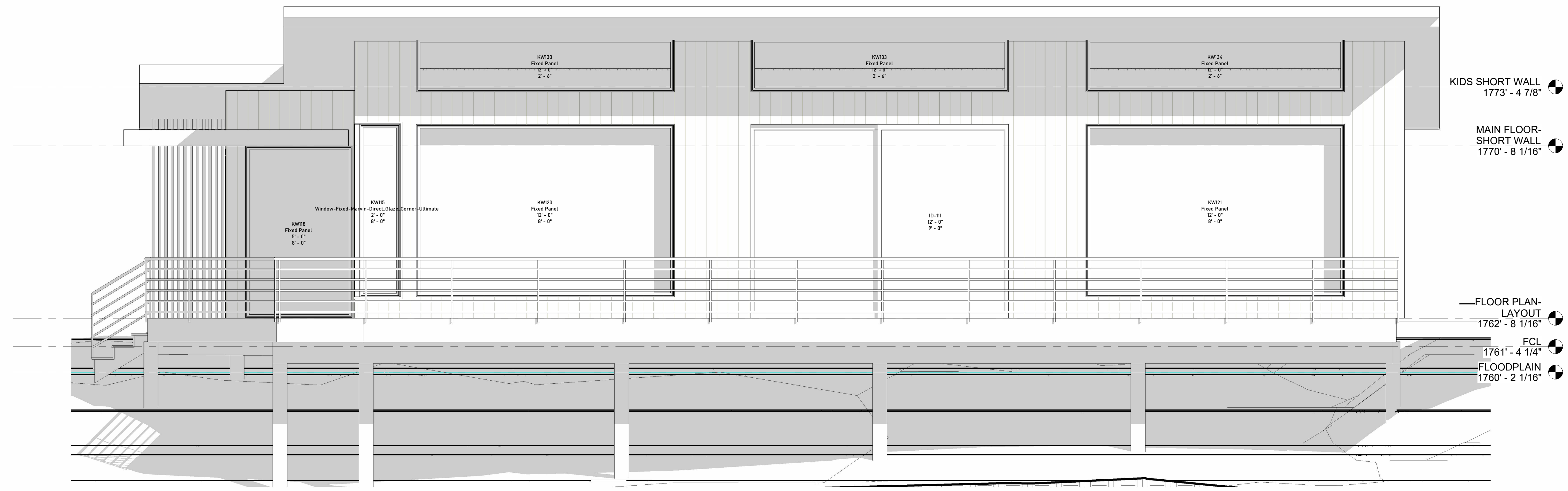


① MAIN EAST1  
3/8" = 1'-0"



② MAIN WEST1  
3/8" = 1'-0"



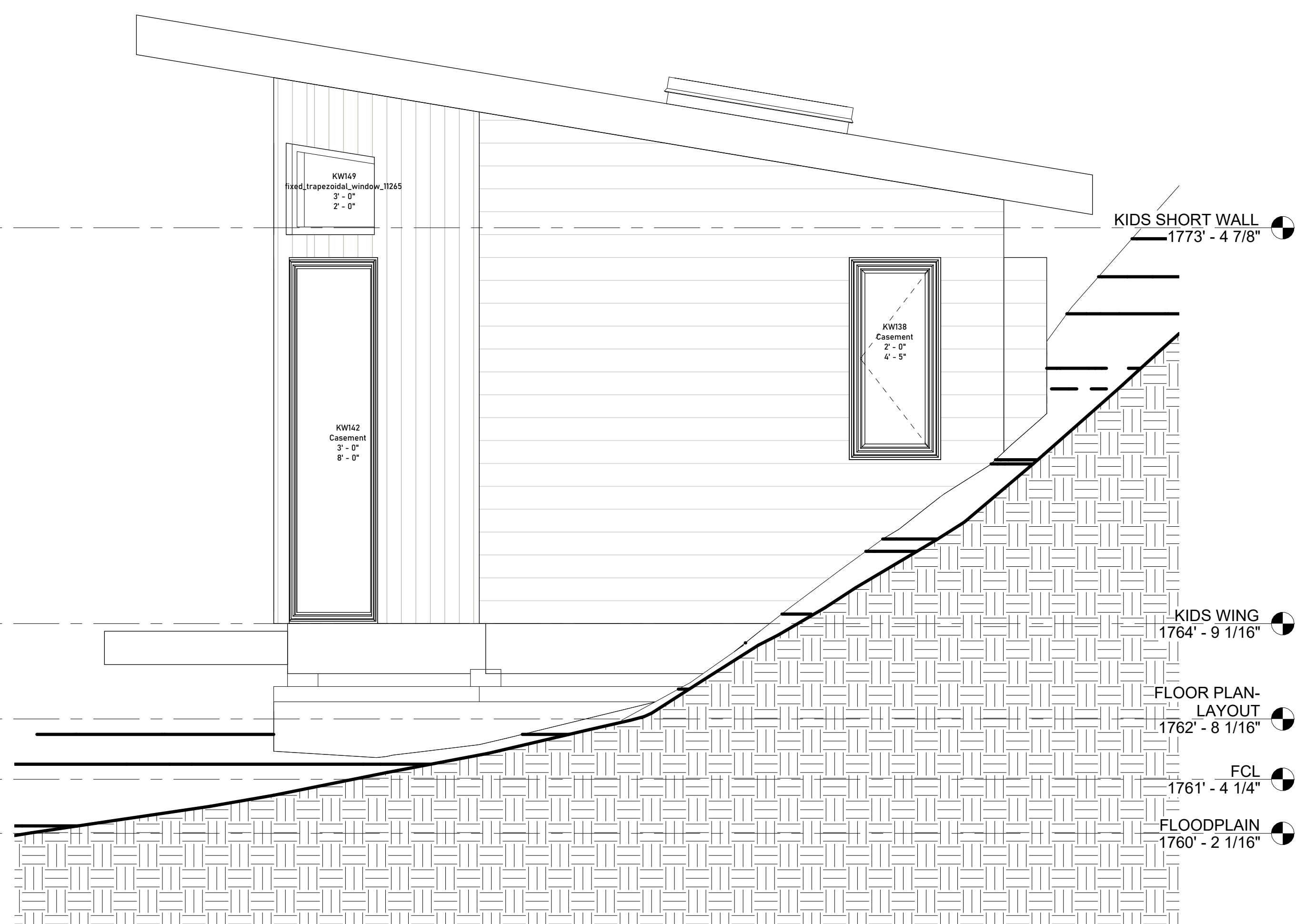


Revision Schedule		
No.	Description	Date

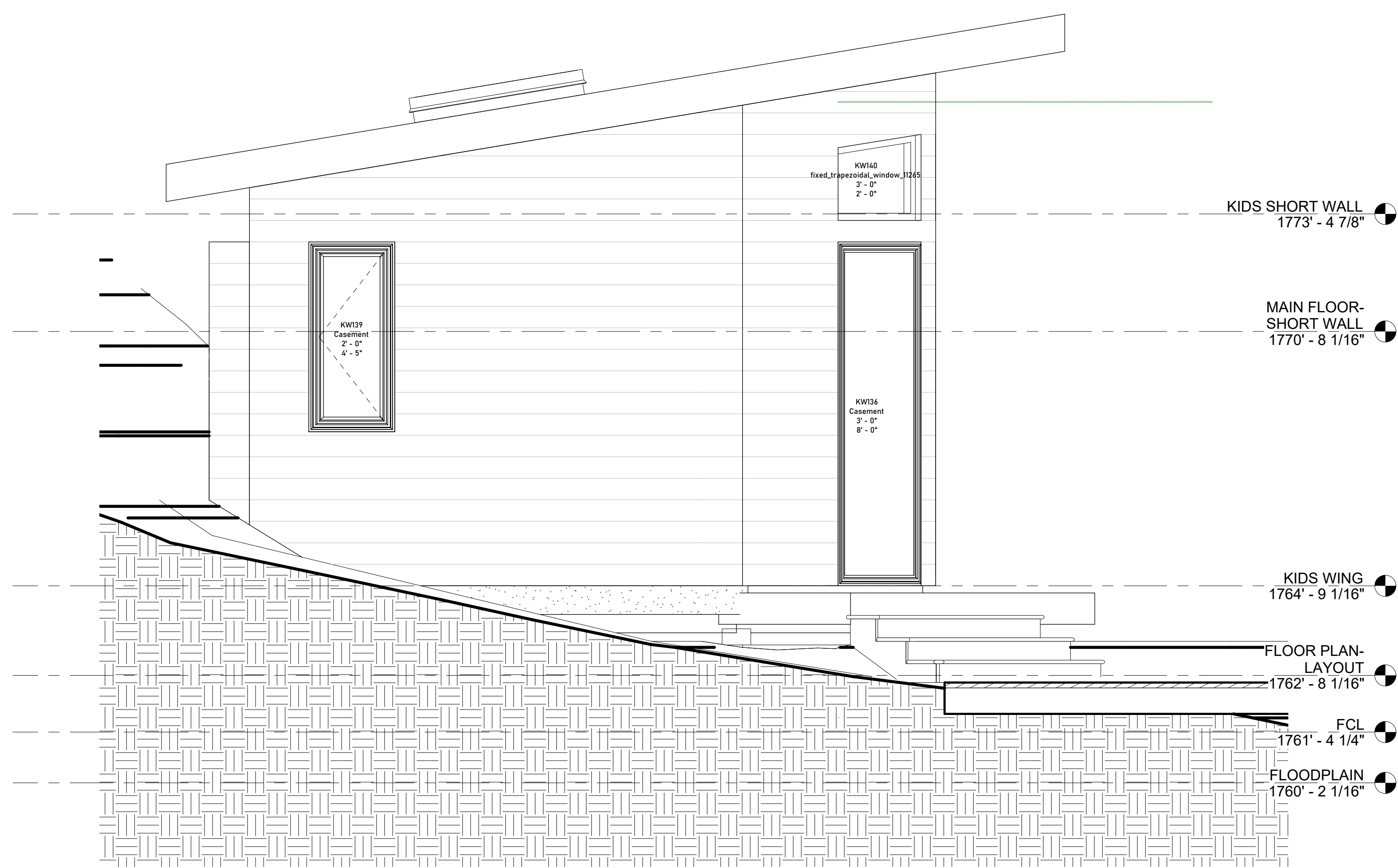


① KIDS NORTH  
1/2" = 1'-0"

Revision Schedule		
No.	Description	Date



① KIDS WEST  
1/2" = 1'-0"



② KIDS EAST  
1/2" = 1'-0"

ROOF BUILD-UP  
WESTFORM PROLOK 12" STANDING SEAM  
SELF ADHERED ROOFING UNDERLAY  
5/8" T&G PLYWOOD SHEATHING  
MIN 2 1/2" VENT CAVITY  
24" ENGINEERED PARALLEL CHORD TRUSS  
R-50 BLOW IN CELLULOSE  
DRYWALL (STRAPPING MAY BE REQ'D)

KIDS SHORT WALL  
1773' - 4 7/8"

MAIN FLOOR-  
SHORT WALL  
1770' - 8 1/16"

WALL BUILD-UP  
VERTICLE CEDAR SIDING  
1X3 RAINSCREEN STRAPPING (HOR)  
1X3 RAINSCREEN STRAPPING (VERT)  
2" ROCKWOOL  
WRB  
1/2" PLWOOD SHEATHING  
2X6 @ 24" O.C. W/ R-24 CAVITY INSULATION  
VAPOUR BARRIER  
DRYWALL

CANTILEVER DECK

FLOOR PLAN-  
LAYOUT  
1762' - 8 1/16"

FCL  
1761' - 4 1/4"

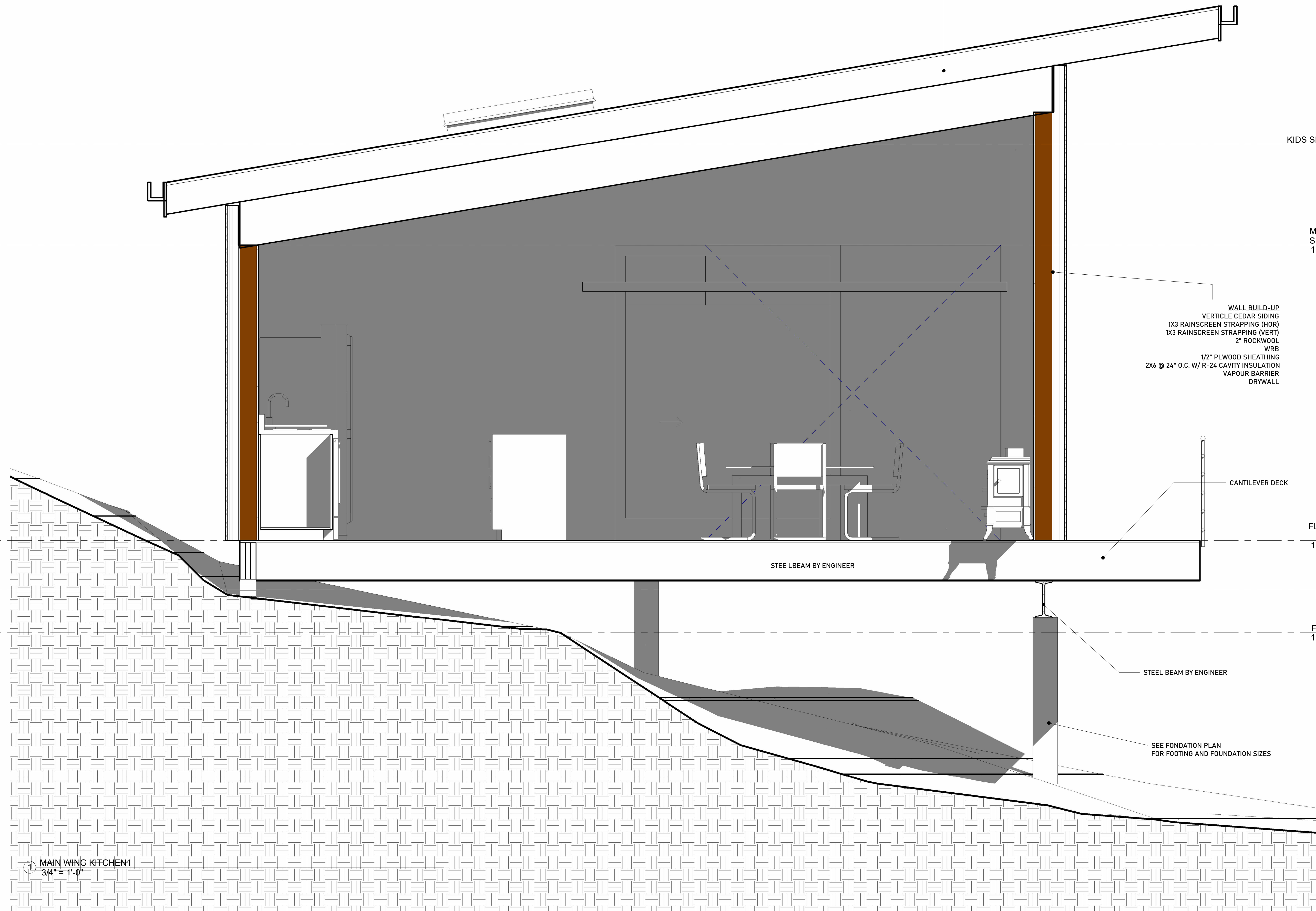
FLOODPLAIN  
1760' - 2 1/16"

STEE LBEAM BY ENGINEER

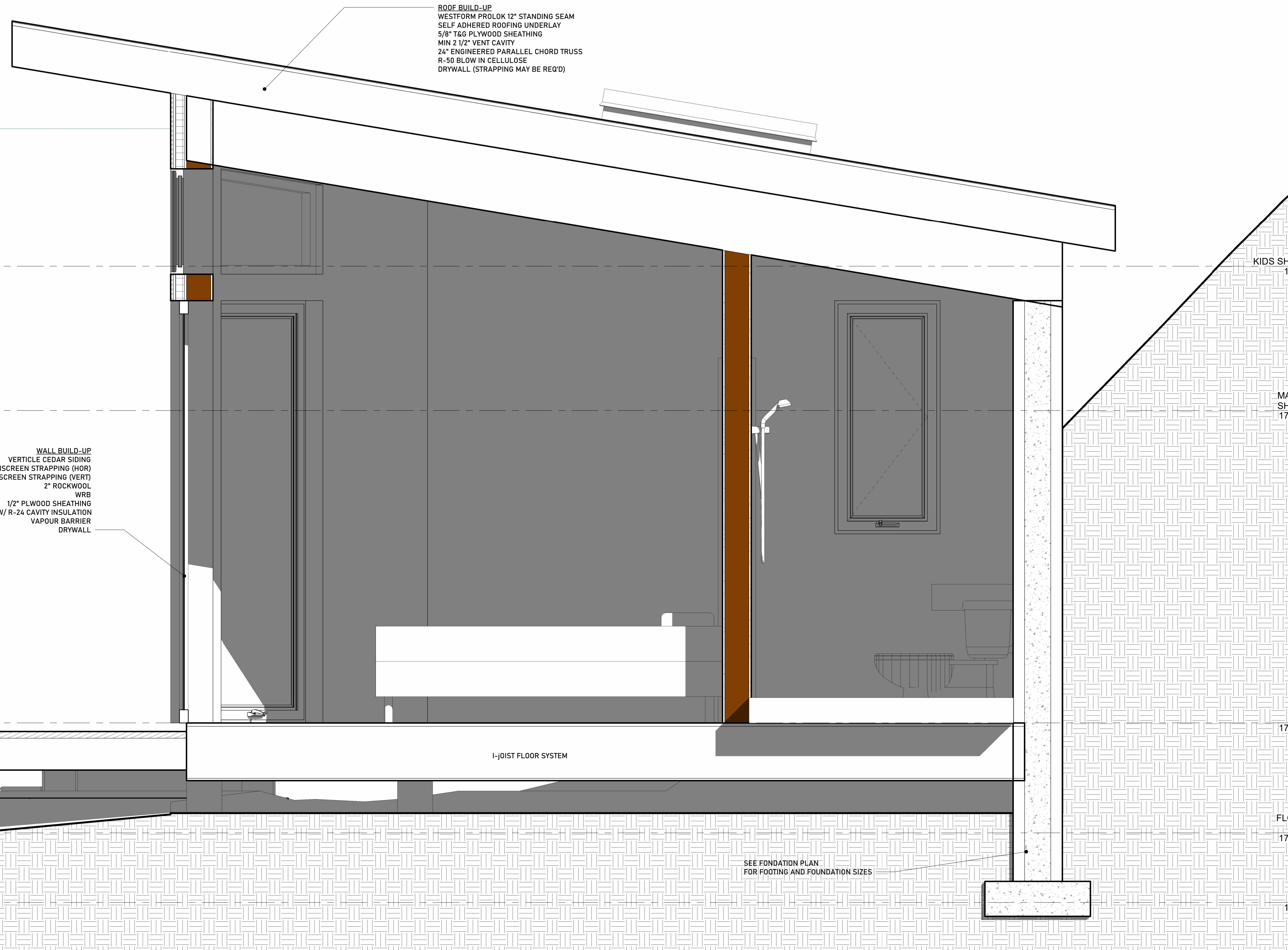
STEEL BEAM BY ENGINEER

SEE FONDATION PLAN  
FOR FOOTING AND FOUNDATION SIZES

1 MAIN WING KITCHEN1  
3/4" = 1'-0"



No.	Description	Date



Section 9  
1" = 1'-0"

Door Schedule						
Door #	Function	Type	Width	Height	Comments	
ID-111	Exterior	Sliding-2 panel	12' - 0"	9' - 0"		
ID-120	Exterior	Entry Glass w. Sidelight	2' - 11"	6' - 8"	42" DOOR WITH 18" SIDELIGHT	

Window Schedule						
Window #	Type	Rough Opening		Head Height	Sill Height	Comments
		Width	Height			
KW112	Fixed Panel	1' - 6"	8' - 0"	8' - 0"	0' - 0"	
KW113	Awning- NO TRIM	4' - 0"	3' - 0"	8' - 0"	5' - 0"	
KW114	Awning- NO TRIM	6' - 0"	2' - 0"	7' - 0"	5' - 0"	
KW115	Window-Fixed-Marvin-Direct_Glaze_Corner-Ultimate	2' - 0"	8' - 0"	9' - 0"	1' - 0"	
KW116	Fixed Panel	2' - 0"	8' - 0"	8' - 0"	0' - 0"	
KW117	Awning- NO TRIM	3' - 0"	1' - 6"	7' - 0"	5' - 6"	
KW118	Fixed Panel	5' - 0"	8' - 0"	8' - 0"	0' - 0"	
KW120	Fixed Panel	12' - 0"	8' - 0"	9' - 0"	1' - 0"	
KW121	Fixed Panel	12' - 0"	8' - 0"	9' - 0"	1' - 0"	
KW126	M_Skylight	2' - 0"	4' - 0"			
KW127	M_Skylight	2' - 0"	4' - 0"			
KW128	M_Skylight	2' - 0"	4' - 0"			
KW129	M_Skylight	2' - 0"	4' - 0"			
KW130	Fixed Panel	12' - 0"	2' - 6"	13' - 0"	10' - 6"	
KW133	Fixed Panel	12' - 0"	2' - 6"	13' - 0"	10' - 6"	
KW134	Fixed Panel	12' - 0"	2' - 6"	13' - 0"	10' - 6"	
KW136	Casement	3' - 0"	8' - 0"	8' - 0"	0' - 0"	
KW138	Casement	2' - 0"	4' - 5"	8' - 0"	3' - 7"	
KW139	Casement	2' - 0"	4' - 5"	8' - 0"	3' - 7"	
KW140	fixed_trapezoidal_window_11265	3' - 0"	2' - 0"	10' - 6"	8' - 6"	
KW141	Fixed Panel	7' - 0"	2' - 0"	10' - 6"	8' - 6"	
KW142	Casement	3' - 0"	8' - 0"	8' - 0"	0' - 0"	
KW143	Fixed Panel	7' - 0"	2' - 0"	10' - 6"	8' - 6"	
KW146	Awning- NO TRIM	3' - 0"	1' - 6"	4' - 11"	3' - 5"	
KW147	Awning- NO TRIM	3' - 0"	1' - 6"	4' - 11"	3' - 5"	
KW148	Awning- NO TRIM	3' - 0"	1' - 6"	4' - 11"	3' - 5"	
KW149	fixed_trapezoidal_window_11265	3' - 0"	2' - 0"	10' - 6"	8' - 6"	
KW150	M_Skylight	2' - 0"	4' - 0"			
KW151	M_Skylight	2' - 0"	4' - 0"			

Z-Door Interior						
Mark	Type	Width	Height	Function	Trim Length	Comments
ID-105	32" x 80"	2' - 8"	6' - 8"	Interior	16' - 0"	
ID-106	32" x 80"	2' - 8"	6' - 8"	Interior	16' - 0"	
ID-112	3068-Sliding 2	8' - 0"	8' - 0"	Interior	24' - 0"	BARN DOOR
ID-113	36" x 80"	3' - 0"	7' - 0"	Interior	17' - 0"	
ID-114	60" X 16"	5' - 0"	1' - 4"	Interior	7' - 8"	
ID-115	40" x 84"	3' - 6"	7' - 0"	Interior	17' - 6"	
ID-116	72" x 96"	7' - 0"	8' - 0"	Interior	23' - 0"	
ID-117	48" x 84"	4' - 0"	7' - 0"	Interior	18' - 0"	
ID-118	32 x 80 pocket	2' - 8"	6' - 8"	Interior	16' - 0"	
ID-119	32" x 80"	2' - 8"	6' - 8"	Interior	16' - 0"	
ID-125	72" x 96"	7' - 0"	8' - 0"	Interior	23' - 0"	
ID-126	72" x 96"	7' - 0"	8' - 0"	Interior	23' - 0"	

# NATIVE REVEGETATION

## NET REVEGETATION AREA- 582 SF (54 sqm)

### TREES

Western red cedar- *Thuja plicata*  
 Western white pine- *Pinus monticola*  
 Interior Douglas fir- *Pseudotsuga menziesii*  
 Paper birch- *Betula papyrifera*

### SHRUBS

Red osier dogwood- *Cornus stolonifera*  
 Sandbar willow- *Salix exigua*  
 Sitka willow- *Salix sitchensis*  
 Nootka rose- *Rosa nutkana*  
 Mountain alder- *Alnus incana*  
 Water birch *Betula occidentalis*  
 Douglas maple- *Acer glabrum*  
 Mallow ninebark- *Physocarpus malvaceus*  
 Oceanspray- *Holodiscus discolor*  
 Blue elderberry- *Sambucus caerulea*  
 Thimbleberry- *Rubus parviflorus*  
 Blueberry- *Vaccinium ovalifolium*  
 Common snowberry- *Symphoricarpos albus*

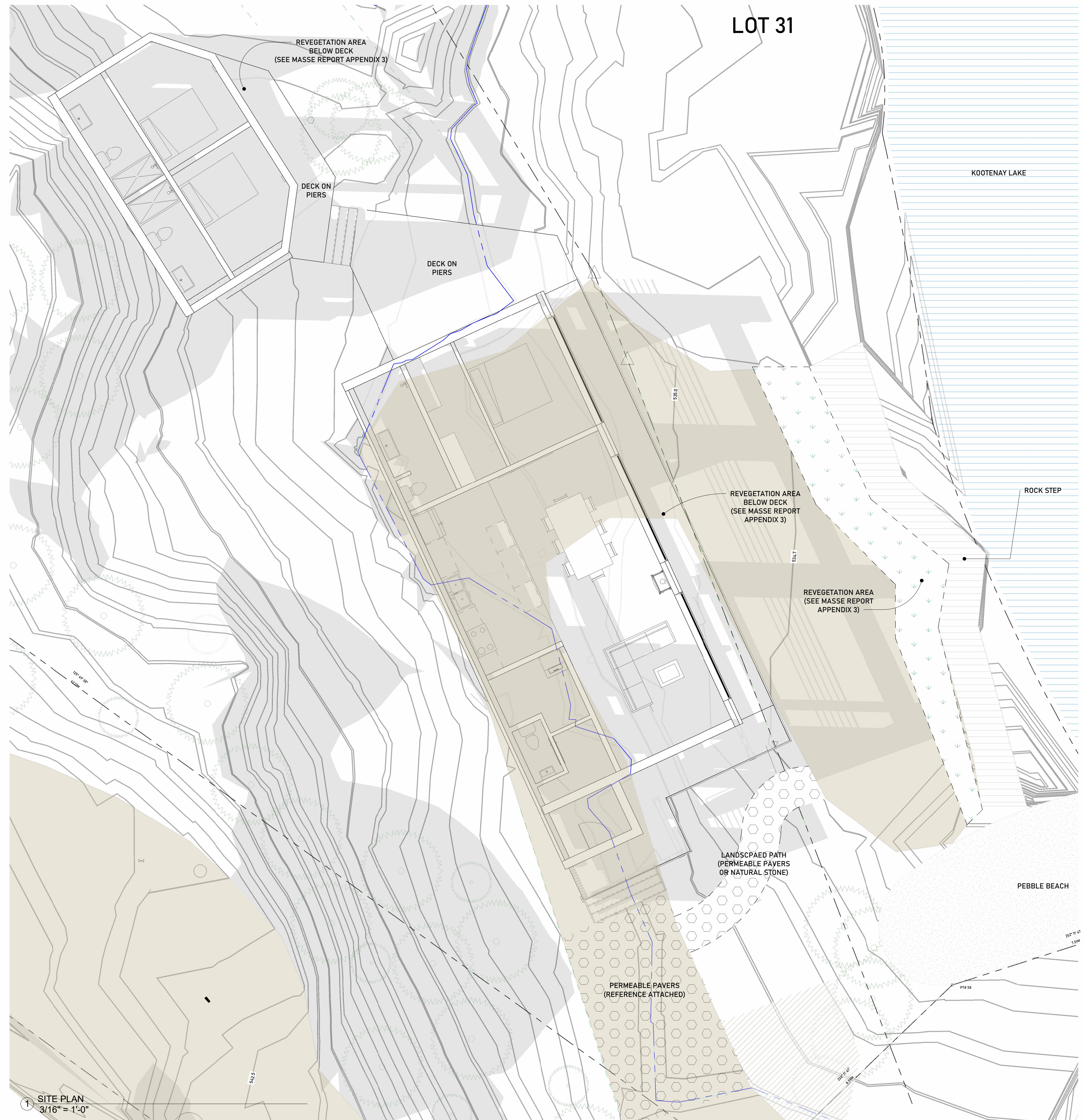
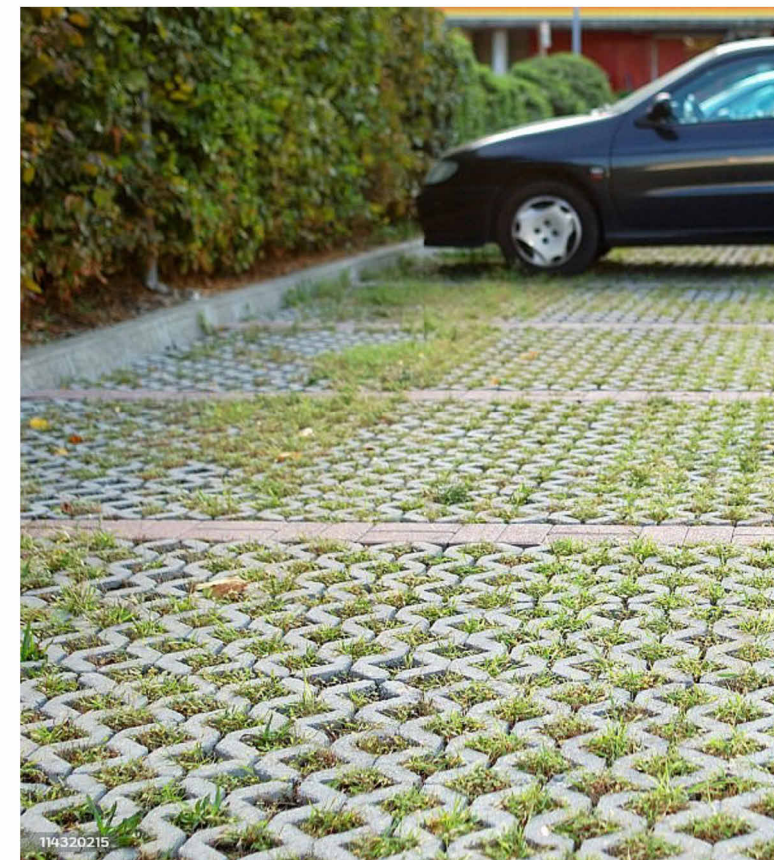
### HERBACEOUS

Blue joint grass *Calamagrostis canadensis*  
 Idaho fescue *Festuca idahoensis*  
 Junegrass *Koeleria macrantha*  
 Nodding onion *Allium cernuum*  
 Pink spirea *Spirea douglasii* spp. *Menziesii*  
 Canadian goldenrod *Solidago lepida*

In order to minimize further impacts to the SPEA the best management practices outlined in Section 6 should be adhered to. Although on-site restoration opportunities are limited on the property, native shrubs could be incorporated into the landscaping of the terrace area.

- Plant at least 20 native shrubs/trees within the areas proposed for revegetation on the existing terrace next to the house (Appendix 2). Species listed in Table 5 are recommended, which are known to occur in the local area and provide the necessary riparian function. Additional native tree or shrub species could be substituted under direction from a QEP. Plantings which do not survive should be replaced to ensure that long term establishment of the target quantity of native trees and shrubs is achieved.
- Plant stock should be a minimum of 1 gallon potted stock.
- Direction from a qualified landscaper will increase the likelihood of success.
- Planting should not occur during periods of hot dry weather unless they are irrigated daily.
- Regularly irrigate new plantings during the plant establishment period, minimum 3 years.
- In addition to incorporating riparian vegetation along the terrace, all disturbed areas around the home and any landscape features should be planted entirely with native plant species such as those listed in Table 6.
- Replanting of riparian and upland vegetation around the proposed buildings should adhere to principles of rural residential fire protection (for more information see the FireSmart Homeowner's Manual MFLNRO N.D.).
- Trees and shrubs listed in Table 6 are available from Sagebrush Nursery in Oliver (<https://sagebrushnursery.com>), or Nupqu Native Plants (<https://nupqu.com/native-plantsnursery-home/>) near Kimberley.
- A recommended native seed mix blend specifically formulated for the Kootenay Lake foreshore is available at Nupqu Native Plants ([http:// https://nupqu.com/native-plants-nursery-home](http://https://nupqu.com/native-plants-nursery-home)) near Kimberley (Table 7).
- The landscaping plan will need to incorporate measures to address the erosion observed on the lake side of the terrace.

## PERMEABLE PAVERS



1 SITE PLAN  
 3/16" = 1'-0"

LOT 31

KOOTENAY LAKE

ROCK STEP

REVEGETATION AREA  
 BELOW DECK  
 (SEE MASSE REPORT  
 APPENDIX 3)

REVEGETATION AREA  
 (SEE MASSE REPORT  
 APPENDIX 3)

LANDSCAPED PATH  
 (PERMEABLE PAVERS  
 OR NATURAL STONE)

PERMEABLE PAVERS  
 (REFERENCE ATTACHED)

PEBBLE BEACH