

Executive Summary
Treasure Valley High Capacity Transit Study
Priority Corridor Phase 1 Alternatives Analysis
October 13, 2009

Background

As the Treasure Valley continues to grow, high-quality transportation connections between the communities in the valley will become increasingly important. I-84 provides that critical transportation connection for autos and trucks, but the local communities have begun to recognize the need to consider broader, multi-modal transportation strategies connecting the valley.

The *Communities in Motion (CIM)* regional transportation plan adopted in 2006, identified bus or rail transit using the Boise Cutoff railroad alignment as an opportunity to improve transit service to the valley and focus transit-supportive land use around station areas. The Priority Corridor Phase 1 Alternatives Analysis (AA) evaluated a range of high capacity transit (HCT) options to serve the corridor and serves as a first step to position the corridor to potentially compete for a federal New Starts capital funding grant.

The Federal Transit Administration (FTA) oversees the New Starts program that typically provides up to 60% of the capital cost for selected projects. The program is competitive and projects need to demonstrate that they can cost-effectively serve a substantial travel demand in the study corridor. The Priority Corridor Phase 1 Alternatives Analysis represents the first step for this region towards exploring the ability of the Treasure Valley corridor to compete for this federal funding.

FTA requires that New Starts applicants go through a rigorous alternatives analysis process to determine the most effective transit alternative and to gain an understanding of how well the study corridor would compete with projects from other metropolitan areas. This study represents an initial phase which evaluates a wide range of mode and alignment options for HCT improvements to serve the corridor.

Purpose and Need for the Priority Corridor Phase 1 AA

The purpose of the study is to identify the most appropriate transit strategy for improving mobility and accessibility between Caldwell, Nampa, Meridian, west Boise and central Boise. The preferred strategy should help to manage the increase in travel demand in the I-84 travel shed, support local and regional transportation plans, expand mobility choices, support local comprehensive plans, and support the CIM vision for accommodating growth in the corridor.

The need for considering significant transit investment in the corridor is captured in population and employment growth statistics in the valley.

- Canyon County doubled in population between 1990 and 2007.
- Over two-thirds of the region's current population and forecast growth is in the corridor.
- 60,000 new jobs are forecast in the western parts of the corridor – an increase of over 139%.
- Daily traffic volumes on I-84 are forecast to increase by 30% to 50% by 2030.
- Downtown Boise employment is forecast to grow by over 34,000 jobs by 2030.

High Capacity Transit Mode Options

HCT modes that were considered for the Priority Corridor Phase 1 AA include:

- *Bus Rapid Transit – Mixed Traffic:* Buses operating in mixed traffic, but with substantial stations, intersection and traffic signal improvements and specialized vehicles.
- *Bus Rapid Transit – Exclusive:* Bus operating primarily in exclusive guideway in the center of a roadway or within another exclusive right-of-way.
- *Light Rail:* Electric rail vehicles powered by overhead wires that typically operate in the center of a roadway or within another exclusive right-of-way. Light rail cars can be coupled and operated by a single driver as a multiple train set.



- *Commuter Rail:* Daily passenger rail service provided on existing rail tracks typically shared with freight service. Two types of rail vehicles are used for commuter rail, locomotive pulled trains or diesel multiple units or DMU's (self-propelled passenger rail cars).



High Capacity Transit Alignment Options

The study initially considered a range of potential HCT alignments to serve the corridor from Chinden Boulevard on the north to Victory Road on the south. The study included an early screening step which found that the following alignments (see Figure ES-1) best addressed the study's purpose and need. The arterial alignments used Caldwell-Nampa Boulevard for the connection between the cities of Caldwell and Nampa.

- Fairview Avenue/Cherry Lane
- Boise Cutoff Rail
- Franklin Road
- I-84
- Overland Road

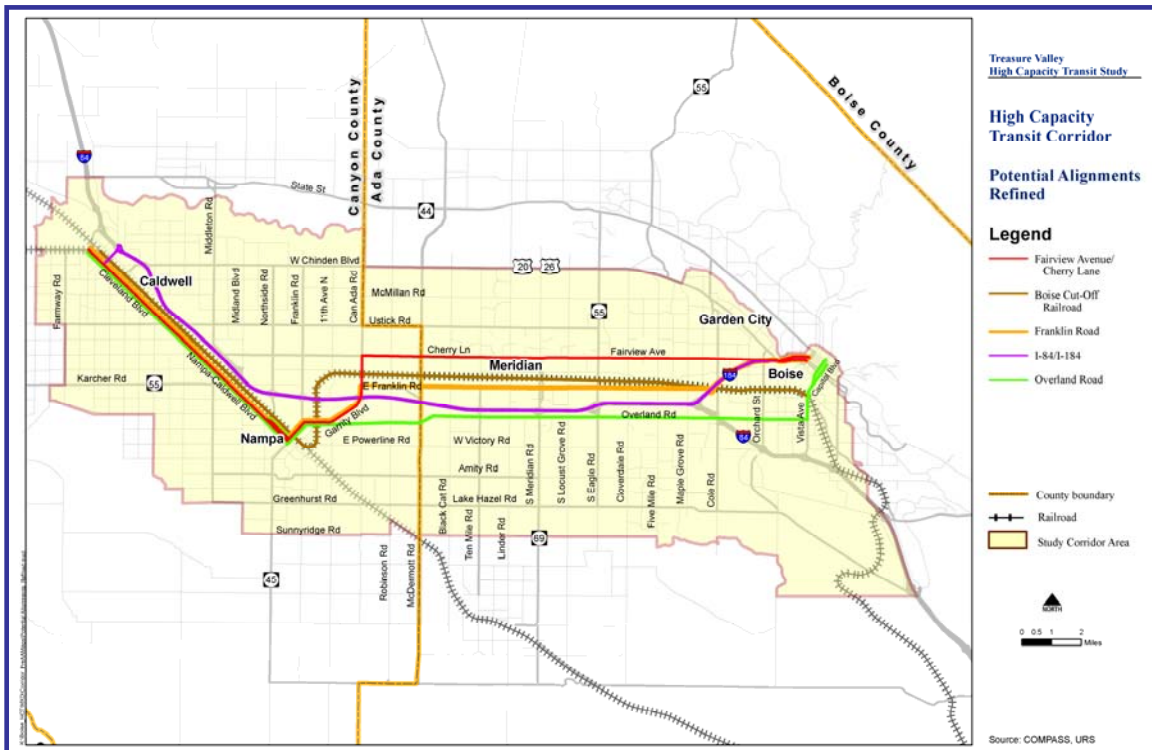


Figure ES-1 – Potential HCT Alignments

Common to the alignment options was a spine of service along Nampa-Caldwell Boulevard, the main line track or I-84. This phase concentrated on evaluating the alignment options running between Nampa and downtown Boise.

A Study Team comprising COMPASS staff and Regional Technical Advisory Committee (RTAC) representatives from corridor jurisdictions and agencies and consultants has worked on the project since March 2009. This team reviewed the technical findings and recommended the following HCT alternatives be considered:

- Fairview/Cherry
 - Bus Rapid Transit - Exclusive Lane
 - Bus Rapid Transit - Mixed Traffic
 - Light Rail
- Boise Cutoff Railroad
 - Commuter Rail
 - Bus Rapid Transit - Exclusive Lane
 - Light Rail
- Franklin
 - Bus Rapid Transit - Exclusive Lane
 - Bus Rapid Transit - Mixed Traffic
 - Light Rail
- I-84
 - Bus Rapid Transit - Express Bus in Mixed Traffic
 - Bus Rapid Transit – Exclusive Lane
- Overland
 - Bus Rapid Transit - Exclusive Lane
 - Bus Rapid Transit - Mixed Traffic
 - Light Rail

High Capacity Transit Evaluation

The fourteen HCT alternatives were evaluated using a general, planning-level of analysis. The evaluation focused on how well the alternatives addressed five major goals:

- Goal 1 – Improve Transit Connectivity
- Goal 2 – Improve Transit Mobility
- Goal 3 – Manage Travel Demand
- Goal 4 – Support Transportation and Land Use Plans
- Goal 5 – Financial Feasibility

Some of the key points from the technical evaluation included the following:

- Alternatives using the Boise Cutoff (commuter rail, light rail and BRT-exclusive) served the major centers, had better travel times and higher ridership potential than other alignments.

- HCT alternatives on Franklin (light rail, BRT-exclusive and BRT-mixed traffic) generally performed better than the other arterial alignments due to better connections to major centers, fewer traffic impacts and less right-of-way constraints.
- HCT alternatives using I-84 can achieve good travel times and attract strong ridership, however freeway alignments would have poor walk and bicycle access, provide limited transit oriented development (TOD) opportunities and do not support adopted land use plans.
- Alternatives that provide an exclusive guideway (light rail, commuter rail, BRT-exclusive) are generally more expensive but they provide a much higher degree of reliability than alternatives that operate in mixed traffic.

Recommendations/Next Steps

Regional leaders have recognized that the opportunity for a federal partnership aimed at improving transit service in the Treasure Valley should be pursued. The region's ability to support adopted plans by improving the connection between land use and transit, reducing transit travel times and providing reliable service would be enhanced by continuing through the federal alternatives analysis process. The next step in the New Starts process is to prepare conceptual designs and a detailed technical assessment of the most promising HCT alternatives.

The project consulting team (URS Corporation and Kittleson Associates) has extensive experience working on local transit and transportation projects and they have worked on FTA New Starts projects throughout the country. With this background and expertise, the consultants collaborated with subgroup of the Regional Technical Advisory Committee (RTAC) on the technical evaluation of the HCT alternatives. With input from the RTAC subgroup, the consultant team recommends the following HCT alternatives be considered for the detailed analysis in the next phase of the alternatives analysis.

- ***Boise Cutoff Light Rail (Recommended by Study team)***
- ***Boise Cutoff BRT- Exclusive (Recommended by Study team)***
- ***Franklin BRT-Exclusive (Recommended by Study team)***
- ***Fairview BRT-Exclusive (Recommended by Study team)***
- ***Boise Cutoff Commuter Rail (Potential Inclusion)***
- ***Franklin Light Rail (Potential Potential Inclusion)***

The HCT alternatives recommended for further analysis have indicated the potential to support local and regional plans for accommodating growth in the valley by providing effective alternatives to the single-occupant vehicle. While the initial analysis found these to be the most promising alternatives, a number of issues remain that will merit further assessment, including:

- Further exploration of exclusive guideway connections from the Boise Cutoff and Franklin Road to the downtown Boise Multimodal Center.
- Further exploration of routing feasibility for all modes between the cities of Nampa and Caldwell.
- Refinement of shuttle service options for providing a connection between commuter rail at the Boise Depot and the downtown Boise Multimodal Center.
- Detailed traffic analysis to understand the impacts associated with exclusive HCT operations in Franklin Road and Fairview Avenue.
- Examine the potential for phased implementation of HCT improvements.

Numerous other technical issues will be addressed through refined conceptual designs and detailed technical evaluation. These issues would include:

- More detailed traffic and operational analyses.
- Expanded impact analyses. (Noise, land use, other environmental)
- Refined passenger estimates.
- Refined cost estimates.

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