

FRAMEWORK

an urban + rural ecology

Please join us in leveraging Framework's high profile site in six meaningful ways:



① **New Economy:** Catalyze a new wood products economy in the United States



② **Rural Jobs:** Connect rural and urban expertise to create new jobs in rural Oregon



③ **Economic Development:** Make collaborative spaces for B-Corp change makers in Portland



④ **Climate Change:** Tap a local renewable resource for a meaningful low carbon solution



⑤ **Affordable Housing:** Pioneer affordable housing in Portland's most unaffordable district



⑥ **Social Equity:** Provide economic opportunity for the underserved through beneficial banking

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About Framework

Beneficial State Bancorp teamed with project[^], a values-based real estate developer, and Home Forward, an affordable housing provider, to re-envision their existing Pearl District property in Portland, Oregon into Framework, the nation's first wood high-rise building.

Framework seeks to develop a model for a sustainable urban ecology by promoting social justice, environmental responsibility, and economic opportunity, thus yielding a broad advancement of these objectives at a national scale.

This is achieved both during construction and through the programming of the building with affordable housing; office spaces for B-corporations; a tall wood building exhibit; and community spaces that complement its residents and tenants.



U.S. Tall Wood Building Prize

In a continuing effort to support the Obama administration's climate strategy, the United States Department of Agriculture (USDA), in partnership with the Softwood Lumber Board and the Binational Softwood Lumber Council, announced the U.S. Tall Wood Building Prize Competition in October 2014.

Framework was selected as one of two winners and granted \$1.5 million in funding to embark on the exploratory phase of the project, including the research and development necessary to utilize engineered wood products such as Cross Laminated Timber (CLT) in high-rise construction.

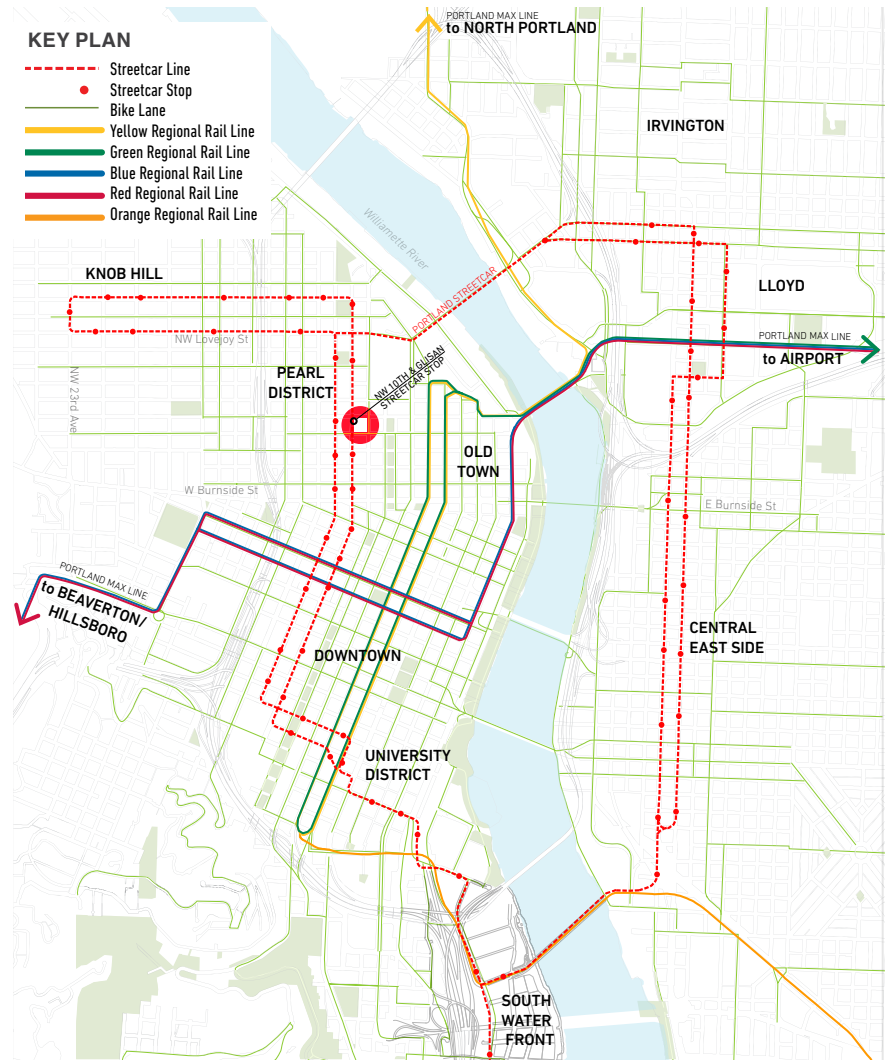
Image 1:

Prize ceremony, High Line, NYC
Framework team and presenters
Secretary Vilsack presentation

The Pearl District

The project is located in the heart of the Pearl District in Portland, Oregon, an area formerly occupied by warehouses and light industry. The Pearl District is one of the most sought after neighborhoods, offering countless options to live, work, and play. Undergoing significant urban regeneration in the past 20 years, the district is known internationally for its upscale businesses and residences, and is home to several Portland icons, such as Powell's City of Books, the Brewery Blocks, and the Park Blocks. The streetcar, a beloved feature in this pedestrian-oriented neighborhood, stops directly in front of the site, presenting an opportunity to showcase a prominent building.

Image 2: Location map
 Pearl District street fair
 Tanner Springs Park
 Portland streetcar
 Jamison Square



Design Concept

Framework's design showcases the innovative nature of mass timber construction at both the street level and on the city skyline. The structural design is a glulam post-and-beam structure, surrounding a CLT central core, and topped by CLT floor panels and gypsum concrete.

Framework's mass opens to display the exposed vertical wood core and lifts at the street corner creating a double height daylit public space. Laminated wood columns and a CLT ceiling frame this space and connect to a second floor community room and garden deck. This design features the building structure while bringing together the main entries into retail, housing, and office spaces.

Apartment and office ceilings will feature exposed wood with circulation grouped around the exposed wood core. A daylit stair provides a glimpse of circulation and the wood structure from a distance. The roof deck and People's Garden is framed by the building structure which extends the expression of the tall wood structure into the skyline.

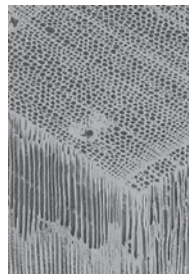
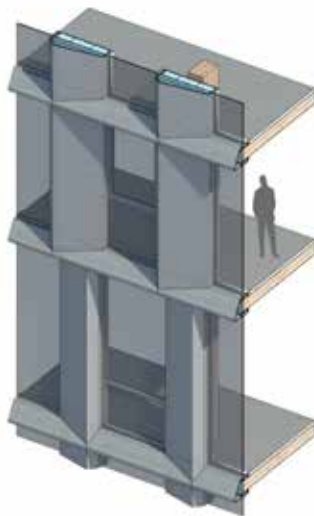


Image 3

Facade details
Precedent images

Fast Facts

Address	430 NW 10th Ave Portland, OR 97209
Building Height	148 ft / 12 floors
Housing Mix:	Studio One-bedroom Two-bedroom
Housing	60 units
Bike Parking:	102 spaces
Affordable Housing	42,000 sf
Office	39,000 sf
Retail / Groundfloor	9,000 sf
Total Building	90,000 sf





Image 5: View of cafe / lobby and tall wood exhibit

Ground Floor

The ground floor will house the lobby, tall wood exhibit, retail kiosk, leasing office, bike room with ninety-three spaces as well as spaces for utilities and recycling/trash. Albina Community Bank, currently situated on the site, will remain within the ground floor of the Framework building upon completion.

Albina Community Bank

Albina is a community bank with a mission to increase economic opportunity and promote community development in Portland neighborhoods. Albina demonstrates this commitment by promoting and maintaining jobs, rebuilding and assisting underserved communities as well as creating thriving, sustainable places for people to live/work.

Tall Wood Exhibit

The Tall Wood exhibit seeks to raise awareness of the benefits of using engineered wood products in construction. The exhibit will showcase the features, materials and structural system of the building, highlighting the safe application, practicality and sustainability of mass timber structures.

BUS STOP

Image 6: Ground floor plan

NW Glisan St

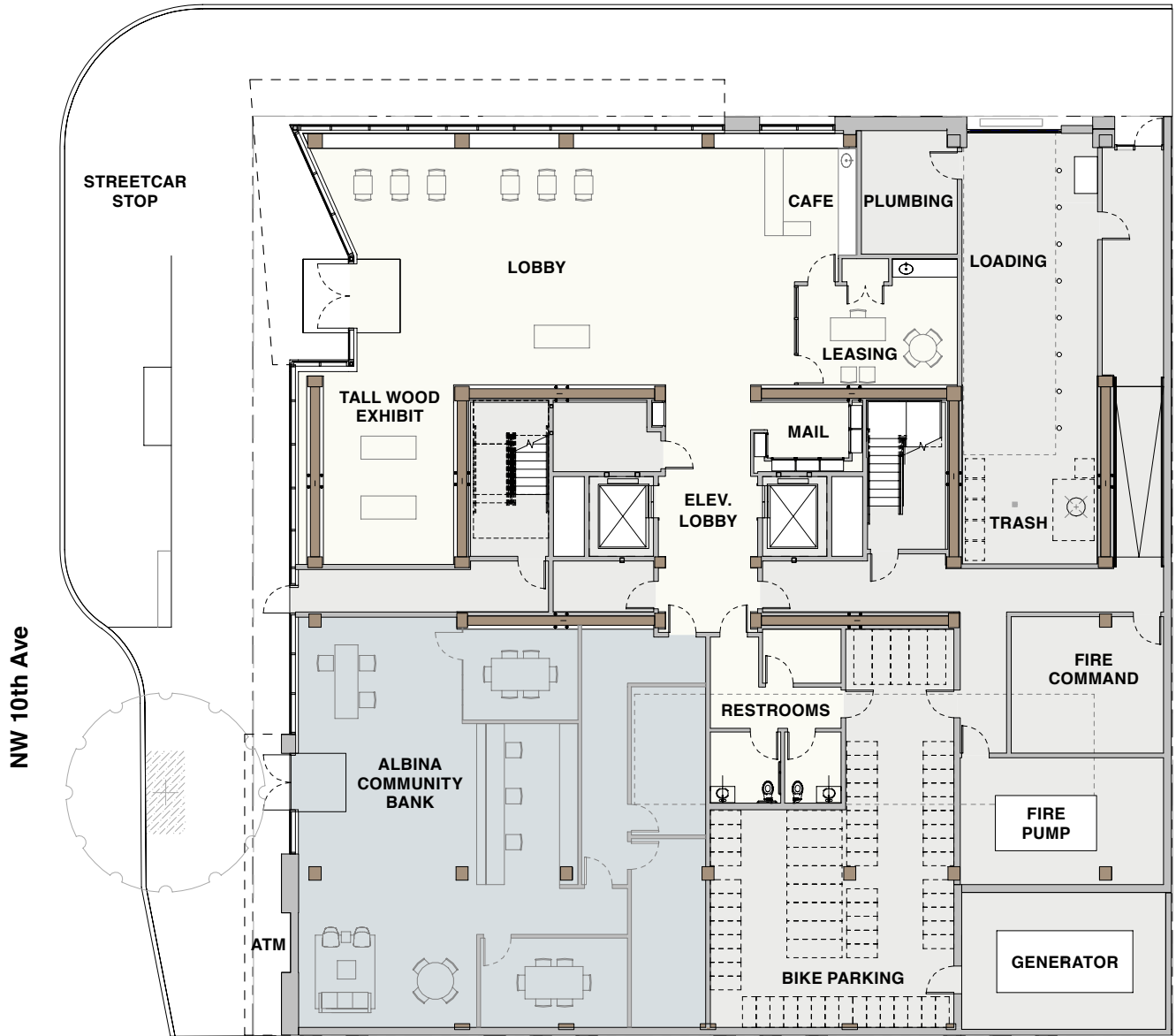




Image 7: View from NW 10th Street and NW Glisan Avenue

Second Floor

The second floor of the building will house a community room, deck and garden; utility rooms; an ecoroof; and offices for Albina Community Bank.

Community Room

The community room will be available for programming and events by the office tenants and building residents. The space is designed to facilitate a flexible layout suitable for a range of

events. It is expected that support and outreach services for residents, as well as bank events, will be held here.

The eco-roof and deck blur the boundaries between inside and outside and enable events to flow beyond the indoor spaces and infuse the public spaces with light and nature.

Albina Community Bank Offices

Albina Community Bank offices currently on the site will remain within the Framework building. Being on the second floor, there will be a close relationship to the community room and the Albina bank branch on the ground floor. This office space is unique in that it directly connects to an ecoroof amenity providing light and an experience of natural elements.

Image 8: Second floorplan

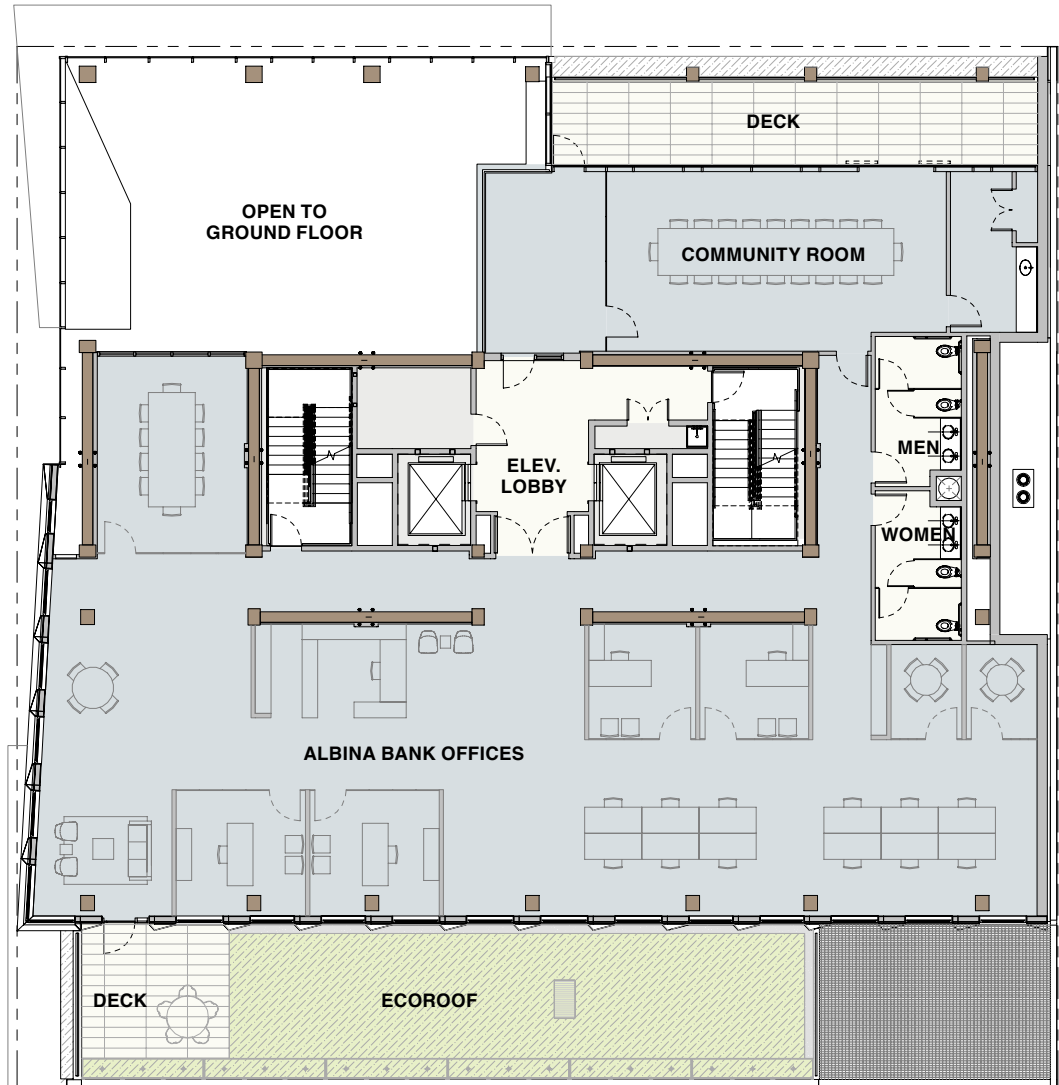




Image 9: View of typical south offices

Third to Sixth Floor

Office tenants will occupy the third to sixth floor. Office floors are designed for single or multiple tenant layouts and include utility and restrooms. The third floor will be preleased to Beneficial State Bank. The remaining floors are currently spec office, targeting similar B corporations or tenants with a strong social mission.

Portland Office Market

The Portland CBD office market is incredibly healthy with the fourth lowest market-wide vacancy in U.S at 8.9% in Q4 2015, according to a recent market study by Jones Lang LaSalle (JLL). Portland's employment growth is expected to remain robust, nearing 3% through 2017. Overall, Portland's economy is stable and diverse supporting a strong and healthy office

market. The unique offering of a wood building and co-tenancy with mission driven organizations, provides a strong case that Framework will be pre-leased quickly.

Image 10: Office floorplan

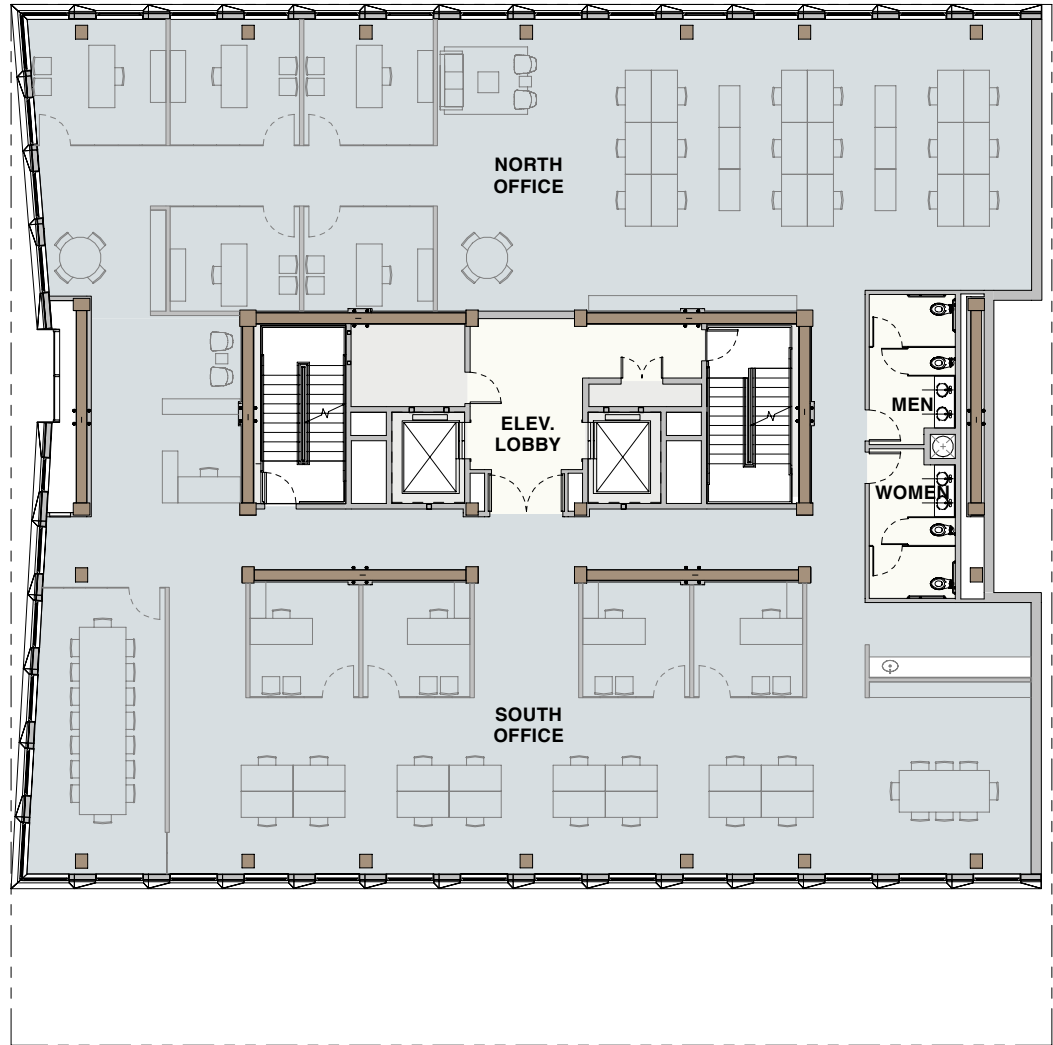




Image 11: View of a typical studio apartment

Seventh to Eleventh Floor

The upper floors of the building will house a mixture of studio, one, and two bedroom apartments. Each floor has a laundry facility, recycling room with trash chute, and spaces for utilities. All apartments are designed to have modern finishes; low flow fixtures; energy-efficient lighting; and large windows with ample natural light. The apartments will feature an exposed natural wood ceiling.

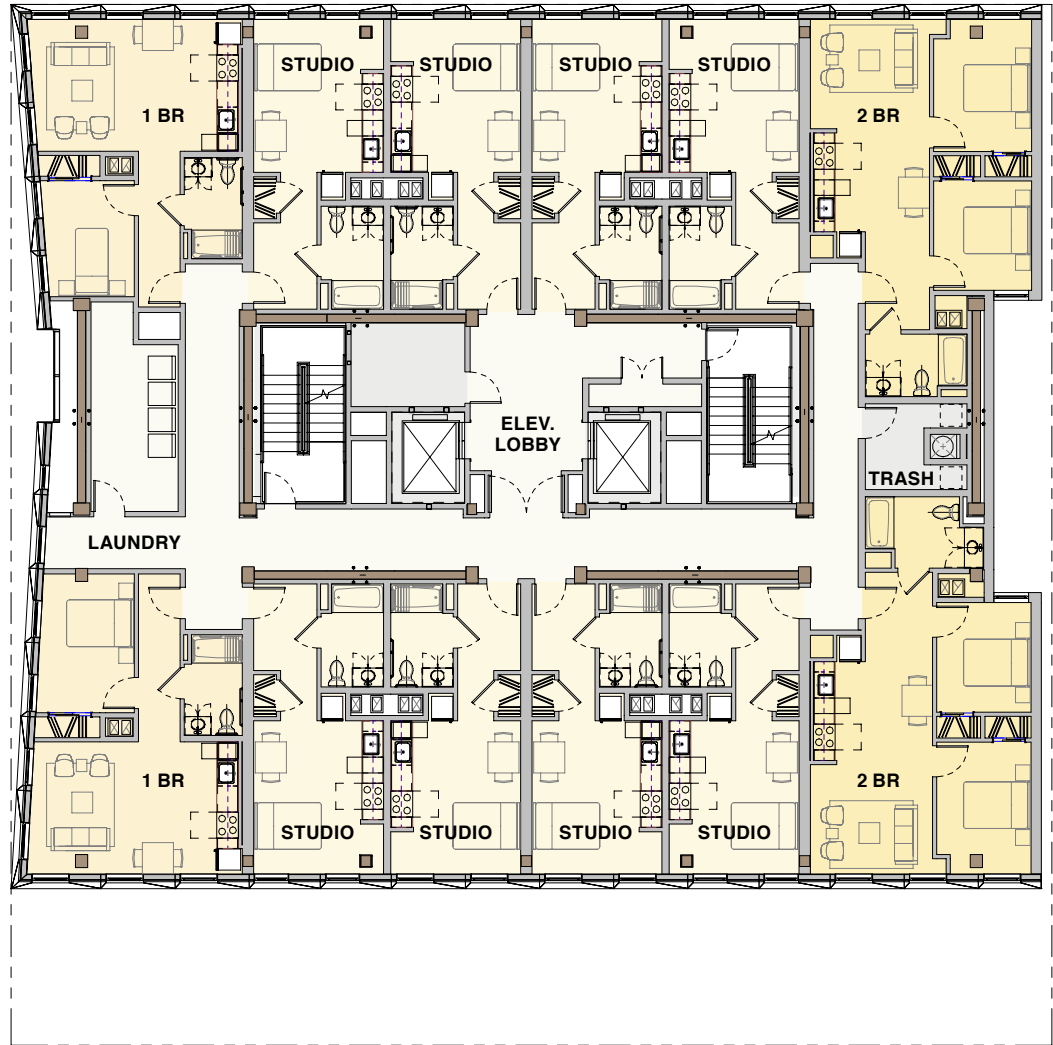
Affordable Housing Market

All sixty apartments are for residents earning less than 60% of Area Median Income (AMI). This affordability fulfills a need in the market, as there is currently a housing emergency in the City of Portland due to the lack of affordable housing and low vacancy. The impact of Framework is amplified by the fact that the site is immediately adjacent to jobs and transit in the amenity-rich Pearl District.

Unit Mix

	#	SF	\$ / Month
Studio	40	392	\$702
1 Bedroom	10	589	\$733
2 Bedroom	10	680	\$876
Total Units:	60		

Image 12: Affordable housing floorplan





Twelfth Floor

The twelfth floor will have space for mechanical and utility rooms as well as an outdoor room with farm table, roof deck, green roof, and People's Garden.

People's Garden

USDA Secretary Vilsack began the People's Garden Initiative in 2009 in an effort to challenge employees to create gardens at USDA facilities. The effort has since grown to unite communities

across the nation. People's gardens vary in size and type but are required to have three components in common: 1) they must provide benefit to the community; 2) incorporate sustainable practices; and 3) be collaborative.

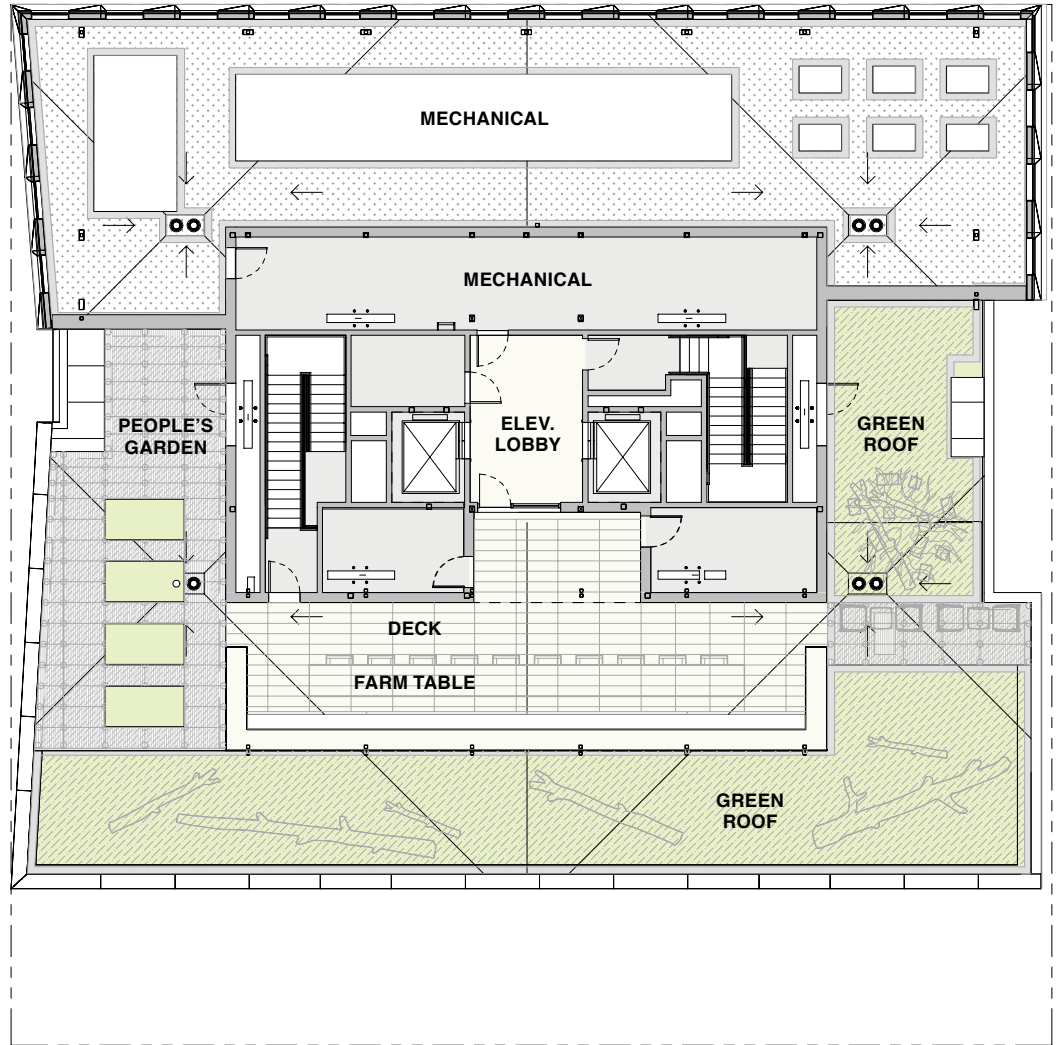
Framework's People's Garden would incorporate these principles to provide a recreational, productive, and healthy amenity for its residents.

Image 13:
 People's Garden
 Farm table
 Raised planting beds
 Rooftop farming
 Green roof planting
 Outdoor seating

Timeline

Design	Sept 2015 – Nov 2016
Testing	Feb 2016 – Dec 2016
Permitting	Mar 2016 - Feb 2017
Construction Start	Summer 2017
Opening	Fall 2018

Image 14: Twelfth floorplan



Resilient Design

Resilient design refers to the ability of a building to be easily repaired following an earthquake.

A “code” level earthquake, is known as the design basis earthquake, which has an approximate return period of 1:500 years. The basic code performance criteria under this earthquake is life safety, which does not ensure that the building will be economically repairable.

A serviceability level earthquake is typically defined as a 1:100 year event. This is not explicitly required in the code, however the intent is that a modern

building would have moderate to limited damage under a serviceability level earthquake and would be economically repairable.

Framework, in comparison, has chosen enhanced performance criteria of economically repairable for the 1:500-year design basis earthquake and little to no damage for 1:100-year serviceability earthquake.

These enhanced criteria are in line with the sustainability goals of the project, and should provide an economic advantage in terms of **reduced repair,**

replacement costs, downtime, and potentially insurance costs.

To achieve this goal, the lateral force-resisting system includes post-tensioned rocking CLT shear walls, with “Low Damage Design” features pioneered in New Zealand.

These features include a pre-determined rocking plane at the base of the walls; replaceable energy dissipating “fuses”; special detailing at the floor-to-wall connections; and the self-centering characteristics of the post-tensioning system.

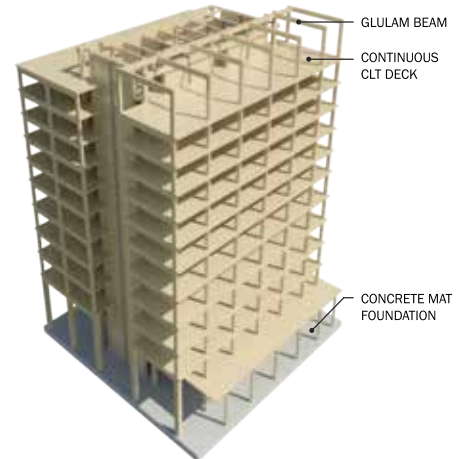
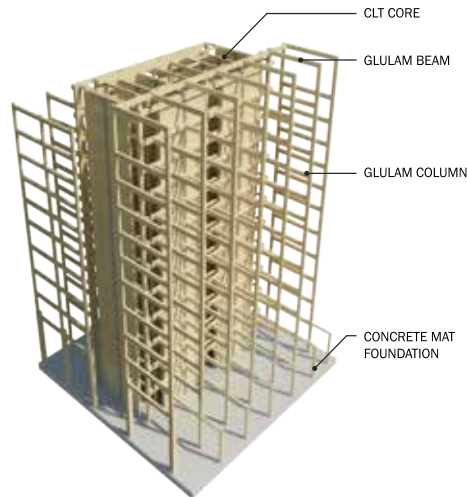
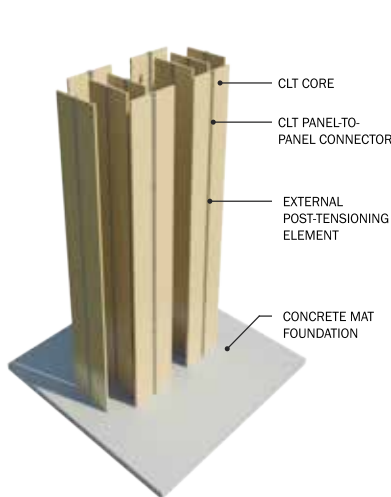


Image 15: Resilient structural system

"Although most earthquakes are moderate in size and destructive potential, a severe earthquake occasionally strikes a community that is not adequately prepared and thousands of lives and billions of dollars in economic investment are lost."

- Earthquake-Resistant Design Concept, FEMA, 2010

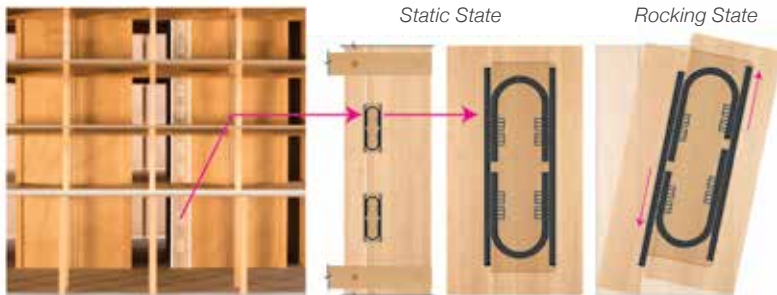


Image 16: Replaceable energy dissipating "fuses"

Environmental Responsibility

Framework will showcase a new paradigm for sustainable building on the key themes of: Low Carbon, Stewardship, Healthy, and Biophilic.

Framework is aggressively targeting innovative sustainable building strategies when compared to an average building of the same size:

- Targets energy savings of **60%** when compared to code, which is equivalent to 33 single-family homes being powered for a year
- Targets water savings exceeding **30%** compared to code, which is equivalent to the yearly water needs of 19 single-family homes
- Will result in 1,824 tons of CO2 emissions offsets*, which is equivalent to taking 348 cars off the road for a year

**Based on industry averages for North American responsibly sourced wood*

Image 17:

Historic pearl district building
Wood connection details
Installation of CLT at Albina Yards project

Image 18:

Green roof - Courtside Apartments
Sustainably managed forests
Water efficient fixtures - TreeHouse Apartments

Low Carbon

Low carbon forms the crux of the environmental objectives of this project. Using a wood structural system in lieu of a traditional concrete and steel one for this type of building provides carbon sequestration and long-term storage in long-life wood products. Preliminary calculations show probable **embodied carbon savings in the structure alone of over 60%** compared to a conventional flat-slab concrete structure, with potential for a carbon negative structure if sourcing, end-of-life, and transport are managed stringently.

Stewardship

Encouraging widespread use of wood, a resource from forests, demands that the protection of treasured forest resources and the ecosystems they support. Good stewardship extends to safeguarding other natural resources, such as land, water, and raw materials. For Framework, stewardship means sourcing wood from sustainably managed forests; utilizing climate appropriate landscaping; treating and storing stormwater onsite; providing a green roof; utilizing water efficient fixtures; and recycling/conserving building materials and energy.



Biophilic

Biophilic design refers to integration of characteristics inspired by nature to benefit the occupant experience. Biophilic designs trigger the senses to produce mental and physical responses mostly through the nervous system. Wood for example offers a cornucopia of delights in texture, color, patterns, feel, and sound. Framework incorporates biophilic design through selectively exposing and celebrating the wood structure of the building; employing botanical motifs; allowing select materials to patina over time; and introducing nature through ecoroofs and gardens.

Healthy

Healthy design compliments and overlaps with biophilic design on many levels, to produce designs for overall occupant wellness. For healthy living, Framework will offer large operable windows; high performance air filters; entry walk off mats; fresh air and clean water systems; protection from noise and glare; and features that encourage daily physical activity.

Image 19: Stormwater garden and deck - ArtHouse



Image 20: Operable windows - ArtHouse



Economic Development

Image 21: Virtuous cycle - Forest to Frame

Catalyze New Economy

Framework's vision is to be a catalyst project, providing the groundwork for a new industry of engineered wood products in the United States. Framework's main mission is to provide a regulatory pathway for future projects while building local knowledge and skills on constructing from mass timber.

Rural Economic Development

Cross laminated timber and other engineered wood products have the potential to create needed timber and manufacturing jobs and to reactivate factories that have become dormant in rural Oregon. The demand for mass timber buildings will aid in promoting the capacity to produce in the region.

Local Partnerships

Framework has collaborated with local partners including but not limited to Oregon State University and Portland State University on the seismic testing.

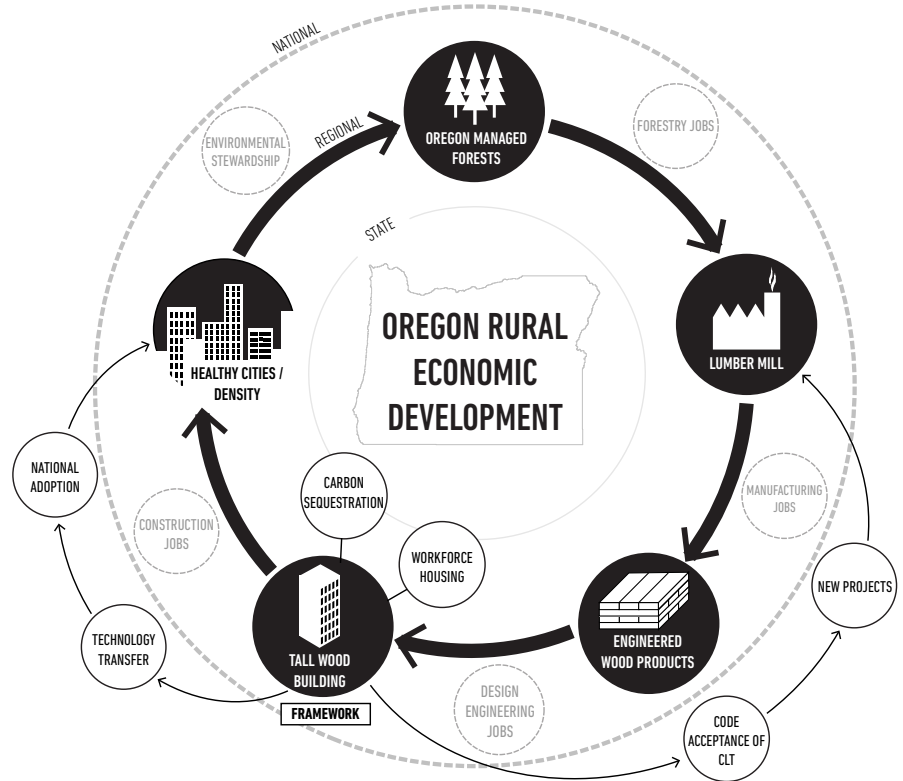
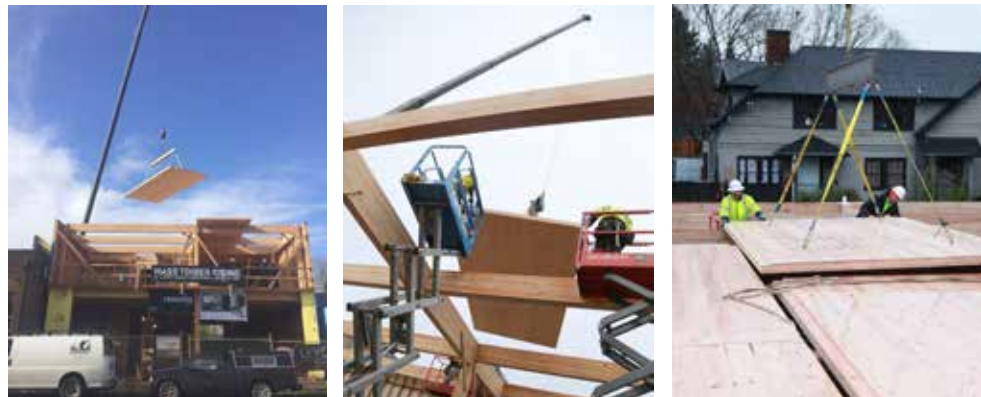


Image 22: Mass timber project under construction in Oregon



Framework is targeting a minimum of 50% of the volume of wood sourced locally from sustainable forests and/or manufacturers in Oregon.

Social Equity

Housing Emergency

Rental housing costs in Oregon have increased much higher than the national average. Portland Metro Area costs rose so quickly over the last five years they now rank sixth for fastest rising rental costs in the nation. On October 7, 2015, the Portland City Council voted unanimously to approve an emergency declaration to use city resources to address a growing crisis. Framework will support this need by increasing the city's affordable housing options.

B Corporations

B Corps are certified by the nonprofit B Lab to meet rigorous standards of social and environmental performance, accountability, and transparency. In collaboration with Beneficial State Bank, Framework seeks to engage other B Corps as office tenants in the building. It is the hope that combined co-tenancy with like-minded B Corps will provide synergies for business development and increased community impact inside the building with residents and in the Portland community and beyond.

Image 23:

Indie Awards, a Beneficial State Bank event
Walsh Construction MWESB participation
Residents of Home Forward housing
Examples of B Corporations

Fiscal Fitness

Beneficial State Bank and Albina Community Bank will provide resources and programs to build resident's financial capacity. Programs include savings and budgeting workshops, homebuyer education, one-on-one advisory services, and Individual Development Accounts (IDA).

MWESB

The Framework team values fair and open access to business who have historically been under-represented in the building trade.

The team will aspire to:

- Award **20%** of the value of construction contracts to Minority, Women and Emerging Small Businesses (MWESB) firms
- **10%** of construction contracts and **3%** of non-construction contracts to Section 3 Business Concerns
- Aspire to **30%** of aggregated new-hires will be Section 3 Residents living in metropolitan Portland or qualifying non-metropolitan counties



Performance-Based Path

Permitting

Framework is pursuing a performance-based path as an alternative to the prescriptive path for permitting outlined in the Oregon Building Code. Building permitting will be conducted by the State of Oregon and entails the periodic submission of drawings, models, research, and tests to the State for approval. The performance-based path will demonstrate that Framework is comparable to a building permitted under the prescriptive method. Design review and public works will be permitted through the City of Portland.

Seismic Testing*

There has been extensive testing and validation of concrete precast post-tensioned rocking wall systems and timber rocking walls in New Zealand and the United States as it pertains to their durability to withstand a seismic event. As a result, seismic testing of the structural system focused on structural components and evaluated any deviation from the results of previous studies.

Fire Testing*

Mass timber has resistance to fire due to its charring properties. The resistance assessment was based on the worst possible fire that could occur within an apartment or office space and the duration of that fire. The performance demonstrated that the building will survive full burn and remain structurally intact, in the unlikely event of the sprinklers failing and the Fire Department not intervening. For these standards, the project conducted component testing of the CLT panels and Glulam beams/columns. The testing met ASTM E11 and was carried out for a fire resistance rating of 2 hours. Testing included connections between beam and columns; the floor and ceiling area; and beam-to-floor assemblies.

Independent Review

Framework has convened an Independent Review Team to review the structural and fire plans as a result of constructing a mass timber building.

The team consists of:

- Holmes Consulting Group, structural and civil engineers based out of New Zealand, specialize in creative and cost effective designs with an extensive portfolio and research on the structural design of mass timber buildings.
- Ivan Wong, a Principal Seismologist and VP at AECOM, an internationally recognized expert in seismic hazard and seismic risk evaluations.
- Jefferey W. Berman, associate professor in the Department of Civil and Environmental Engineering at the University of Washington and co-leader of the National Science Foundation supported research project “NEESR: Engineering Timber Systems for Seismically Resilient Tall Buildings”.
- Andy Buchanan, an Emeritus Professor of Civil Engineering at the University of Canterbury in New Zealand with a specialty in fire safety of multi-story post-tensioned timber buildings.

**Framework has successfully passed all the necessary testing including acoustic testing.*



Image 24:
Full scale structural testing, timber connection testing, and fire testing

Join Us

Framework is gauging interest from potential investors. The Framework team contemplates several ways to invest in the project with varying degrees of economic and social value.

A *Equity Investor*

Invest in the project and receive modest economic return and other benefit associated with ownership such as depreciation and rental appreciation.

B *Social Impact Grant*

Make a tax deductible grant into a 501©3 entity which would help to provide much needed affordable housing to Portland and provide jobs and reduced carbon emissions in Oregon.

Alternatively, foundations and others who will not benefit from a tax deductible contribution can make a grant into the project in the form of a subordinated mezzanine loan which may receive some economic sharing after the equity investors reach certain return milestones.

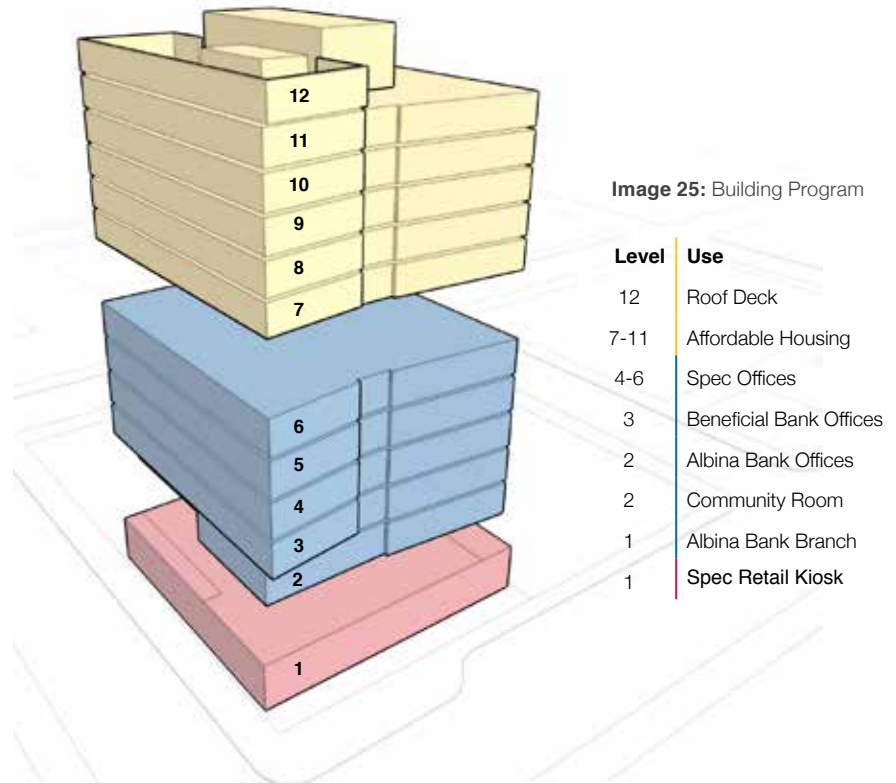


Image 26: Types of Participation



Note: The capital structure in the project is not finalized and is subject to change. Before making any solicitation or offer to any potential investors the project capital structure and potential returns will be more thoroughly described.

The Team

Beneficial State Bancorp

Land Owner

Beneficial State Bancorp is the landowner in the project and holds majority ownership in Beneficial State Bank headquartered in Oakland, California; Albina Community Bank in Portland, Oregon; and a supportive non-profit foundation. BSB operates with a triple bottom line and is mandated to produce meaningful social justice and environmental benefits while remaining financially sustainable. Beneficial State Foundation owns all the economic rights of the bank—when profit of the Bank is distributed, they are mandated to re-invest the proceeds back into the communities and the environment. The banks have a combined annual community impact of approximately just over \$500 million in assets to date.

project^

Developer

Project^ is a values-driven real estate developer providing resources, practices, and stewardship for their partners. They maximize environmental, social, and economic benefits inherent in meaningful places developing lasting high-quality projects through careful planning and execution. Community context is important - design matters.

Home Forward

Affordable Housing Developer

Home Forward continues to promote, operate and develop affordable housing that engenders stability, self-sufficiency, self-respect and pride in its residents and represents a long-term community asset. Home Forward has a special responsibility to those who encounter barriers to housing because of income, disability, or special need. As a public corporation with the ability to function like a private real estate developer, Home Forward develops affordable housing to serve low and very low-income households.

LEVER Architecture

Architect

LEVER is a progressive practice dedicated to realizing transformative projects, strengthening communities, and blurring the boundaries between public and private spaces. They utilize a research-based approach to leverage their client's goals and aspirations, creating designs that have been recognized locally and nationally as new models for housing, creative office, and retail mixed use. Recent work includes the first office building in the US to utilize domestically fabricated Cross Laminated Timber.

2.ink Studio

Landscape Architect

2.ink is a design intensive landscape architecture firm committed to environmentally sensitive design within a framework of strong visual aesthetics. *DBE, ESB, and WBE business (No. 4689)*

KPFF Consulting Engineers

Structural and Civil Engineer

KPFF is a multi-discipline firm with over 900+ employees around the world, including 150+ in Portland. KPFF Portland has designed over 120 high-rise buildings and is constantly involved with innovative materials, systems, and project types including mass timber. KPFF has been the engineer of record on 4 completed CLT projects, with 2 in construction and another 5 in design.

ARUP

Fire and Timber Engineer

Arup is a global multi-disciplinary engineering firm with over 90 networked and knowledge sharing offices operating in 35 countries. Arup offers a global understanding and consideration of the issues in design much broader than just efficient and economic structural design in isolation.

PAE Consulting Engineers

M/E/P Engineer

PAE provides an array of services in technology, mechanical, and electrical engineering, and lighting design. PAE employs an integrated and responsive approach to project design that balances the environmental, economic and social goals of their clients.

Walsh Construction Co.

General Contractor

Founded in 1961 in Portland, Oregon, incorporated in 1974 and employee owned, Walsh Construction Co. has solidified its place as a leader in wood construction throughout the Northwest. Walsh's work ranges from affordable housing to historic renovations employing broad construction types from wood frame to concrete, and structural steel.



Image 27: (left to right)

The Morrison, Portland - Home Forward
Bud Clark, Portland - Home Forward, Walsh
The Bullitt Center, Seattle - PAE
Treehouse, Portland - LEVER, Walsh, project^
BSKYB, Osterly, West London - ARUP
Arthouse, Portland - LEVER, Walsh, project^
Federal Center South Building, Seattle - KPFF
Indigo Apartments, Portland - KPFF
Edith Green Federal Building, Portland - KPFF
8NW8, Portland - Walsh





"The U.S. wood products industry is vitally important as it employs more than 547,000 people in manufacturing and forestry, with another 2.4 million jobs supported by U.S. private-forest owners. By embracing the benefits of wood as a sustainable building material, these demonstration projects have the ability to help change the face of our communities, mitigate climate change and support jobs in rural America."

- USDA Secretary Tom Vilsack

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The Framework Project, LLC
1116 NW 17th Avenue
Portland, OR 97209

Anyeley Hallova
Partner, project^
503.922.0056
info@frameworkportland.com
www.facebook.com/FrameworkPDX

