

4. In general terms, briefly discuss the construction and operational energy requirements and conservation potential of the various alternatives under consideration. Indicate whether the savings in operational energy are greater than the energy required to construct the facility.

Highway energy consumption manifests itself in the raw materials and fuels used to construct, operate, and maintain a highway facility. Construction energy is comprised of the raw materials and equipment necessary to build and maintain the highway. Fuel consumption is affected by the type of vehicle using the roadway, the travel speed, geometry, congestion, and condition.

Of the three stages proposed for the construction of the WIS 64 preferred alternative, the energy required for expansion to a four-lane facility (Stage 2) will likely be greater than the energy required for the passing lanes (Stage 1), grade separations (Stage 3), or the No Build Alternative. All of these types of improvements, however, would require less energy than the construction of a new roadway off-alignment. The operational energy required for Stage 3 of the Preferred Alternative will be less than that required for Stage 2, Stage 1, and the No Build Alternative because of reduced congestion and increased safety. The grade separations improve upon the operational energy of the highway because traffic no longer needs to slow at the at-grade intersections. This description is illustrated in Figure 4.01-1.

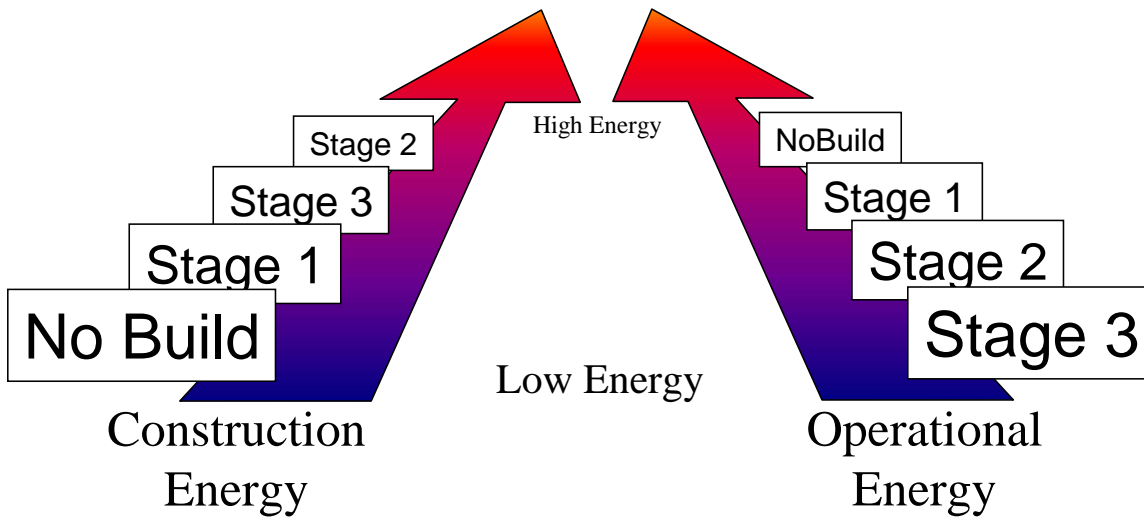


Figure 4.01-1 Construction and Operational Energy for WIS 64 Stages of Preferred Alternative

Over the design life of the facility, savings in operational energy are anticipated to offset the energy required to construct the preferred alternatives.

5. Describe existing land use (Attach land use maps if available).

a. Land use in immediate area.

Throughout the preferred alternative corridor, WIS 64 and US 63 will generally remain on alignment. At the western edge of the corridor, WIS 64 is within the City of New Richmond as shown in Figure 5.01-1. New Richmond has been experiencing growth and development and has recently annexed land at the eastern edge of the city. Portions of this newly annexed land border the WIS 64 corridor on its south side in Sections 32 and 33 of Stanton Township. Where the corridor does not travel through or along land within the City of New Richmond's boundaries, it is traveling through the Towns of Stanton, Cylon, and Forest. Stanton and Cylon have adopted the county zoning ordinance, whereas the Town of Forest does not have general zoning. The zoning map for the Towns of Stanton and Cylon is shown in Figure 5.01-2.

At the western end of the corridor, the New Richmond zoning map illustrates that the City intends for the majority of land that is within city limits on the north side of WIS 64 to be developed as highway commercial uses. While some of this land is already in highway commercial use, much of it is currently in agricultural use. Land recently annexed by New Richmond in Sections 32 and 33 of Stanton Township (not shown on the following figures) is planned for mixed residential and commercial use. Just outside of New Richmond, WIS 64 is bordered on the north by a U.S. Fish and Wildlife Service Waterfowl Protection Area (WPA). To the east, and outside of the city limits, the majority of land adjacent to the WIS 64 corridor is in agricultural use and zoned Agriculture, Agriculture-Residential, or Agriculture II. There is also a cluster of commercial land uses around the WIS 64/WIS 46/US 63 south intersection and in a few other locations along the corridor.

b. Land use in area surrounding project area.

At the western end of the corridor, land use in the City of New Richmond is typical of that in many Wisconsin cities. There is a mix of single-family residences, multifamily residences, businesses, industry, institutions, and parks. On the northeast side of the city, near the beginning of the WIS 64 corridor, land use is predominantly airport, highway commercial, and light industry as shown in Figure 5.01-1. East of New Richmond, land use in the greater WIS 64 corridor area is predominantly agricultural. The Town of Stanton has a majority of Agriculture-zoned parcels, while the Town of Cylon has many more sections of Agriculture-Residential zoning as well as a large conservancy area as shown in Figure 5.01-2. Along with New Richmond, there are other nearby municipalities including the villages of Deer Park and Star Prairie, both a few miles north of the WIS 64 corridor.