Urban Land Institute

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ULI Case Studies

One North

ANDREW POGUE

The West and East buildings at One North stand out with cedar siding and curving windows, while the rectilinear Radiator Building has metal cladding.

PROJECT SUMMARY

One North comprises three architecturally distinctive, energy-efficient buildings, with a total of 88,857 square feet of office space and 15,712 square feet of retail space, surrounding a 14,000-square-foot common courtyard. Developed collaboratively by two developers on three parcels, One North brings a new public square and new jobs to a historically disadvantaged urban neighborhood in Portland, Oregon.

The well-insulated buildings at One North use less than half the energy of a typical new office building but were built at a comparable cost per square foot. They feature timber construction for its structural, environmental, and aesthetic qualities; the resulting office interiors have proved alluring for fast-growing creative firms.

QUICK FACTS

Location
Portland, Oregon

Project type
Office Building(s)

Site size
0.98 acre

Land uses
Office, Open Space, Retail

Keywords
CAD, Green building, Infill development, Place making, Shared space

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Engineering
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KPFF Consulting Engineers
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Munzing Structural Engineering
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Introduction

Oregon's longtime commitment to protecting its quality of life has yielded unexpected dividends, Governor Kate Brown says. "What we call young innovators [are] moving here because they want to live here—and then they come here and maybe find jobs." All of those new residents have made Portland the fastest-growing large metropolitan area on the West Coast and have propelled it into the top ten American cities for job growth since the 2009 recession. Some of the fastest-growing sectors have been technology and sustainability, a fact trumpeted by the city's economic development agency with its tagline, "Portland: We Build Green Cities."

Developers Nels and Owen Gabbert and Ben Kaiser noticed that Governor Brown's young innovators wanted to live in North Portland and set out to give them a place where they would want to work. At One North—a project of three office and retail buildings developed by two separate developers and following a coordinated plan that encompasses a common courtyard—the planners used precise engineering, ultra-efficient construction, and hand-selected timber to craft a space that warmly welcomes both young businesses and established residents.

Neighborhood Context

One North sits at 1 North Fremont Street, between North Williams and North Vancouver avenues, in the Boise-Eliot neighborhood of Portland, across the Willamette River and one mile north of downtown Portland. Boise-Eliot is primarily a low-rise residential area of detached houses, punctuated by several low-scale commercial corridors that follow the former north–south trolley lines that ran along Mississippi, Williams, and Union (now Martin Luther King Jr.) avenues into downtown.

When Jerry Seinfeld asked *Portlandia* star Fred Armisen to "go to the heartbeat of Portland: the source, the core, the epicenter" in a 2014 episode of *Comedians in Cars Getting Coffee*, they drove to a shop on Mississippi, just a few blocks northwest of One North. In recent years, the same retail momentum has spread to Williams and Vancouver avenues, a pair of one-way streets that feed into downtown.

More than 5,000 cyclists a day ride down the Williams–Vancouver corridor, making it the city's busiest on-street bike corridor. The route is so popular with cyclists that the city's first bicycle-themed brewpub is two blocks north on North Williams. Furthermore, residents along the corridor enjoy frequent bus service. In 2013, New Seasons, a regional supermarket chain specializing in local food, opened across Fremont from the One North site.

Since the 1930s, North Williams Avenue has been the nexus of African American community life in Portland. That role grew after World War II brought tens of thousands of workers to North Portland's shipyards; housing discrimination subsequently segregated many of Portland's African American residents into Boise-Eliot, or Central Albina as it was known then. Urban renewal projects in the 1960s and 1970s—particularly construction of Interstate 5 and the expansion of Emanuel Hospital—displaced residents and drew crosstown traffic away from business corridors such as North Williams. In the 1980s, regional recessions, disinvestment, de-industrialization, stalled renewal plans, and crime further undermined Boise-Eliot, and particularly the North Williams corridor.

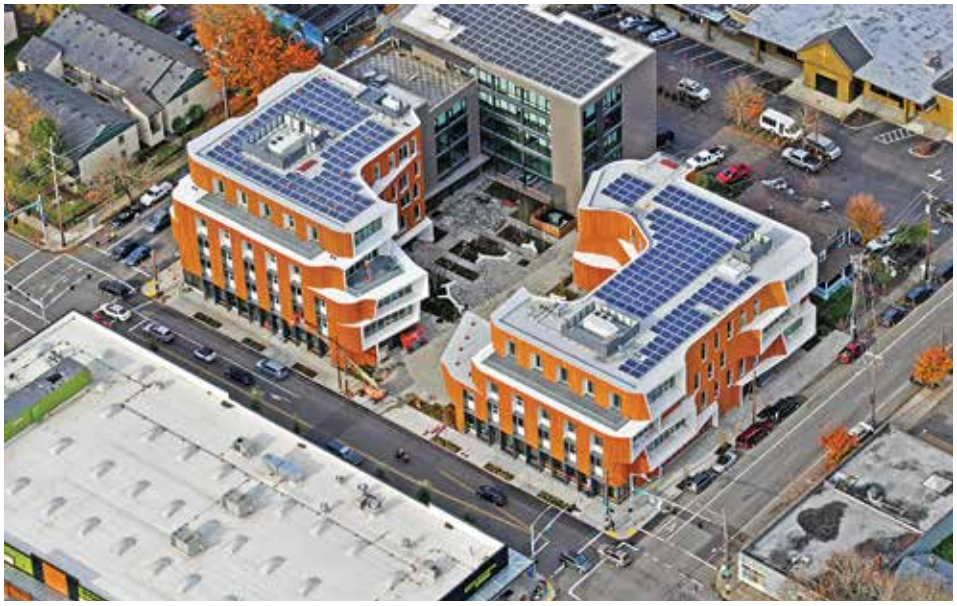
Ben Kaiser, owner and principal of Kaiser Group and PATH Architecture, began buying land along North Williams in 2004, just as the housing boom was taking off. Kaiser lived several blocks away at the time and had development experience rehabbing houses and building condos in pricier Portland neighborhoods. He thought that North Williams had potential, despite its history of redlining. He recalls: "The land price was depressed . . . although it's closer to downtown than other hot areas at the time." Cleveland-born Kaiser shrugged off Portlanders' concerns about the safety of the neighborhood.

Among Kaiser's first acquisitions was the northeast corner of Vancouver and Fremont, an east–west arterial, which he purchased for $685,000. At the time, the One North site included a tire shop, whose owner was retiring, and a long-standing but struggling neighborhood watering hole, the Twelve-22. Across Fremont was an abandoned Wonder Bread bakery and, east of North Williams, a large vacant lot.

The Site and the Idea

The site comprises three separate parcels totaling just under one acre: the West Building on 0.29 acres, the Radiator Building (at the northwest corner) on 0.28 acres, and across a midblock alley the East Building sits on 0.42 acres. The site fills roughly half of one of Portland's famously short city blocks; the remainder of the block includes the one-story Life Change Christian Center church, the church's surface parking lot, and a two-story house that is used for small offices.

Kaiser proposed and had permits to construct a two-building condominium project for the East and West sites, with 48 units in one building and 42 in the second building. He set up a sales center and model apartments on the site and even sold 11 units before pulling the plug in early 2008. "One night, in the wee hours of the morning, my crew and I dismantled all the sales office," Kaiser says. "I had this odd feeling that something was afoot, and that was a wise decision" in retrospect. The site sat vacant for another few years, until 2011.



HOLST ARCHITECTURE

The L-shaped courtyard spans all three sites.

SITE PLAN

HOLST ARCHITECTURE

Site plan.

Inspiration and an equity investment for One North came from Eric Lemelson, an Oregon environmental lawyer, winemaker, and philanthropist. (His father was a prolific inventor.) At the time, Lemelson had just completed a new, Passive House–certified home near his winery, and the Bullitt Center in Seattle [see ULI Case Study, February 2015, casestudies.uli.org/bullitt-center] was nearing completion.

Nels Gabbert recalls that Lemelson wanted "to extend his interest in [addressing] climate change, [but with] something more durable than a study." Instead, he wanted to demonstrate that a building could positively affect the environment and a community, but unlike the Bullitt Center (or his house), Lemelson wanted to do so while meeting the market rather than building according to a certification scheme. As Lemelson told the *Portland Business Journal* in 2013, "I'd like to have a net-zero building, but it's difficult to justify at this time. But we're creating a building that's as tight and efficient as we can get."

Nels Gabbert knew about the North Williams site from previous work with Kaiser in the vicinity and brought up the idea with Lemelson. Holst Architecture, which had designed the passive house, was also brought into the conversation around the East and West buildings at the outset. Several months after selling the East and West sites to the Gabberts, Kaiser rejoined the party. "I then bought this neighboring parcel" for the Radiator Building, he recalls. He started to plan, design, and build his own building.

"We began to think about how we could work together effectively as neighbors, and partners, throughout the development process," Nels Gabbert says. The three parcels at One North created "the opportunity to team up with another developer, share infrastructure costs, and share a vision for the courtyard. That became an important, defining element of this process."

The group gathered for a charrette and a study visit to the Bullitt Center. Kevin Valk, principal at Holst Architecture, recalls visiting the Bullitt Center and thinking, "This is great, I love it—let's do it in a way that's realistic, affordable, and could be replicated."

Kaiser agrees, "We took [Bullitt] as inspiration as to what could be achieved but wanted to take that down into the realm of the rest of us—that we could actually build, and for other developers to emulate."

Those studies established three key values for the project: architectural excellence, energy efficiency and sustainability, and role as a community asset. At the same time, says Holst partner and project designer John Holmes, "It had to be balanced: it couldn't just be great architecture or just sustainable."

Nels Gabbert adds, "We didn't want to be a laboratory, and we didn't want to be business as usual."

PAYTON CHUNG

The contrasting facades of the Radiator Building, at left, and West Building along Vancouver Avenue.

The goal of creating an asset for the community to enjoy shaped not just how the buildings were placed on the site, but how they would be used as well. By the time planning for the site was beginning, Portland's multifamily market was on a strong upswing; hundreds of new apartments were under construction along North Williams, as was a fair amount of new and renovated retail space. The developers wanted to complete the neighborhood rather than compete with the new neighbors by adding a complementary use—in this case, offices.

"There was an opportunity in this particular neighborhood for offices, for folks who were living in this area and wanted to walk or bike to work," Nels Gabbert says. "We thought briefly about residential but decided we wanted to provide a different kind of space." In doing so, they recalled the spirit of Portland's 2009 general plan, which set out to increase the city's already-considerable levels of walking and cycling by bringing 90 percent of the city's population into "20-minute neighborhoods." Then mayor Sam Adams told *The Atlantic* those neighborhoods would be places "where what you need, and what you want, is within a mile—within 20 minutes" by foot or by bike.

Approval Process

Perhaps the strongest testament to Portland's progressive attitude is that this unusual development happened without encountering unusual resistance from the broader community—whether neighborhood groups, public approval processes, or even local financiers. Instead, many Portlanders broadly accepted the concept behind One North.

The block is zoned EXd, or Central Employment, a designation meant for mixed industrial-

office areas at the edges of the central city. The zone permits a floor-to-area ratio of three to one and 65-foot-tall buildings, but it mandates that large developments must undergo review by the Portland Design Commission.

A local improvement district (LID) covering One North and several adjacent parcels was established in May 2014. The district allows the city to design and build local infrastructure improvements that are later billed to adjacent property owners, who pay upfront or over time. The LID paid for three new or upgraded traffic signals and a left-turn lane, and for work to place utility lines underground along a few blocks of North Williams and North Vancouver avenues.

The project team set out to build support within the neighborhood early on, before the buildings' concepts had even been decided. Owen Gabbert, who lives nearby, began attending neighborhood association meetings to discern the neighbors' attitude toward the substantial new construction that was transforming the area. He found that the concern was less about development per se than "a larger concern about poorly thought-out, or inexpensively constructed, development," and a desire to see genuine community contributions. By the time he returned with initial thoughts and plans, neighbors were pleasantly surprised by the attention to detail and design. "You know, that's not my style, but I appreciate that you're bringing a quality building" was one sentiment that he recalls.

Portland's zoning did not require on-site parking, but lenders required some off-street parking: ten spaces at the Radiator Building and eight spaces at the East Building. The developers separately decided to lease the adjacent 34-space parking lot from the church for use during weekdays. Not only does the lease offset the potential parking demand, but it also provides one of Portland's largest historically African American congregations with a way to earn income from their increasingly valuable land without having to move.

ANDREW POGUE

This dusk view shows a few car parking spaces, but many bike racks, beneath the East Building.

Financing

Both developers had to work hard to convince lenders and appraisers that their buildings were worth the investment, despite the lack of comparables. In the end, only a larger-than-usual equity contribution and some small public grants distinguish One North from more conventional developments.

Kaiser closed a construction loan for the Radiator Building a year before the East and West buildings had arranged financing. His construction loan was from Wells Fargo. It was "my first foray into huge banks. It's very different from local banks: the cost of money is less in a deal with these guys, but you pay for it" with additional documentation and with less flexibility, Kaiser says. Wells Fargo did not require preleasing but was "very particular about parking ratios [and] the equity being in place," with the 25 percent equity contribution coming from investors, Kaiser says.

Another factor that Kaiser says "turned the corner for the lending institutions, appraisers, and investors" was a $300,000 transit-oriented development (TOD) grant from Metro, the unique regional government that oversees planning, infrastructure, parks, and large venues for greater Portland. The TOD grant program was established in 1998 to catalyze infill developments that complement the region's significant investment in mass transit, specifically to "create new market comparables" for infill. The grant purchased a "TOD easement" on the property, stipulating better design, higher density, and less parking. The grants are backed by federal surface transportation funds, and since the program's inception have backed 35 projects that have leveraged $51 in private investment for every $1 granted.

Nels Gabbert took a slightly different approach to financing—although it may have helped that the East and West buildings went out for financing after the Radiator Building had started and had established a comparable. "We worked with a regional bank that we've worked with for a number of years. They had tremendous faith in our experience and track record," he says.

Yet even with that head start, the project still seemed inscrutable to "the traditional appraisal community," Nels Gabbert says. "This was not a traditional building, not a traditional location, with minimal parking, and high market rates for the finished product. . . . There wasn't a lot of precedent for what we were trying to do out here." Partly as a result, over one-third of the cost for the East and West buildings was funded through equity and other sources, such as solar tax credits.

Nels Gabbert sees hope for the future: "There are more lenders who understand that the world's changing, with more infill and different kinds of products out there . . . [but] you have to have a track record of execution."

Although the bank did not make preleasing a formal requirement for lending, Nels Gabbert points out that a timely tenant commitment greatly facilitated the deal. Instrument, a digital creative agency that became the anchor tenant, "made a commitment just as we were going through the process of convincing the appraiser that the market was going to support this kind of transaction," he says.

In addition, the early engagement with Metro on the TOD grant opened the door for One North's courtyard to receive a second grant for the courtyard space. The $420,313 Nature in Neighborhoods grant, funded by a local parks bond, paid for native plantings that enhance the plaza's value as habitat and a space to learn about nature.

Development costs per square foot were less than half as much as at the Bullitt Center. The West Building was the costliest, at $259 in hard costs per square foot, whereas the Radiator Building was the least expensive at $169 per square foot. Both are comparable to other new-construction office buildings in the area, which Rider Levett Bucknall estimates at $165 to $220 per square foot.

Planning and Design

One North comprises three office and retail buildings that embrace a 14,000 square foot courtyard in the middle of the site. The three buildings form two C-shapes around the courtyard: the larger East Building forms one to the east, and the paired L-shapes of the narrower West Building and Radiator Building (at the southwest and northwest corner, respectively) form another.

The East and West buildings anchor the site's two street corners with their sinuous forms and their red cedar siding is accentuated by white bay windows that stretch off in various directions. The rectilinear Radiator Building derives its name from its west facade of vertical metal solar shades, which tilt to reflect the afternoon sun.

Site planning. The site was split between two developers and among three parcels on either side of an alley. The developers knew early on that they wanted to dedicate much of the site to public use, and they knew that they wanted to create a whole that benefited from the contributions of each part. As Nels Gabbert explains, "Every building that gets built on a single lot suffers a bit if it doesn't pay attention to the adjacent neighbors."

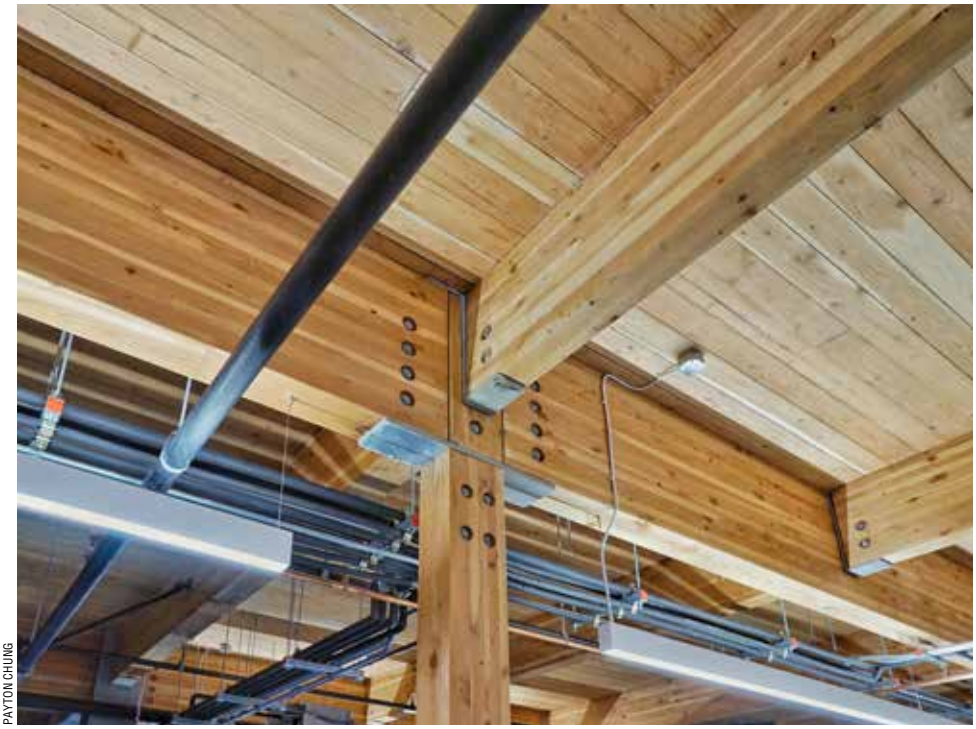
In conventional office buildings, floors often extend more than 100 feet deep to maximize efficiency for large offices. But in Portland generally, and especially in the neighborhood, small and mid-sized businesses, or branch offices of larger firms, dominate the leasing market. Thus, large floorplates do not carry a rental premium. Context also mattered. Nels Gabbert says: "The one thing that terrifies me late at night is that a building will look like it arrived from outer space and landed in a neighborhood." In a neighborhood of small houses, a large-floorplate office building would be exceptionally jarring.

Lemelson provided inspiration for the layout, pointing out the midblock courtyards he had seen on a recent trip to Barcelona, Spain. A courtyard would provide an outdoor gathering space that was sheltered from the busy streets on all sides but with a sunny southern exposure. Such a design also could incorporate the public alley, which would otherwise be unused but for a few deliveries and which points toward the front entrance of the church next door.

The net result was a roughly L-shaped courtyard, with about one-third of the space (and one-third of the construction funds) dedicated from each of the three buildings' sites. In addition to the alley entrance facing Fremont Street, open-air walkways through the East and Radiator buildings open the courtyard to North Williams and North Vancouver avenues, and almost all of the retail spaces are designed with front and rear entrances.

PAYTON CHUNG

The Radiator's metal cladding contrasts with the East and West buildings' cedar siding in this courtyard view.



PAYTON CHUNG

The East building conceals the connections within its exposed wood structure. The building is heated and cooled with fluid flowing through ceiling-mounted pipes.

Architecture. Even before the project team knew that it wanted to build office buildings, it knew that it wanted to build with wood. Wood has substantial lifecycle ecological benefits: not only is wood renewable and a good insulator, but also trees remove carbon dioxide from the atmosphere, whereas steel and concrete production are fossil fuel (and thus carbon) intensive.

Accordingly, the wood siding for the East and West buildings was sustainably harvested and milled by local craftsmen. Nels Gabbert says that, even as developer, he was "very much involved in the procurement of the cedar. We worked hard to find second-growth cedar that was mature enough to give us what we wanted, and went through a custom milling process to get a heavier board." Adds Owen Gabbert, "Instead of following a larger standard, we followed our own standard. We're going to go find the trees that we are going to use on this building, and we're going to know exactly where they came from."

Wood also sets the tone for the building interiors. "There's also the emotional reaction to wood, in the Northwest especially," Valk says, noting that "a lot of firms are looking for wood construction that harks back to the old warehouses." The timber ceilings within the buildings offer a warmth reminiscent of old loft

buildings. The connections between the posts and beams are handled differently between the buildings: bolts are exposed at the Radiator, while the East and West buildings, fasteners are concealed in slots cut within the beams.

The buildings use a concrete ground-floor podium below structural glued laminated timber beams that support the upper floors. Walls were built with typical light construction, with 2-inch x 6-inch studs and plywood shear walls for lateral loads. The wood structure is "pretty easy to work with in the field," says Cory Hawbecker, project architect from Holst Architecture. The five-story West and Radiator buildings are Type III-B, requiring a higher degree of fire-resistance, and the four-story East Building is Type V-B.

The curvaceous shapes of the East and West buildings were also inspired by Lemelson's trip to Barcelona, where he was taken by the sinuous architecture of Antoni Gaudí. Curves are easier to execute in concrete and masonry (the materials Gaudí used) than in wood, so much of the curving shape is established by the podium or by the steel bay windows that are clad in cedar.

Energy and sustainability. One North's buildings use half as much energy as conventional office buildings, even before the rooftop photovoltaic arrays are taken into account. Much of the energy savings arise from paying careful attention to the buildings' thermal envelope, particularly a "perfect wall" system based on the architects' previous experience with the Passive House system.

Continuous insulation with four inches of mineral wool around the exterior, blown-in dense cellulose within the wall cavity, and even polystyrene foam under the foundation all isolate the East and West buildings from their surroundings. Fiberglass clips through the insulation suspend the siding off the walls. The only insulation gap is beneath the shear walls, as that would have compromised the structure. Instead of housewrap, a fluid-applied weather barrier was painted onto the wall, an approach which minimizes gaps, eases application given the buildings' unusual geometry, permits application during the damp winter, and allows for repairs during construction.

Any potential avenues of "thermal bridging," which would allow heat through the building's envelope, were systematically eliminated. Hawbecker says that designers are getting much smarter about not compromising their walls. "Before, you'd put a bunch of insulation on, and then you'd put a bunch of metal through that," he says.

The most significant change involved the "apertures," the unusual curving bay windows that project off the East and West buildings. The architects initially considered custom-built frames wrapped over heavy steel beams that would reach down to the foundation, with elaborate connections behind the wall to keep the steel from leaching heat from the building. Instead, general contractor R&H Construction suggested consulting Radius Track, a Minnesota-based company that worked with the architect's computer models of the building to redesign and prefabricate the apertures from precision-machined light-gauge steel. The new apertures reduced the weight by over half, allowing the architects to forego the underlying steel structure, with considerable time and cost savings. Instead, the lightweight apertures are hung from the wood beams with steel plates.

ANDREW POGUE

The "apertures" make the West Building's flat western wall appear to curve.

The East and West buildings use a variable refrigerant flow (VRF) heat pump system for heating and cooling, which distributes heat by piping in fluids rather than air. Ventilation is accomplished using a separate outside-air distribution system, which is especially important because the buildings are airtight. Not only is the system substantially more energy-efficient than a forced-air system, but also, Hawbecker points out, it "requires very little shaft space . . . a half-inch pipe handles as much heat as a 24-inch duct."

The building's energy features evolved even during construction, after more careful examination of costs versus benefits. Photovoltaics were not initially specified for the East and West buildings, whose roofs were planned to be "solar ready." However, the cost of photovoltaic systems came down so considerably during construction that arrays were added. "The best double-glazed window system we could get our hands on," Hawbecker says, were just 1 percent less efficient than triple-pane windows but reduced costs considerably.

One North was planned with a small district heating system. Pipes were laid under Fremont Street to the condensers at the supermarket to feed the coolers' waste heat into the VRF system. However, "the payback period would have been forever," says Hawbecker: office buildings just do not require much heating. Owen Gabbert points out that the infrastructure can be activated should energy prices rise in the future.

Office interiors. Holst Architecture brought the East Building's anchor tenant, digital marketing agency Instrument, to the project during predevelopment. Holst had been called on to improve and expand Instrument's previous space, a loft with 30-foot high ceilings within a block-long old hangar on Portland's industrial Central Eastside. "It was very lively, but there was very little privacy—all that was enclosed were two bathrooms," Valk recalls of that previous office. "They weren't exactly legal there, in an area

ANDREW POGUE

An atrium provides a focal point for Instrument's offices in the East Building.

where zoning didn't allow them," and their relentless growth was becoming increasingly difficult to accommodate within a leaky, drafty old building. Just as Instrument was starting to look for an entirely new space, Holst mentioned that One North was on the drawing board.

It took some cajoling to sell Instrument on the project, because the firm's initial specification was for 35,000 square feet on a single floor—an entire city block. A few schematic designs eventually convinced Instrument's principals that they could have the open feel they desired within a multifloor space, with features such as a full-height atrium, a spacious kitchen, and even a wood-burning fireplace (an employee stacks logs) that would draw employees together. The new space also allowed for a wider spectrum of private, semiprivate, and open spaces.

The three-story atrium serves as a grand staircase, a crossroads for the entire office, and an amphitheater for all-staff meetings, while also ensuring clear sight lines from one corner of the space to the other. "Most of their workers don't sit at their desk all day," Valk says. "There's so much flexibility that you can't complain." Staff members may sit at bar tables overlooking the atrium, for example, or in four-by-three-foot cubbies with felted walls that resemble canopy beds. Beyond the atrium are four open-plan areas, each with informal team areas and two enclosed conference rooms: one with a table and chairs and another with a coffee table and soft seating. Almost every wall has whiteboard or magnetic paint, and the wi-fi is fed through four separate fiber optic nodes.

Putting such large open areas into a Type V wood-framed building required some "nuanced code analysis and back-and-forth with the city," Valk says. The top-floor kitchen shrank a bit and automatic smoke curtains were added around the atrium. The atrium also required extra negotiations with the landlord. Instrument pays half-rate for the lost square footage, the space can be filled in should the firm move out, and Instrument has an option to eventually purchase the space.

Landscape design and resilience. Lango Hansen Landscape Architects designed the courtyard's pervious paving and native plantings to manage all of the stormwater from the site. Also, unlike a turf park, the courtyard is usable through the damp winter. The landscape plan uses meadow and forest plantings and large boulders to separate a central seating ring from outdoor dining and bike parking zones at the edges. Quotations from historical figures and community members are inscribed on metal edging elements to subtly hint at the community's past and future. No curbs delineate the alley from the plaza, and the alley still can be used for occasional loading.

Kaiser, who has been passionate about earthquake safety since working on a school project several years ago, built a unique earthquake-warning system into the Radiator. The system detects the high-frequency but low-power initial earthquake vibrations that arrive one to two minutes before slower, more destructive vibrations. It shuts down gas lines and warns occupants to take cover, and an unnerving display in the lobby shows visitors a real-time seismogram.

Construction

Juggling the construction of three complicated buildings, as well as the tenant improvements, on one site required some novel approaches. Adam Petersen, senior project manager with R&H Construction, credits the construction team's early involvement, its collaborative and efficient attitude, and technology with keeping the project on time and on budget. "We were involved a year before construction, and that almost wasn't early enough given the complexity of the building," Petersen says. Yet because "it was such a technically difficult project to build, very early everybody rolled up their sleeves and said, 'This is going to be harder than anything we've ever done, so let's figure it out together.' " Ultimately, the construction team wrote one-third as many Requests for Information (RFIs) as they had initially expected.

The most notable change for the general contractor was the introduction of a 3-D computer model, which the design and construction teams updated and reviewed at weekly meetings. "We relied almost exclusively on Revit [computer-aided design software] and 3-D modeling that the design team had modeled," Petersen says. Those tools "allowed us to do a whole different level of coordination with subcontractors and the design team. We wouldn't have been able to build it as quickly, or as exactly, without that. . . . We didn't have to write 'what's this dimension' [in an RFI], we pulled it up on the model." On site, the model and a robotic total station provided guidance to precisely locate individual building components.

The wood framing posed one unforeseen challenge during construction. Instrument was expecting "all this natural, beautiful fir that's clear and clean and bright," says Petersen, but "with wood, the framing material that you're putting out on site [becomes] your finish." During the messy construction process, "the structure was stained—there were gross smears all over the place" on the beams. The builders sent "a small army in there with sanders, just to take stains off the beams" before tenant improvements could begin. That lesson was learned for the second building, where daily cleanings and better sealing kept the beams ready for the tenants.

Tight urban sites always pose a challenge for construction crews. The courtyard initially

could be used for lay-down space, but it wasn't sufficient. Kaiser temporarily leased another vacant lot across the street for parking and for the site office. Four- and five-story buildings are usually built with forklifts, but because of the tight site, a self-erecting tower crane that could be moved between the buildings proved to be easier to maneuver and more economical.

The site superintendent continually implemented "really great ideas on ways to better manage a site," Petersen says. For instance, restrooms were finished once the plumbing was in place so that the temporary toilets could be removed. Using the building's restrooms saved space, kept the site cleaner, and reduced truck traffic to the site. Just before tenants moved in, all of the fixtures were replaced with new fixtures.

Digging an extra foot of foundation and deferring construction of the ground floor enabled the construction of a temporary road under the West Building. The road allowed trucks to drive through the site rather than having to make disruptive three-point turns with flaggers stopping traffic on adjacent streets.

Performance and Marketing

"Exceptional buildings, well executed, will attract a market," Nels Gabbert says. "We didn't have to differentiate. We were it." One North is the only Class A office building in its neighborhood, and at the time the only new-construction timber loft office anywhere in Portland. Rental rates, at $25 to $29 per square foot, are a slight discount to the $30 for Class A space in downtown Portland. The East Building is fully leased, and the West Building and Radiator Building are still leasing up.

Although the project was launched without an anchor tenant, Instrument "was the object of our desire," Nels Gabbert says. "Their demographic fit the area," with many employees living in or near North Portland and enjoying the area's eclectic amenities. Treehouse, an online education firm, anchors the West Building.

Medical tenants also have been drawn to the site, because of its location near a hospital and within an established neighborhood. The Radiator's largest tenant is the Kartini Clinic, which treats eating disorders. GoHealth, an urgent care medical clinic, occupies the East Building's ground floor.

Retail tenants also include fast-casual restaurants drawn to the location, attracted by the prospect of daytime traffic in a neighborhood that is emerging as a dining destination. The small size of One North's retail bays is hardly a dissuading factor in Portland, which has a surfeit of food entrepreneurs. The 410 square feet that The Whole Bowl leased in the Radiator Building is substantially larger than the pushcarts and food trucks that the company operates elsewhere.

ANDREW POGUE

The C-shaped East Building wraps around the courtyard.

Management and Outreach

Pingree Northwest was contracted by both developers to manage all three office buildings as well as the courtyard, which the two developers transferred to a joint venture called Eco Commons LLC.

One North's courtyard has been programmed to ensure that the community feels ownership of the space. Eco Commons has a separate board of advisers to direct management of the courtyard that includes neighborhood residents and business leaders. The board helps to program the space with events such as a summer block party.

An 850-square-foot space next door to the courtyard was donated for a five-year term to PLACE (Planning and Leadership Across City Environments), a program of the independent Catlin Gabel School. PLACE uses urban planning as a tool to teach high school students about civics and leadership, and it used the new space as a chance to launch partnerships with several North Portland groups, including the Black United Fund, De La Salle North, iUrban Teen, KairosPDX, and the Urban League of Portland. One program that PLACE has launched in the space is WeLead, an after-school program that trains youth in community engagement techniques.

Observations and Lessons Learned

The greatest lesson learned from the team's experience with Passive House standards is that buildings ultimately have to do one job—keep the weather out—and to do that job well. Owen Gabbert explains all of the attention that went into securing the thermal envelope: "Don't spend money on a mechanical system with leaky windows. Put your money into the envelope, so that you don't need to heat and cool."

Timber construction defines much of what is novel about One North. Kaiser, who "kind of stumbled into timber framing" with One North, now believes that the timber construction "is going to change the United States." In the empty corner lot across from One North that had been used for construction staging, Kaiser plans to break ground later in 2016 on a companion project called Carbon12. Carbon12 will be the first high-rise (85 feet tall) residential building in America built with a structure of cross-laminated timber, essentially a mega-plywood that has become increasingly popular overseas.

Designing for "creative office" wasn't about stuffing the space with Silicon Valley clichés like game rooms and brightly colored seating. Rather, Valk says, Instrument was more concerned "about creating a space that acted creatively rather than looked creative," to bal-

ANDREW POGUE

The East Building sits along busy North Williams Avenue.

ance the needs of large groups, small groups, and individuals. Beyond the operatic staircase (for seeing and being seen), the building offers rooms and nooks for focused work.

Thorough coordination greatly eased the complex task of building One North. Close collaboration with, and communication between, interested parties required more coordination up front, but the effort paid off by keeping the project on schedule. From the early listening sessions with community groups to determine the program, to the weekly construction-coordination meetings to review the exact dimensions of materials on site, frequent meetings and close contact reminded everyone that One North was a team effort. Owen Gabbert notes that "as much as you can integrate the design and build processes, you're going to get a better building."

As an architect, Valk says he found "the complexities of working on the project for a long time before it became real was sort of draining." But, in the end, "nobody threw a fit and got mad. There's a lot of talk about collaboration—and, for me, this was the ultimate collaboration between us and all these other groups."

By contrast, Kaiser kept design, development, and construction for the Radiator in-house, which was possible given the smaller scope of his project. Valk notes that Kaiser's group "started the design process after us but were done before us. The developer, architect, and contractor were all the same, so they could make decisions really quickly." Kaiser, for his part, says, "I love it. There's no middle man and no one to blame—but you should see the email load."

Ultimately, though, no one party can know everything. Setting up a structure so that the courtyard can ultimately become what the community wants it to be has required careful coordination between the developers, designers, the public sector, a nonprofit group, and community organizations; a structure and process have been formalized through the site's board of advisers.

For Nels Gabbert, building complicated structures was well worth the extra effort. "Complexity is actually an important part of excellence," he says. "We were willing to live with the demands of that kind of complexity."

Perhaps the most unusual aspect of the project is the way that two developers who owned two adjacent parcels were able to work together collaboratively to develop an office project, surrounding a jointly developed courtyard, that is not only branded as a single development—One North—but has also created a fine new public space for a Portland neighborhood.

OTHER PARTICIPANTS

General contractors
R&H Construction Co.
Kaiser Group Inc.

Property management
Pingree Northwest LLC

Interviewees
Nels Gabbert, principal, Nels Gabbert LLC
Owen Gabbert, principal, Owen Gabbert LLC
Cory Hawbecker, associate and sustainability coordinator, Holst Architecture
John Holmes, partner and project designer, Holst Architecture
Ben Kaiser, owner and principal, Kaiser Group and PATH Architecture
Adam Petersen, senior project manager, R&H Construction Co.
Kevin Valk, principal, Holst Architecture

Further reading
Will Macht, "Radiating Resourcefulness," *Urban Land*, May/June 2016
www.urbanland.uli.org/development-business/radiating-resourcefulness

PROJECT INFORMATION

Development timeline	Month/year
East & West buildings site purchased	March 2011
East & West buildings planning started	April 2011
Radiator Building site purchased	Summer 2012
East Building leasing started	December 2012
Radiator Building planning started	Summer 2013
Radiator Building construction loan arranged	Summer 2013
Radiator Building leasing started	Summer 2013
Radiator Building first major lease signed	Summer 2013
Radiator Building construction started	Winter 2013
East Building first major lease signed	February 2014

Development timeline	Month/year
East Building construction loan arranged	March 2014
West Building leasing started	March 2014
East Building construction started	June 2014
West Building construction loan arranged	November 2014
West Building construction started	November 2014
West Building first major lease signed	April 2015
Radiator Building completed	Spring 2015
East Building completed	June 2015
West Building completed	November 2015

Gross building area (GBA) (sq ft)

Use	East Building	West Building	Radiator Building
Office	38,145	35,103	28,762
Retail	5,725	7,438	2,549
Parking	3,650	—	4,157
Roof decks	753	1,192	568
Total	48,273	43,733	36,000
Parking spaces	8 auto, 3 motorcycle	0	10
Off-site shared parking spaces	12	12	10

Land use plan

East Building	Site area (square feet)	Percent of site
Building footprint	7,608	42%
Streets/surface parking	3,650	20%
Landscaping/open space	6,892	38%
Total	18,150	100%
West Building		
Building footprint	7,759	62%
Landscaping/open space	4,697	38%
Total	12,456	100%
Radiator Building		
Building footprint	4,255	35%
Streets/surface parking	4,857	40%
Landscaping/open space	2,765	23%
Total	12,000	100%

PROJECT INFORMATION

Office information	East Building	West Building	Radiator Building
Office net rentable area (NRA) (sq ft)	30,729	29,366	28,762
Typical floor size (sq ft)	10,370	7,341	8,374
Percentage of NRA occupied	100%	57%	60%
Number of tenants	1	3	4
Annual rents ($/sq ft per year)	$25–$29	$25–$29	
Average length of lease (years)	10	10	
Office tenants (NRA in sq ft)			
Instrument	30,729		
Treehouse		13,287	
Oddfellows		1,888	
Karuna Consortium LLC		1,580	
Kartini Clinic			13,278
Path Architecture/Kaiser Group			1,929
Matthew Whitman PC			471
Healing Journey Therapeutic Services			306

Retail information (if applicable)		East Building	West Building	Radiator Building
Percentage of retail gross lease area (GLA) occupied		64%	18%	62%
Annual rents ($/sq ft per year)		$30–$35	$30–$35	$21.48–$24
Average length of lease (years)		10	5	
Retail tenants (GLA in sq ft)	**Retail type**			
Go Health	Urgent care clinic	3,132		
PLACE	Community education		958	
Bread and Honey	Restaurant			1,165
The Whole Bowl	Restaurant			410

Development cost information	East Building	West Building
Site acquisition cost	$975,000	$675,000
Hard costs	$10,897,110	$11,000,000
Soft costs	$2,015,890	$2,825,000
Total development cost	$13,888,000	$14,500,000
Hard development costs (per sq ft)	$249.32	$258.57
Total development costs (per sq ft)	$318.69	$340.85

PROJECT INFORMATION

Development cost information	Radiator Building
Site acquisition cost	$500,000
Hard costs	
Demolition, site preparation	$35,000
Building	$4,574,958
Parking, entry	$96,800
Landscaping	$23,880
General conditions (GC)	$808,700
GC overhead and profit	$326,813
Contingency	$361,343
Subtotal	$6,227,494

Development cost information	Radiator Building
Soft costs	
Appraisal and bank fees	$354,395
City fees	$120,462
Systems development charges	$220,880
Other soft costs	$1,690,380
Subtotal	$2,386,117
Total development cost	$9,113,611
Hard development costs (per sq ft)	$169.37
Total development costs (per sq ft)	$247.87

Financing sources	East Building	West Building	Radiator Building
Debt capital sources	$9,000,000	9,000,000	6,610,208
Equity capital sources	$4,071,745	4,943,822	2,203,403
Public capital sources			
Local improvement district or systems development charges	$400,000	$375,000	
Solar tax credits	$41,000		
Energy Trust of Oregon efficiency incentives	$38,145	$34,068	
Oregon Department of Energy tax credits	$190,000		
Metro Nature in Neighborhoods grant	$147,110	$147,110	
Metro transit-oriented development grant			$300,000
Subtotal	$669,145	$556,178	$300,000
Total	$13,888,000	$14,500,000	$9,113,611

About the Urban Land Institute

The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

Established in 1936, the Institute today has more than 38,000 members, representing the entire spectrum of land use and development disciplines. Professionals represented include developers, builders, property owners, investors, architects, planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, academics, and students.

ULI is committed to

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both the built and natural environment;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Patrick L. Phillips, Global Chief Executive Officer

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ULI Foundation

ULI CASE STUDIES

The ULI Case Studies program highlights and showcases innovative approaches and best practices in real estate and urban development. Each case study provides detailed information regarding the ideas, plans, process, performance, and lessons learned for the development project. Each also includes project facts, timelines, financial data, site plans, photos, location maps, and online videos. The new ULI Case Studies program is the revitalization of a program begun in 1971. For more information, visit the ULI Case Studies website at **casestudies.uli.org.**

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