The Alaska Building project allows a modern Marriott hotel to seamlessly integrate into a century old building in a historical neighborhood, preserving the aesthetic quality of Seattle's first steel framed skyscraper while providing a state-of-the-art seismic upgrade at the same time. This function was accomplished by giving the new tower a slightly more modern look, with an aluminum curtain wall system and a brick color that complements, but does not exactly match the brick exterior of the existing building. The aesthetic qualities of the existing building were painstakingly restored to their original condition as much as possible. The elaborate and ornate terra cotta cornices and architectural details were repaired, the existing wood windows restored where appropriate, and the interior historical spaces, including the grand marble lobby, were incorporated into the more modern interior feel of the hotel. Overall, the project strikes a balance between old and new, transforming a historical Seattle landmark into a functional, modern structure, without disturbing the elements that have made the Alaska Building a valued community asset since the turn of the 20th century.

## Safety

Graham's dedication to safety is an inherent part of our corporate culture, and our program is on par with the best in the industry. The scope of work for this project included excavation and shoring within the footprint of the existing historical structure. The construction of a 15-story structural steel tower (within feet of the Alaska Building), all take place simultaneously with the ongoing selective demolition of the building. All of these operations, combined with the close proximity and exact nature of the masonry and window restoration activities, required careful planning and attention to details. Given the challenging nature of the project, site, and schedule, Graham was proud to record over 22,000 man hours on the project with our own labor forces and zero lost-time accidents. Graham took great care to familiarize every new worker on the jobsite, and familiarize them with our extensive

safety program. The project team was proactive in addressing all safety concerns, and performed the project under consultation from the Washington State Department of Labor and Industries, with multiple consultations/visits, and no violations. Due to the nature of the project, Graham's field team paid particular attention to fall protection, rigging, and traffic/road safety, and implemented specific programs to address these issues with workers in the field. Graham's subcontractors were held to the same standard as our own workers, and actively participated in working the safety program on site to maintain its effectiveness.

## Innovation

Construction innovation for this project started with the unique structural design which allowed the existing 104-year-old historical structure to be seismically retrofitted without significant intrusion to the interior spaces. A typical seismic retrofit might include extensive use of concrete beams and shear walls at elevator and stair cores to create moment frames to resist lateral forces. The 'L' shape of the Alaska Building allowed the design team to create a new brace frame structure in the "crook" of the 'L' and used drag struts at each floor to connect the existing building to the new tower. This method allowed creation of over 30,000 square feet of additional space, while preserving the character and integrity of the Alaska Building. Additionally, precast panels with a thin brick face were used as cladding for the new tower. This method allowed for significant schedule acceleration over a traditional laid-up brick façade. Because this design was modified while the project was underway, it required significant coordination between the precast supplier, Graham, the design team, and the building envelope consultant. This design collaboration assured that the panels performed from an aesthetic standpoint, integrated with the structural components, and met the required energy codes and constraints. Graham's coordination of the different construction elements provided the owner with cost and schedule savings over the original design.

## Unique Challenges

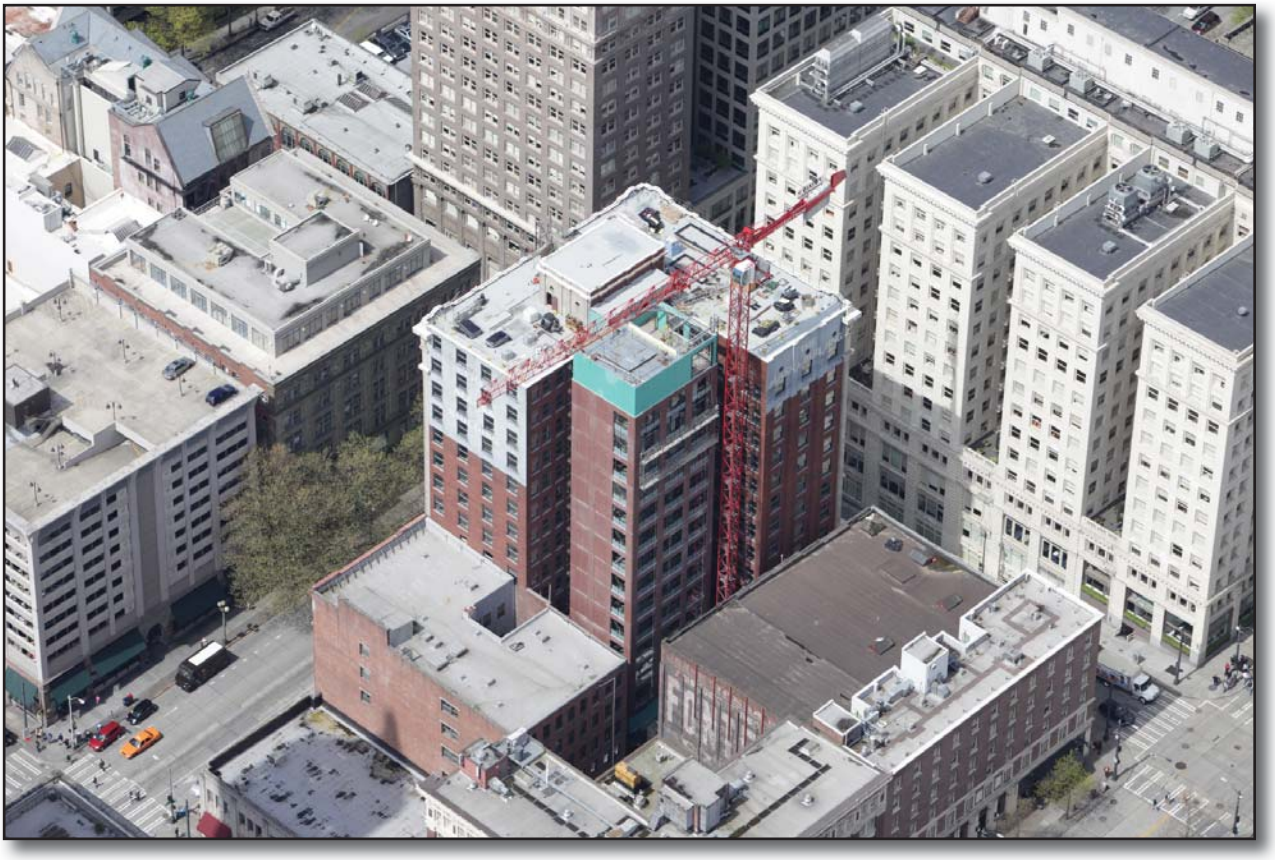
The early involvement by Graham in the development of this project allowed the construction team to identify and address anticipated challenges during the course of construction. One particular challenge was the building's approximately 700 existing wood windows and the constraints put in place by the Pioneer Square Preservation Board relating to the renovation/replacement of these windows. Graham was able to get invaluable input from our selected subcontractor early on in the process, which allowed the design team to present historical character preservation options for the existing windows to the Board. Many of the windows were damaged or otherwise unworthy of repair, but new sashes and frames were built which matched the profile and construction of the old windows. Operable windows were completely dismantled in the field and restored off-site to a "like new" condition. By managing the surveying of these windows for repair or replacement, along with providing effective quality control standards on this historical portion of the project , the client successfully incorporated high quality, energy efficient windows within the constraints of the Preservation Board's standards and requirements.

Another unique site challenge was presented during the planning and consideration for placement and design of the tower crane and associated foundation work. Typical concrete pad foundations for a crane large enough to serve the needs of the Alaska Building project carried too large of a footprint for the constraints posed by the building's 104-year-old concrete and granite foundation. Graham successfully designed and engineered (in-house) a 12 feet by 12 feet concrete base anchored with a combination of 30-inch diameter reinforced concrete piles and 4-inch micro piles for a 218-foot freestanding crane. The innovation and design expertise associated with this early effort was crucial to bringing the project to a successful completion.

## Contribution to the Community

Graham's involvement in this project, provided the client with the opportunity to facilitate a transformation of the existing historical structure, which had outlived its usefulness as office space, into revenue generating hotel space. The Marriott Hotel addition brings an internationally recognized hotel brand to the Pioneer Square area of Seattle's downtown. This new hotel will provide community benefits

by enhancing and furthering the perception of this area as a viable place to do business. Already home to many cutting edge technology and software companies, this new hotel project development will help in attracting new business ventures to the neighborhood. Pioneer Square is one of Seattle's most popular tourist area and until this project became a reality, was lacking a four star hotel with the amenities, brand loyalty and associated recognition. This major historical renovation project has also elevated construction and design standards by successfully demonstrating the viability of performing seismic upgrades without altering the historical nature or look of the building, which has been a landmark of the Seattle skyline for over 100 years.



Graham was recently awarded the Best of 2009 Best Historic Renovation from Northwest Construction. Over 85 projects were submitted, the most ever received.