Appendix B

Initial Development of Alternatives Technical Memorandum

Memorandum

To: Mark Werner, TxDOT

From: Brian Hausknecht and Kirstin Skadberg

Subject: TOPRS Alternatives Analysis Criteria Development

Date: 7/24/2013

Introduction

This memo describes the process used to develop the screening criteria that will be used to establish the set of alternatives to be carried forward into the Service-level Environmental Impact Statement (EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS). The major products associated with the Alternatives Analysis task are outlined below, along with the goals the criteria were designed to meet. In addition, the process used to develop the list of criteria is described. The key steps of the process included a brainstorming session among the project task leads, development of an initial list of criteria, metrics and refinement from task leads, alignment with the project Purpose and Need, and final review and edits by the project management team.

Alternatives Analysis Criteria Products and Goals

Task 3.4 comprises a number of analyses and associated technical memos that will ultimately feed into the Alternatives Analysis Report. Because of their relationship to Purpose and Need, many of the analyses completed for the different technical aspects of the study, such as ridership, travel times, and cost, are included in the criteria used to perform the Environmental Fatal Flaw Analysis. Calculations of potential effect of alternatives on environmental resources (including natural resources, cultural/recreational resources, and social resources) will also be evaluated as part of the Environmental Fatal Flaw Analysis. The information from the technical memos and the Environmental Fatal Flaw Analysis will ultimately be described in the Alternatives Analysis Report, and summarized in the EIS.

Throughout the alternatives analysis criteria development process, criteria were reviewed and evaluated to ensure that that the following overall goals were met:

1. Meet the project goals and objectives (Purpose and Need)
2. Be measureable (quantitatively or qualitatively)
3. Identify thresholds over or under which alternatives should be rejected
4. Be based on data available through the study
5. Differentiate between alternatives

To streamline the analysis, several criteria were included that act as a proxy for more than one measure of interest. For example, criterion #13c, Sensitive Receptors, captures potential noise, vibration and air quality at the appropriate level of analysis for this study. When multiple measures are addressed by a single criterion, they will be described in the text of the Environmental Fatal Flaw Analysis and the Alternatives Analysis Report.

Alternatives Analysis Criteria Development

On April 17th and 18th 2013, the TOPRS task leads (leaders for Tasks 1-7) held a working meeting to discuss progress and next steps for the project. One segment of the workshop was devoted to developing and discussing alternatives analysis criteria that would represent the diverse aspects of the study alternatives. The

draft criteria were organized according to whether they applied to operations, infrastructure or environmental issues.

The team's ideas were distilled into an initial list of criteria, which was then distributed to the task leads for their feedback on criterion details including what the measure for each would be, whether it would be qualitative or quantitative, whether there was a threshold above/below which an alternative would be screened out, and the source of the data to be used for the evaluation. Feedback from each team member was reviewed, and a refined list of criteria, including the descriptive terms listed above, was developed.

At this stage, the refined criteria list was compared to the study Purpose and Need Statement to make sure that the criteria were capturing the key elements. Based on this comparison, some criteria were combined, and some were removed (for example if every alternative carried into the screening process would satisfy one of the purpose elements and its associated criterion - thereby making it a non-differentiator - the criterion was removed).

The final step in development of the criteria was for the project management team (Mark Walbrun, Brian Hausknecht, and Kristin Hull) to review the list and provide additional refinement edits to ensure that the criteria were aligned with the study intent and objectives.

Next Steps

After review and approval of the Alternatives Analysis criteria by TxDOT, the criteria will be provided to FRA for concurrence. Once the criteria are finalized, they will be used by the task leads to evaluate the preliminary study alternatives, and alternatives to be further analyzed in the EIS will be identified. The Alternatives Analysis process and results will be discussed in the Alternatives chapter of the EIS.