



Hōlualoa Pedestrian Safety Design

Prepared by Hōlualoa 20:20 Task Force Action Committee
Sponsored by Hōlualoa Village Ohana
Supported by Pūlama Īa Kona Heritage Preservation Council

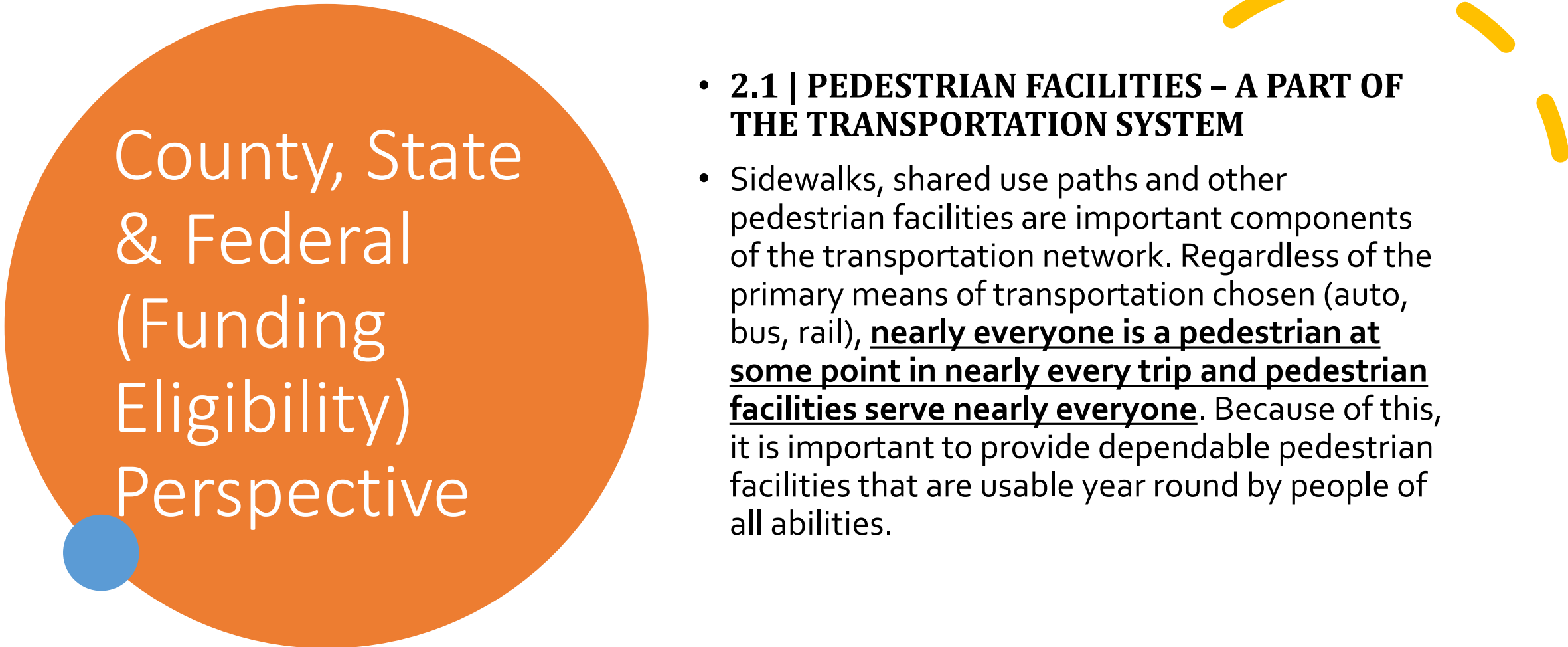
APRIL 15 2019- SEPTEMBER 2022



Kona & Ka'u Telephone & Telegraph
Company Ltd headquarters
&
Hōlualoa's 1st Post Office

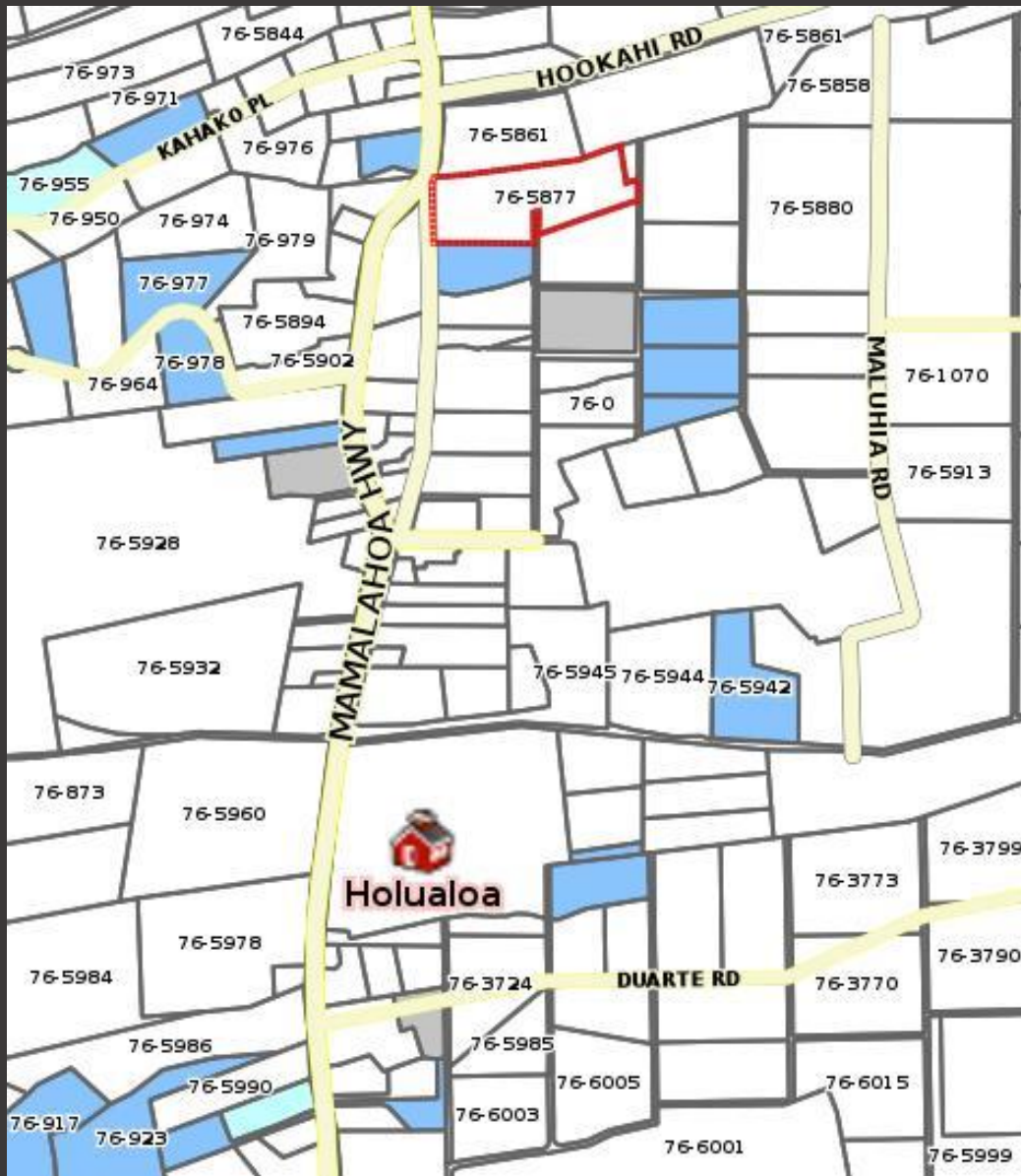
established 1895

Ped Safety project facilitator - Antu Harvey
Pūlama Īa Kona Heritage Preservation Council
Hōlualoa Village Ohana
Community rep to the School Community Council



County, State & Federal (Funding Eligibility) Perspective

- **2.1 | PEDESTRIAN FACILITIES – A PART OF THE TRANSPORTATION SYSTEM**
- Sidewalks, shared use paths and other pedestrian facilities are important components of the transportation network. Regardless of the primary means of transportation chosen (auto, bus, rail), nearly everyone is a pedestrian at some point in nearly every trip and pedestrian facilities serve nearly everyone. Because of this, it is important to provide dependable pedestrian facilities that are usable year round by people of all abilities.



Hawaii State's 1st Scenic Byway –
The Mamalahoa Kona Heritage Corridor (CR180)
passes through the middle of this historic village

The roadway overlays what had been a trail, perhaps Built by Ehu (1520-1540) before the times of Umi a Liloa. In the center of the village there was a holua and a large ki'i pohaku (petroglyph) destroyed in 2014

The roadway is very narrow and many of the historic village buildings abut or encroach on the right-of-way

There is no developed pedestrian walkway through
The village and in many places, no shoulder

The school was founded in 1895 and its only access is from the Old Mamalahoa Highway

Current speed limit is 25 MPH through the village

Hōlualoa – mauka village

Dangerous Problem – Drivers and Walkers are forced to share the same 9′

- Problem:

It is not intuitive to drivers that our historic village is around the next bend with people in their way.

- Many drivers do not slow down.
- Most do not carefully yield to pedestrians in the roadway.
- Hit by a vehicle at 30 MPH, only 5 of 10 pedestrians survive
- Resulting - fewer people walk to destinations in the village



We, the grass
roots community,
can design a plan!

In 2018, the Planning Director advised us that if we put together a grassroots plan, the County will likely support and make it happen. (The County will never 'top down' improve existing villages)

We, the community of Hōlualoa have been working together on a Community Based Village Master Plan

- Holualoa 20/20 – inclusive effort started 8 DEC 2018 – met monthly
- Town Hall (@Imin Center) – 18 SEP 2019

There are technical considerations, regulatory constraints, political processes – it's a jungle out there. Our diligence has progress...

WE HAVE BEEN SUCCESSFUL! ...

Phase 1.a - 'Shave & Pave' - 2019

Problem: Pedestrians (especially keiki accessing the school above) are forced to walk on edge of vehicle lane

Collaboration among DOE, County, & Community

Solution: Shave the rock face back 8' and create a 5' wide pedestrian walkway in front of the school

- Pedestrian walkway (shoulder) necessitated removal of the bottom 4 steps*
- Route To School will be along front of school
- Entrance is now through gate by office (cafetorium)
- DPW – was able to accomplish this under 'maintenance' work
- * note: Replacement of historic steps has been 'mothballed' (upper steps still remain to where the teacher cottages were – and could be restored with some safety modifications)





Before, During, After

- Note: We still have stretches through the village where pedestrians are forced to walk in the vehicle travel lane



WIDE Edge Line Pavement Marking



Problem: Drivers drive on shoulder which is Holualoa's pedestrian walkway. This is dangerous.

Solution #27: Re-stripe the lane edge with the wider 8" marking (like on Ali'i Drive)

- Provides a more intuitive indicator to separate vehicles from pedestrians

Phase 1.b – Enhanced School Zone

Problem: Too many drivers disregard safe driving

Solution:

- Extended the school zone in each direction to 500', install flashing lights and higher fine notice.
- Moved 2 cross walks to safer locations
- Added pedestrian crossing signage
- Extended the mauka 'walking shoulder' with wide stripe and pedestrian logo
- Prevented cars from blocking the roadway for as long by locking gate until loading starts



Extended School Zone and Added Flashing Signs



SCHOOL

**BEGIN
HIGHER
FINES
ZONE**

**WHEN
FLASHING**



**TRAFFIC LAWS
PHOTO ENFORCED**



Moved South School Crosswalk

Problem: Current school crosswalk was in a poor location

- Ended in a hedge
- Too close to the Easement Rd intersection
- Too far from school entrance
- Was not clearly visible

Solution #8: Shift location and clarify markings

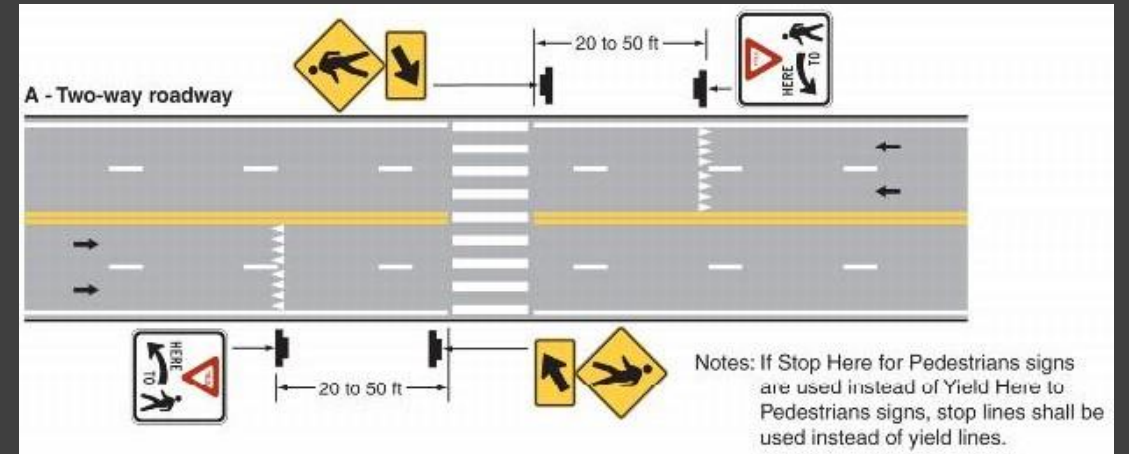
- Relocated southward 40' (end at lawn)
- Removed 'shark's teeth' zig-zag markings
- Added sign assemblies (see next slide)
- Note: The 'Shave & Pave' dedicated pedestrian walkway (shoulder) runs along entire front of the school property



Moved North School Crosswalk

- Problem: School crosswalk was in a poor location (see lower right)
 - Too close to bridge & Drainway road/driveway
 - Too far from village to serve the village
 - Too far from planned bus stop
- Solution #13: Shift location northward and clarify markings
 - Relocate northward 40' (in front of ADA parking pad), next to School's Resource Center
 - See #8 for signage, markings, and ramp specs
 - Note: there is a street light here





Added Crosswalk Sign Assemblies

- Problem: Current school crosswalk is in a poor location and pedestrians are not easily visible
- Solution #8c: Enhance sign assemblies
- School crossing here (2 people + arrow)
- Ensure first sign doesn't block view of the second

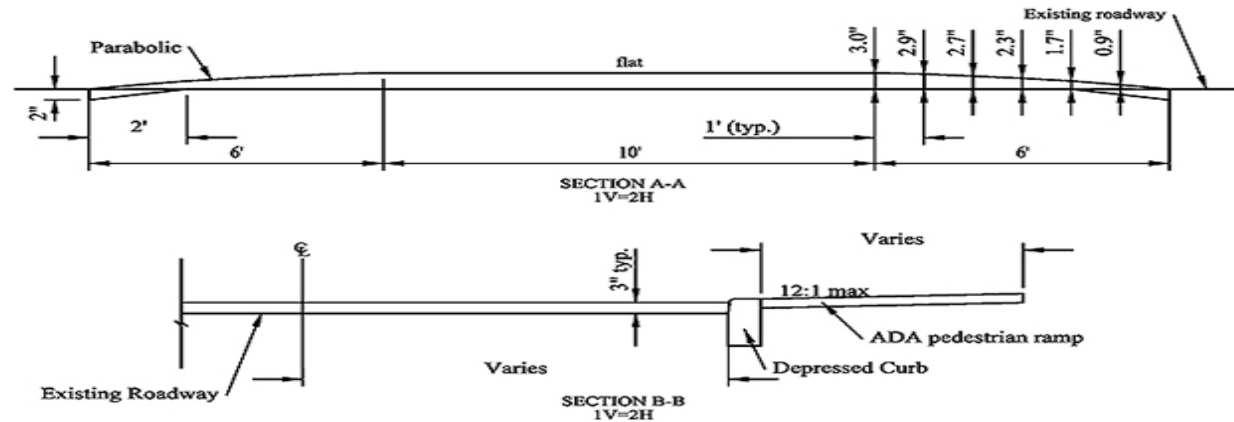
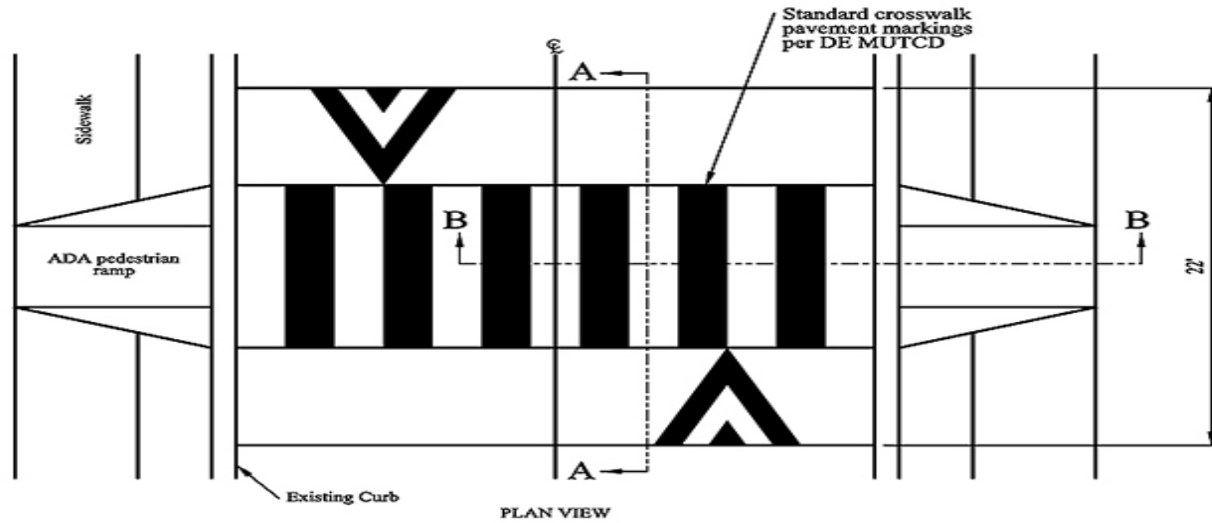
... AND THEN COVID STOPPED US

(temporarily)

Phase 1 improvements yet to be done:

- ***DPW approved*** - Raise the two school crosswalks onto 'speed tables' (see next slide)
- *DOE not approved* - Resolve the pick-up/drop off safety issue by moving vehicle waiting queues 100% onto the school parcel
- *County not approved* – purchase 'Lua' lot, establish a (school) bus stop in front of the 'Lua' lot and build a shelter and public restroom

DELAWARE DEPARTMENT OF TRANSPORTATION
TYPICAL RAISED CROSSWALK



NOTES:
1. INLETS ARE REQUIRED ON THE UPHILL SIDE OF A RAISED CROSSWALK.
2. ALL SIGNING AND STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE DE MUTCD.

2 Raised Crosswalks

Problem: Current school crosswalk is in a poor location and pedestrians are not easily visible

Solution #8a: RAISE crosswalk onto a speed table

- 6' ramps (3" high table)
- 10' table w 'continental' style crosswalk markings
- Arrow ramp markings (on leading edge only)



Village Parking, Restroom, Shelter



- Problem: Village has inadequate amenities
- Historic village was pedestrian centered
- Limited parking - vehicles park on road
- Nearest public restroom is 2.9 mi (Pualani Estates)
- There is no shelter to rest or wait for (school) bus
- Solution #12: Improve village infrastructure
- Develop 2 parcels -formal landscaped parking lots
- Front with a restroom and attractive shelter
- Relocate Kealakehe Intermediate School (and future Transit) bus stop in road



Resolve School Pick-Up – Blocking Roadway

DOE needs to move vehicle waiting queues 100% onto the school parcel

- Perhaps could grade a stacking loop up above the buildings (vacant), cars could be texted to come down to the Cafetorium after the buses leave
- This needs to be its own project – please contact HVO if interested

Phase 2 – ‘Paul’s Place to Imin Center’

Ideas to vet now:

1. Walking pedestrian shoulder on both sides of road
2. Separate walkway from travel lane with parallel parking where possible (**27 spaces total?**)
3. Add concave (rolled-in or milled-in) edge line rumble stripe
4. Add new raised crosswalks at Imin Center and between Ala Maka’a to Hōluakoa Coffee Shack
5. Move the crosswalk between Paul’s and the Post Office to north of intersection (currently starts between parking spaces and ends in a parking space – and is NOT VISIBLE by south bound vehicles!)
6. Improve southbound signage re blind curve, intersection and crosswalk
7. No stopping/No parking signs if needed to keep walkway clear (or alternative)
8. Change Old Government Road to one-way northbound

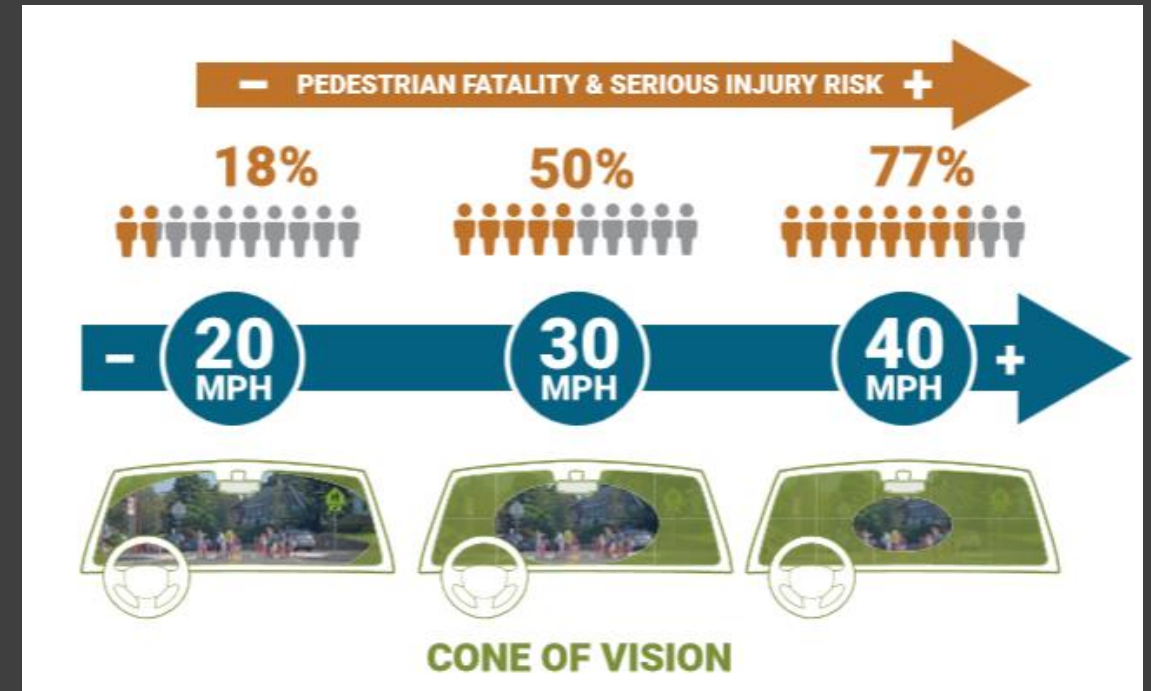
Why our adapting our village safety matters

National surveys have revealed that 42% of drivers said they don't consider going 10 mph over the speed limit to be speeding, and data shows that drivers speed at least 10 mph over the speed limit more than half the time they're behind the wheel. Even more shocking, 10% said they don't think 20 mph over the limit is speeding either.

And the statistics at right haven't been updated since the prevalence of larger heavier SUVs and Trucks are dominating our roads

Without vehicle speed governors or cameras, we can't make these zippy drivers slow down

But, we CAN make accommodations for pedestrians to provide them an alternative outside the travel lanes

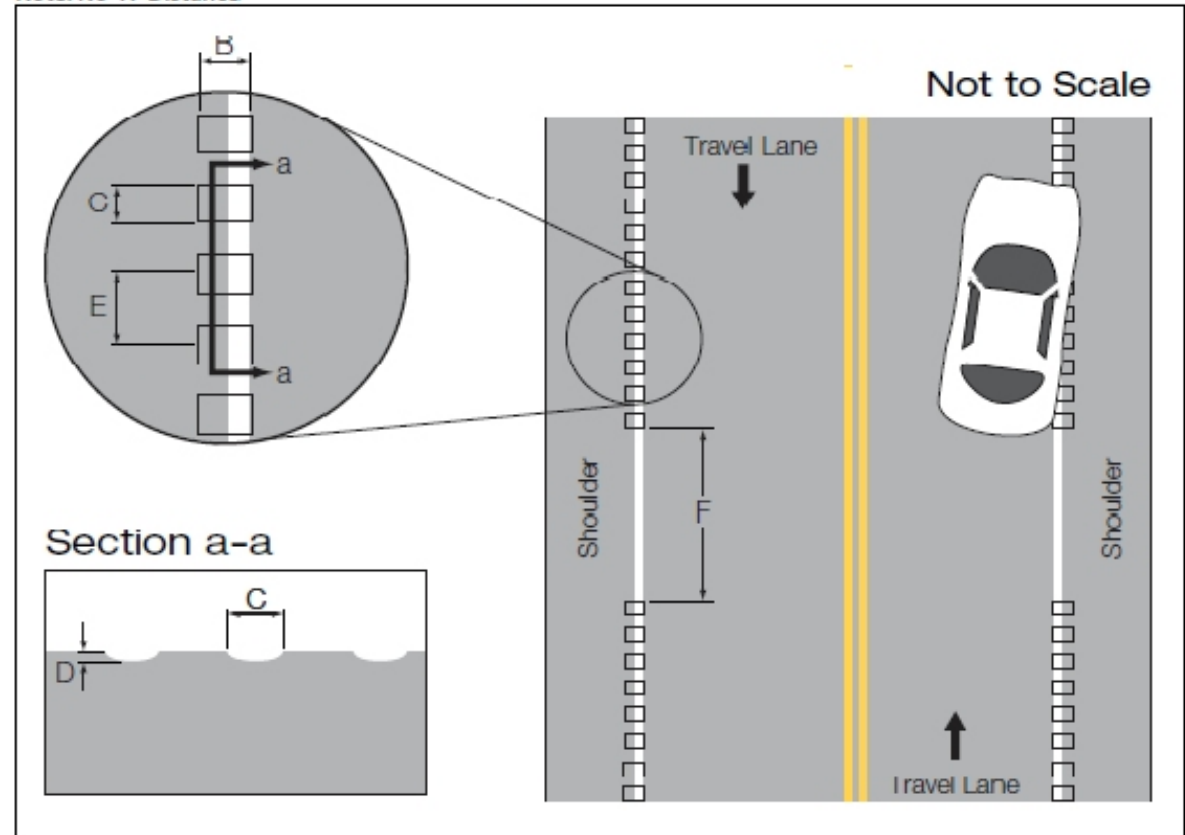


Edge Line Rumble Stripe

- Effective reminder to drivers - stay out of the pedestrian walkway (shoulder)
- 8" long, 5" wide, .5" deep, 12" on center spacing
- Continuous or include gaps
- Edge paint stripe (8") is applied on top
- Milled in (existing) or rolled in (while repaving)

Edgeline Rumble Stripes

Note: No "A" Distance



Legend

→ = Direction of Travel

ooo = Rumble Strip

A = Offset

B = Length

C = Width

D = Depth

E = Spacing

F = Bicycle Gap



Pedestrians Protected by Parking

When width between travel lane and building or obstruction is 12' or greater:

- 5' walkway, 1' curb, 8' parking space, .25' edge stripe – **14.25' overall**
- Minimum for compact vehicles – 4' walkway, 1' curb, 7.75' parking, .25' edge stripe – **13' overall**
- Parking spaces are 20-22' long
- Big wide trucks/SUVs may not fit!

Extruded Curbing

Prevents vehicles from parking on Pedestrian walkway

- Solution when there is enough space for parallel parking between travel lane and pedestrian walkway
- Can be a barrier to drainage (good or bad)



Pedestrian Shoulders Northbound

Paul's Place to Old Government Road junction

4 segments with Issues

- 3 parcels - Currently vehicles park without reserving space for pedestrians
 - There may be room for the walkway AND **19 parking spaces!**
 - Need to determine ownership and collaborate on best solution
- 1 parcel - Narrow/No Shoulder with Drop Off
- There are also 4 parcels that use the shoulder for parking; instead of protecting pedestrians



Paul's Place

- 16' between line and building
- Can the walkway be run between the store and the parking?
- 4 parking spaces?





‘Superette’ (white apt) and north up to ‘LauLā’au’

- 15+’ between line and building
- Can walkway run between the building and parallel parking?
- Can a curb be added to keep vehicles out of the walkway?
- 8 parking spaces?
- [Someday, a new infill building can be added w retail at street level and dwellings above]

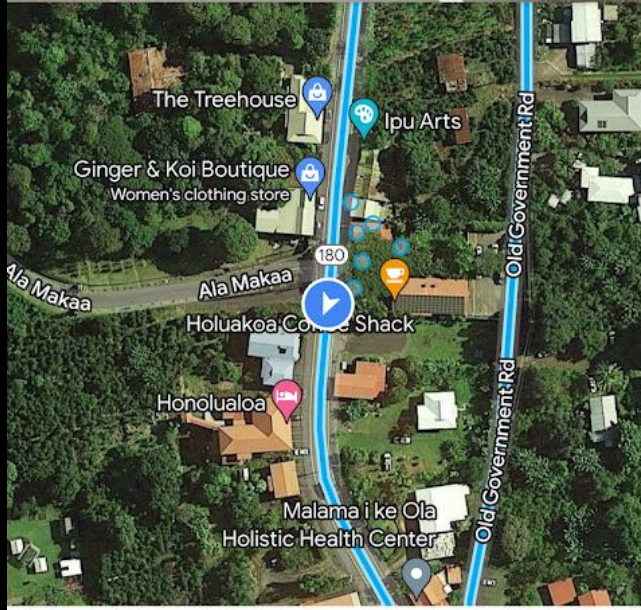




‘LauLā’au’, Kona Hotel & Cinderella’s

- 15-22’ between line and buildings
- Can the walkway run between the building and parking?
- (if switched to angle or parallel)
- 7 parking spaces?





At Driveway before Ala Maka'a

- Less than 5 feet wide
- 3' Drop off
- Short term: Reflectors?
- Long term: build out to 5' w railing?

Pedestrian Shoulders Southbound

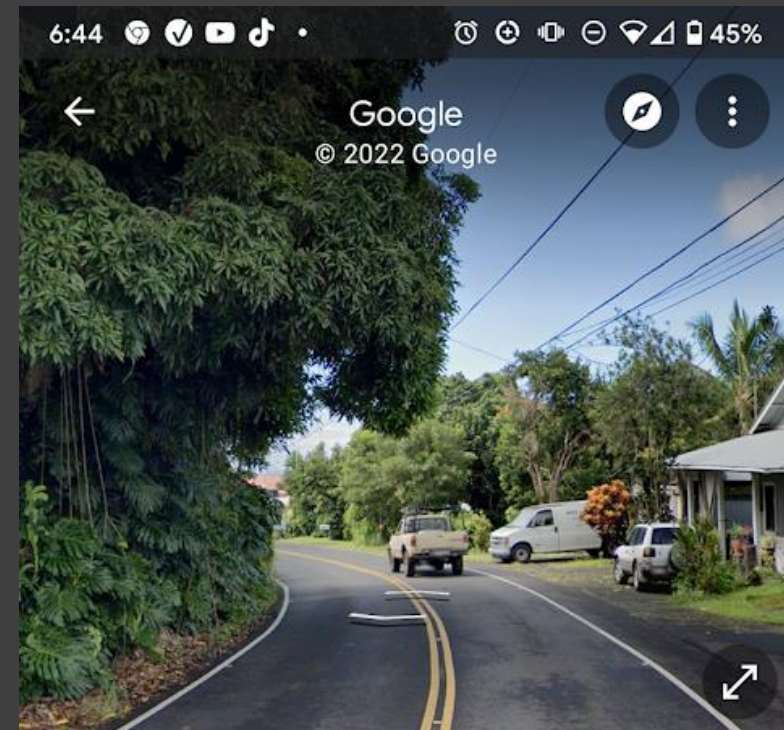
3 Segments with Issues

- 1 parcel - Narrow/No Shoulder with Drop Off
- 2 parcels - Currently vehicles park without reserving space for pedestrians
 - There may be room for the walkway **AND 8 parking spaces?**
 - Need to determine ownership and collaborate on best solution
- There are also 2 parcels that use the shoulder for parking; instead of protecting pedestrians



‘Triangle Coffee parcel’

- No shoulder (sizable drop off) at north end
- Obstructing plants along mid and southern end

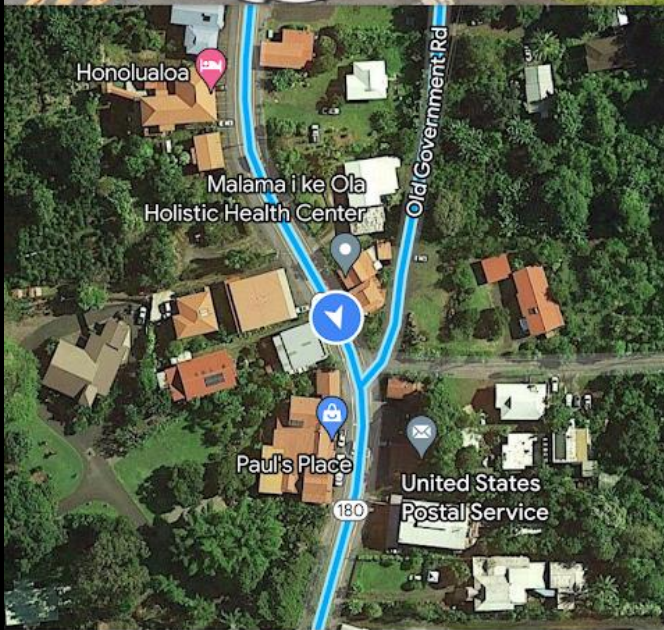




Holuakoa Coffee Shack

- 13' between line and wall
- Can walkway run between the building and parking?
- (4' walkway, 1' curb, 7.75' parking space, .25' line)
- 4 parking spaces?
- Can a curb be added to keep vehicles out of the walkway?



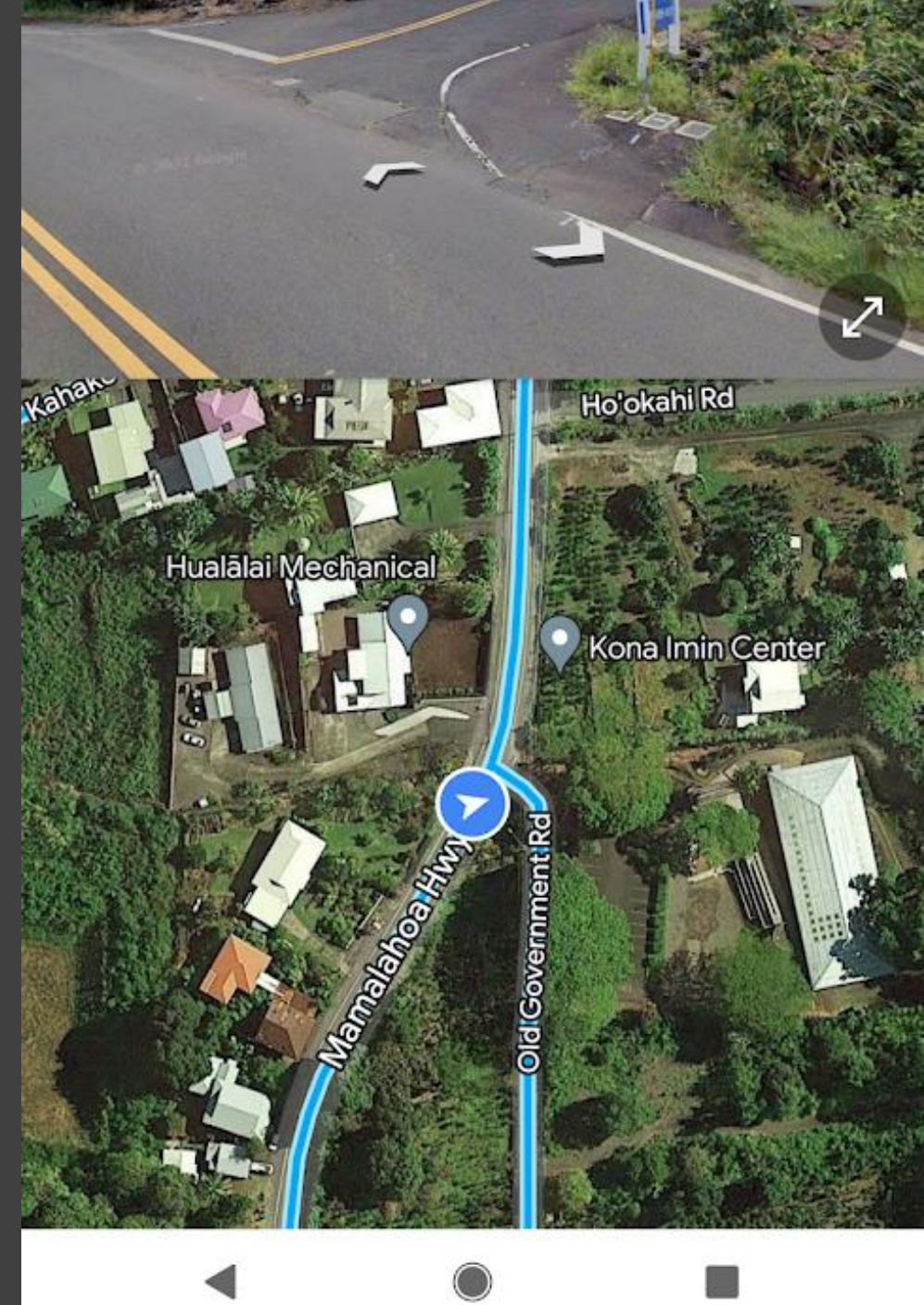


Post Office

- 22' between line and building
- Can the walkway run between the building and parking? (NO - too steep at South end)
- Can parking be pivoted to angle (too short), or parallel? (NO – 4 spaces to 2)
- Short term: run walkway behind spaces
- Still HAZARDOUS! – add diagonal striping to alert drivers (and pedestrians) they are to be watchful and keep clear?

Add 2 New Raised Crosswalks

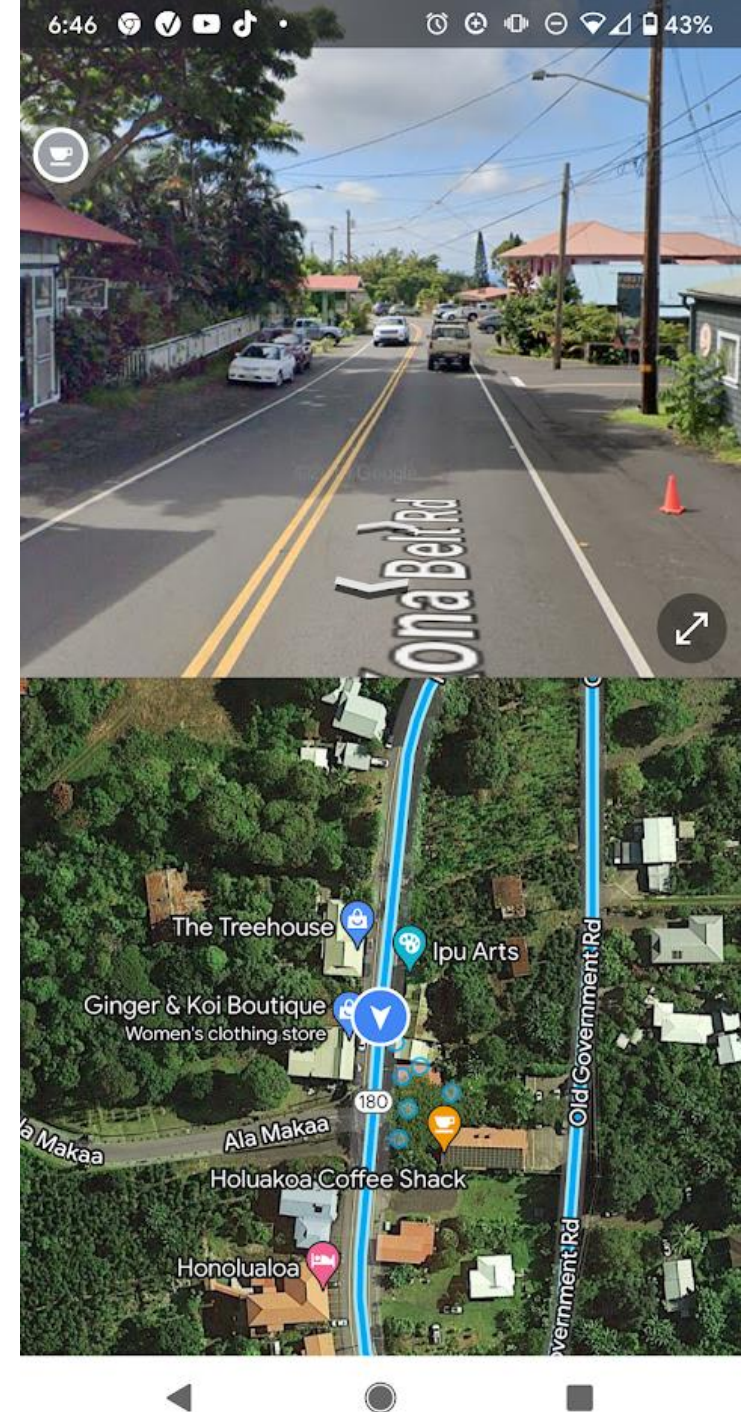
- 1) Māmalahoa @ Imin Center/ Old Government Road Junction
 - Completes ability to walk through village
 - Signals to southbound drivers that they are entering a village with pedestrians - SLOW DOWN!



Add 2 New Raised Crosswalks (cont')

2) Māmalahoa @ north side of Ala Maka'a

- In front of Holuakoa Coffee Shack
- Raised on Speed table (if water run-off allows)



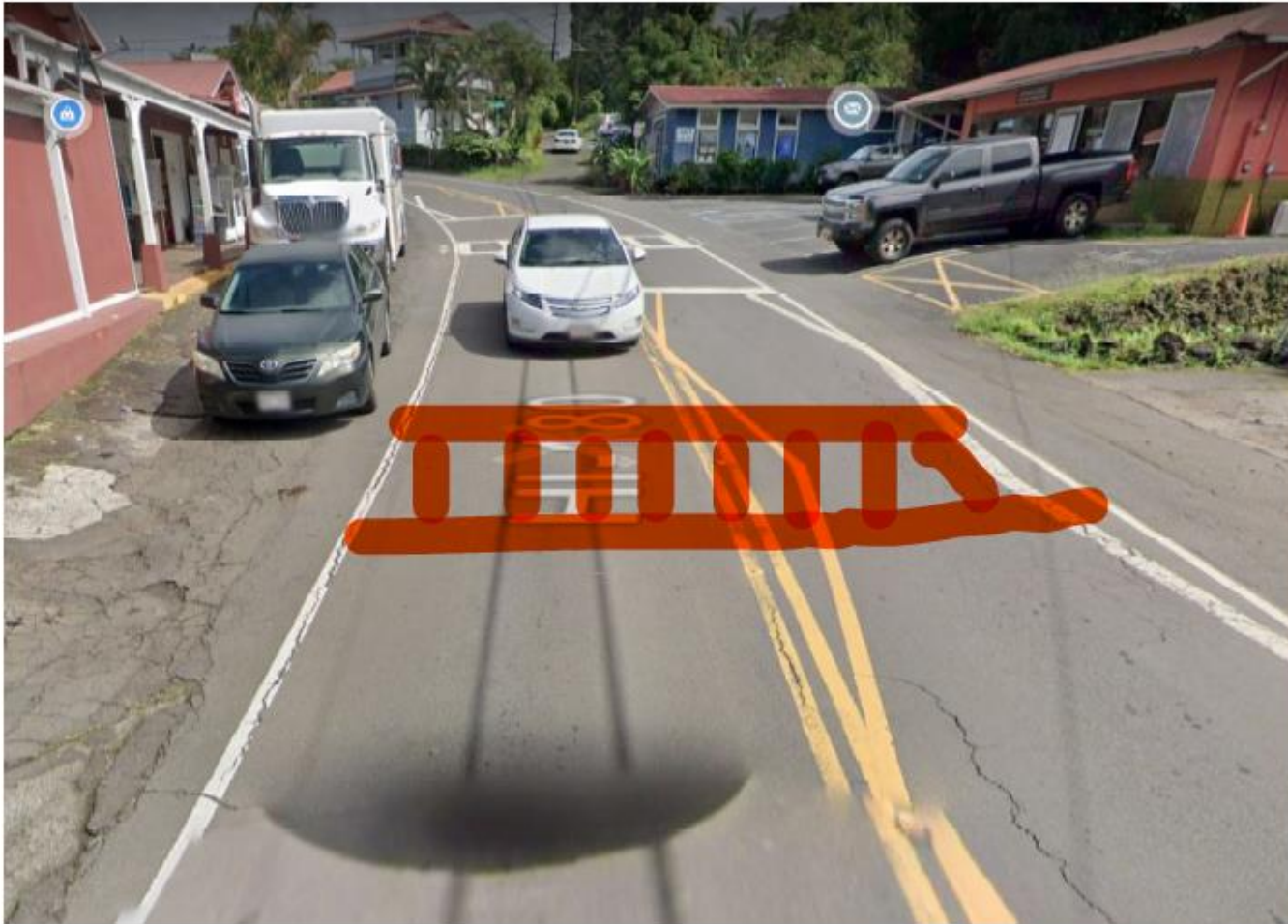
DANGEROUS!!!

This Crosswalk is in hazardous location

- Blind Curve (Southbound)
- Starts in a parking space
- Ends in a parking space



Solution 'Alt A': Move this Crosswalk Southward



Locate at south end of 'Paul's Place' and north end of 'Holualoa Theater' parcel

Advantages: Possibly more use than 'Alt B', avoids narrow sloping shoulder by carport.

Cons: Shorter southbound sightline than 'Alt B', widens spacing to next crosswalk north, In FIRM floodway.

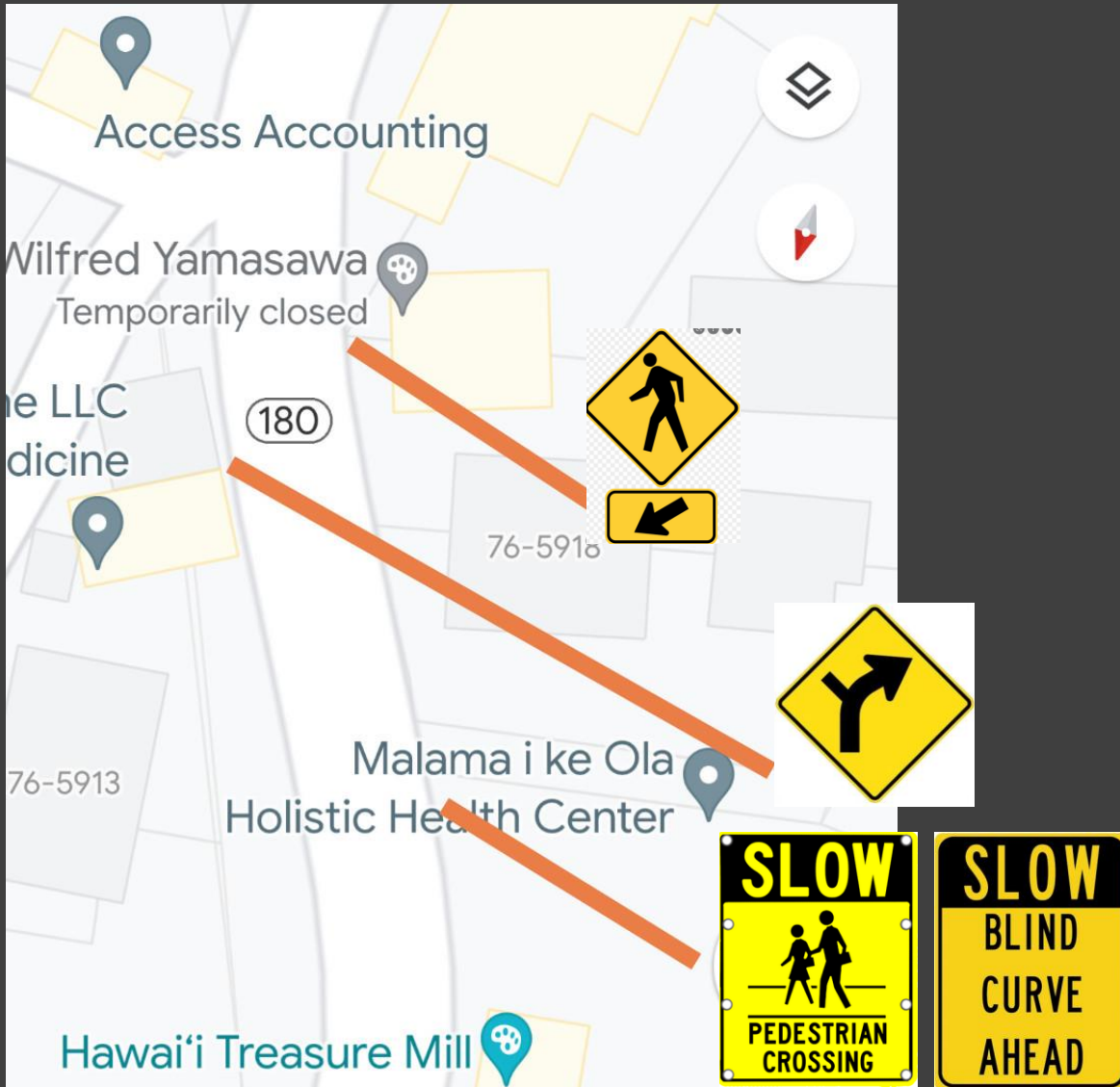
Solution 'Alt B': Move this Crosswalk Northward



Locate between 'Malama i ka Ola' and 'Studio 7'

- Advantages: Better sightline southbound, more even spacing between next crosswalks
- Cons: less convenient?
- [note: none of these three locations have street lighting Needed! especially at curve/intersection]

Solution: Better Signage Southbound



Curve ahead

Pedestrian Crossing Ahead

Curve arrow

Crosswalk assembly

Requirements:

- Must follow MUTCD
- Minimal
- Cannot obscure hazards
- Cannot obstruct walkway!



Problem:

Drivers park on shoulder, even where it is painted as Hōlualoa's pedestrian walkway.

How to solve this without a forest of 'no parking signs'? (.5 mi / 200' spacing = 26 signs! 13 on each side of the road)

- Only where there are chronic violations, install signs. And consider continuous Curbs (possibly with flex bollards on top]

NO PARKING on paved walkway shoulder

This will become a recommendation to the County

We are trying to engage in a conversation about what is feasible and what it will take to implement.
FINAL Zoom Design Session:

- THU 9/15 @ 5:30 (same link)
- TBD – contact us if interested:

holualoavillageohana@gmail.com

We appreciate everyone's efforts to help make Hōlualoa safer and a more inviting place to live, go to school, work and visit

We can only do these projects with the support of members and volunteers like you.

If you aren't already a member, please join us!

- Hōlualoa Village Ohana
- Pūlama Īa Kona Heritage Preservation Council

info@pulama.org

Mahalo. A hui hou

