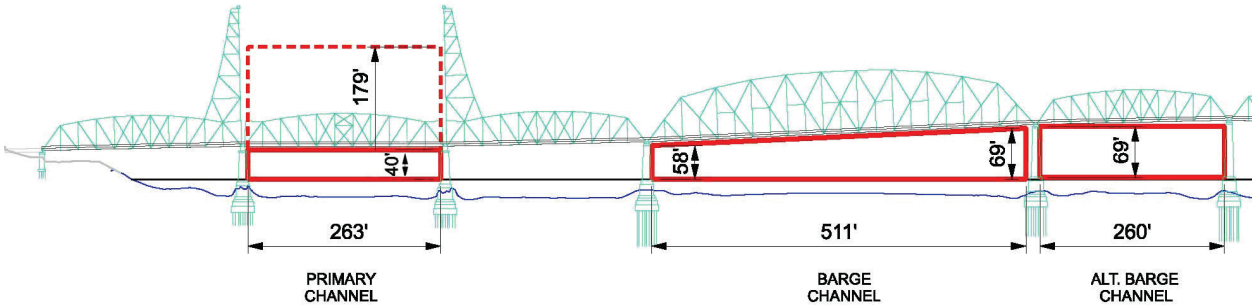
Exhibit 3.2-3
Existing I-5 Columbia River Crossing Navigation Clearances



Source: CRC Navigation Technical Report 2008. Drawing not to scale.

With the exception of some specialized vessels that use the river infrequently, the majority of vessels require vertical clearances of less than 90 feet from the surface of the water to the bottom of the bridge deck (Exhibit 3.2-4). The project team, in consultation with the USCG and industry representatives, established a vertical minimum of 95 feet clearance for the new bridge, so that the new structure could be built without a lift span. Higher vertical clearances beneath the bridge would require raising the bridge structure further into restricted airspace for flight navigation above the bridge.

Exhibit 3.2-4
Summary of Vertical Clearance Requirements and Frequency of Use

Vessel Type	Vertical Clearance Requirement	Approximate Annual Frequency
Tugs and Tows	49 feet to 58 feet	> 500 trips
Sailboats/Recreation	76 feet to 88 feet	24 trips
Marine Contractors	100 feet to 110 feet	Infrequent
Marine Industrial	65 feet	6 trips
Cruise/Passenger	50 feet to 60 feet	25 trips

Source: Parsons Brinckerhoff 2004.

The USCG, which would approve construction or alteration of the bridges, has stated that navigation conditions cannot be made worse than existing conditions if the CRC project designs are to receive permitting. They have requested at least a 300-foot navigation clearance between bridge piers, which would require bridge spans greater than 400 feet. The LPA design includes spans of 465 feet.

The North Portland Harbor does not include a designated shipping channel, and is largely travelled by recreational boaters and those accessing the water-oriented uses along the Harbor.

Existing Aviation Safety

Two airports are located near the CRC project area. Portland International Airport (PDX) is located about 3 miles southeast of the project on the Oregon side of the Columbia River. It is the major regional airport and serves large commercial passenger and freight service, private aircraft, and the Air National Guard. Planned expansions include both potential runway extensions and the addition of a new runway.

Pearson Field is located directly east of the project on the Washington side of the Columbia River. It serves primarily small piston-engine aircraft weighing 10,000 pounds or less. Because it is surrounded by developed urban uses and the Vancouver National Historic Reserve (VNHR), there are no plans to expand facilities or operations at this airfield.

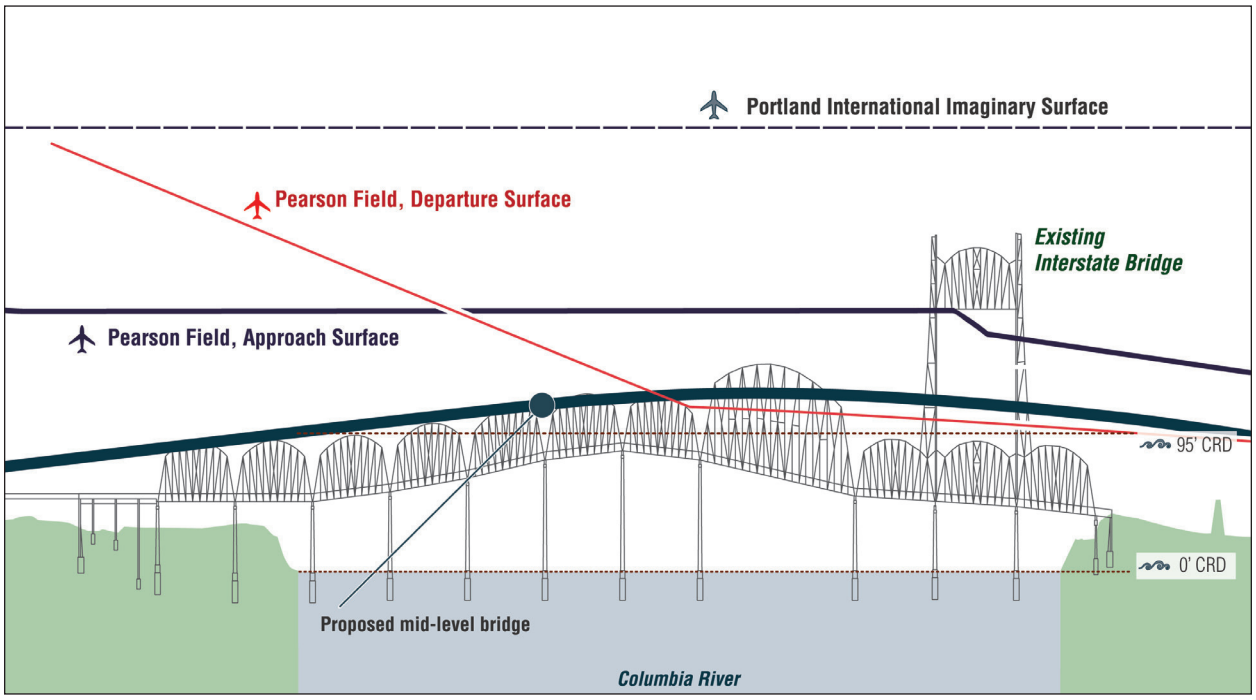
The lift towers of the existing bridge currently intrude 98 vertical feet into protected airspace for Pearson Field and are an aviation hazard. To avoid the towers, aircraft must use special departure and arrival procedures. Exhibit 3.2-5 shows the design constraints posed by both PDX imaginary surface and Pearson Field approach and departure clearance surfaces.

If the lift towers were removed, Pearson aviation safety would be improved and the departure and arrival procedures may be relaxed.

An important goal of the CRC project is to minimize effects of any new or modified crossing to both river navigation and air traffic from Pearson Field.

Exhibit 3.2-5

Pearson Field and Portland International Airport Aviation Constraints



Note: CRD = Columbia River Datum; see glossary.
Not to scale.

3.2.3 Long-term Effects

This section summarizes the impacts on navigation and aviation associated with the project alternatives.

Because it would not include a lift span, the LPA would reduce the maximum available vertical clearance under the bridge from 179 feet to 95 feet. The CRC project team collected information on vessels traveling this river section to assess the vertical and horizontal clearance needs of river users (PB 2004). Results were discussed and verified with vessel operators and the USCG. As shown in Exhibit 3.2-4, only marine contractors, which travel this portion of the river infrequently, may have vertical height requirements greater than the available clearance.

Limitations to marine contractors would be offset by substantially improved navigational safety and elimination of river traffic delays. Tall loads would need to partially disassemble for those infrequent trips upriver of the LPA.

With the No-Build Alternative the current lift span towers would continue to represent an aviation hazard for Pearson Field. The lift span restrictions would continue to cause delays to river traffic, while the continuing need to navigate around the lift spans and the relatively narrow width between existing bridge piers would continue to represent potential hazards to navigation. In addition, without the seismic upgrades included in the build alternatives, a major earthquake could collapse or seriously damage one or both of the bridges, creating an adverse impact to navigation.

Exhibit 3.2-6 compares the impacts of the LPA to the DEIS alternatives and No-Build Alternative. The values presented for the other alternatives are relative to the LPA.