EXHIBIT K

Sandcreek Crossing
Ponderay, Idaho

Structural Design Narrative
September 30, 2021

The following design narrative provides a general overview of the structural design including project overview, design criteria, material specifications, and structural framing descriptions. The purpose of this document is to provide an outline of the structural systems that will combine the best aspects of economy and quality for this project.

Project Overview

The project consists of four multi-story mixed-use buildings, three of which sit atop a subterranean parking structure. The mixed-use buildings will include residential condominiums, retail, and office spaces. The mixed-use buildings will vary between two and four stories, and the parking structure will have one level of subterranean parking and surface parking on the top deck. The subterranean parking level will daylight on the downhill side towards the river.

Design Criteria

2018 International Building Code and Referenced Code Standards Therein

- Roof (Snow) — 76 PSF (1) (2)
  - (1) Designed for drifting snow in accordance with ASCE 7.
  - (2) Importance Factor = 1.0
- Elevated Floor Live Load
  - Residential — 40 PSF
  - Lobbies — 100 PSF
  - Corridors at First Floor — 100 PSF
  - Corridors above First Floor (Commercial Space) — 80 PSF
  - Corridors above First Floor (Residential Space) — Same as Occupancy Served
  - Office — 50 + 15 PSF
  - Retail — 100 PSF
  - Restaurants — 100 PSF
  - Parking — HS90 Loading
- Wind Design
  - Ultimate Design Wind Speed — 115 MPH
  - Exposure — C
  - Occupancy Category — II
  - Importance Factor — 1.0
- Seismic Design
  - Occupancy Category — II
  - Importance Factor — 1.0
  - Site Class — D

Material Specifications

Concrete Strengths (at 28 days)

Foundations and Footings	3,000 PSI
Slab on Grade	3,000 PSI
Elevated Slabs	5,000 PSI
Columns and Walls	4,000 PSI

Wood Framing

Floor Joists (solid web wood "I" joists)	RedBuilt or Equal
Dimensional Lumber	Douglas Fir Larch No. 2

Cold-Formed Steel Framing	
Exterior Wall Studs Below Level 1	ASTM A653-Grade D, G60
Structural Steel	
WF Columns and Beams	ASTM A992
HSS Columns and Beams	ASTM A500-Grade B
Miscellaneous Shapes and Plates	ASTM A36

Structural Framing

Roof Framing System:

Roof framing will consist of 15/32-inch APA rated sheathing for sloped roofs and 19/32-inch APA rated sheathing for flat roofs supported by solid web wood "I" joists spaced at 24 inches on center. Light-framed stud bearing walls will support the joists at interior and exterior walls and will be supplemented with posts and beams where necessary.

Floor Framing System:

The floor framing for the upper three floors will consist of a 2-inch concrete topping over ¾-inch APA rated tongue and groove sheathing supported by solid web wood "I" joists. Light-framed stud bearing walls will support the joists at interior and exterior walls and will be supplemented with posts and beams where necessary. Where possible, beams will be flush with the bottom of the solid web floor joists.

Wall Framing Systems:

Interior and exterior bearing walls will consist of 2x6 wood studs spaced at 16 inches on center. Party walls will be framed with (2) 2x4 walls with a one-inch gap between walls.

Elevated Concrete Slab:

The first level will consist of a cast-in-place concrete transfer slab designed to span a maximum of 30 feet between columns. The slab will be 12 to 14 inches thick. Where beneath the mixed-use buildings, the transfer slab will be designed to support all posts, bearing walls, and shear walls from the framed construction above. At the parking deck, the slab will be designed to support passenger vehicles, delivery/service vehicles, fire trucks, snow load, and any landscape loading. The slab will be designed with a step down at the face of the building and will be sloped to drains outside the footprint of the buildings.

Concrete columns supporting the elevated slab will have approximate dimensions of 12-inch x 18-inch and will be placed to module with the parking stalls at a maximum spacing of 30 feet.

Foundations:

According to the Draft Geotechnical Evaluation by AllWest, dated September 3, 2021, the building will be supported on a deep foundation system due to slope stability concerns. The preliminary recommendation is to use 12 to 18-inch diameter pipe piles with 50 to 100 kips of capacity. The site will be over-excavated to replace and improve the subgrade allowing for a conventional 4-inch slab-on-grade at the lower parking level. Building columns and walls will be supported on grade beams spanning between pile caps. Pile caps will be supported on single or multiple piles depending on the loads.

The sub-grade will be prepared in accordance with the geotechnical engineer's recommendations.

Concrete Basement Wall:

A concrete basement wall will retain soil around the perimeter of the lower parking level on the north, south, and east sides of the project. Any surcharge from the nearby bike path and highway will be accounted for in the design.

Temporary Excavation Shoring:

Highway 95 runs parallel to the site along the east side. Excavation of the site to allow the installation of foundations and basement wall will be done in such a way to not undermine the existing highway, and where necessary, excavation shoring will be utilized. Excavation slopes will be in accordance with the geotechnical recommendations in order to remain stable during construction.

Lateral Force Resisting System:

At the upper floors, wind and earthquake forces will be resisted by plywood shear walls. Overturning forces will be resisted by a tie-down system consisting of steel rods from the podium slab to the roof. Plywood sheathing at the roof and floor diaphragms will distribute the lateral loads to the shear walls.

For the lower level below the cast-in-place transfer slab, wind and earthquake forces will be resisted by the concrete basement walls at the perimeter and at the stair and elevator core walls. The cast-in-place transfer slab will distribute the lateral loads from the upper levels to these shear walls.