Technical Memorandum

To:

From:

Date: July 25, 2007

Subject: ODOT Contract No. 16902 – I-5 Trade Corridor Study Phase II
Technical Memorandum, Option Package 1

TECHINICAL MEMORANDUM, OPTION PACKAGE 1

(Insert objective)

Option Description

ROADWAY

Marine to Hayden Island

STRUCTURE - MARINE HAYDEN ISLAND BRIDGE

Roadway

These proposed improvement involves reconfiguration of Marine Drive and Hayden Island connections by building a four-lane bridge and widening the northbound side of the existing Portland Harbor bridge.

At Marine Drive, the northbound entrance ramp is designed for two lanes to serve I-5 northbound commuters from Marine Drive and Hayden Island. In order to eliminate weaving on the bridge, the Portland Harbor bridge is widened to accommodate the new two lanes and the existing three northbound lanes. The said two lanes are gradually dropped one at a time starting from the north end of the Portland Harbor bridge to the approach of the Interstate bridge where the number of lanes are reduced to match the existing three lane configuration.

A traffic signal is proposed at the intersection of Marine Drive and the new bridge to control traffic movement from I-5 northbound exit ramp to Hayden Island or Marine Drive, Hayden Island to I-5 northbound and Marine Drive to Hayden Island connection.

The proposed bridge is designed with two General Purpose (GP) lanes for each direction, 6' shoulder for both sides and 6' center median for a total width of 66 feet. It crosses Columbia slough about 500' east of the Portland Harbor bridge with an elevation matching the existing navigational clearance of the existing bridge. The new bridge is designed to provide the required vertical clearance at Jantzen Drive, touch down just north of Tomahawk Drive and connect to Marine Drive.

On Hayden Island, the existing northbound exit and entrance ramps will be removed. The Tomahawk Drive will be terminated at Jantzen Drive to a T-intersection. This is to allow for the construction of the proposed bridge that will serve as main connector between Hayden Island and Marine Drive.

Typical Sections

Deviations from Standards

ROADWAY

STRUCTURE - MARINE HAYDEN ISLAND BRIDGE

Roadway

The improvements shown were designed using the standards of the appropriate DOT jurisdiction.

Structural Design

Mike Traffalis Text

ROW Impacts

ROADWAY

Costs

Figure 1 – Option Schematic