

5.3 Alternatives Comparison of Network MOEs

In the preceding sections, MOEs were summarized for the intersections under both the No-Build and Build Alternatives for the opening year (2025) and design year (2035) traffic conditions. This section will provide a comparative basis for the alternatives to illustrate the operational benefits of the Build Alternative through comparison of CORSIM network wide MOEs, shown in **Table 5.13**. Comparison of the No-Build and Build Alternatives presented in this IOAR indicate that the Build Alternative shows benefits in opening year (2025) and in design year (2035).

The results design year (2035) comparison between the No-Build and Build Alternative show consistent operational improvement in both the AM and PM peak hours. In the AM peak hour, VMT increased by 9 percent, total travel time dropped by 15 percent, average speed increased by 28 percent, total travel delay reduced by 21 percent, and latent demand (vehicles unable to enter the system during microsimulation due to poor operations) dropped by 28 percent. In the PM peak hour, VMT increased by 18 percent, total travel time dropped by 17 percent, average speed increased by 43 percent, total travel delay reduced by 25 percent, and latent demand dropped by 54 percent.

Table 5.13: Network-Wide CORSIM MOEs for Opening Year (2025) and Design Year (2035)

Network-Wide MOE	Analysis Time Period	Opening Year (2025)			Design Year (2035)		
		No-Build Alternative	Build Alternative	% Difference	No-Build Alternative	Build Alternative	% Difference
Vehicle Miles Traveled (veh-miles)	AM	16,162	17,161	6%	16,039	17,426	9%
	PM	17,830	20,546	15%	17,845	21,084	18%
Total Travel Time (Hours)	AM	2,167	1,875	-13%	2,488	2,112	-15%
	PM	2,478	1,828	-26%	2,750	2,279	-17%
Speed Average (mph)	AM	7.5	9.2	22%	6.4	8.3	28%
	PM	7.2	11.3	56%	6.5	9.3	43%
Total Travel Delay (hours)	AM	1,709	1,388	-19%	2,033	1,616	-21%
	PM	1,961	1,245	-37%	2,232	1,681	-25%
Latent Demand (veh)	AM	4,450	2,436	-45%	6,045	4,186	-28%
	PM	4,332	1,539	-64%	5,839	2,664	-54%