

12th Street Bridge Widening

This summary report is provided to address a transportation impact alternative identified during the City of Bellingham's Environmental Impact Statement review process for the Fairhaven Highlands residential project. Its purpose is provide and assessment of the potential impacts created by replacing the existing 12th Street bridge and by improving adjacent roadway networks.

12th Street is a critical transportation link connecting the Chuckanut area to the business centers within the Fairhaven District, downtown Bellingham, and inversely to the extensive recreational opportunities along Chuckanut Drive. The uninterrupted movement of people, freight, and business over 12th Street is essential to the continued economic success of the south Bellingham area. A 12th Street Bridge Replacement Project would require the demolition of the existing 330-foot by 44-foot concrete structure, construction of a new 330-foot by 66-foot bridge, and by providing roadway improvements between the intersection of 12th Street/Donovan Avenue and 12th Street/State Route 11. The project would serve to mitigate transportation impacts anticipated by the Fairhaven Highlands development, to satisfy projected City-wide traffic demands, and to improve public safety. Each of these benefits would need to be balanced against proposed impacts to the project surroundings.

Increases in population quite often mandate necessary impacts to well-established and visually appealing areas of small communities. The reconstruction of the 12th Street bridge would have substantial effects on the surrounding amenities of the south Fairhaven District.

The project presents many unique environmental and design challenges due to its location above Padden Creek and its proximity to commercial sites and residential neighborhoods. The project is located near many critical areas supporting a broad range of plant and animal habitats, each being protected by the City of Bellingham's Critical Areas Ordinance.

Changes to the visual quality of an area tend to be immediate. A new structure would take away from the overall rural village character that the City of Bellingham has fought so adamantly to retain. A larger bridge would require much of the surrounding vegetation to be removed and replaced with less appealing asphalt and concrete. Limits of existing vegetation could diminish due to stresses caused by construction activities such as root disturbance, breakage, or change in moisture and sun exposure. The existing creek side vegetative habitat could also be fragmented by the sheer inability of vegetation to grow under bridge structures. Many of these impacts could be reduced by careful construction activities and by replanting to maintain the natural progression of vegetation growth.

Construction would most likely fill or severely impact existing wetlands and increases in the amount of impervious surfaces could indirectly change the diversity and density of local fish and insect populations within the adjacent creek. Reconstructing the existing

bridge to a much wider structure would have direct effects on the surrounding water quality. This would be primarily due to the larger impervious, pollution-generating surfaces contributing increased metal concentrations and sediment to Padden Creek. Enhanced water quality treatment facilities would help to offset any effects on water quality. However, this would come at a high cost since additional properties would be needed to site these facilities. Impacts to existing sensitive areas would need to comply with federal, state, and local permit regulations adding additional costs to the project through installation of mitigation measures to offset negative effects.

Indirect effects on sensitive wetland areas could include changes in hydrology, increased noise and light, or intrusion by invasive plant species. Fish resources could be indirectly affected as riparian buffers could be lost or the general water quality degraded by added pollution flowing into the creek. Effects on wildlife could include replacement of existing habitat by new impervious surfaces and, where habitat quality is reduced, by increased noise and visual disturbance. More sensitive wildlife may avoid these areas completely. Other effects could include increased mortality of animals trying to cross the widened roadway section. Open areas left under bridge structures could promote long-term soil erosion and transport of sediment-laden runoff to downstream habitats. Changes in slope stability could also increase susceptibility to seismic disturbances.

Indirect impacts to the social environment and economy could occur during the project's construction phase. Construction would impart temporary impacts by increasing traffic delays and noise impacts, and by blocking access to available community services and recreational locations.

Construction of the bridge would substantially increase the cost of periodic maintenance and monitoring. The 12th Street bridge is inspected by the Washington State Department of Transportation each year to validate the structure's integrity and long-term stability. The latest inspection report identifies a worn bridge deck with exposed aggregate and transverse hairline cracks in several areas. Evidence of past deck repair are visible, as are areas of exposed rebar in the deck overhangs. Each of these repairs is common to structures of this age, but in the case of this bridge do not yet mandate the replacement of the structure. The City of Bellingham Six-year Transportation Improvement Program (May 2007) does not include the replacement of the existing 12th Street bridge or improvements to the adjacent intersections. At the same time, the Washington State Department of Transportation does not have any projects funded for this same project area.

Based upon Transpo Group's "Fairhaven Highlands Transportation Impact Analysis", the existing bridge and intersections are functioning at a Level of Service (LOS) C. This operating level falls within the commonly accepted range of peak hour levels. The main delay-generating component appears to be the existing signal timing. Improving the existing intersections by retiming the existing signals may help to alleviate traffic backups during the peak hours. Local traffic would not experience a noticeable change to their wait times at existing intersections by replacement of the 12th Street bridge. Additional lane width would be provided by a wider bridge, but would really only benefit

southbound traffic merging right onto Hawthorne Street and northbound traffic turning east onto Old Fairhaven Parkway. Traffic volumes in the 12th Street area would increase due to the Fairhaven Highlands project. However, many of the minor streets at the subject intersections would realize little to no increase in volume due to their fully developed condition. Traffic patterns and flow distributions would not shift simply by replacing the existing bridge.

The extremely high price associated with this alternative may be best utilized to better accommodating future development in accordance with the City of Bellingham's Master Plan.

Prepared By:

John Tuttle, PE
Ronald T. Jepson & Associates