



PROJECTED COSTS

The projected costs are estimated at about \$77.5 million, consisting of \$47.1 million in City projects and \$30.4 million in State projects (Table 6). The overall costs represent less than one-percent of the total costs allocated to O’ahu surface transportation projects over the next 20 years.

The projected costs are preliminary, order-of-magnitude estimates prepared for budget purposes only. They include engineering and design, construction, inspection, and “soft” costs (survey, environmental documentation). Soft costs may add 20-40% to direct construction costs. Costs do not include right-of-way acquisition, which may be required in some areas. The intent of the *Honolulu Bicycle Master Plan* is to use the public rights-of-way to the extent practicable, in part to minimize right-of-way acquisition costs. Appendix A contains a breakout of the projected costs.

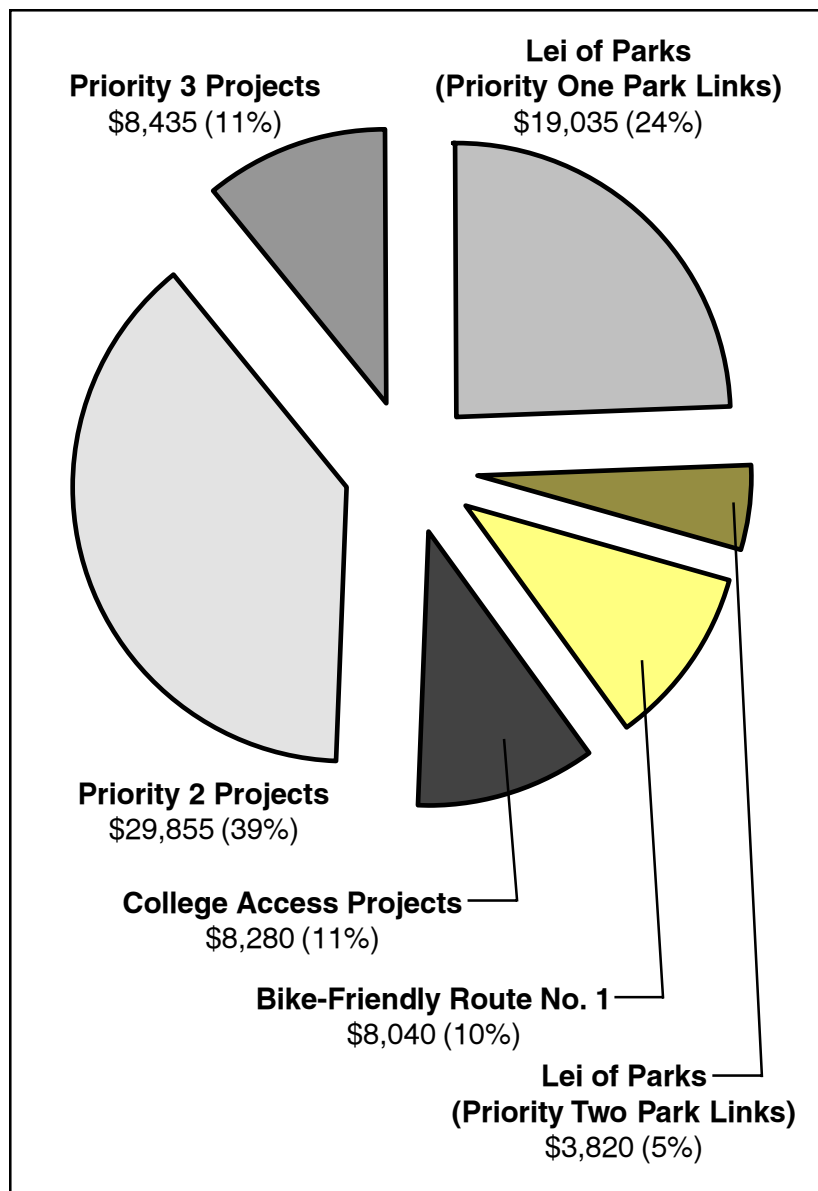
Table 6: Projected Construction Costs (\$mil)

| Priority Group | City Portion | State Portion | Total Cost |
|--|---------------|---------------|---------------|
| Priority One Projects | | | |
| Lei of Parks (Priority One Park Links) | \$18.3 | \$0.8 | \$19.1 |
| Bike-Friendly Route No. 1 | 5.6 | 2.4 | 8.0 |
| College Access | 5.1 | 3.2 | 8.3 |
| Priority Two Projects | | | |
| Lei of Parks (Priority Two Park Links) | 3.7 | 0.1 | 3.8 |
| Other Projects | 7.3 | 22.6 | 29.9 |
| Priority Three Projects | 7.1 | 1.3 | 8.4 |
| Total Costs | \$47.1 | \$30.4 | \$77.5 |

Priority One projects are estimated at \$35.4 million, Priority Two projects at \$33.7 million, and Priority Three projects at \$8.4 million. One of the largest cost items involves bike lanes along Kamehameha Highway and Ala Moana Boulevard (both State facilities), programmed as part of the Priority Two projects.

The total cost for the proposed improvements needs to be viewed with great care. The \$77.5 million in projected infrastructure improvements is a high estimate. It assumes 1999 dollars, that projects are built on an individual, stand-alone basis, and that all project improvements are classified as “bicycling projects.” In reality, however, the projects will be constructed over an extended period (10-20 years). A number of the project recommendations are for State facilities (40% of the total or \$30.4 million) that will need to be prioritized and programmed under the State highways funding process. These projects include facilities on Nimitz and Kamehameha Highways, Ala Moana Blvd., Red Hill, within

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Allocation of Costs (1000's)

the Kaka'ako Makai Area, as well as university and community college campus access projects.

A number of projects, such as lane striping and intersection improvements, can be programmed as part of regular roadway repair, maintenance and improvement projects. Some projects, such as the Ala Wai Promenade widening and the Young Street Park Boulevard that have broad community benefits, could be justified for funding with community redevelopment funds. The remaining projects are eligible for 80% federal matching funds from the recently reauthorized federal transportation-spending program now called the Transportation Equity Act for the 21st century or "TEA21."

Strategies to bundle projects together, such as a series of interconnecting bikeways or perhaps entire mega-projects such as the Lei of Parks, will reduce projected costs by achieving economies of scale in the design / construction process. The "soft" costs discussed above are particularly responsive to economies of scale.

Creativity in identifying alternative funding sources and getting projects built will be required to realize the 10-20 year vision outlined in the *Honolulu Bicycle Master Plan*. The City's Bike Fund brings in about \$400,000 per year from bicycle registrations. About \$200,000 of this is used to fund the BikeEd program and the City's Bicycle Coordinator position. The remaining \$200,000 is available for bicycle-related projects. Leveraging the current Bike Fund with the 80% federal matching funds available through TEA21 would generate only about \$1.0 million per year.

Portions of the revenues generated from the gasoline tax could be designated to support bicycle projects and other

human-powered modes of transportation, in addition to roadway improvements for motor vehicles. For example, one-penny of the gasoline tax would generate an estimated \$3 million per year in revenues. Leveraged with 80% federal matching funds, this would generate \$15 million for bikeway projects per year.

Other potential sources of local matching funds include existing City budgets involved with community redevelopment actions, park improvement projects, and public works projects. The Lei of Parks project, which connects our major parks together, is a prime candidate to coordinate with park redevelopment improvement plans. Additional revenues can be raised through the implementation of Community Facilities Districts, tax increment financing districts, and traditional improvement district mechanisms. Developer funding may be appropriate for some segments. Small projects could be adopted by a community group or non-profit organization and funded through private charitable grants.

