
CHAPTER 5 • ALTERNATIVES SCREENING

5-0 Alternatives Screening

A number of alternatives were considered and evaluated as part of the US 35 Corridor Study in Montgomery County. Specifically, 3 and 4 lane alternatives for the main line were considered as well as a variety of design configurations at each interchange.

Each of the alternatives was considered with the following goals in mind:

- Elimination of lane weaving movements
- Move left entrances and exits to the right
- Maintain current Level of Service
- Address safety concerns
- Stay within existing rights-of-way to the extent possible

Each of these alternatives was evaluated against a set of criteria, consistent with the goals stated above. These included Cost, Safety, Levels of Service, Property Impacts, Environmental Impacts and Impacts to Environmental Justice communities. More detailed results of the evaluation are shown on Figure 5-1.

No Build: Under this scenario, no new highway capacity projects would be programmed. Future projects would be limited to only those projects that are already scheduled for construction. This includes pavement re-construction on US 35 between I-75 and Livingston Avenue as well as re-configuration of the Steve Whalen Blvd. interchange.

This alternative was the least costly at approximately \$75 million, but provided little or no relief from congestion and little or no safety improvement. The No Build alternative includes the recently completed Linden Avenue improvement project (MOT-Linden) as well as a locally-sponsored signal upgrade project at the Woodman Drive interchange (MOT-Woodman). This alternative also includes currently programmed improvements in the corridor such as the Steve Whalen Boulevard Interchange project (MOT-35-15.07) and rehabilitation/improvement of the eastern section of the study area (MOT-35-18.57).

Levels of Service (LOS) for most sections of the study area were projected as F in 2030 as part of this alternative. The downtown section was projected at E and the I-675 interchange section as D.

3-Lane Continuity: This alternative provides at least three continuous lanes on US 35 in each direction between I-75 and I-675, with overpass bridges re-constructed to accommodate four lanes in each direction on the main line. This alternative also includes improvements to US 35 interchanges in Downtown Dayton and at Wayne Avenue/Keowee Street, Smithville Road, Woodman Drive, Dayton-Xenia Road and I-675.

Cost of this alternative was estimated at approximately \$340 million. This cost included overpass bridges being widened to fit 4 lanes in each direction so that future expansion could be more easily accommodated. It was also estimated that approximately 7.5 acres would need to be acquired throughout the corridor as well as two (2) residential structures in the area of the Smithville Road interchange. Levels of Service in this alternative were projected as D in most sections and C in the downtown and I-675 areas.

Significant safety and congestion improvements should also be realized at proposed new interchanges in downtown Dayton as well as those at Wayne/Keowee, Smithville Road and at Woodman Drive.

4-Lane Continuity: This alternative provides at least four continuous lanes on US 35 in each direction between I-75 and I-675. This alternative also includes improvements to US 35 interchanges in Downtown Dayton and at Wayne Avenue/Keowee Street, Smithville Road, Woodman Drive, Dayton-Xenia Road and I-675.

Cost of this alternative was estimated at approximately \$350 million. This number is only \$10 million higher than that of the 3-lane alternative. All bridges and interchange modifications in this alternative are the same as those presented in that alternative. The only substantial difference is the cost of the fourth lane of pavement.

Approximately 8.4 acres would need to be acquired throughout the corridor as well as one business structure and two (2) residential structures in the area of the Smithville Road interchange. Levels of Service in this alternative were projected as C in all sections of the corridor with a volume-to-capacity ratio near .5, with the exception of the section between Ludlow and I-75. This section has a projected Level of Service of D with a volume-to-capacity ratio of 0.66.

Significant safety and congestion improvements should also be realized at downtown, Wayne/Keowee, Smithville and Woodman interchanges as potential upgrades these areas are included.