“Using Highway Economic Requirements System: Telling the Story”

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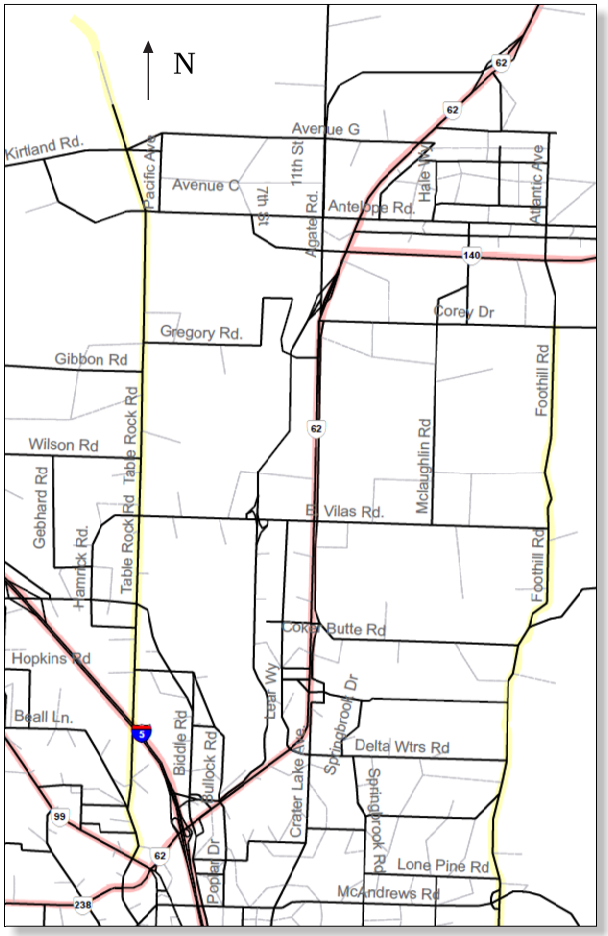
Oregon Department of Transportation

Project: Evaluate roadway system changes associated with the addition of a bypass alignment of OR 62, through Medford Oregon.

Parallel Routes were evaluated in an attempt to capture all the "potential" benefits of a proposed OR 62 Bypass, knowing that the bypass would not only pull traffic off the existing OR 62 alignment, but would pull traffic off these parallel routes too. For this stage of the analysis, the Build Scenario is with the Single Lane per direction option without a Vilas Interchange connection and the No-Build is without the bypass.

OR 62 Bypass
Medford, Oregon



Step #1: The bypass alignment was modeled using the RVMPOv2 travel demand model: two scenarios were evaluated, one with an interchange connection at Vilas Rd, and one without.

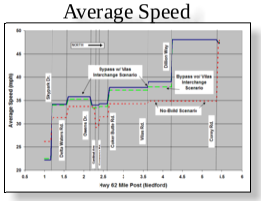
- The total traffic flow on the existing OR 62 is about halved with the addition of a high speed, access controlled bypass.
- The total combined traffic flow between the two alignments, the OR 62 Bypass and the existing OR 62, increases by about 1/3, suggesting the Bypass is attracting travel from other North-South routes.

Step #2: Transfer AADT from RVMPOv2 to HERS-ST: the existing OR 62 alignment was modeled to evaluate the differences in performance measures associated with the inclusion of the bypass scenarios.

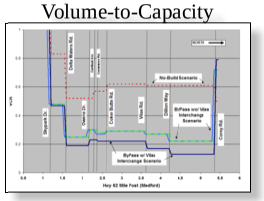
- Three scenarios were run in HERS-ST: No-Build, Build Bypass with Vilas Interchange, and Build Bypass without Vilas Interchange.
- Since we were only interested in evaluating changes in performance measures between scenarios, we assumed said condition existed on the ground at the beginning of the analysis period (i.e., opening day) for all three scenarios and ran all as Base Year Conditions.

Step #3: Evaluate performance measures.

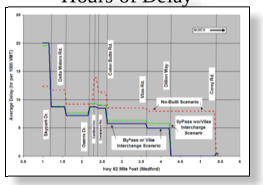
Average Speed



Volume-to-Capacity



Hours of Delay



Total User Costs

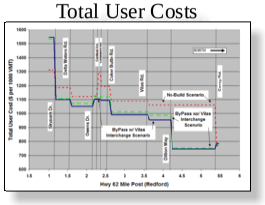
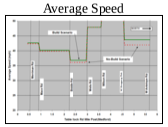
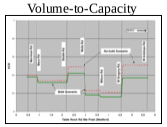


Table Rock Rd is a parallel route located to the west of the proposed bypass. The volume reduction between the Build and No-Build Scenarios varies between 12% at the south end to 37% at the north end. Though all four measures show appropriate improvements, the Total User Cost savings does not seem significant.

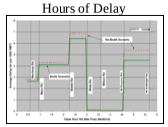
Average Speed



Volume-to-Capacity



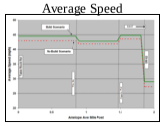
Hours of Delay



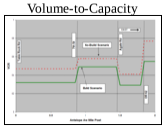
Total User Costs

Antelope Ave is a perpendicular route, running East-West between ***Table Rock Rd*** and the existing ***OR 62*** route. It serves as an extension of the north-south traffic from Central Point and Eagle Point that traverse Table Rock Ave. All measures show appropriate improvements, and yet the Total User Cost savings does not seem significant.

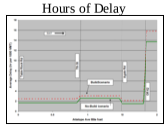
Average Speed



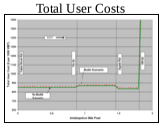
Volume-to-Capacity



Hours of Delay

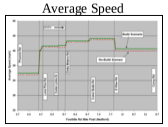


Total User Costs

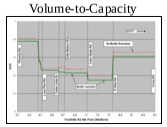


Foothills Rd is a parallel route located to the east of the existing ***OR 62*** alignment. The volume reduction between the Build and No-Build Scenarios varies between 10% at the south end to 16% at the north end. All measures show appropriate improvements, and yet the Total User Cost savings does not appear significant.

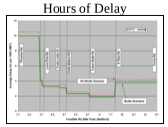
Average Speed



Volume-to-Capacity



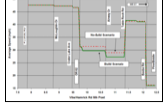
Hours of Delay



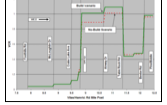
Total User Costs

Vilas Rd is a perpendicular route, running East-West between ***Table Rock Rd*** and the existing ***OR 62*** route. All measures show appropriate improvements, and yet the Total User Cost savings does not appear significant.

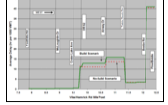
Average Speed



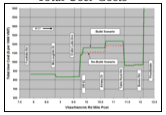
Volume-to-Capacity



Hours of Delay



Total User Costs



All performance measures show appropriate improvements on all parallel/perpendicular routes. The Total User Cost savings, though small, will still be a positive contribution to the Benefit-Cost Analysis.