Brian Nielsen, PE, SE

PND Engineers, Inc.

Principal Structural Engineer

2026 ASCE Alaska Section | Juneau Branch

Nomination For:

Outstanding Engineer of the Year Award

Nomination By

PND Engineers Inc. | Juneau Office
9360 Glacier Highway Suite 100 | Juneau, AK 99801

Education

M.S. Civil Engineering,
Colorado State University

B.S. Civil Engineering,
Colorado State University

Professional Registrations

Civil & Structural Engineer:

Alaska - AELT13703, AELC11900

Washington - 47360

Professional Organizations

ASCE Member: 2006 - Present

American Institute of Steel Construction (AISC) Member: 2006 - Present

Structural Engineers Association of Alaska (SEAAK) Member: 2007 - Present

PND ENGINEERS, INC.

Brian Nielsen is a licensed civil and structural engineer in Alaska and Washington with more than 21 years of professional experience specializing in building design. He joined PND Engineers, Inc. (PND) in 2004 and became a principal/partner in 2021. He now serves as a Vice President of the firm.

Brian has dedicated more than 15 years to serving communities throughout Southeast Alaska, developing a deep understanding of the region's environmental, seismic, and logistical challenges. He also practiced in Seattle, Washington for a total of six years. Through his commitment to constructable, durable solutions, Brian has become a trusted engineering professional and leader. He is an active member in professional engineering organizations, including the American Institute of Steel Construction (AISC) and the Structural Engineers Association of Alaska (SEAAK).

At PND, Brian manages a wide range of structural engineering efforts, including new building design, additions, and complex seismic retrofits. His experience is tailored specifically to the demanding conditions of Southeast Alaska, where climate, remote access, and constructability require innovative and practical design solutions. He regularly designs structural and light-gage steel framing, timber, masonry, and concrete structures. Brian's building design experience ranges from tenant improvements to schools to high-rise buildings for both public and private clients.

In addition to design, Brian regularly performs comprehensive inspections and condition assessments of existing buildings, helping owners understand structural performance, safety, and long-term maintenance needs. Brian is highly experienced in contract administration, bidding support, and construction administration services, ensuring projects are delivered accurately and efficiently from concept through completion.

Throughout his career, Brian has demonstrated a strong commitment to quality through a community-focused practice. This combination of technical rigor, local knowledge, and hands-on project involvement allows him to deliver practical, resilient designs that respond directly to the unique needs of Southeast Alaska. Brian is widely recognized by his peers for his leadership, management skills, and commitment to mentoring. These qualities earned him the role of Vice President at PND, where he continues to shape the firm's culture and technical development.

Mt. Edgecumbe Medical Center Campus

SHI Indigenous Science Building
Photo by SHI

Ketchikan Airport Addition

ENGINEERING ACHIEVEMENTS IN 2025

Mount Edgecumbe Medical Center Campus, Sitka, AK. Brian is the structural principal in charge of the new 245,000-square-foot hospital and clinic building for the Southeast Alaska Regional Health Consortium (SEARHC) in Sitka. The state-of-the-art medical facility will become the cornerstone of SEARHC's regional medical network. The building is a steel-framed structure consisting of two four-story towers connected by a two-story atrium, creating a cohesive and functional campus environment. The lateral load-resisting system consists of buckling restrained braces to provide enhanced seismic performance. To meet the aggressive project schedule, the structural design was advanced to issue foundation and steel construction documents months ahead of other disciplines, enabling early foundation construction and steel erection. The project is currently under construction and is being delivered using an accelerated construction manager/general contractor (CM/GC) project delivery method, with an anticipated opening in early 2026.

Sealaska Heritage Institute Science Building, Juneau, AK. Brian served as the structural engineer of record for the renovation of the Sealaska Heritage Institute (SHI) Indigenous Science Building, a 40-year-old, three-story, 17,000-square-foot timber-framed structure in downtown Juneau. The project transformed the existing building into a modern educational facility supporting hands-on learning programs. Brian provided structural engineering design and construction administration services throughout the project. The scope of work included a complete renovation of the basement and Level 1, including bearing-wall and shear-wall changes. Structural design also supported the addition of an elevator and a new canopy along Heritage Way. The project was delivered using a design-build project delivery method. The result is a resilient, adaptable structure that supports a science lab, classrooms and community space.

Ketchikan Airport Addition and Renovation, Ketchikan, AK. Brian provided structural design services for the expansion and renovation of an existing terminal at the Ketchikan International Airport. The two-story, approximately 20,000 SF expansion on the east side of the terminal, includes additions such as new covered areas, canopies, and rooftop mechanical equipment. The project also consists of 4,000 SF of renovations to the existing terminal. Additional services include designing the foundations for a boarding bridge.

SEARHC Vintage Park Housing, Juneau, AK. As the structural principal in charge, Brian oversaw the design, analysis, and detailing of structural components for the SEARHC Vintage Park Workforce Housing Project, a two-story timber-framed apartment building supporting SEARHC's expanding medical campus in Juneau's Mendenhall Valley. Brian also provided construction-phase services.

PND ENGINEERS, INC.

Teal Street Center
Photo by Teal Street Center

Since joining PND in 2004, Brian Nielsen has performed structural design services on over 80 infrastructure projects for public clients in Alaska.

>80 ***public infrastructure projects***

Roughly 25% of these public projects involved improvements and renovations to local schools throughout the state of Alaska.

>20 ***public school projects***

PND ENGINEERS, INC.

SEARHC Vintage Park Dental Clinic, Juneau, AK. Brian served as the structural engineer of record for the new, state-of-the-art dental clinic located at the SEARHC Vintage Park Campus in the Mendenhall Valley. Brian provided structural design and construction-phase services for this three-story, 20,000-square-foot steel-framed medical office building. The structural design incorporates SidePlate® moment frames along the building perimeter, allowing for an open floor plan. A pile foundation system was utilized to minimize over-excavation and shoring along adjacents roads, addressing site constraints efficiently and sustainably. The clinic is slated to open in Spring 2027.

Bartlett Emergency Department Expansion, Juneau, AK. Brian served as the structural principal in charge for Bartlett Regional Hospital's Emergency Department expansion in Juneau, overseeing the structural design for a 5,000-square-foot addition that modernizes existing spaces. The project is part of a larger hospital modernization initiative. Backed by city and federal funding, the expansion will improve patient experience, operational efficiency, and healthcare delivery in Southeast Alaska.

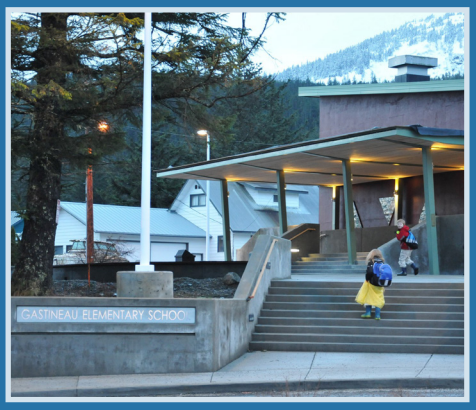
Craig Middle School, Prince of Wales Island, AK. Brian served as the structural engineer of record for the renovation of Craig Middle School, a 16,000-square-foot, one-story, 40-year-old timber-framed facility on Prince of Wales Island. He provided design-phase structural engineering services. Working closely with MRV Architects, the consultants, and Craig School District staff, Brian helped shape a renovation strategy that prioritized ADA access and safety, while maintaining budget constraints.

ENGINEERING ACHIEVEMENTS PRIOR TO 2025

Teal Street Center, Juneau, AK. As the structural engineer of record, Brian provided structural engineering and construction phase services for the Teal Street Center, a three-story structural steel office building that delivers essential community health and social services. The building's structural system consists of steel framing supported on shallow, conventionally reinforced concrete foundations, optimized for constructability and long-term performance. Brian collaborated closely with the construction team to streamline design deliverables and accelerate the construction schedule. This project was delivered using CM/GC project delivery, while maintaining quality and remaining on budget—contributing to the successful completion of this important community facility.

Auke Bay School, Juneau, AK. Brian served at the lead structural engineer, providing structural design and construction services for the renovation and retrofit of a 56,000-square-foot, two-story, 40-year-old timber-framed school building. Design included two new rooftop mechanical penthouses, a new pile-supported entry canopy, and the raising of an existing floor and roof by three feet for approximately half the school. Construction services included submittal review, contractor respondence and structural observation.

Kodiak High School
Photo by Ken Graham Photography



Gastineau Elementary School

Dimond Park Aquatic Center

Alaska Seaplanes Terminal, Juneau, AK. For the Alaska Seaplanes Terminal project at the Juneau International Airport, Brian provided structural engineering services for the design of a new pre-engineered metal building (PEMB and foundations. Design was also completed for two timber-framed mezzanines with supporting foundations. Brian supported the development of alternative foundation options for future mezzanines, and analyzed the proposed PEMB to determine applicable foundation loads, due to schedule constraints from the PEMB manufacturer.

Kodiak High School Renovation and Addition, Kodiak, AK. As the lead structural engineer, Brian provided structural design for a four-story, steel braced-frame classroom tower and music room addition. His work also included gravity and lateral analysis and the design of extensive alterations and retrofits throughout the existing gymnasium, common areas, and educational wings. The school was designed to resist the loads of a major earthquake and high-speed winds at the exposed site. The seismic loads are some of the highest in the United States. Brian also performed construction services including submittal review, responding to contractor questions, and structural observation. Kodiak High School now serves as the Kodiak Island community's educational hub, supporting vocational training, distance learning programs, and partnerships with local colleges and research initiatives.

Gastineau Elementary School Renovation, Juneau, AK. As the lead structural engineer, Brian provided structural design and construction services for the renovation of a 50,000-square-foot, one-story school building. Work included seismic upgrades of the structure, as well as design of new clerestory, a new rooftop penthouse for mechanical equipment, and a new entry canopy.

Dimond Park Aquatic Center, Juneau, AK. Brian served as the lead structural design engineer for a new 37,000-square-foot structural steel-framed building to accommodate an eight-lane concrete swimming pool, leisure pool, and viewing areas. He reviewed shop fabrication drawings for concrete reinforcing and structural steel, as well as contractor submittals for field welding, concrete block construction, concrete mix designs, steel deck, and precast concrete deck panels. He also answered RFIs and provided construction administration and inspection services.

Petersburg Fire-EMS Building, Petersburg, AK. Brian served as the lead structural engineer for this important project for emergency medical services (EMS) in Petersburg. He provided structural design and construction administration for a one-story, 20,000-square-foot fire and EMS station with timber and steel framing, and a conventional reinforced concrete shallow foundation. The building site had a surface layer of muskeg up to 20 feet thick. Pile foundations were eliminated by over excavating the site to competent soil. Construction services included submittal review, responding to contractor questions, and structural observation.

P | N | D
ENGINEERS, INC.

PROFESSIONAL ORGANIZATIONS AND COMMUNITY SERVICE

Brian Nielsen contributes to the engineering community in Juneau through professional involvement and mentorship. He is actively engaged in organizations, including AISC and SEAAK, and regularly attends local chapter meetings to offer informed engineering recommendations. At PND, Brian is a trusted resource who routinely provides peer reviews to engineers at all levels, including staff engineers and principals. He plays a key role in the training and professional development of young structural engineers, drawing on his ability to clearly explain complex structural engineering concepts. Known for his patient and collaborative approach, Brian fosters a culture of learning. Brian supports STEM education by volunteering with the local MathCounts competition, a national program dedicated to strengthening students' mathematical skills. Through these efforts, Brian is making a meaningful and lasting contribution to the engineering community in Southeast Alaska.

"Brian is one of the most technically sound engineers you will ever meet. What separates him from other highly-technical engineers is his consideration for constructable solutions and his ability to adapt designs for any builder in any situation. His experience from harbors to high-rises brings a unique breadth of knowledge to our office and the community. He is a trusted and valued mentor to peers and young engineers, leading by example and gladly sharing his expertise for the betterment of our profession."

-Sean Sjostedt, PE, PND Vice President and Principal Engineer

"Brian is always up for a challenge. The Kodiak School renovation and addition is a great example. He jumped right in to designing the five-story addition and delivered a thorough, complete set of plans. His careful work ensured construction progressed smoothly."

-Chris Gianotti, Retired PND Structural Engineer

Kodiak High School, *Photo by Ken Graham Photography*

THANK YOU FOR REVIEWING OUR NOMINATION. FOR MORE INFORMATION, PLEASE CONTACT PND VICE PRESIDENT & PRINCIPAL ENGINEER SEAN SJOSTEDT, PE, AT 907.586.2093 OR SSJOSTEDT@PNDENGINEERS.COM