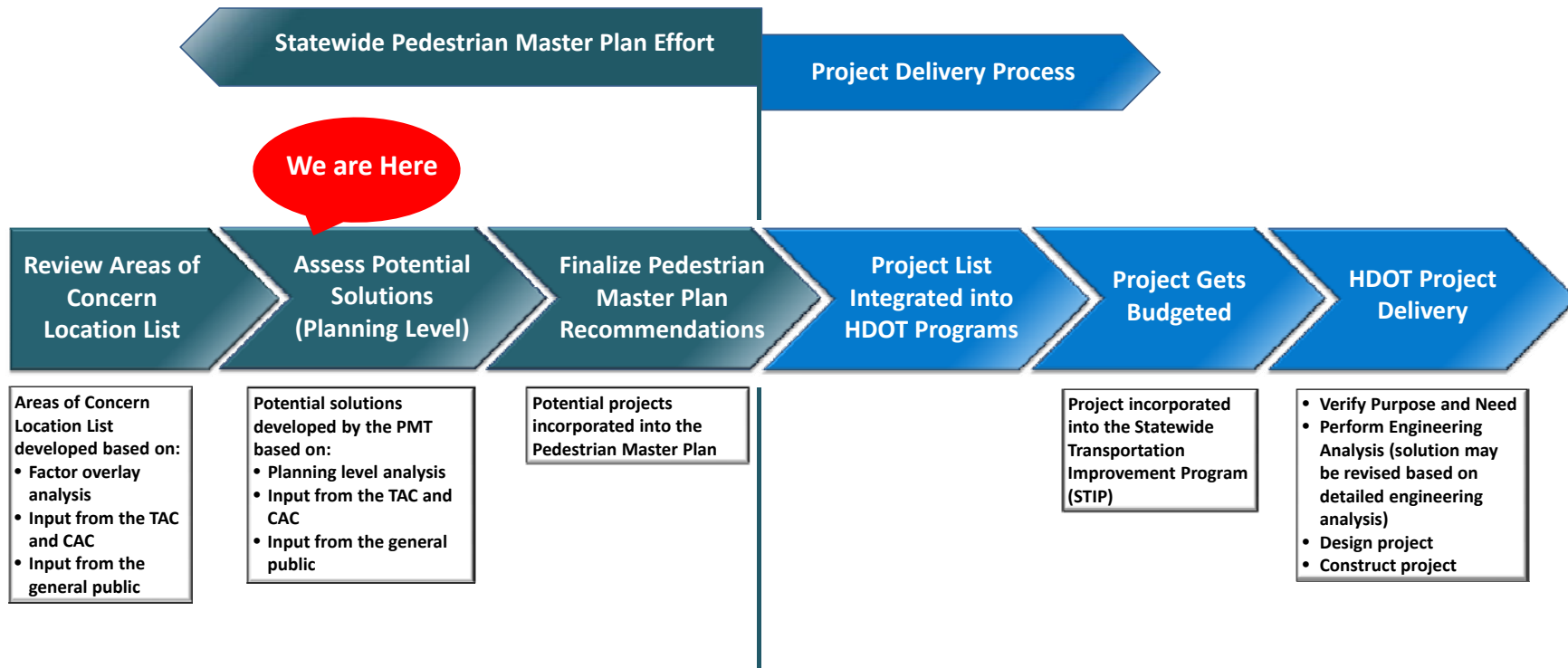
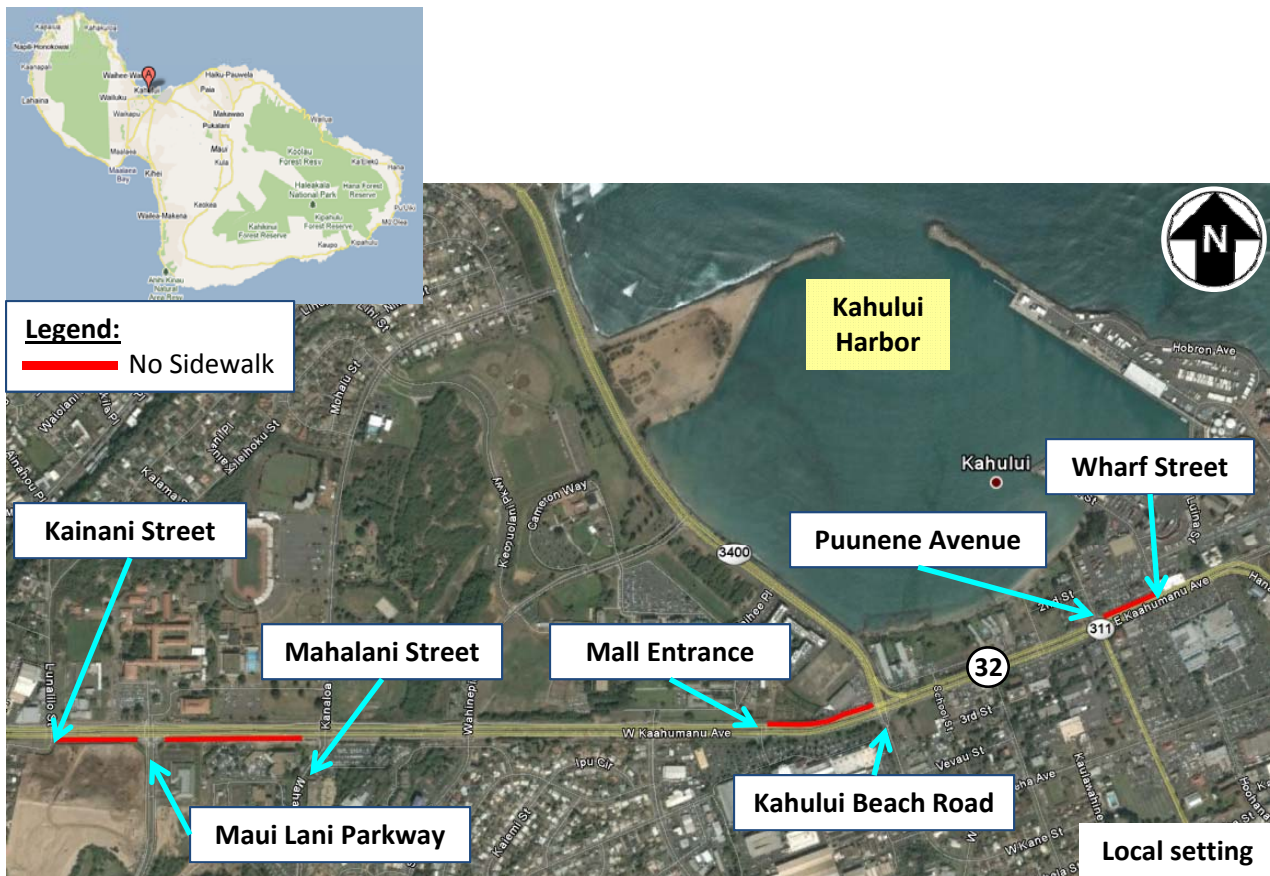


# Statewide Pedestrian Master Plan Areas of Concern Project Delivery Process



# Kaahumanu Avenue/Kahului Harbor Kahului, HI

**DRAFT**



## Description

Kaahumanu Avenue is the main roadway through Kahului, HI. The area surrounding Kahului Harbor constitutes the heart of the Kahului central area, with a multitude of business/commercial land uses, government facilities, schools, parks, residential and shopping centers. Therefore, there is a strong need to have pedestrian connectivity on both sides of the entire stretch of Kaahumanu Avenue.

Kahului Harbor, located on the Makai side of Kaahumanu Avenue generates industrial and freight related traffic along Kaahumanu Avenue. The Harbor also introduces pedestrians to the area from the cruise ship vessels. These pedestrians access Kaahumanu Avenue at Wharf Street. Within the vicinity shown, sidewalks exist along both sides of Kaahumanu Avenue, with the exception of the makai side of the roadway, between Puunene Avenue and Wharf Street; the makai side between Kaahumanu Shopping Center & Kahului Beach Road; the mauka side between Kainani Street & Maui Lani Parkway; and the mauka side between Maui Lani Parkway & Mahalani Street.

(Input from the General Public)

## Kaahumanu Avenue/Kahului Harbor

**DRAFT**

Kahului, HI

### Analysis

The area along Kaahumanu Avenue where the sidewalk is discontinuous creates a gap for pedestrian connectivity. In this area, people either walk along a private parking lot, in the bike lane, in the landscaping or cross to the other side of the road. The landscaped areas are not well lit and contain trees and highway signage.

### Potential Solution

The site would benefit from improving “way-finding” signage to clearly direct visitors to attractions and destinations (e.g. shopping malls) from the cruise ship docks in the safest manner possible. This is an opportunity to coordinate with the Harbor’s Division to ensure information signage is provided from the cruise ships towards the highway.

The existing sidewalk gaps identified in the Description can be eliminated by constructing new sidewalks. If the mature trees that exist in this area (see photo below) are to be preserved, the new section of sidewalk should be constructed in the existing roadway prism, or in an area obtained via an easement on the adjacent properties.



**No sidewalk exists along Kaahumanu Highway adjacent to the harbor. The landscaped buffer should either be improved for connectivity or blocked to prevent passage along this route to avoid unanticipated pedestrian movements.**

### Cost Estimate

*To be determined*

(Input from the General Public)

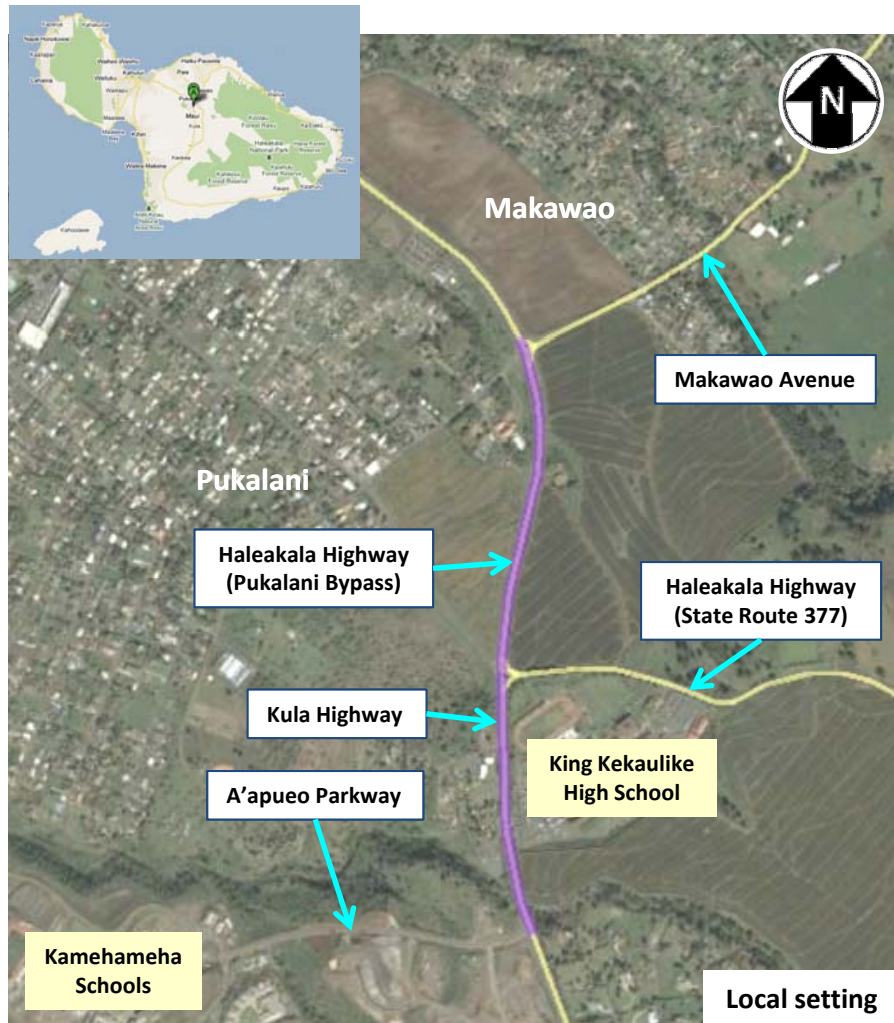
# Kula Highway

Makawao, HI

**DRAFT**

## Description

Kula Highway (Hwy 37) in Makawao and Pukalani, HI is the primary access road that links multiple schools in the area. Currently, there are no sidewalks along Kula Highway between A`apueo Parkway and Haleakala Highway and along Haleakala Highway between the high school and Makawao Avenue. However, there is a 10'-wide shoulder on both sides of Kula Highway between Makawao Avenue and the high school.



## Analysis

Students from the Makawao and Pukalani communities lack a dedicated path to walk/bike to school. It would be preferable for these young, inexperienced commuters to walk/bike on a facility separated from vehicular traffic.



Partially paved shoulder along Kula Highway

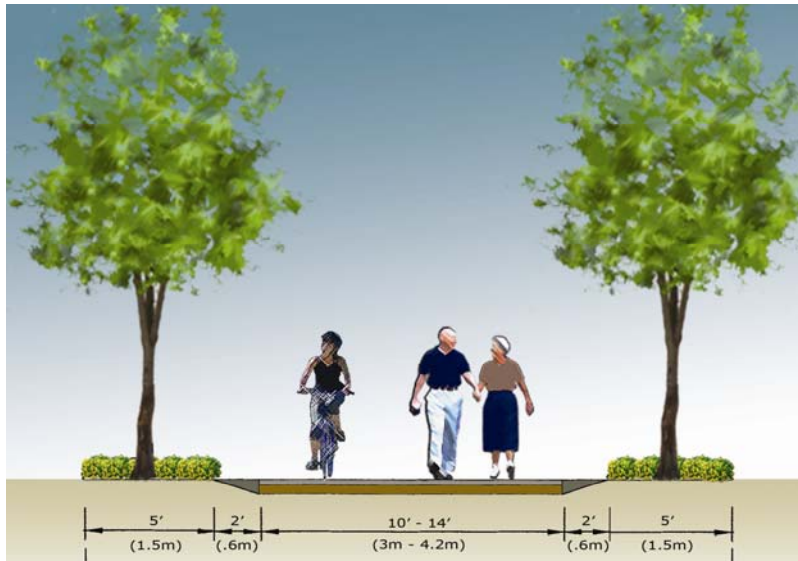
# Kula Highway

## Makawao, HI

**DRAFT**

### Potential Solution

The site would benefit from the construction of dedicated pedestrian facilities. A concrete sidewalk is recommended between the more urbanized stretch of corridor between A`apueo Parkway and King Kekaulike High School, where there are existing concrete sidewalks nearby and the future Kualono Subdivision is planned. A wide, shared use asphalt pathway is recommended between the high school and Makawao Avenue. This would provide the students with a safe access route from Makawao Avenue from their residence in Makawao/Pukulani to their school. Coordination with the County should occur to ensure that street connectivity is maintained at jurisdictional boundaries. In addition, the shared use path should be coordinated with the Bike Plan Hawaii (Maui Project #46) proposed shared-use path to the south between Kekaulike Avenue and Piilani Highway.



**Conceptual Sketch of a Shared Use Paved Pathway**



**Shared use path, parallel to Mokulele Highway in Kahului, is designed to serve many types of users.**

### Cost Estimate

*To be determined*

(Input from the CAC)

# W Main Street/Church Street and W Main Street/N High Street Wailuku, HI

**DRAFT**



## **Description**

Main Street (Hwy 32) in Wailuku, HI is an arterial that passes through an urbanized area in the city. Intersections are regularly spaced and include sidewalks, ADA ramps, and marked crosswalks. Church Street and High Street both intersect Main Street in an area where there is a mix of office and retail buildings (see photo above). Both intersections experience relatively high levels of pedestrian activity.

## **Analysis**

At both the Church Street and High Street intersections with Main Street, the design radii of several of the curb returns is very generous. This allows for vehicles to turn onto or off of Main Street at relatively high speeds, and reduces the amount of time that pedestrians and drivers have to react to the presence of one another. Several of the crosswalks are configured to meet at a single ADA ramp at the center of the curb return. This type of configuration can increase the length of the crosswalk, which adds crossing time and extends the time that pedestrians are exposed to traffic. In addition, there is a lot of turning movements at the Main and High Street intersection.

(Input from the TAC)

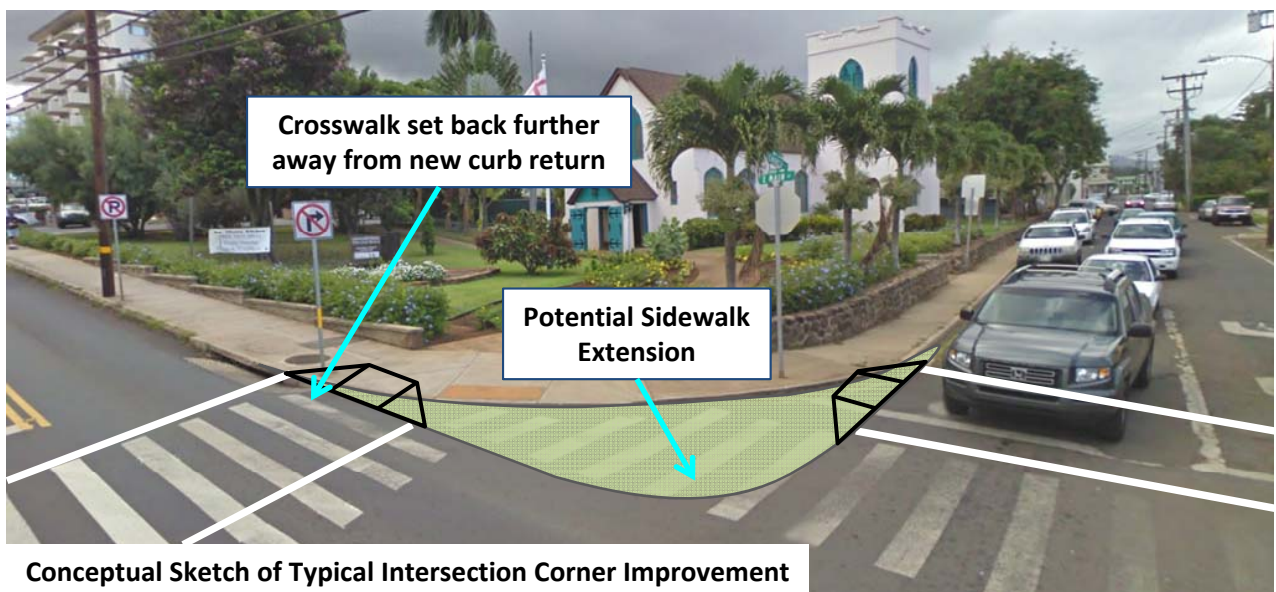
# W Main Street/Church Street and W Main Street/N High Street Wailuku, HI

**DRAFT**

## **Potential Solution**

Both the Church Street and High Street intersections with Main Street would benefit from reducing the radius of the curb returns, which would create an environment where vehicles could navigate the two intersections at lower speed. This change would result in decreased crosswalk lengths, that would result in a reduced pedestrian crossing time-reducing exposure of pedestrians to vehicular traffic. Additionally, where possible, the crosswalks should be relocated further away from the curb return, allowing for better visibility of pedestrians by drivers, as they complete their turning movement before encountering a crossing pedestrian. The sketch below shows a conceptual solution at one of the corners at the intersection of Main and Church Streets. A similar treatment could be used at the High Street intersection as well. Note that other constraints, such as drainage and other utilities and turning radii of large vehicles, such as emergency trucks and tour buses, would need to be further evaluated.

The Main and High Street intersection could be further enhanced by restriping the intersection to allow for protected left turn phases (and the elimination of the shared left-thru lanes). Another consideration is the restriction of right turns on red from northbound High Street to eastbound Main Street. The site would benefit from installing additional signage that can remind turning drivers of the presence of pedestrians during the left or right turning movements. Further analysis is required to verify whether or not the proposed intersection and signal modifications mentioned are warranted and potential impacts could be mitigated.



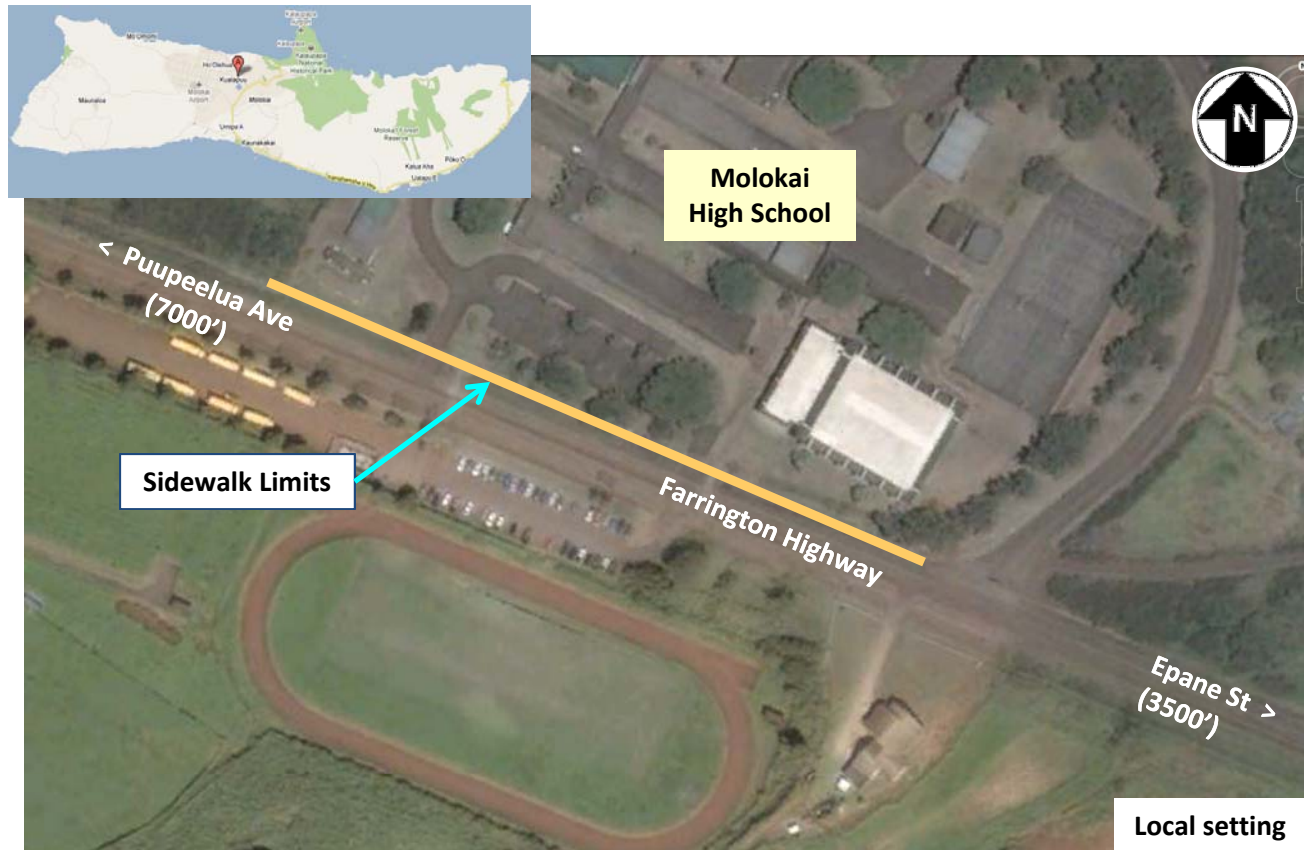
**Cost Estimate** *To be determined*

(Input from the TAC)

# Molokai High School

2140 Farrington Avenue, Ho`olehua, HI

**DRAFT**



## Description

Molokai High School fronts Farrington Avenue (Hwy 480) in Ho`olehua, HI. Although the area is lightly populated and rural, the school area experiences periods of concentrated pedestrian activity. In terms of existing pedestrian facilities, there is a 4-foot paved path that stretches between Epone St to Puupeelua Ave, and a 6' concrete sidewalk in front the school, on the north side of the roadway (see map above). In other adjacent areas, there is either an asphalt pathway or wide shoulders for pedestrian use.

## Analysis

Students lack dedicated pedestrian facilities to walk to school, as sidewalks transition into shoulders just past the high school (see photo, right). Improved pedestrian accommodations would benefit the community and enhance pedestrian connectivity with the area.



Sidewalks ends beyond Molokai High School

# Molokai High School

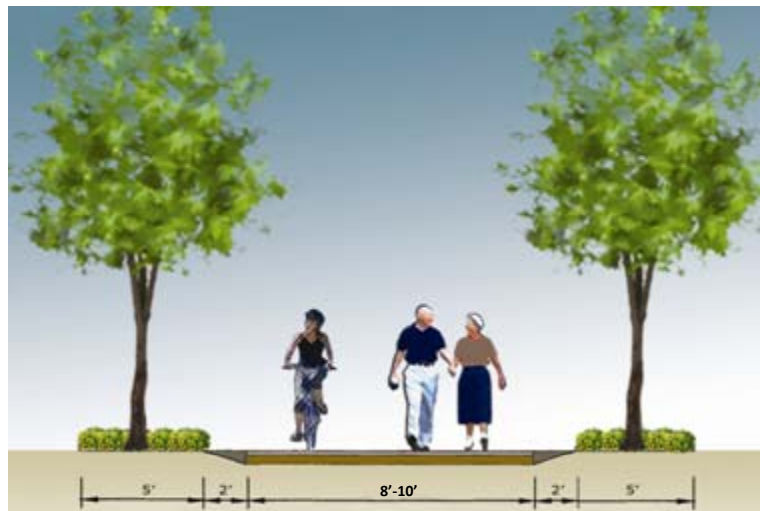
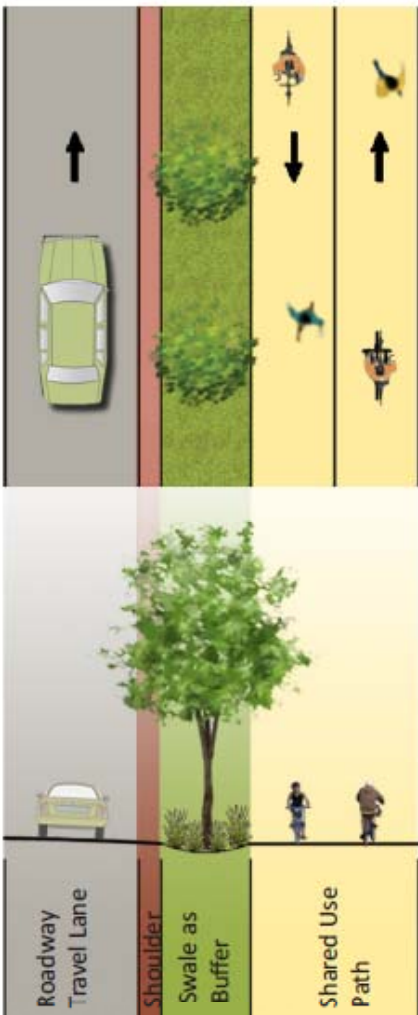
**DRAFT**

2140 Farrington Avenue, Ho`olehua, HI

## Potential Solution

The site would benefit from the construction of a shared-use asphalt pathway that could tie into the existing sidewalk in front of the school. This would provide students with a dedicated path separated from vehicular traffic (see illustration below) from Kalae Highway to Molokai High School and vice-versa.

Extending the sidewalks that are currently in front of Molokai High School is another option, though it would require new drainage infrastructure improvements in the area. Additionally, sidewalks may not be consistent with the rural setting of the site.



Conceptual Sketch of a Shared Use Paved Pathway

Buffers between shared use paths and roadways should be a minimum of 5' wide. Exact distance will be dictated by the clear-zone design requirements.

## Cost Estimate

*To be determined*



# Paia Youth and Culture Center (Hana Highway)

**DRAFT**

Paia, HI

### Analysis

Between 2004 and 2008, there have been four pedestrian-related accidents in this study area, primarily at the signalized intersection of Hana Highway and Baldwin Avenue. Vehicles often park in the shoulder along Hana Highway, blocking pedestrian access from the parking lot to the Youth Center.



**Vehicles diagonally park along the shoulder on Hana Highway near the Youth Center and Baldwin Beach Park**

### Potential Solution

The site would benefit from closing the pedestrian gap in front of Paia Youth Center’s parking lot. The existing sidewalk could be extended to the existing multi-use trail. This would decrease conflicts with adjacent traffic and parked vehicles. In addition, the unsignalized intersection could also benefit from the installation of warning signs at the crosswalk. These improvements would help improve connectivity for pedestrians when walking to the Youth Center. Further analysis would be necessary to study the any impacts the extension of the sidewalk would have on drainage or the diagonal parking.

Possible signs to install are shown below:



**Unsignalized Pedestrian Crosswalk and Advance Warning Signs. Source: MUTCD, 2009**

**Cost Estimate**  
*To be determined*