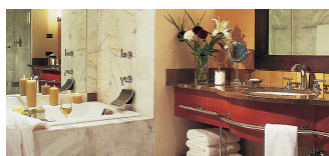
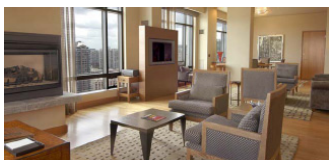


## PROJECT EXPERIENCE

### Grand Hyatt Hotel and Convention Center Seattle, Washington



Mechanical engineering services for new 20-story, 440-room hotel located over an eight-story base structure in downtown Seattle. Base structure includes hotel support spaces such as fitness center, laundry, kitchens, restaurant, multi-media conference theater, ballrooms, meeting rooms, and multiple retail spaces for a total of 445,400 s.f. A parking structure of 380,000 s.f. is included with project. An exhibition hall is located directly above the parking structure and is provided with an enclosed pedestrian bridge over downtown streets connecting the facility with the Washington State Convention & Trade Center. Mechanical design included individual room two-pipe air conditioning units with electric heat, high-rise smoke control systems with stair and elevator shaft pressurization, HVAC, plumbing, automatic fire sprinklers, high-rise combination standpipes with electric driven fire pumps, life-safety electric generator, commercial kitchen plumbing and HVAC systems, and parking structure ventilation.



## PROJECT EXPERIENCE

### River Park Square Mall, Theater Complex and Parking Garage Spokane, Washington

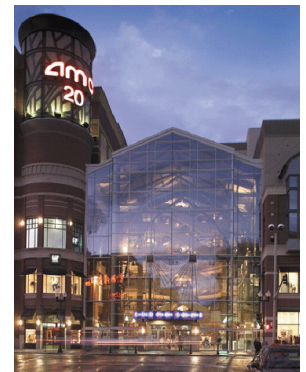


Mechanical engineering services for a new fully-enclosed, five-story mall which covers two city blocks of downtown Spokane. This high-rise structure includes a 20-theater complex on the fourth and fifth levels, a Nordstrom store, a fully-enclosed four-story glass atrium, upscale food court, and underground parking structure. Project included incorporating an existing mall section inside historic buildings within the same two city block area, three pedestrian skybridges that connect to adjacent Spokane City Hall and department stores located across the streets and the renovation and expansion of an existing aboveground parking structure. Mechanical design included rooftop packaged air conditioning units with gas-fired heaters sized and zoned for the common areas and the retail tenant spaces, acoustical engineering design for units located directly above the theater complex, atrium smoke removal system, fire sprinkler system throughout including dry-pipe sprinkler systems in the underground and aboveground parking structures, high-rise stairwell pressurization systems.



### Northgate Mall – Renovation and Food Court Addition Seattle, Washington

Mechanical engineering services for the renovation of 120,000 s.f. food court and common areas at the Northgate Mall. Mechanical work included surveys of existing mechanical and electrical systems to determine the condition and spare capacity of the equipment. Packaged rooftop air conditioning units with gas-fired heaters were added and the existing rooftop units were replaced to accommodate the new renovation of the Mall. Food court design included air conditioning, plumbing and fire protection systems for new 15,000 s.f. addition for restaurants, food vendor tenants, seating area, and public restrooms.



## PROJECT EXPERIENCE

### Mt. Roberts Aerial Tramway and Visitors Center Juneau, Alaska

Mechanical engineering services for the preparation of design-build criteria for the design of the lower and upper terminal buildings at the Mt. Roberts Tram in Juneau. Lower portion of the tram is located on the waterfront in Juneau and travels 3,000 feet to an elevation of 1,700 feet at the upper terminal on Mt. Roberts. The 8,300 s.f. lower terminal building includes a large exhibition area, public restrooms, tram equipment location and storage, food storage coolers and freezers, administration offices, and emergency generators. Upper terminal building has 18,000 s.f. and includes a theater, restaurant, retail spaces, conference areas, lobby/exhibit space, food storage, domestic water storage tanks, fire protection water storage tanks and fire pumps, and a skybridge connection to the lower terminal building with the tram loading platform. Mechanical design-build criteria consisted of ventilation and heating requirements, fire protection system requirements, general plumbing, and kitchen plumbing and ventilation requirements.



## PROJECT EXPERIENCE

## Retail & Hospitality

### Bank of America – 1600 Eastlake Branch Seattle, Washington

Mechanical engineering services for new 6,500 s.f. branch facility located on the same city block as 1616 Eastlake Office Building on Lake Union in Seattle. Developer of 1616 Eastlake office building provided new branch bank building to relocate an existing branch located on the same site in order to allow for the new office building. Mechanical system includes a 20-ton split-system heat pump with a variable volume variable temperature duct distribution system. Outdoor air-cooled condensing unit located on grade leaving the roof clean of equipment. ATM machine room provided a dedicated 2-ton air conditioning unit for 24-hour/7-day operation.



### Bank of America – Prototype Branch Banks Various Locations, Washington, Oregon and Idaho

Mechanical engineering services for new 4,400 and 5,600 s.f. national prototype bank branches located throughout Washington, Oregon and Idaho. Mechanical system includes four 3- and 5-ton packaged rooftop heat pumps with constant volume air delivery. In lieu of fire sprinklers, each branch is provided with smoke detectors located at each rooftop units which alarms inside the facility upon activation.



Before



After