THE CONNECTION

A BIANNUAL PUBLICATION FROM COUGHLIN PORTER LUNDEEN
REVIEWING ALL THINGS AEC AND PACIFIC NORTHWEST

TABLE OF CONTENTS

ED. NO. 10 | WINTER 2021

FEATURED

COUGHLINPORTERLUNDEEN
STRUCTURAL CIVIL SEISMIC ENGINEERING

Sustainable Civil Design, High-Impact Choices (Without the High Price Tags)

We're regularly dispelling the misconception that sustainable selections mean premiums and supersized price tags. Today, sustainable options don't need to cost a fortune. And there's strategy around making the right choices for your site and project. Civil Associate Jackie Sempel talks civil sustainability, strategy, and Seattle's movement toward a better built environment.

Article Images © Benjamin Benschneider, Andrew T. Storey, Mike Walmsley, Aaron Locke and Brooke Fitts

Jackie Sempel, P.E.
Civil Associate
jackies@cplinc.com

A leader of the Coughlin Porter Lundeen civil practice, Jackie has extensive experience creating sustainable designs and solutions for projects of all types and sizes, everything from Seattle Public Schools to Google's exceptional new campus. Internally, she co-chairs the Sustainability Task Group and emphasizes mentorship, education, and collaboration.

BETTER DATA, BETTER DECISIONS

We are so lucky to live and work in the Pacific Northwest, where there's a culture of care and sincerity around making choices that are right for the city, community, and earth. We don't take this for granted! Far beyond being open to sustainability as a principle, the majority of our clients and partners are pushing the envelope and setting aggressive sustainability goals for their projects.

This theme is in no way isolated to our civil group. Our structural team is experiencing the same momentum, and as a firm, there's been a huge push to deliver against client needs and remain at the forefront of sustainability concepts and trends. The challenge to keep pace with a forward-thinking industry and our complementary disciplines is a positive one!

All of the energy around sustainable design is exciting, and as engineers, it's our role to complement that energy via education and serve as strategic, proactive team members. We don't want to only talk about sustainable solutions, we want them to show up on projects everywhere and become celebrated pieces of sites and structures! We want to be able to contribute to these conversations, knowing that civil can have a significant impact.

The many sustainability-centered conversations we're having with clients and partners led us to develop a decision matrix. Currently in development, the matrix is a tool designed to guide those conversations. If a client names sustainability as a priority, we can work through the matrix, identifying the lower and higher price tag items that a project could choose from. Each project and program is unique, so having the ability to pick and choose the sustainable options that are the best fit (and do so in an organized way!) allows for customized, effective final designs.

Our civil group is very detail-oriented by nature and we get excited by things like new equations and tools that yield better numbers. For example, we have a tool that calculates required pavement thickness for a desired life cycle. Instead of relying on typical numbers or past standards, we're able to input exact site specifics to create final numbers. No extraneous asphalt or concrete, and a reduced carbon footprint. It's tools like this that inspire more and more investigation.

SUSTAINABLE MATERIALS AND MEASURES: OUR CIVIL SHORT LIST

1. Warm Mix Asphalt

The burning temperature of warm mix asphalt is lower than that of hot mix asphalt, which in turn, lowers the carbon created during production. It also improves onsite conditions, as there are lower emissions of fumes, aerosols and odors at the plant and work sites.

Our team is currently exploring studies to quantify differences, improvements, and increases.

2. Long-Term Planning

Asphalt versus concrete is a simple example of how lower price tags don't always yield long-run savings. Asphalt is cheaper than concrete upfront, but after one (inevitable) replacement, the numbers start to match up. It only takes about 8-10 years to break even, at which point, owners may regret dismissing the superior (more expensive) option. Encouraging the project team to have a vision for the lifecycle of the site or campus can make a huge difference.

SUSTAINABLE MATERIALS AND MEASURES: OUR CIVIL SHORT LIST (CONT.)

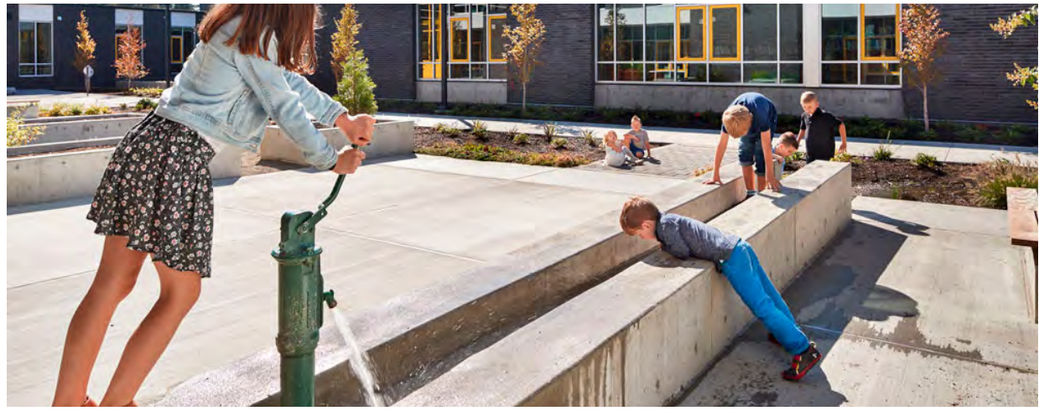
3. Rainwater Harvesting

Bioretention is required in Seattle and Low Impact Development (LID) techniques are required by code, but there's such a huge spectrum of what you can do with rainwater and runoff. Imitate nature's way, contain it onsite and make use of it, showcase it as a project feature. No matter what the choice, we always strive for low impact.

It's difficult to generalize about savings, since implementation is site dependent. Exact numbers will depend on soils, siting and building type. The amount of rainfall you contain and the way you retain it is scalable too, so there are options for commitment levels.

4. Location, Location, Location

Turns out the real estate adage applies to civil solutions too. As the public becomes more interested and more aware of sustainability, we continue to see civil systems featured prominently in projects (instead of being hidden or tucked away somewhere onsite). As civil engineers, it's a trend we love! Show off those rainwater harvesting systems! We know there's value for owners in responding to community interests. Sustainability is a story the public wants to hear about, learn about, and experience, so it's something worth investing in.



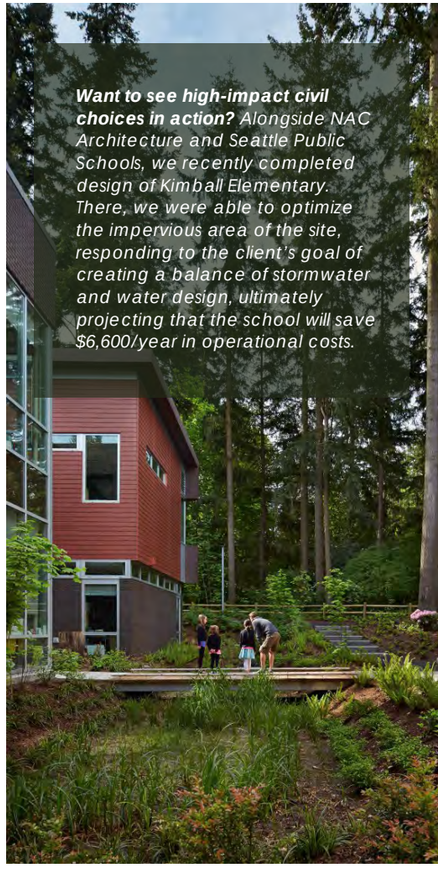
5. Low Carbon Options

Already in use in British Columbia and California, low carbon concrete (or carbon neutral concrete) is an exciting development in the world of concrete.

And yes, while this list primarily emphasizes low-cost options, low carbon concrete is an ultimate premium, doubling the cost of a program's concrete. But it belongs on the list as we explore different technologies and what's available in our region.

It's my belief that it will only take a handful of clients committing to it and working through the process of installing it locally before it takes off.

And we're already seeing progress in that direction! For example, in partnership with Skanska, we're exploring the use of a new carbon-reduced asphalt being used in Sweden. We're reviewing the Swedish Recycled Concrete Aggregate (RCA) specifications, contrasting them with our own WSDOT standards, to see how we may be able to save on carbon and help WSDOT push the envelope.



Want to see high-impact civil choices in action? *Alongside NAC Architecture and Seattle Public Schools, we recently completed design of Kimball Elementary. There, we were able to optimize the impervious area of the site, responding to the client's goal of creating a balance of stormwater and water design, ultimately projecting that the school will save $6,600/year in operational costs.*

KEY TO SUSTAINABLE SUCCESS: INTERNAL ENERGY + ALIGNMENT

Tactics and specific solutions aside, an important consideration for leadership groups is to consider how they're communicating these efforts to their teams. Success in the sustainability realm isn't only about reframing the conversations for clients and partners, it's about making education and innovation priorities in your office.

We've had a lot of success at Coughlin Porter Lundeen through simple sharing. If a project is doing something groundbreaking, talk about it! We're lucky that our group is full of curious team members who really want to know! We're constantly sharing articles and tidbits, and by extending these shares to both the civil and structural groups, we have a more cohesive energy.

As Co-chair of our Sustainability Task Group, it's rewarding to see this collaboration at work. Company task groups help us stay on top of trends and industry happenings. As we collect information and have new things to share, we host Lunch and Learns for the full office. Our team is also encouraged to continue learning by taking advantage of conferences and seminars, which I love!

And perhaps our most important puzzle piece: we pay special attention to younger engineers. We make time for teaching and a part of that curriculum is encouraging young engineers to think differently. In this case, differently means long-term and big-picture. Asking questions like: What does long-term maintenance look like? How often does this item need to be replaced and what is the cost? What are the long-term benefits of this choice?

"Often, the assumption is that sustainable choices are costly and complicated. It's our job to help partners overcome this thinking and share solutions that make sense for the site, programming and lifecycle of the project."
– Jackie Sempel, Civil Associate

AN EXCITING TIME FOR SUSTAINABILITY

Our region is progressive, with projects adopting new technologies and solutions, and an overall movement toward a better built environment. The right team can focus on sustainable options that are in budget and implement a strategy for making the right choices for a site and project. There are so many options for today's projects, it's an exciting time for sustainable design!

Want to learn more? Get in touch:

Jackie Sempel, P.E.
Civil Associate
jackies@cplinc.com

Once built and tested, this 10-story structure will represent the tallest full-sized structure ever tested on a shake table – globally.

Exploring Mass Timber: A Global Research Project with the NHERI TallWood Project Team

A global, multi-university collaboration funded by the National Science Foundation (NSF), the Natural Hazards Engineering Research Infrastructure (NHERI) TallWood Project is exploring the best way to ensure a multi-story mass timber building can withstand major seismic events.

And to do so, they're testing a full-scale 10-story wood building on the world's largest outdoor shake table – a test of epic proportions!

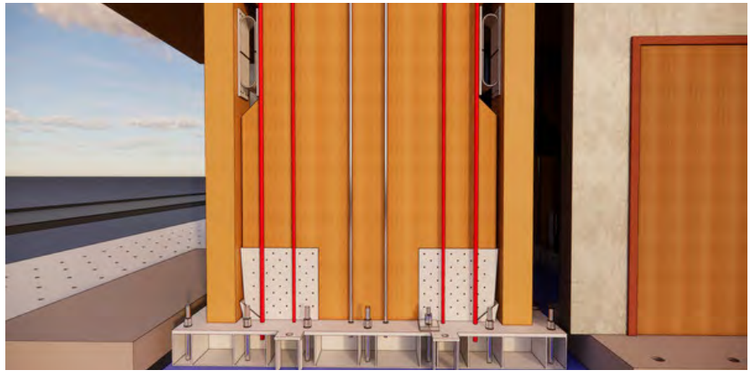
PROJECT OVERVIEW

The TallWood Project provides an opportunity for university students to gain hands-on experience in resilient building design and wood construction. Working with industry professionals across the globe, students have been tasked with "developing and validating a seismic design methodology for tall wood buildings that can quantitatively account for building resilience." Simply put, students are trying to determine what type of tall mass timber building system provides resilience to occupants and owners during a major seismic event.

Prior research shows that due to wood's lightweight and flexible nature, wooden structures have the potential to be more resilient than what the current building code states. Mass timber floors are commonly utilized, **but the NHERI TallWood team is looking to bring the use of a mass timber-based resilient lateral system into practice.**

As regional leaders in both light frame and mass timber engineering, we were thrilled to get involved. Led internally by visiting PhD candidate Aleesha Busch from the Colorado School of Mines, our team volunteered our time and expertise to help bring the NHERI TallWood vision to life.

As one of the main PhD students in the program, Aleesha has been involved in the TallWood project since its inception four years ago. She has participated in each phase of the project, including the initial conceptual validation phase in which a two-story structure was designed and built to withstand multiple major seismic events without damage (our team also helped with this phase). The two-story version proved that rocking walls support the building during repetitive seismic events. The success of this phase gave the research team the confidence to multiply the system by five, reaching ten stories high.



PROJECT OVERVIEW (CONT.)

A huge program milestone, construction of the prototype will begin at University of California San Diego (UCSD) in early 2022. Once construction is complete, all NHERI TallWood team members will gather at UCSD's full-scale shake table for the seismic tests.

Once built and tested, this 10-story structure will represent the tallest full-sized structure ever tested on a shake table – globally.

To prepare their systems for this history-making test, students have embarked on internships at collaborating firms. They've been able to both further their research and gain hands-on experience in their intended field. As our firm's NHERI liaison, Aleesha oversees the effort and is the main connection between her research group and all other groups contributing their time and materials to the project.

According to Aleesha, "It's been an invaluable experience connecting with individuals working in the field because they know the ins and outs of the industry. Even detailed items, like 'what's the right way to call this out in the drawing?' That's something we would never know to ask in a university setting."

Structural Project Engineer Carson Baker has been Aleesha's primary partner at Coughlin Porter Lundeen. In addition to serving as Aleesha's counterpart, Carson's primary role has been designing the concrete foundation that will support the building's nonstructural walls.

THE TEST IN A NUTSHELL

In Aleesha's words, "We're primarily testing the main lateral force resisting system of the building, which is a group of innovative post-tensioned, mass timber rocking walls. We want to see how they perform under a major seismic load." To dive a little deeper, once constructed, the walls will be post-tensioned to the foundation and designed so that they rock with the building. This rocking is what dissipates the energy and keeps a building upright during an earthquake. The entire lateral force resisting system is designed from a resiliency standpoint. For example, the walls won't be attached as part of the gravity system of the structure, they'll instead have shear keys at every level to transfer lateral loads. If sustained damage were to occur in the walls at the base, those components can be repaired separately from the gravity system. In the event of an earthquake, if designed properly, this system has the potential to protect the building from any structural damage.

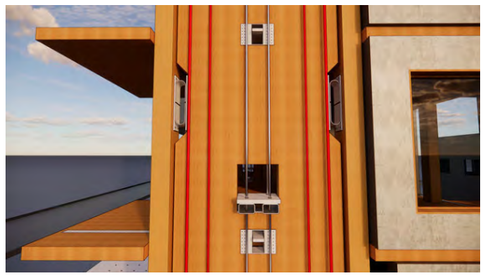
THE 10-STORY FRAMEWORK

The structure itself will be built out of laminated veneer lumber (LVL) beams and columns, two cross-laminated timber (CLT) walls, and two mass plywood panel (MPP) walls, with CLT walls installed perpendicular to MPP walls. The flooring system will start with two CLT levels, followed by two glulam timber (GLT) levels, then two nail laminated timber/dowel laminated timber (NLT/DLT) levels. All will be topped with four levels of veneer laminated timber (VLT). This unique flooring system is a newer concept being tested by Boise Cascade. The building will not be finished with any non-structural systems but will include a few non-structural interior walls and exterior curtain wall systems (at the bottom three levels) with specially designed features to achieve low damage performance.

ENERGY DISSIPATION SOLUTION

Energy dissipation is key when designing for a seismic event. When a wall rocks, it needs to get rid of that energy without disrupting the rest of the building. The TallWood team's solution? A series of U-shaped Flexural Plates (UFPs).

UFPs are small metal plates that connect the wall and the bounding columns. When the wall rocks, the U-shaped plates move with the structure to dissipate the energy and keep other parts of the building elastic. The goal is to concentrate most of the potential damage into these UFPs. While this concept has been used in concrete and steel rocking systems and shown promise in the TallWood team's earlier two-story test, UFPs have never been tested in this capacity on a mass timber building of this scale.



If successful, this system could be adopted by practicing engineers for mass timber construction in regions with high seismicity.

As early mass timber adopters, R+D pioneers, and modern-day advocates, we've thoroughly enjoyed assisting Aleesha in her research and look forward to watching this historic test take place early next year.

Stay up to date with the NHERI TallWood project here.

Around Town.

It's one thing to see designs on paper, but another entirely to see them erected and in use. Exposing staff to projects of varied markets, materials, client types and construction phases, we strive to foster a team of well-rounded engineers. And allowing team members to see completed projects alive in their new homes is an important piece of that well-roundedness!

A new way to experience our portfolio, Coughlin Porter Lundeen project managers led groups through Pioneer Square, South Lake Union, Yesler Terrace and University of Washington.

Walking tours are true favorites, allowing us to see both completed projects abuzz with activity, and the impact our work has had on the greater city and community.

A final note: we're always happy to take a stroll! Please let us know if you'd like a walking tour in the area nearest you!

PIONEER SQUARE - WATCH YOUR STEP, YOU MIGHT CATCH A BRICK!

Steps from our downtown office, the team has made a notable impact in one of Seattle's oldest and most cherished districts, Pioneer Square. Our portfolio ranges from quaint buildings like The Cadillac Hotel and the Lowman Building, to renovation work on some of the city's most notable landmarks including The Smith Tower, King Street Station and Union Station. Contemporary developments like Stadium Place, Gridiron, 450 Alaskan and The Jack, seamlessly blend the new with the old.

We've worked to establish a reputation as experts in seismic retrofits, providing flexible, creative, and visionary designs that maintain the historic character of each structure we touch. These dynamic projects extend beyond the structure itself to invigorate street levels, connect to adjacent developments, and create inviting, memorable spaces that celebrate the neighborhood's historic significance.

YESLER TERRACE - A MASTERPLANNED DEVELOPMENT ROOTED IN COMMUNITY.

Spearheaded by Seattle Housing Authority (SHA), and with the help of local development partners, the $1.7 billion, 20-year transformation of Yesler Terrace reimagines the 30-acre site. The plan introduces a new mixed-use, mixed income neighborhood connecting Downtown Seattle, First Hill, Little Saigon, and Squire Park. When complete, the multi-building development expects 5,000 new housing units, 1,800 of which will be permanently subsidized for low- to moderate-income households, with supportive cultural and commercial businesses.

Our first project in the heart of the neighborhood, created the Yesler Community Center. Subsequent work included The Baldwin, Raven Terrace, Batik, Cypress, Hoi Mai Gardens, and handful of multi-family buildings currently in design and construction. Close coordination between our civil and structural disciplines has helped address Yesler Terrace's challenging sloped site and kept complex designs cohesive.

SOUTH LAKE UNION - "SLU" IF YOU'RE A TRUE SEATTLEITE.

We've touched just about every block in South Lake Union, and walking the area is a favorite among our engineers. Commercial work in the sprawling tech jungle includes the likes of Amazon, Apple, Facebook and Google. From streetscape design to structural innovations, Coughlin Porter Lundeen has helped revitalize the area and redefine what office environments can be.

Engineering services balance fast-track schedules with the complexities of urban infill design in SLU, and high-density goals with modern spaces. Additional market work here includes high-class research facilities like The Allen Institute and UW Medicine, cultural and hospitality projects such as MOHAI and citizenM, and many multi-unit residential developments, including Stack House, Sitka, McKenzie Tower and 624 Yale.

UNIVERSITY OF WASHINGTON - MIGHTY ARE THE PURPLE & GOLD

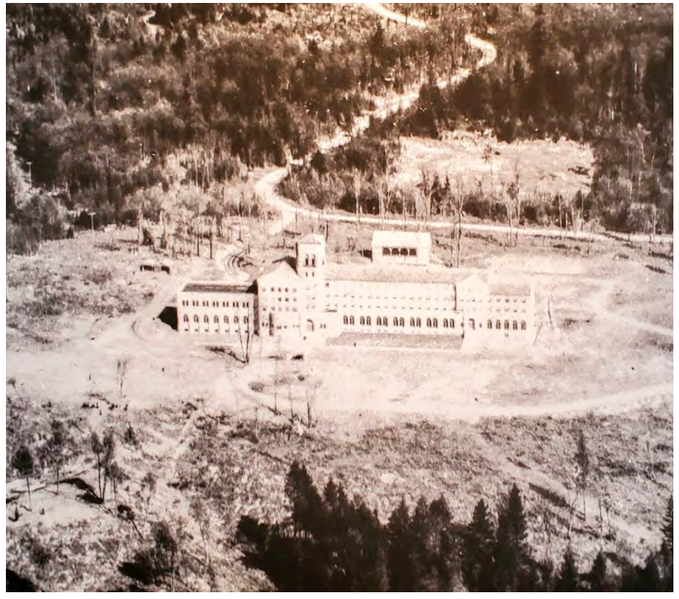
Many university renovation and modernization projects share themes: the challenge of making old structures feel new again, operating within budget constraints, and creating designs that resonate with the collegiate communities they serve, to name a few.

The award-winning Life Sciences Building created a world-class facility for innovation that promotes collaborative, interdisciplinary research in flexible, high-density labs. The team recently wrapped up the North Campus Phase IV residence halls which generated an additional 2,370 beds for undergraduates.

UW has revitalized several of their historic structures and we're honored to have participated in many of those transformations. One of those was the Husky Union Building (HUB), built in 1949, whose full retrofit retained the building's historic character and preserved the existing carbon footprint to align with the university's long-term sustainability goals.

Read more about our favorite "bulky to beautiful" campus renovation projects here.

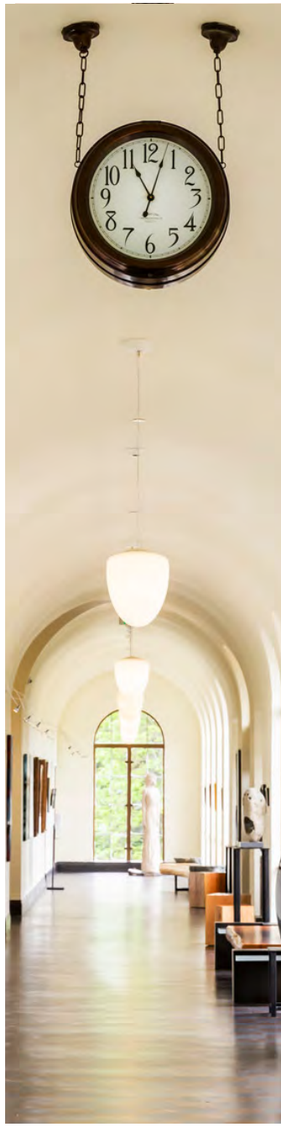
Images © Rodrigo De Medeiros

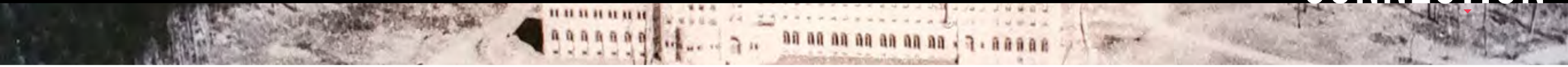


Behind the Scenes

In our new Q&A series, we take a candid look at projects, hearing from the engineers who brought the projects to life. We sat down with Civil Associate Aaron Fjelstad and Structural Staff Engineer Jerren Paradee to talk about The Lodge at Saint Edward State Park, an award-winning historic preservation project that transformed a 1930s seminary into a spectacular Pacific Northwest getaway.

Project Team:
Daniels Real Estate
Ron Wright & Associates / Architects
Lydig Construction





Behind the Scenes with The Lodge at Saint Edward State Park Team

Aaron Fjelstad
P.E., LEED AP®
Civil Associate

Aaron's proactive approach and experience solving complex site issues deliver innovative solutions to meet the team's goals. He's well versed in site development requirements for projects located in Bellevue and within the city of Seattle and his portfolio includes various projects for multinational clients who have chosen the Puget Sound for urban campuses.

aaronf@cplinc.com

Jerren Paradee
P.E.
Structural Engineer

A veteran naval officer who served in Afghanistan, Jerren is team-oriented and firmly believes that projects teams are most effective when working in unison. Hardworking and tenacious, his ability to translate technical details into easily graspable concepts is appreciated by his clients and contributes to thoughtful solutions.

jerrenp@cplinc.com

Q: Tell us a bit about the project.

Aaron: Atypical, challenging, and memorable! The project rejuvenated a historic seminary, and while it was an extreme renovation, it honored the site's history every step of the way. The Lodge itself represents a piece of the past, but all the below-grade structure is new.

What made this project different?

Jerren: The Lodge has many so many historic elements. The team carefully reviewed construction drawings and historic photos to ensure the restoration conformed to the original details of the 1931 building. The emphasis on getting the details right meant certain elements had to be protected during construction and we had to find a way to efficiently mix the old and new.

Aaron: While we do a significant amount of urban infill work, the Lodge is set in the middle of a state park. The unique setting meant there were many departures from the norm. For example, where we would normally tie into a pipe, we needed to consider ravines and natural drainage systems in this forested location. We considered each area's particular properties and how each integrates into the surrounding landscape. The ultimate goal with native dispersion is to mimic what's happening naturally, letting development follow.

Why did you like working on this project?

Aaron: We touch a lot of project types but there's only a handful I talk with my family and friends about. This is definitely one of them! My wife and I even stayed there for the grand opening, which was a memorable visit! It was a challenging project, but it's so rewarding to see it in its final, beautiful state.

Jerren: I liked navigating the existing and unknown conditions and working with the unique design elements to preserve the historic nature and look of the building. Seismic retrofits were completed in compliance with the US Secretary of the Interior's Standards for Rehabilitation by adding new shear walls and fiber wrap to increase the performance of the building in the event of an earthquake.

Do you have a favorite feature? Any engineering standouts?

Aaron: The rain gardens! As you approach the main drive to the porte-cochere, the Lodge is flanked by extensive rain gardens on either side.

Jerren: The dining room (now a restaurant) is an impressive space with very intricate detailing. And I have to mention the main hallway on the first level too. It's a beautiful, white-clad arch full of art and grand windows. The existing wood windows were completely restored to their original condition and as were the steel window systems on the first and lower levels. My favorite spot is in the main entry, because standing in the center and looking both directions will give you a glimpse of both elements.

What was the biggest challenge the team faced?

Jerren: Analyzing the existing structure and developing a scheme to tie the new elements to the existing building was a significant challenge.

Aaron: You would assume that being in the middle of a state park you have infinite space to work with, but the lease area was quite constrained and it felt more like an urban infill site in downtown Seattle. It was congested in terms of existing utilities and buildings that we needed to work around. And that's all before the new parking garage addition! Managing the congestion and phasing of these items (while maintaining service/function to the site) was a challenge.

I liked working with…

Aaron: Carl Schumacher with Daniels Real Estate. He was very involved throughout the project and wasn't afraid to voice an opinion or question a decision. He was the first to sit down with the city when things arose and clearly had the best interest of the project at heart. I have a lot of respect for the level he cared about the project.

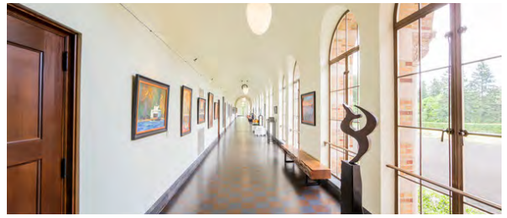
Jerren: RWAA and Daniels Real Estate because they are well known in the renovation world (after all, they're the team behind The Sanctuary, the former First Methodist Church in downtown Seattle). The team has a passion for preserving history, something that's admirable and necessary.

How does this project impact the city or its community?

Jerren: The Lodge went from vacant and lost to a centerpiece of the state park, a generator of jobs and tourism dollars, and an exciting local option for retreats and weekend getaways.

It's also a great design example of how to incorporate modern sustainable design principles into a historic renovation. With sustainable intentions established from the onset, the Lodge features upgrades to the envelope insulation, air-to-air heat pump systems, dedicated outside air systems, low flow plumbing fixtures, electric car charging stations, and numerous other energy conscious design methodologies. All were introduced without impacting the historic character of the property.

Aaron: While it's not a big project for us in terms of scale, it's one I talk about often. It's one that the community finds meaningful. It's a beautiful building that would have inevitably been torn down had the Daniels team not invested in its restoration. I think that commitment and willingness to take it on makes it a special place within the park and to the community.



What is it like to see the finished product?

Jerren: It's astounding! The finishes are so well done, from the wallpaper in the rooms which features the old drawings to the carpeting which feature a variety of iris specific to the location. The thoughtfulness makes a huge difference!

Aaron: It's amazing to see the transformation from "the ghost days" to its current state. I didn't know what to expect walking in for the first time after it was complete, but I was blown away by the interior. It is hip, cool and the branding creates an inviting, one-of-a-kind aesthetic. The food was amazing too and I highly recommend the downstairs bar!

A few quick-fires from Aaron:

One word to describe the project: Timeless.

Project team member who needs a free lunch: Suni Hatcher with Ron Wright & Associates. She stepped up to the plate every time. She was always the first to jump in, figure out what needed to happen, and start making the necessary calls.

When visiting, the first thing I check out is: The grounds! Go around the building and explore the hiking trails which lead all the way to the water. For an urban place, the park setting gives you ample room to spread out and get away.

This project has the best: Natural integration.

Next up, I can't wait to design: Several of the projects we're working on in Bellevue. Many of the roadways tie together which make it intriguing from an urban infill and civil perspective.

And from Jerren:

One word to describe the project: I would agree with Aaron. Timeless.

When visiting, the first thing I check out is: The garage that I helped design! Followed by a stop in the main entry.

This project has the best: Reuse of a building in the same vein that it was originally designed for. Originally a seminary, it still houses people for overnights!

Next up, I can't wait to design: With the Lodge wrapped up, I'm eager to design a large, multifamily podium project from the ground up. Every element and all associated detailing!

The Lodge at Saint Edward State Park was recently awarded NAIOP's 2021 Hospitality Development of the Year.

Go behind the scenes with some of our other projects with a Q&As from The Little School and Mount Si High School.

ON THE CALENDAR

upcoming industry events, conferences and Seattle favorites.

CREATIVE MORNING'S UPCOMING VIRTUAL EVENTS AND FIELD TRIPS
Rotating Topics - Event Info

ZOOLIGHTS AT WOODLAND PARK ZOO
Thru Jan. 30 - Event Info

8TH ANNUAL PIONEER SQUARE HOWLIDAYS
Dec. 2 - Event Info

HOLIDAY MARKET AT THE SANCTUARY
Dec. 3 - Event info

SEATTLE ARCHITECTURE FOUNDATION TOUR: FROM STONE TO STEEL – SEATTLE STYLE FROM THEN 'TIL NOW
Dec. 4 - Event Info

POLICY MATTERS SUMMIT 2021: THE FUTURE OF WORK
Dec. 8 - Event info

UW SPECIAL EVENT: REIMAGINING MOBILITY: URBAN ACCESSIBILITY – FROM CROWDSOURCING TO AI
Dec. 9 - Event info

FARESTART GUEST CHEF NIGHT: PRACTICING PRESERVATION WITH CHEF BRENDAN MCGILL & CHEF NATALIE EVANS
Dec. 16 - Event info

PIONEER SQUARE FIRST THURSDAY ART WALK
Jan. 6 - Event info

WOMEN IN SCIENCE & ENGINEERING (WISE) CONFERENCE
Feb. 26 - Event info

PASSION PROJECTS & DIYs

In each edition of The Connection, we crowdsource recommendations from our team, everything from hikes and dog parks to road trip destinations and restaurants. This edition, we're sharing our latest undertakings: passion projects and DIYs.

TRIP PLANNING

Recommended by: Nancy Gupta, Civil Project Assistant

Why I love it: I love planning trips because it allows me to combine my love for travel with my knack for organization. I started planning trips as soon as my parents gave me permission to travel (with groups of five, safety first!). I'm currently taking ten friends to nature's gem – Alaska (David Attenborough style.) I've tried to accommodate for optimal Northern Lights viewing, but since they're so unpredictable, I booked a window of five days (fingers crossed!). The trip will also include Chena Hot Springs, the train to Fairbanks to see Denali's tallest peak, some safe night hikes to spot Aurora Borealis, and a few open mic nights in Fairbanks. I'm so excited!

Pro Tip: Teamwork makes the dream work: divide the biggest and smallest tasks among passionate people. And don't be shy about asking for suggestions. Flight crews, hotel staff, local restaurant owners, and Airbnb/VRBO hosts all have great local knowledge.

Aurora Borealis tracking sites here and here.

CROCHETING

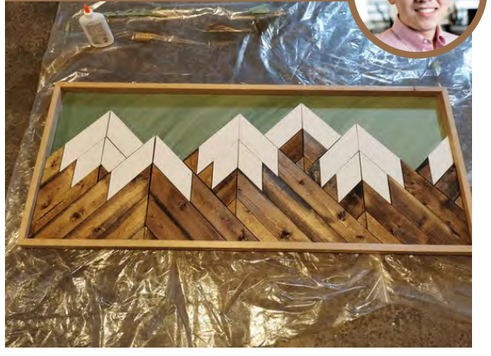
Recommended by: Molly Gentry, Administration Assistant

Why I love it: Crocheting is relaxing, and I like the satisfaction I get from making something with my hands. The beauty of crocheting is that you can crochet pretty much anything out of just about any material. I've made rugs out of recycled clothes, shopping totes from strips of old plastic grocery bags, lampshades, clothes, you name it. I once crocheted 100 mini succulent "stuffed animals" for a friend's wedding!

Pro Tip: Keep your hands and stitches loose, and when you're a beginner, choose a simple project, relatively thick yarn, and a large hook.

Image: The infamous crochet cacti.

WOODWORKING



Recommended by: Wenxuan Meng, Structural Staff Engineer

Why I love it: Nothing makes a hardcore engineer happier than a few trips to Home Depot! A garage filled with boxes of tools, studs, and planks is my happy place. The fun with woodworking is that there can be unforeseen problems to solve along the way (like overcut and shrinkage for wood projects), but after working through it, the end result can be beautiful enough to hang on your wall!

Pro Tip: Save some money, time, and effort by planning ahead with a few sketches before you head to the store for materials. Also be sure to save the scrap wood for your next project. It's a much better way to recycle!

Image: Wenxuan's latest masterpiece.

CANNING

Recommended by: Reed Harvey, Senior Structural Technician

Why I love it: I love being able to turn items from my garden into something new. Through home canning, I'm able to create totally unique flavors that you can't buy in the store. And in those growing seasons when Mother Nature provides an abundance, canning is a great way to ensure that no fruits or veggies go to waste. Plus, you can enjoy preserves all year– yum!

Pro Tip: If you can grow it and eat it, you can preserve it.

Image: Reed's Early Laxton Plum Jam.

ABOUT THE CONNECTION

Published by Coughlin Porter Lundeen, The Connection is a biannual collection of the firm's news, perspective, and commentary on AEC industry topics. All content is curated and written in-house.

CONTACT

Coughlin Porter Lundeen
www.cplinc.com / info@cplinc.com
801 Second Avenue, Suite 900
Seattle, WA 98104

ABOUT COUGHLIN PORTER LUNDEEN

Coughlin Porter Lundeen is a civil and structural engineering firm. Focused in the Pacific Northwest, we partner with clients across markets to bring unique project visions to life. We were founded with the goal of exceeding the standards and services provided by engineering firms, and today, more than twenty-five years later, that vision continues to guide all that we do.