

FOR IMMEDIATE RELEASE
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Lease Crutcher Lewis completes 5th & Yesler Office Tower **Challenging site built with high strength concrete and contractor ingenuity**

Seattle – Lease Crutcher Lewis has completed the 17-story 5th & Yesler office building. Developed by Martin Selig Real Estate, the building features permanent, unobstructed water and mountain views, a location near city and county offices, excellent access to transit and Interstate 5, and an attractive open floor plan. David McDaniel Architects took over from Curtis Beattie & Associates to act as architect for the building. The exterior closure elements consist of precast concrete, granite, aluminum and glass curtain wall and outside decks. The project is on track for LEED Gold, core and shell. “The building is beautiful and highly efficient,” said Ralph Hendrix, field superintendent for Lease Crutcher Lewis. “But the actual building process was a challenge from start to finish.”

The site offered many construction challenges including steep slopes and poor soils. The 5th & Yesler building sits on one of the steepest grades in downtown Seattle, at 25 percent (35' gain over 140'), so steep that most of the site had never been developed. In fact, Yesler Way bridges over 5th Avenue to keep its own grade manageable. The site's soil conditions were poor, as the site was fill dirt from Interstate 5 construction in the early 1960s. Due to the steep grade, soil quality, and the design of I-5 itself, anything built on this property would have to not only hold itself up, but hold the hill to the east up as well. The structural design accommodates this in several ways.

An innovative foundation construction approach allowed a massive mat slab to be built with minimal excess excavation, a crucial advantage at this site. The 6,400 square foot mat foundation holds up the core. Instead of building this slab with conventional formwork, which would have required additional excavation outside the slab itself to provide space for the formwork and possibly to allow a 1:1 slope to the surrounding excavated grade, Lease Crutcher Lewis designed and built a coffer dam system by digging a two-foot wide, 10-foot deep trench at the perimeter of the slab location and filling it with concrete. When complete, they excavated inside the coffer dam, placed rebar, dowels, and embeds, and poured the remainder of the concrete for the slab, which required zero excavation or shoring outside the slab itself.

The 272,000 net square foot tower (420,000 square foot gross) is 17 stories above grade, with a concrete core and structural steel structure. The concept is typical, but the strength is superlative. Column placement affords an extraordinarily open floor plan and spacious interior. The elevator core is the largest in the continental United States. Using 10,000 psi concrete the walls are 110 feet by 20 feet with 5 cells and walls that are two feet thick at the base. The elevator core occupies 28 percent of the overall floorplate and gives the building its lateral strength.

The most noticeable structural element may be the retaining walls protecting the driveway on the north side. The walls were poured in single full-height segments of up to 64 feet high, the tallest retaining walls in Seattle. The concrete for each segment was placed in one pour to ensure that there were no gaps in the concrete, for strength and finish quality. The wall is a massive six feet thick at the base, and two feet, six inches at the top. Since the wall is a very visible element of the complex, the team gave it close attention in design, with architecturally designed reveals to create an arched window effect built into the formwork. This gives the wall a more human scale and visual interest.

Another unique aspect of the project is the placement of an iconic, towering, John Henry sculpture at the base of the Yesler hill climb. It is constructed of core ten steel with very large legs-upwards of 50,000 lbs and 86' tall. The Lewis team assisted in constructing the foundation for the sculpture and hoisting it into place.

“The unique construction methods might never be known to most people, who will simply see an attractive building,” said Tim Rice. “However, the innovations on this job provided great value for the developer, future tenants and will be very useful for future buildings on steep hillsides.”

About Lease Crutcher Lewis

Lease Crutcher Lewis has been a leading Northwest general contractor since 1886, and has been based in Seattle since 1939. Lewis maintains a steady volume of work by being strong in numerous project types, including high rise office buildings. Common threads for its work include a team approach to working with our customers and design partners, a focus on innovation, and performing a large percentage of its work with its own craftspeople. This May, the company won prestigious Associated General Contractors’ Awards for two recently completed projects, Garfield High School and the Four Seasons Hotel and Residences. Each was number one in Washington in its category, and Garfield won the state’s Grand Award.

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