

1) Fully Grade-Separated Transit Alternative

Advantages of a fully grade-separated transit alternative are:

- It would be completely buffered from the existing surface road network and its congestion, allowing transit vehicles to move quickly on a dedicated right-of-way, free from interference with any other transportation system; and
- It would not create a significant impediment to the operation of the surface road system.

A fully grade-separated transit system would offer the maximum performance possible with transit, and therefore provide transit patrons with the highest level of service.

Grade separation of a transit system in the primary transportation corridor could be achieved with an elevated guideway, an underground subway, or some combination of the two. Fully grade-separated transit systems for Honolulu have been seriously considered twice in the past three decades. In both instances, extensive analysis produced a strong and credible case for grade-separated transit investments. Nonetheless, the proposals ultimately were not built due to lack of sufficient support by the public and/or elected officials.

The concerns that led to the rejection of the most recently proposed elevated rapid transit system were primarily two: (1) its high cost and (2) its physical and visual impacts.

Previous studies have shown that construction of a subway through Honolulu's urban core would be prohibitively expensive. The extreme disruption of existing underground utilities and constant dewatering made necessary by a high water table and poor soils would drive construction costs to unacceptable levels (\$3.6 billion in 2002 dollars for a 12.8-mile system along the presently proposed In-Town BRT alignment). While an elevated guideway would be less costly than a subway, such a system would still be substantially more expensive and visually more obtrusive than an at-grade system. The elevated system proposed most recently was abandoned when elected policymakers would not approve a local funding mechanism that required an increase in taxes. A 12.8-mile elevated rapid transit system along the presently proposed In-Town BRT alignment would cost on the order of \$1.95 billion in 2002 dollars. By comparison, the In-Town BRT costs are estimated at approximately \$240 million in 2002 dollars, assuming hybrid diesel-electric technology and approximately \$325 million assuming embedded plate technology.

Public input received in hundreds of Vision Team and Oahu Trans 2K meetings and workshops attended by thousands of Oahu residents revealed widespread agreement that while an elevated transit system might serve the goals of improving in-town mobility and strengthening connections between communities, such a system would not foster livable communities. The predominant sentiment among thousands of participants was that a grade-separated transit system would be unacceptably: (1) intrusive on the visual environment; (2) divisive of communities; and (3) too expensive. These shortcomings were judged by public participants to outweigh the recognized benefits of a grade-separated system, i.e., high speed and capacity, increased reliability and reduced negative impact on the surface road system.

Honolulu's failure to complete the proposed elevated transit system a decade ago, and extensive public input into the current process, confirmed that a grade-separated system could not, because of its high costs, visual obtrusiveness, and community divisiveness, gain the level of local public and/or official acceptance necessary to sustain such an investment. All of the transit alternatives considered in the FEIS are therefore based on at-grade operation.

2) Highway Alternative to Transit Considered and Rejected

This section addresses the use of a highway solution to address the project's purposes and needs. The intent of the highway alternative is to provide people-carrying capacity comparable to the Regional and In-Town components of the transit system, and link the same origins and destinations.