Durable Good

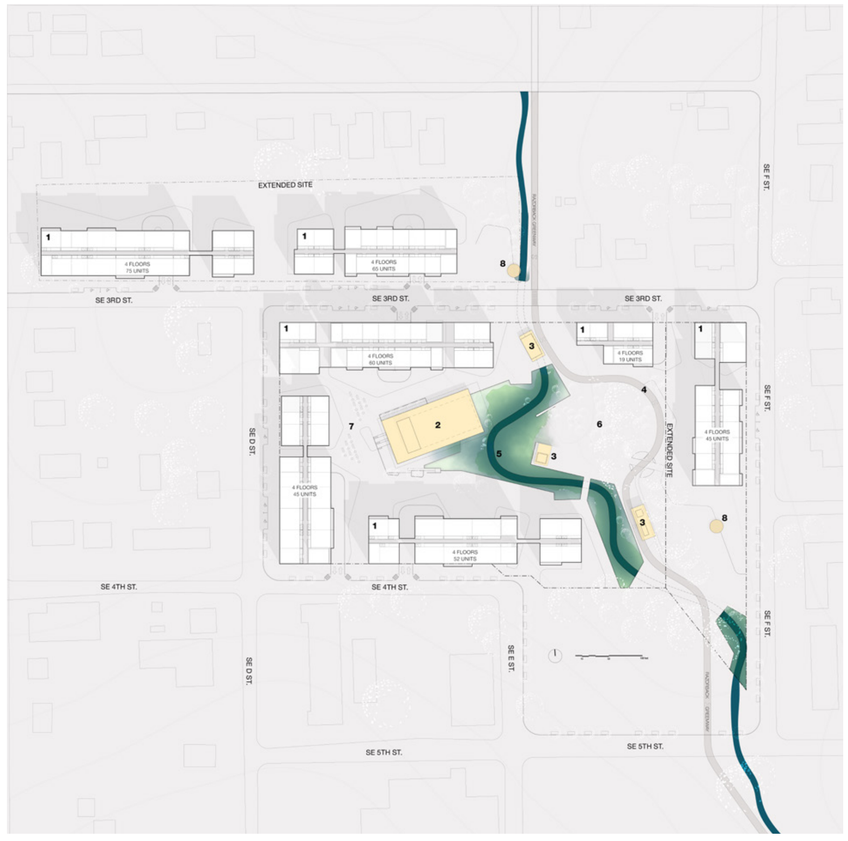
Arkansas Housing Northwest Initiative

Our submission to the Housing Northwest Arkansas competition is built on four primary concepts. They are:

- Thoughtful urban form that increases density, provides robust civic space, enhances the existing adjacent Razorback Greenway, and intertwines it with mixed-use and residential development.
- Landscape is an infrastructural and aesthetic composition.
- Use of innovative mass timber construction systems that are economical, renewable, local, and innovative.
- Improved quality of life due to the use of surprising quantities of natural light and healthier building materials.

We propose a development on the primary area of Site 1 of 176 units of housing consisting of live/work units and mixture of zero to three-bedroom dwellings. Contained within several independent structures, these buildings surround an open 3.3-acre civic landscape built locally and responsibly from innovative timber systems. We envision the site as a home to Bentonville residents and local businesses and as a gathering place for those traveling along the Greenway. This parkscape and expanded waterway contributes to the string of recreational spaces throughout NW Arkansas with a "civic courtyard" and central multi-function building for local athletics and the community-based performing arts.

On the extended sites to the north and east we propose further residential developments of 185 units with associated required below-grade parking. At the east extended site, we have placed a small mixed-use structure at the northeast corner only and dedicated the rest of the site to landscape improvements and the re-connection of the Razorback Greenway towards the southeast. At the intersection of SE F Street and SE 4th Street we have established an entry plaza with information kiosk and gathering zone. To the south the continuation of the Greenway bike path extends to SE 5th Street and the creek reconnects to its original exit point from the site.



EXTENDED SITE

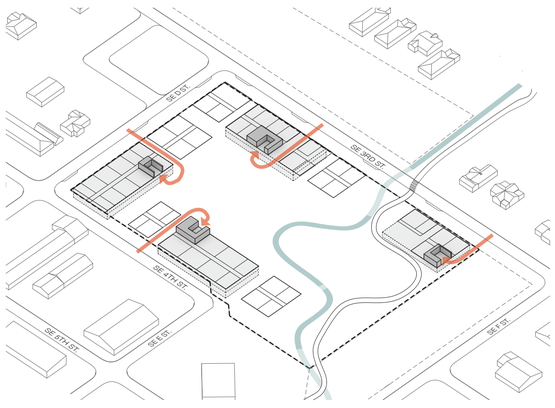


DIAGRAM - PARKING

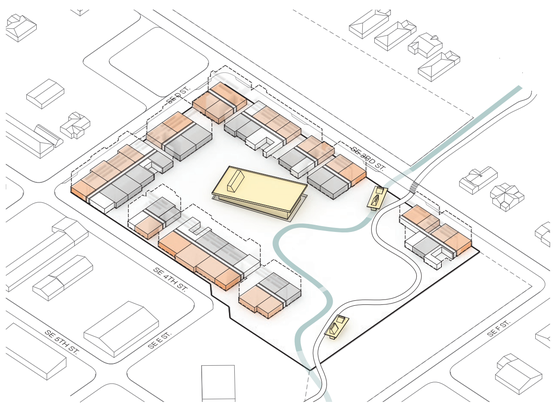


DIAGRAM - GROUND FLOOR PROGRAM

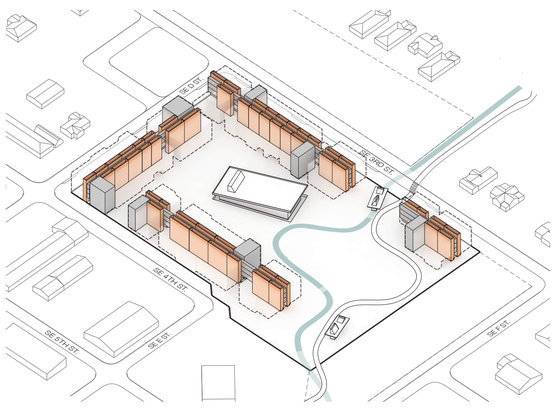
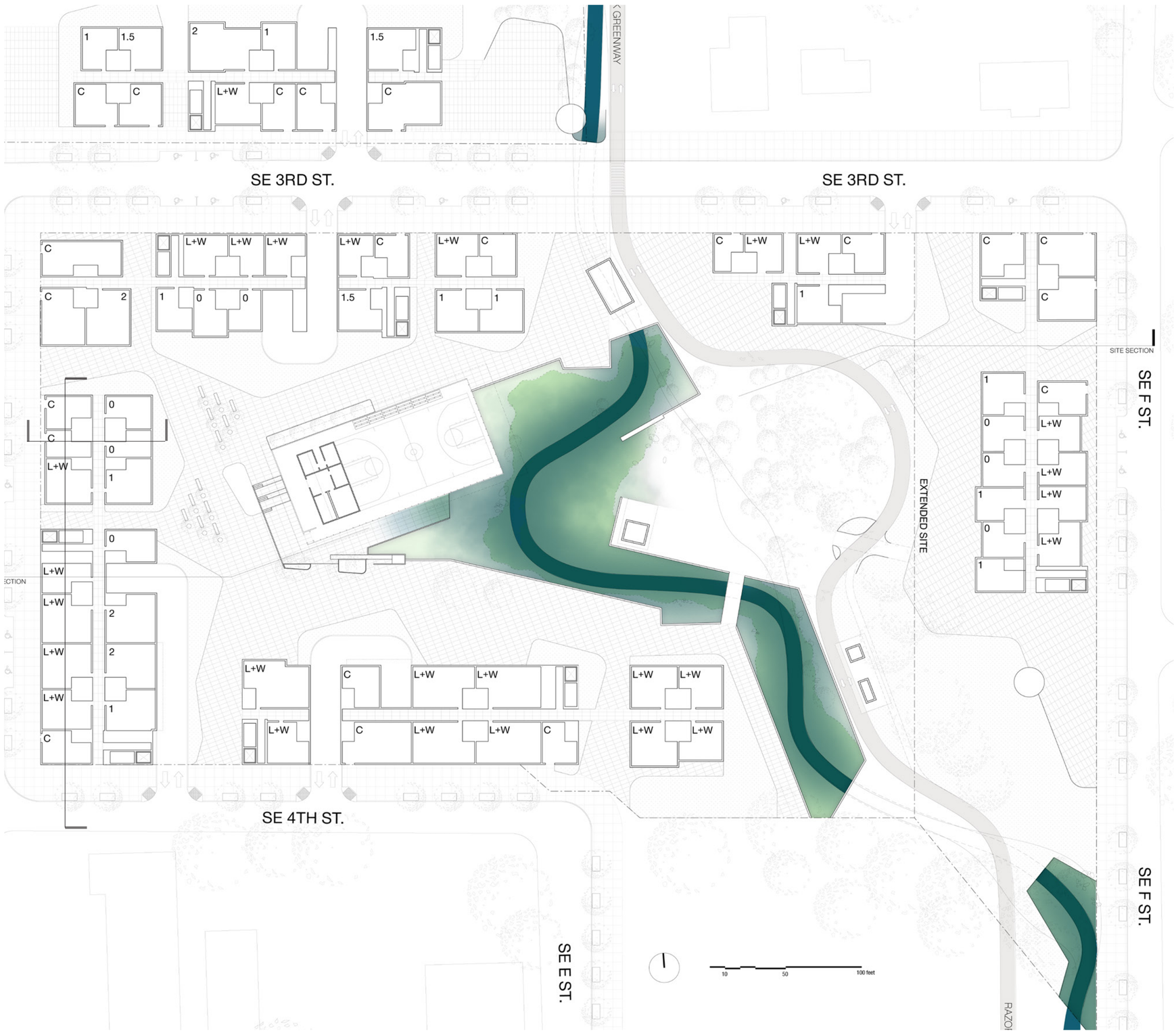


DIAGRAM - VERTICAL CIRCULATION/ LIGHT



SITE PLAN

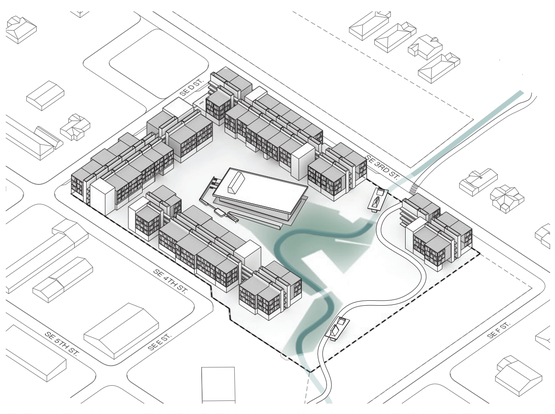
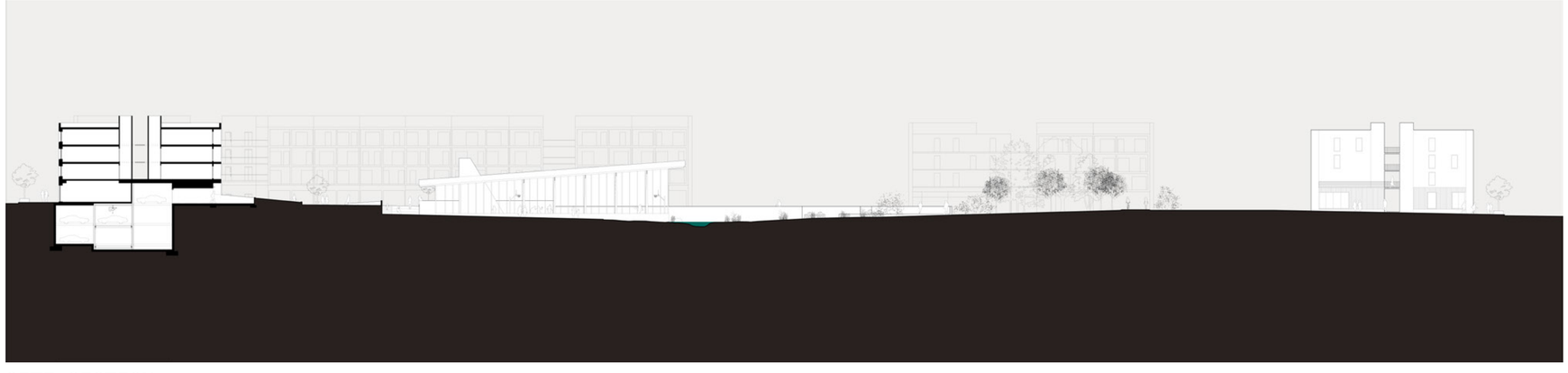
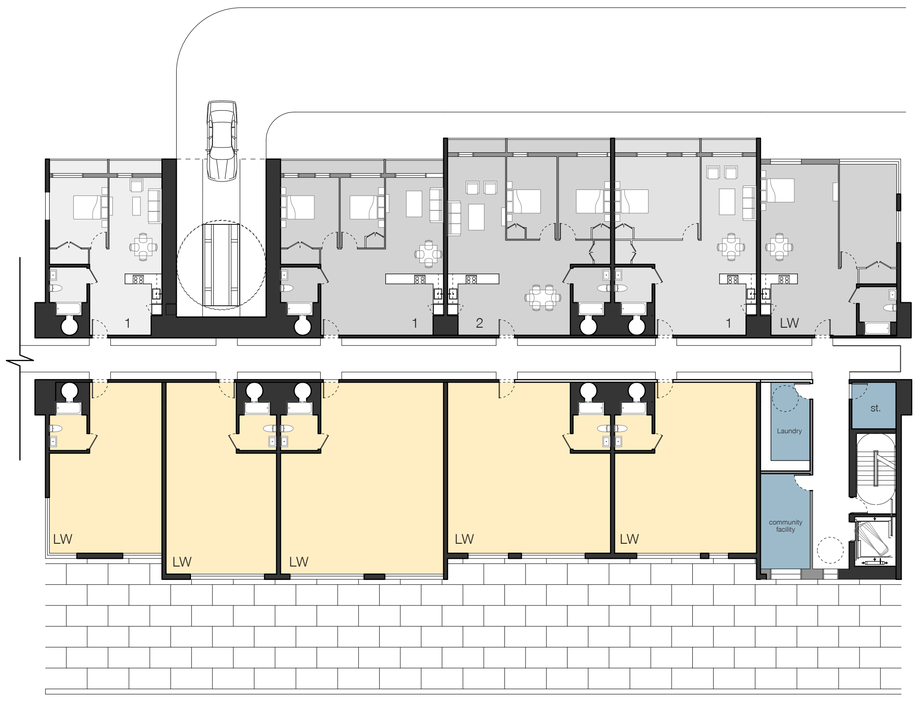


DIAGRAM - BUILDING MASS/ LANDSCAPE

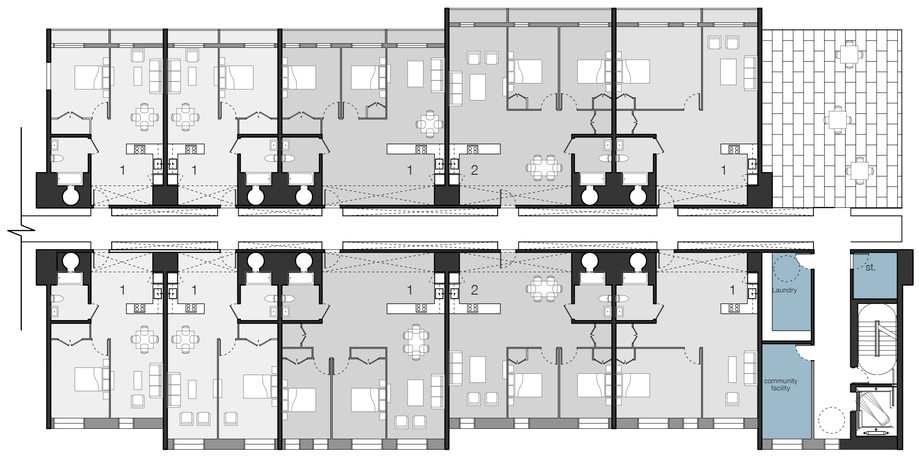


SITE SECTION



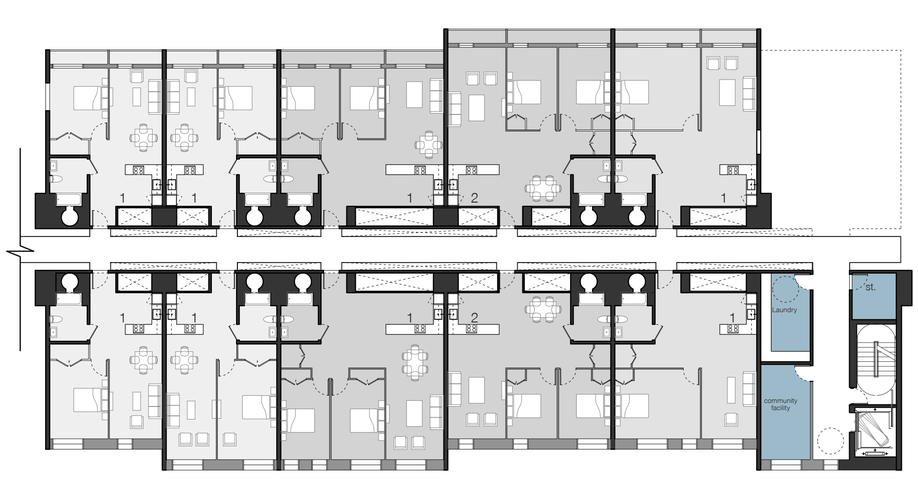
TYPICAL PLAN - GROUND LEVEL

1/16"=1'-0"



TYPICAL PLAN - SECOND LEVEL

1/16"=1'-0"



TYPICAL PLAN - UPPER LEVELS

1/16"=1'-0"

STREET ELEVATION

1/16"=1'-0"

COURTYARD ELEVATION

1/16"=1'-0"

LONG SECTION

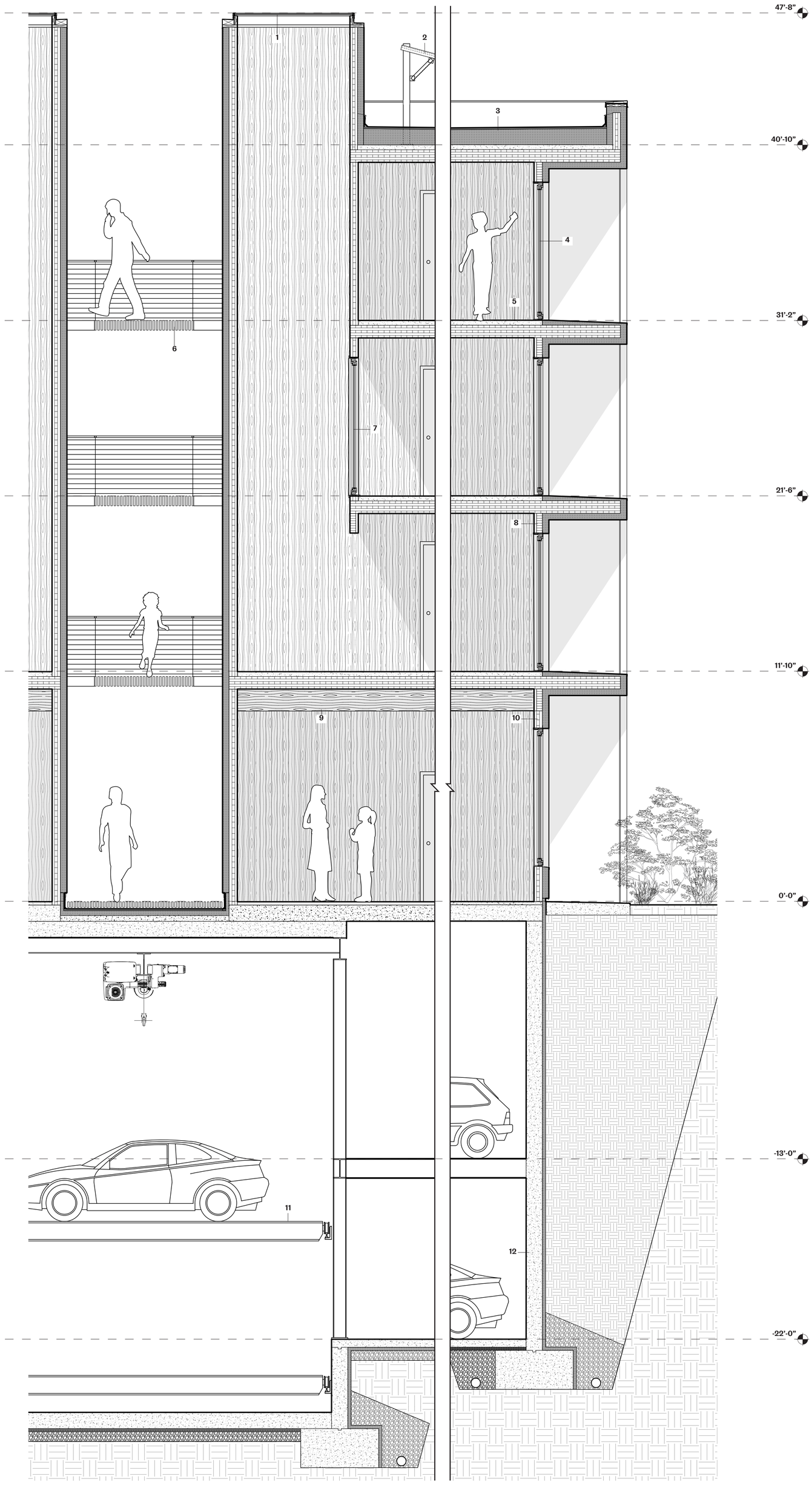
1/16"=1'-0"

SHORT SECTION

1/16"=1'-0"

AUTOMATED PARKING

Parking requirements are, relative to those in denser urban environments, quite heavy. While it would be simpler and convenient to electively and unilaterally reduce the number of spots or propose the elimination of parking entirely, the reality is that commuting by automobile will continue as a means of transport in Bentonville and use of the car is a necessity. We propose concealing the parking underground, and while this requires a significant amount of excavation there are other factors which work in favor of this significant sitework. Use of ground material from excavation reduces any requirement for fill brought in from outside the site. We utilize what we have displaced to re-figure the topography and landscape of this site, cutting and filling to bring purpose to this act.



TECHNICAL SECTION

3/8" + 1'-0"

1 SKYLIGHT AT TOP OF LIGHT CHIMNEY
2 PV ARRAY PANEL
3 ROOF ASSEMBLY: CLT PLANK (EXPOSED AT CEILING)
3" CAST-IN-PLACE CONCRETE TOPPING SLAB
8" MINIMUM TAPERED RIGID INSULATION, PITCHED TO DRAINS
ROOFING MEMBRANE ON COVERBOARD
4 EXTERIOR GLAZING UNIT, SETBACK FROM BUILDING FACE TO PROVIDE SOLAR SHADING
5 FLOOR ASSEMBLY: CLT PLANK (EXPOSED AT CEILING
3" CAST-IN-PLACE CONCRETE TOPPING SLAB (EXPOSED AT FLOOR)
6 TIMBER-FRAMED OPEN-AIR WALKWAY WITH SLATTED WOOD DECKING
7 INTERIOR GLAZING UNIT AT LIGHT CHIMNEY
8 GLT SPANDREL BEAM FRAMING WINDOW OPENINGS
9 GLT BEAM BEYOND (TIMBER POST & BEAM FRAMING AT FIRST FLOOR)
10 WALL ASSEMBLY: CLT WALL (EXPOSED AT INTERIOR)
4" EXTERIOR INSULATION AND FINISHING SYSTEM WITH STUCCO FINISH
11 AUTOMATED PARKING SYSTEM ELEVATOR
12 CAST-IN-PLACE CONCRETE FOUNDATION WALL AND FOOTINGS WITH 2" RIGID INSULATION AT EXTERIOR

SECTION MODEL

CROSS LAMINATED TIMBER

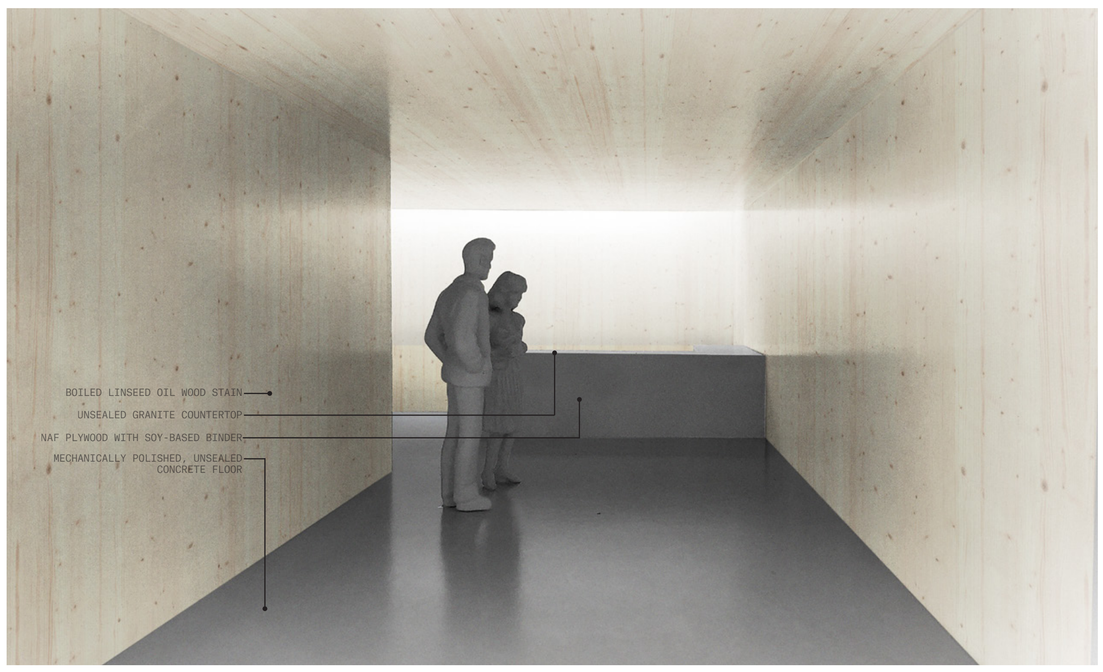
Our design integrates timber construction with a strict formal logic. The superstructure is composed of a primarily mass timber structure including, Cross Laminated Timber (CLT) bearing/shear walls entry corridor and walls separating units; Glued Laminated Timber (GLT) beams and columns at the glazed facades to allow for wide openings; and CLT plank composite with concrete topping for floors and roof. This technology means a much lighter building, a smaller carbon footprint, the sequestration of carbon itself within the building's structure, and locally sourced wood. The wood is used logically for efficiency, lightness, and precision – it uniquely allows for controlled pre-fabrication and minimum number of erected pieces. The appearance of exposed wood is also possible, lending a materially and sensorially rich experience to interior spaces.

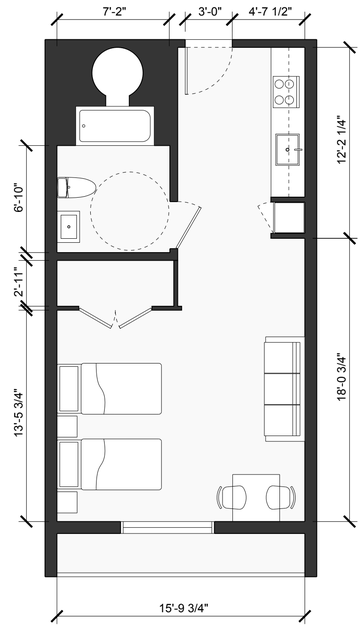
LIGHT

Multi-family housing design often defaults to generic treatment of light, with repetition of conditions absent consideration for the variation that the surrounding environment offers, and little regard for architectural opportunities to sculpt and control light, tracking time and thus memory. We harness light for both conventional, necessary purposes as well as for folly, for distinction, for surprise. Apartments within the double-loaded structure obtain light from two sides of the domestic space: through large windows facing outward at the perimeter - just what one expects and needs. The other source is a light "chimney" along the interior wall, adjacent to the public corridor – illogically placed at the deepest point of the home but borrowing light from above and providing a soft, changing marker of time. This chimney brings diffuse light to the kitchen, and into the bathroom. The natural light from the windows is direct, offering views out to the town and central landscape and providing the primary source of natural illumination. But the light chimney, which bores vertically through the section of the building, provides diffuse light at a point furthest from both the façade and the sky.

UNIT INTERIOR

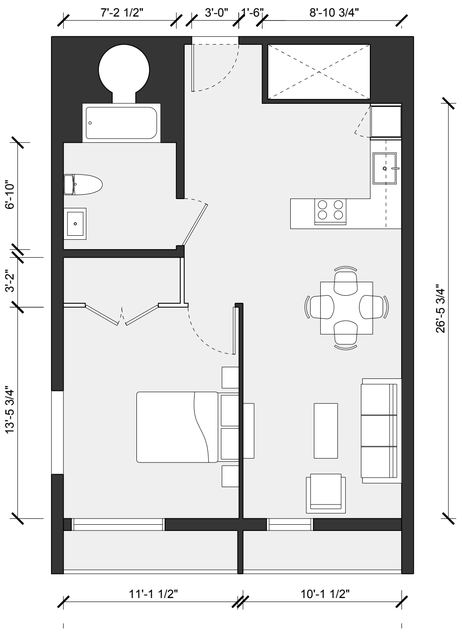
UNIT INTERIOR





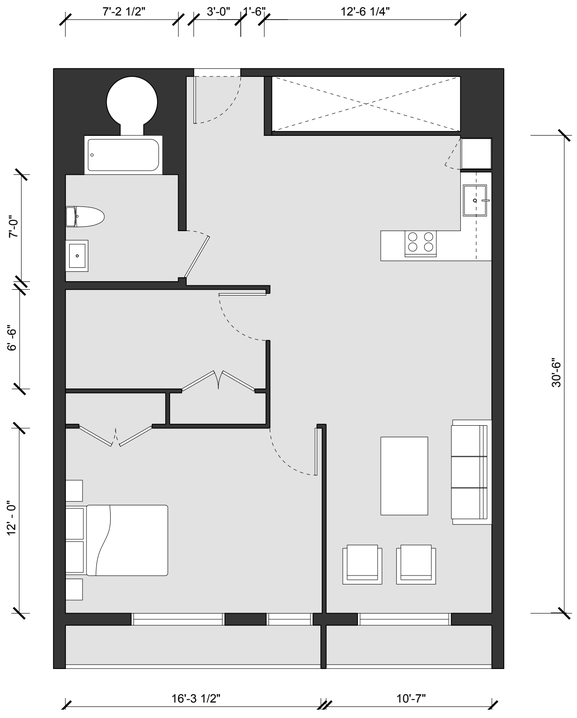
TYPICAL UNIT PLAN - 0 BEDROOM

3/16"=1'-0"



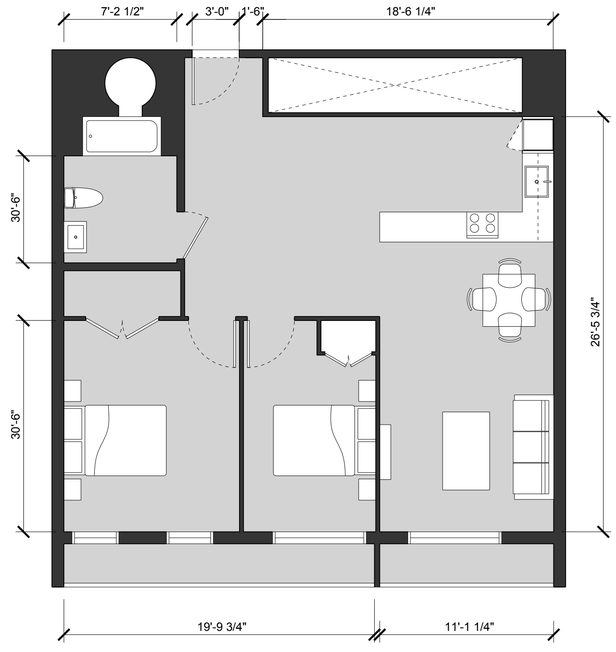
TYPICAL UNIT PLAN - 1 BEDROOM

3/16"=1'-0"



TYPICAL UNIT PLAN - 1.5 BEDROOM

3/16"=1'-0"



TYPICAL UNIT PLAN - 2 BEDROOM

3/16"=1'-0"

TYPICAL UNIT PLAN - 3 BEDROOM

3/16"=1'-0"

TYPICAL UNIT PLAN - LIVE/WORK

3/16"=1'-0"

URBAN FORM & LANDSCAPE

Our block is composed efficiently, as a manipulation of the "perimeter block" housing type to maximize the size of the landscape area. At the ground floor and facing outward to the street the building is more open for commercial and live-work spaces. We are providing approximately 10,000 square feet of commercial area, with another 17,000 square feet of live/work units. We anticipate that live/work tenants will expand into commercial spaces, so their adjacency facilitates growth and an increase in commercial area as it becomes necessary. Corners are strongly established, with major and minor "splits" within masses and between them. Major splits are for pedestrians: those who come to the site to visit the community building, landscape and the Razorback Greenway, and those who park their car and then walk to their home. Smaller splits in the masses permit vehicular access, allowing cars through the building block to the automated elevator system on the interior of the site.

RAZORBACK GREENWAY ENTRANCE