



Program Management

Client

Port of Seattle

Location

Seattle-Tacoma International
Airport, Port of Seattle, WA, USA

Seattle-Tacoma (Sea-Tac) International Airport Port of Seattle, Washington

CH2M HILL was part of the program management team retained by the Port of Seattle to provide program management services for a \$3.5 billion capital development program. Staffing began with 25 employees and grew to more than 200 employees (combining Port staff and sub-consultants), all working under the direction of the Port.

CH2M HILL's initial role for the client was to define construction phasing and sequencing of approximately 200 separate projects. Management tools and resources were put in place to monitor and manage the program both from an overall standpoint (for coordination of projects and for commission level communication and tracking), as well as for each individual project. We have participated in all aspects of management, including project controls, design management, and construction management, beginning with conceptual design through project completion. Projects included the following activities:

- ◆ Expansion of the south terminal, a \$440 million project to replace the seven-gate Concourse A with 14 common-use aircraft gates and apron, airline operating spaces, baggage systems, airport office space, and ticketing/baggage claim areas.
- ◆ Development of architectural standards for terminal improvements.
- ◆ Construction of a 3,000-stall parking garage addition and related highway and exit toll plaza improvements to the existing 10,000-stall parking garage.
- ◆ Construction of an automated aircraft fuel hydrant system, including expansion of storage facilities and the environmental remediation of the existing distribution system.
- ◆ Modernization of the electrical, mechanical, communication, water, storm drain, and industrial wastewater systems.
- ◆ Improvements in baggage handling systems, passenger security check points, and office facilities following the events of September 11, 2001.
- ◆ Implementation of a new concession program, including addition or upgrade of 80 concessions at multiple terminal locations.
- ◆ An upgrade of the underground transit system that transports passengers between the main terminal and the remote north and south satellite terminals.
- ◆ Development of a remote consolidated rental car facility, including associated roadway improvements and a bus maintenance facility.
- ◆ Realignment of the North Airport Expressway and reconfiguration of the recirculation ramps to support the extension of light rail to the terminal.
- ◆ Construction of a new Central Terminal area to serve a dual role of expanding concessions opportunities and interconnecting all concourses behind security (facilitating passenger connections).

Third Runway. The Third Runway is an 8,500-foot Category Three runway with full lighting, NAVAIDS, and utilities.

Phases I through 4 executed between 1997 and 2003 (\$97 million) included construction of parallel and connecting taxiways, involving removal of 139,000 square yards of Portland cement and asphalt concrete pavements; construction of 145,000 square yards of 18-inch-thick Portland cement concrete pavement and 22,000 tons of asphalt concrete pavement; and reconstruction of 20,000 linear feet of sealed aircraft pavement joints. The work also included clearing, demolition of existing structures, and sub-grade stabilization on more than 110 acres of forested suburban land, constructing temporary erosion and sediment control facilities, including seven permanent and construction storm water detention ponds, and stockpiling 4 million tons of imported fill material. During these years the program also supported the FAA's construction of new ASR-9 and Mode-S Beacon facilities to allow demolition of the exist facilities in the foot print of the new runway.

The embankment and runway construction project also began in 2004 and was completed in 2006 (\$300 million), using 17 million cubic yards of embankment, including import of 13 million cubic yards of materials and five major mechanically stabilized earth walls; relocation of a public road, including all affected utilities; and 120 acres of wetland mitigation. This phase included 3 years of stormwater runoff management from 200 acres of open work area to extremely tight permissible turbidity tolerances which required treatment of several hundred million gallons of runoff.

Runway/Taxiway Construction during 2007 and 2008 (\$80 million). The final phase of construction of the new runway included 266,000 square yards of 17-inch runway and 16-inch taxiway concrete pavement; 35,000 ton of asphalt pavement for shoulders and service roads; an extensive stormwater systems; a 24-inch fire suppression loop; several miles of electrical and communications ductbank for primary, secondary, and control wire, and fiber supporting both power and communications needs of the new and existing airfield surfaces; and a new airfield lighting vault.

The embankment and runway paving projects brought the safety areas of the two existing runway into compliance with FAA requirements for 1,000-foot safety areas.

About CH2M HILL

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