

## 6. CONCLUSIONS

As noted in Section 5 of the report, Alternatives 1(a) and 3(a) were initially advanced for further study. Following the subsequent introduction of Build Alternatives 6(a) and 6(b), it was determined that components of 1(a), such as downtown turning radii improvements, could be folded into 6(a). Consequently, Alternative 1(a) is no longer recommended for further study as a stand alone option. Tables 6-1 and 6-2 summarize the strengths and weaknesses associated with the four recommended alternatives (including No-Build) and the five alternatives not recommended respectively by the oversight committees.

### Purpose and Need Revisited

The three build alternatives recommended for further study address three of the four Needs statements listed in Section 1 of the report. Alternatives that addressed the fourth need, grade separation of the railroad crossing, are not recommended for further study for this project because they are too expensive and have unacceptable impacts. Nonetheless, implementation of a grade separated railroad crossing should continue to be a top priority for the Roseburg TSP and appropriate locations should be actively explored that have fewer constraints than those posed along the Highway 138 corridor.

### NEPA Environmental Review

As stated in Section 1, the *Highway 138 Corridor Solutions Study* was structured to move smoothly into the project development process outlined in the NEPA. Purpose and Need statements and Goals and Objectives were established for the project, baseline environmental and land use data were collected, and initial screening of concepts were performed followed by more detailed evaluations of alternatives and final recommendations – concluding in the case of Highway 138 with a series of recommended alternatives to be carried into the NEPA process. The project will need an EIS if the impacts of the project are considered significant. If FHWA cannot determine whether or not the impacts are significant, an Environmental Assessment is completed to determine if the impacts are significant.

Integrating planning work with the NEPA process will:

- Ensure that planning reflects environmental values.
- Eliminate the need to revisit all alternatives rejected by committees during the NEPA process.
- Allow for cooperative consultation among agencies before the NEPA document is prepared.
- Identifies key environmental issues early in the planning process.

Public involvement played a pivotal role throughout the study process. Three committees, assembled to provide varying levels of input and decision-making each met seven times during the course of the study from December 2006 to February 2008. In addition, four public open houses occurred and the project team made one presentation before members of the CETAS committee plus two presentations before a joint City Council/Planning Commission meeting.

The Highway 138 Corridor Solutions Study identified several current and future transportation problems within the study area, and developed and initially refined a range of conceptual solutions. Based on traffic, land use, socioeconomic and population data analysis; this study also determined that a limited project consisting of minor improvements on the existing corridor is unlikely to provide a solution that meets city and state traffic standards in the 20-year planning horizon.

In order to be eligible for funding through the FHWA, any proposed project in the study area will need to comply with requirements of NEPA and FHWA regulations (40 CFR 1500 and 23 CFR 771). This study concludes that suitable solutions to the problems identified in the corridor will likely require the completion of an Environmental Assessment (Class 3 project under NEPA) to be eligible for funding through FHWA.

The Environmental Assessment process will build on the information gathered in this study with a more detailed analysis of the natural, social, and engineering issues and opportunities within the study area. Based on the information gathered and analyzed in this study and during the EA process, FHWA will select a preferred alternative or make a determination that significant impacts would occur and preparation of an Environmental Impact Statement is required (23 CFR 771).

The NEPA process is expected to begin in fall 2008, and will consider the conceptual alternatives determined to be potentially viable that were developed during this study, in addition to other alternatives developed or submitted during the EA project. Additional public input and involvement opportunities will occur throughout the duration of the EA project.

Table 6-1. Strengths and Weaknesses of Recommended Alternatives

Alternative	Strengths	Weaknesses	Comments
<b>No-Build</b>	<ul style="list-style-type: none"> <li>No capital investment necessary</li> <li>No right-of-way property acquisition necessary</li> </ul>	<ul style="list-style-type: none"> <li>Nine of sixteen study area intersections would fail to meet applicable mobility standards</li> <li>Queuing along primary arterials, including Diamond Lake Blvd., Stephens St., Oak Ave., and Winchester St. would cause delay along the Highway 138 route</li> <li>Potential worsening safety problems associated with aggressive driving behaviors (red light running, queue spillback into intersections, and unexpected lane changes)</li> </ul>	The National Environmental Policy Act (NEPA), Oregon Department of Transportation (ODOT), and Federal Highway Administration (FHWA) guidelines require that a no-build option be evaluated.
<b>3(a) Harvard-Diamond Lake Bridge Connection (RR At-Grade)</b>	<ul style="list-style-type: none"> <li>Project purpose and most of the project needs addressed</li> <li>Direct connection between Harvard Ave. and Diamond Lake Blvd.</li> <li>Highway 138 through traffic routed out of downtown</li> <li>Enhanced opportunity for economic development along the Diamond Lake Blvd. corridor</li> <li>Potential for access to new recreational areas (e.g. Elk Island)</li> <li>Enhanced regional connectivity</li> <li>Bicycle and pedestrian facilities included on new bridge</li> </ul>	<ul style="list-style-type: none"> <li>No grade-separated rail crossing</li> <li>Costly (aesthetic design considerations would likely inflate the costs further)</li> <li>Potential visual and noise impact to the Laurelwood neighborhood</li> <li>Environmental impacts associated with a new bridge crossing the South Umpqua River and in the vicinity of the Deer Creek confluence with the South Umpqua River.</li> <li>High cost on a regional highway (ODOT prioritization) likely to make funding more difficult without contribution from local community</li> </ul>	The option was viewed as achieving the purpose and addressing most of the deficiencies, goals and objectives discussed in Section 1.
<b>6(a) Diamond Lake – Odell Couplet</b>	<ul style="list-style-type: none"> <li>Project purpose and most of the project needs addressed</li> <li>Less costly than most other alternative</li> <li>Relatively easy to implement</li> <li>Minimal physical impact</li> <li>Would bring intersection operations close to ODOT standards</li> <li>Enhanced opportunity for economic development along the Diamond Lake Blvd. and possibly Odell Ave. corridor</li> <li>Improved bicycle and pedestrian facilities in several corridors</li> </ul>	<ul style="list-style-type: none"> <li>Would not resolve direct connection (Diamond Lake Blvd. to Harvard Ave.) that may be needed to support economic growth in the Diamond Lake corridor</li> <li>Would shift traffic from existing arterials to other roadways that currently carry lower volumes</li> <li>Downtown accessibility via Jackson St would be more limited</li> <li>Would not adequately address downtown circulation issues</li> <li>Would not provide a grade-separated rail crossing</li> </ul>	Viewed favorably by ability to solve existing problems with Diamond Lake Blvd. intersections at Stephens St. and Winchester St., to improve traffic operations without new bridge or widening of existing bridges, and to incorporate multi-modal facilities into the improvements. Enables direct river crossing at a later date if deemed necessary.
<b>6(b) Diamond Lake – Odell Couplet w/ Direct Connection</b>	<ul style="list-style-type: none"> <li>Project purpose and most of the project needs addressed</li> <li>Direct connection between Harvard Ave. and Diamond Lake Blvd.</li> <li>Highway 138 through traffic routed out of downtown</li> <li>Potential for access to new recreational areas (e.g. Elk Island)</li> <li>Enhanced regional connectivity</li> <li>Would bring intersection operations close to ODOT standards</li> <li>Enhanced opportunity for economic development along the Diamond Lake Blvd. and possibly Odell Ave. corridor</li> <li>Improved bicycle and pedestrian facilities in several corridors</li> </ul>	<ul style="list-style-type: none"> <li>No grade-separated rail crossing</li> <li>Costly (aesthetic design considerations would likely inflate the costs further)</li> <li>Potential visual and noise impact to the Laurelwood neighborhood</li> <li>Environmental impacts associated with a new bridge crossing the South Umpqua River and in the vicinity of the Deer Creek confluence with the South Umpqua River.</li> <li>High cost on a regional highway (ODOT prioritization) likely to make funding more difficult without contribution from local community</li> <li>Would shift traffic from existing arterials to other roadways that currently carry lower volumes</li> <li>Downtown accessibility via Jackson St would be more limited</li> </ul>	Forwarded for further consideration, acknowledging that Alternative 6(a) does not preclude a future direct Harvard Ave. to Diamond Lake Blvd. bridge connection if deemed necessary.

**Table 6-2. Strengths and Weaknesses of Alternatives Not Recommended**

Alternative		Strengths	Weaknesses	Comments
1(a)	<b>Existing Alignment Improvements</b>	<ul style="list-style-type: none"> <li>• Least costly alternative</li> <li>• Earliest implementation timeline</li> <li>• Minimal physical impact</li> <li>• Would bring intersection design close to ODOT standards</li> </ul>	<ul style="list-style-type: none"> <li>• Would not resolve direct connection (Diamond Lake Blvd. to Harvard Ave.) that may be needed to support economic growth in the Diamond Lake corridor</li> <li>• Would not adequately address downtown circulation issues</li> <li>• Would not provide a grade-separated rail crossing</li> <li>• Potential impact associated with the new public safety building due to roadway widening along Stephens St.</li> <li>• Does not meet ODOT mobility standards</li> </ul>	Originally recommended for further study based on its ability to provide roadway improvements at relatively low cost with the least physical impact, component improvements of the alternative will instead be folded into Alternative 6(a).
2(a)	<b>Harvard-Washington-Stephens-Diamond Lake Alignment</b>	<ul style="list-style-type: none"> <li>• Increased capacity on Washington Ave. Bridge and into downtown</li> <li>• Would allow enhanced downtown access to the riverfront south of Washington Ave..</li> </ul>	<ul style="list-style-type: none"> <li>• Too convoluted, confusing and disruptive to downtown (business owner resistance)</li> <li>• Would not move congestion out of downtown</li> <li>• Would not address problems at the Stephens/Diamond Lake intersection</li> <li>• Would create huge intersections</li> <li>• No grade-separated rail crossing</li> <li>• Would not meet long-term goals</li> <li>• Interruption of north-south Stephens and Pine St. movements</li> <li>• Potential queuing and safety issues</li> </ul>	Alternative 2(a) is considered too costly with minimal benefit; therefore, it is not recommended for further study.
2(c)	<b>Harvard-Washington-Rose-Diamond Lake Alignment</b>	<ul style="list-style-type: none"> <li>• Increased capacity on Washington Ave. Bridge and into downtown</li> <li>• Would allow enhanced downtown access to the riverfront south of Washington Ave..</li> </ul>	<ul style="list-style-type: none"> <li>• Too convoluted and overly disruptive to downtown</li> <li>• Would alter the travel patterns downtown</li> <li>• No grade-separated rail crossing</li> <li>• Potential impact to the proposed public safety building site</li> <li>• Downtown economic growth hindered by limiting redevelopment opportunities such as the former Safeway site</li> </ul>	Due to potential impacts to traffic flow and lost economic development opportunities for redevelopment within the downtown area, Alternative 2(c) is not recommended for further study.
3(d)	<b>Harvard-Diamond Lake Bridge Connection (RR Above Grade)</b>	<ul style="list-style-type: none"> <li>• Project purpose and most of the project needs addressed</li> <li>• Direct access between Harvard Ave. and Diamond Lake Blvd.</li> <li>• Grade-separated rail crossing</li> <li>• Highway 138 through traffic routed out of downtown</li> <li>• Enhanced opportunity for economic development along the Diamond Lake Blvd.</li> <li>• Potential for access to new recreational areas (e.g. Elk Island)</li> <li>• Enhanced regional connectivity</li> <li>• Bicycle and pedestrian facilities included on new bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Most expensive alternative (aesthetic design considerations would likely inflate the costs further)</li> <li>• Most impacts (physical, visual, noise, historic) of any alternative</li> <li>• Potential visual and noise impact to the Laurelwood neighborhood</li> <li>• Environmental impacts associated with a new bridge crossing the S. Umpqua River and in the vicinity of Deer Creek confluence with the S. Umpqua River.</li> <li>• Railroad viaduct would convey the appearance of blocked riverfront access</li> <li>• Extremely high cost on a regional highway would make funding infeasible given priorities throughout ODOT</li> </ul>	Alternative 3(d) would have cost and impacts to the downtown historic district, impose a physical barrier on either side of the railroad viaduct, and alter the character of the city; therefore, it is not recommended for further study.
4(a)	<b>Northern Alignment Flyover (RR Below Grade)</b>	<ul style="list-style-type: none"> <li>• Project purpose and most of the project needs addressed</li> <li>• Direct access between Harvard Ave. and Diamond Lake Blvd.</li> <li>• Some Highway 138 through traffic rerouted out of downtown</li> <li>• Grade-separated railroad crossing</li> <li>• Possesses elements that meet original goals</li> <li>• Enhanced opportunity for economic development along the Diamond Lake Blvd.</li> <li>• Potential for access to new recreational areas (e.g. Elk Island)</li> <li>• Enhanced regional connectivity</li> <li>• Bicycle and pedestrian facilities included on new bridge</li> </ul>	<ul style="list-style-type: none"> <li>• Minimal benefit for the disruption that the alternative would impose</li> <li>• Radical manipulation of traffic flows</li> <li>• Costly (aesthetic design considerations would likely inflate the costs further)</li> <li>• Construction of new bridge and widening of Oak Ave. Bridge required</li> <li>• Sizeable impacts to river</li> <li>• Potential visual and noise impact to the Laurelwood neighborhood</li> <li>• Environmental impacts associated with a new bridge crossing the S. Umpqua River and in the vicinity of Deer Creek confluence with the S. Umpqua River.</li> <li>• High cost on a regional highway (ODOT prioritization) likely to make funding less feasible without contribution from local community</li> </ul>	Alternative 4(a) is not recommended for further study. Although it achieves many of the goals and objectives of this study, the configuration would be too costly while providing minimal improvements to downtown traffic flow.



