

September 28, 2005

TO: John Howell, Expert Review Panel
Cedar River Group

FROM: David Beal, Project Manager
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SUBJECT: Draft Materials for October Expert Review Panel Meeting

In anticipation of the October 20, 2005 meeting in Seattle, we are enclosing the following materials related to ridership forecasting.

First, we have completed a draft of the Model Validation Report, which updates the model to a 2004 base year. This report has been transmitted electronically as a pdf file. It includes a summary of the incremental method used at Sound Transit for estimating changes in transit ridership.

Second, we are enclosing some materials related to model attributes and transit level-of-service measures. These materials include:

- A presentation by Don Billen, Sound Transit, to the TRB Conference on Transportation Planning Applications in April, 2005. This presentation includes an abstract, a table of known uses of alternative-specific constants in other U.S. models for FTA projects, and 45 slides relating transit level-of-service measures to quantifiable differences between modes. Most particularly, it presents a clear case for the inclusion in models of known differences between bus and rail service, specifically related to service reliability.
- Jim Ryan, FTA's primary reviewer of forecasting methods, included a discussion of Quality Control on Forecasts, as part of his presentation on Travel Forecasting for New Starts Projects, at the TRB Meeting in January, 2004. This presentation has achieved notoriety as a superlative summary of acceptable practices in ridership forecasting. These 14 slides on Quality Control describe the basic goals of the ST approach to modeling practices, and include a brief discussion on alternative-specific constants.

In the Model Validation Report is a table showing the use of boarding penalties that vary by mode and location, between 2.0 minutes and 5.0 minutes, over and above the real-time walk links, escalator links, and headway penalties associated with station access and transfers between transit lines. The use of these differential penalties derive from the reliability analysis conducted by Mr. Billen. Mr. Billen will be at the Panel meeting in October to discuss the analysis.