

# PROJECT TIMELINE

2017		2018				2019			
FALL	WINTER	SPRING	SUMMER	FALL	WINTER	SPRING	SUMMER	FALL	WINTER
McCULLY & WAIKIKI NEIGHBORHOOD BOARD	ADVANCED PROJECT PLANNING REPORT FINAL		ALTERNATIVES ANALYSIS BEGINS	COMMUNITY MEETINGS			DRAFT ENVIRONMENTAL ASSESSMENT		

  
ORIGIN TO DESTINATION PUBLIC OPINION SURVEY

  
CONDUCT PRELIMINARY SCREENING OF ALTERNATIVES

 COMMUNITY KICK-OFF MEETING

  
ELIMINATE UNREASONABLE ALTERNATIVES

  
CONDUCT PRELIMINARY IDENTIFICATION OF ENVIRONMENTAL IMPACTS AND MITIGATION

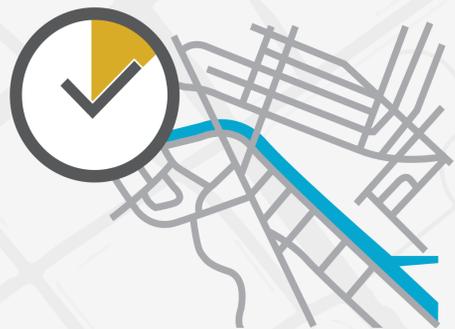
 WE ARE HERE  
COMMUNITY REPORT-OUT MEETING

2020				2021				2022				2023	
SPRING	SUMMER	FALL	WINTER	SPRING	SUMMER	FALL	WINTER	SPRING	SUMMER	FALL	WINTER	SPRING	SUMMER
	FINDING OF NO SIGNIFICANT IMPACT (FONSI)			BEGIN FINAL DESIGN									BEGIN CONSTRUCTION AUTHORIZATION



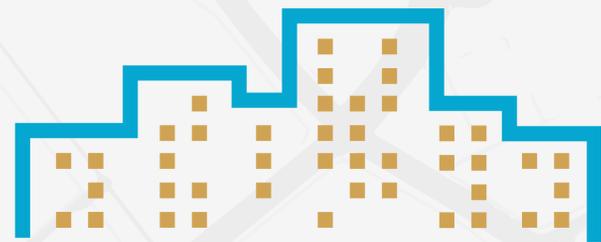
# PROJECT PURPOSE

The purpose of the project is to improve access for people traveling by foot or bicycle across the Ala Wai Canal, between Ala Moana Boulevard and the Manoa/Palolo Stream. Alternatives considered in the analysis include a new bridge for people on foot and bicycling that also improves non-motorized emergency evacuation; modifications or enhancements of the existing bridges; and consideration of no change. Desired outcomes include:



## ADDITIONAL ACCESS

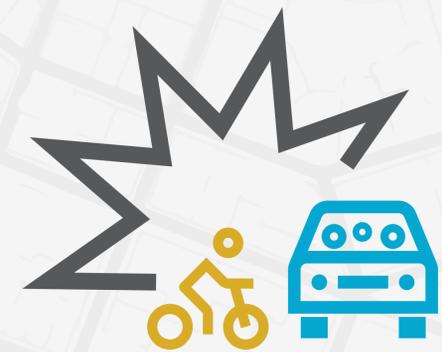
between Ala Moana Blvd and Manoa/Palolo Stream



**BENEFIT COMMUNITIES** with highest percentage of **NON-AUTO** commute share



**SHORTEN TRAVEL DISTANCES:** potentially 10 minutes of bicycle travel time savings; shorten walking trips by 20 minutes



**REDUCE CAR-BIKE COLLISIONS:** 17 crashes involving people walking and biking in the area between 2012 and 2016

# SUMMARY OF COMMUNITY INPUT



**2** PUBLIC OPEN HOUSES



**225** ATTENDEES



**180** LIVE POLLING RESPONSES



**900** IN-PERSON SURVEYS OF TRAVELERS AROUND THE CANAL



**100** RESPONSES TO ONLINE SURVEY

## PEOPLE'S TOP TRAVEL PRIORITIES ARE...



TRAVEL TIME



SAFETY



CONVENIENCE

Source: Online Survey (191 responses)

## PEOPLE WHO WALK OR BIKE STRONGLY AGREE THAT THE EXISTING BRIDGES ARE...



UNSAFE



UNCOMFORTABLE



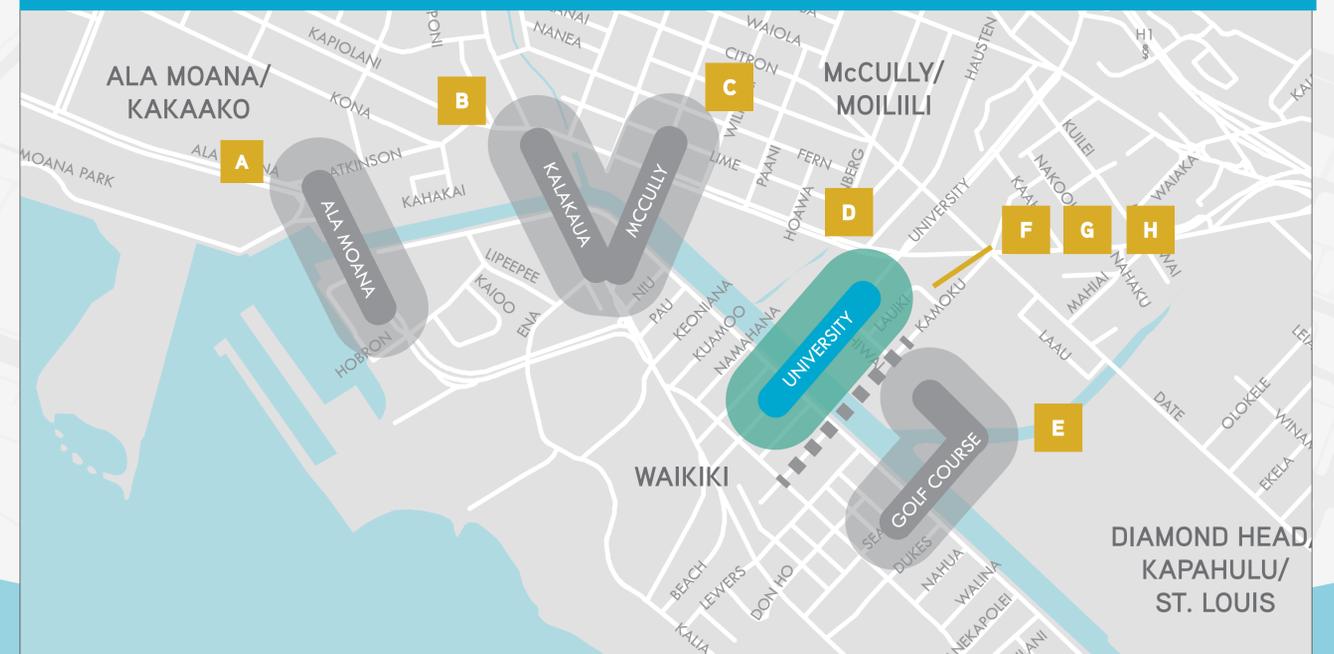
OUT OF THE WAY

Source: Online Survey (191 responses)

46% OF RESPONDENTS  
**PREFER A PEDESTRIAN AND BICYCLE  
BRIDGE AT UNIVERSITY AVENUE  
OVER THE OTHER ALTERNATIVES.**

Source: Intercept Survey and Online Survey (1,016 responses)

## PROJECT ALTERNATIVES



# WHAT WE'VE HEARD FROM YOU...



"PRIORITIZE **CONNECTIVITY & ACCESSIBILITY**"

"If a pedestrian bridge is constructed on University Avenue it is critically important to **MAINTAIN TRAVEL LANES**"

"**ALA PONO** FOR FUTURE GENERATIONS!"

"Another opportunity to get across the Ala Wai would be ideal. **Accessibility to Waikiki is important.**"

"MAKE IT **SAFE!**"

"I really wish I could **bike to work** instead of paying \$3,000 in gas and \$1,200 in parking each year."

"WIDEN MCCULLY BRIDGE & MAKE ACCESS BY WALKING AND BIKING SAFER"

"I HAVE LOTS OF CONCERNS RE **HEALTH & SAFETY ISSUES** FOR THE NEIGHBORING **COMMUNITY AND SCHOOLS.**"

"Do not turn our residential area into a **noisy and uncomfortable corridor** for the rest of time."

## YOU WANT A CROSSING THAT...

"...PROVIDES **SAFE TRAVEL FOR BICYCLES AND BEYOND** THE BRIDGE."

"...allows me to **ENJOY THE GREAT SCENERY** of the Ala Wai Canal."

"...IS **AESTHETICALLY PLEASING, SEPARATES BIKES AND PEDESTRIANS, AND IS CREATIVE** WITHOUT BEING OVERLY EXPENSIVE."

"...considers the needs of **OUR KUPUNA AND DISABLED 'OHANA**"

## RELATIVE LEVEL OF COMMUNITY CONCERN

- Parking
- Traffic
- Safety
- Homeless
- Community
- Foot Traffic
- Construction
- Infrastructure
- Resiliency
- Cost
- Canoe Access
- Design
- Development
- Maintenance

Source: Open House and Online Survey

Source: Online Survey (191 responses)



**Honolulu**  
COMPLETE STREETS



# PROJECT ALTERNATIVE EVALUATION

Data-driven analysis informed the evaluation of crossing alternatives. Alternatives were ranked according to their potential to meet expressed project goals.



PUBLIC INPUT (22 PTS)

COMPLETE STREETS CONNECTIVITY (15 PTS)

POTENTIAL ENVIRONMENTAL IMPACTS (10 PTS)

IMPLEMENTATION (10 PTS)

SAFETY FROM TRAFFIC (10 PTS)

TRAVEL TIME AND CONVENIENCE (10 PTS)

ENHANCE SUSTAINABLE MOBILITY AND IMPROVE PUBLIC HEALTH (10 PTS)

AFFORDABLE ACCESS (5 PTS)

IMPROVED NON-MOTORIZED EMERGENCY EVACUATION AND PUBLIC SAFETY (5 PTS)

VIBRANT CANAL (3 PTS)

**TOTAL SCORE (OUT OF 100)**

	NO BUILD	IMPROVEMENTS TO EXISTING STRUCTURE			NEW BRIDGE		OTHER ALTERNATIVES		
	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
		A	B	C	D	E	F	G	H
PUBLIC INPUT (22 PTS)	○	○	○	●	●	●	○	○	○
COMPLETE STREETS CONNECTIVITY (15 PTS)	○	●	●	●	●	●	○	○	●
POTENTIAL ENVIRONMENTAL IMPACTS (10 PTS)	○	●	●	●	●	●	●	●	●
IMPLEMENTATION (10 PTS)	○	●	●	●	●	●	○	●	●
SAFETY FROM TRAFFIC (10 PTS)	○	●	●	●	●	●	●	●	●
TRAVEL TIME AND CONVENIENCE (10 PTS)	○	○	○	○	●	●	○	○	●
ENHANCE SUSTAINABLE MOBILITY AND IMPROVE PUBLIC HEALTH (10 PTS)	○	●	●	●	●	●	○	○	●
AFFORDABLE ACCESS (5 PTS)	○	○	○	○	●	●	●	●	●
IMPROVED NON-MOTORIZED EMERGENCY EVACUATION AND PUBLIC SAFETY (5 PTS)	○	●	●	●	●	●	●	●	●
VIBRANT CANAL (3 PTS)	○	●	●	●	●	●	●	●	○
<b>TOTAL SCORE (OUT OF 100)</b>	<b>20</b>	<b>43</b>	<b>43</b>	<b>51</b>	<b>95</b>	<b>74</b>	<b>19</b>	<b>26</b>	<b>58</b>



HIGH - ● MEDIUM - ● LOW - ○

# PUBLIC INPUT 22 POINTS

A **pedestrian and bicycle bridge** at University Avenue was the **preferred alternative** by a large majority of public outreach respondents.

46%

## Who are these respondents?

MOST LIVE IN **WAKIKI, MCCULLY, OR MO'ILI'ILI**

Source: Online Survey, Intercept Survey, and Open House (773 responses)



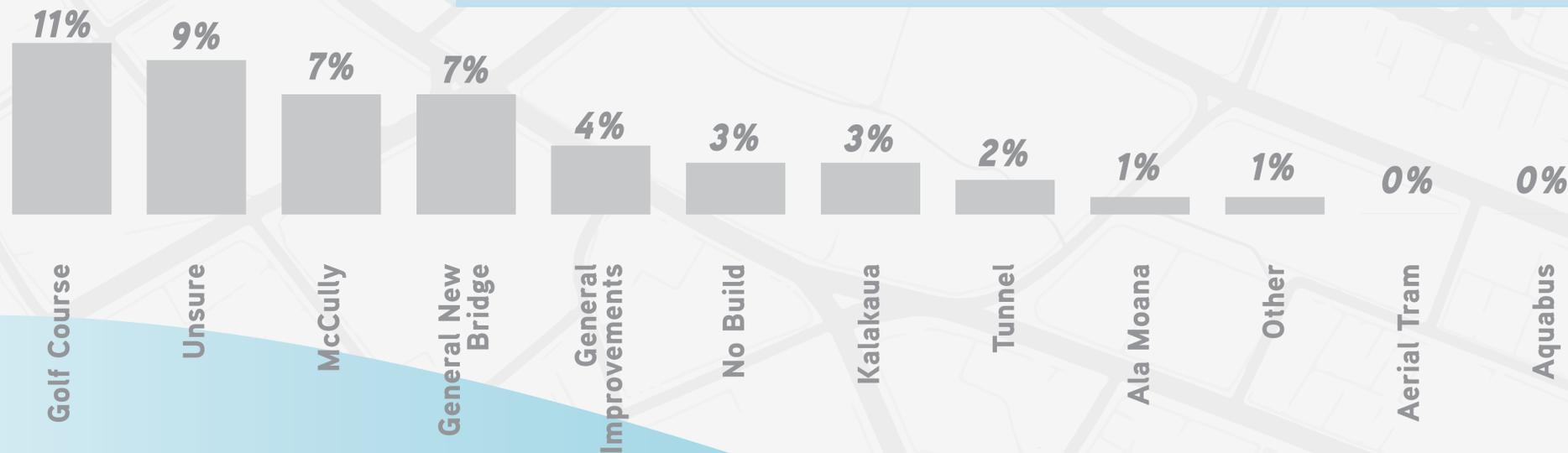
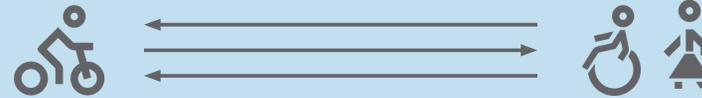
MOST **DRIVE ALONE AS THEIR PRIMARY MODE OF TRANSPORT**, FOLLOWED BY BIKING AND WALKING

Source: Online Survey and Open House (394 responses)



THOSE WHO BIKE OR WALK **CROSS THE EXISTING BRIDGES MULTIPLE TIMES PER DAY**

Source: Online Survey (189 responses)



Source: Intercept Survey and Online Survey (1,016 responses)



INTERCEPT AND ONLINE SURVEY FEEDBACK RESPONSES TO DATE

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
Feedback	○	●	●	●	●	●	○	○	○

HIGH - ● MEDIUM - ● LOW - ○

# COMPLETE STREETS CONNECTIVITY 15 POINTS

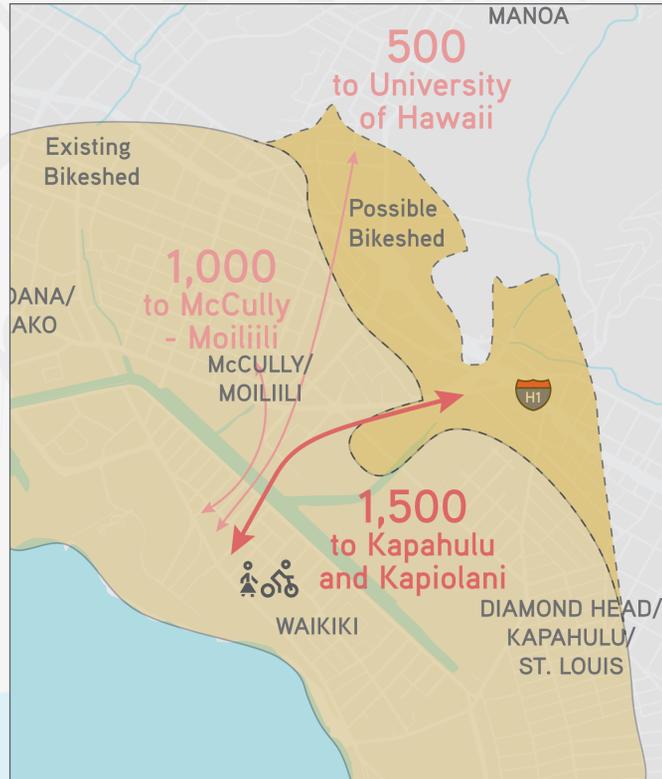
A new crossing at University Avenue connects Complete Streets corridors and closes a gap in the walking and bicycling network.

With a new canal crossing,

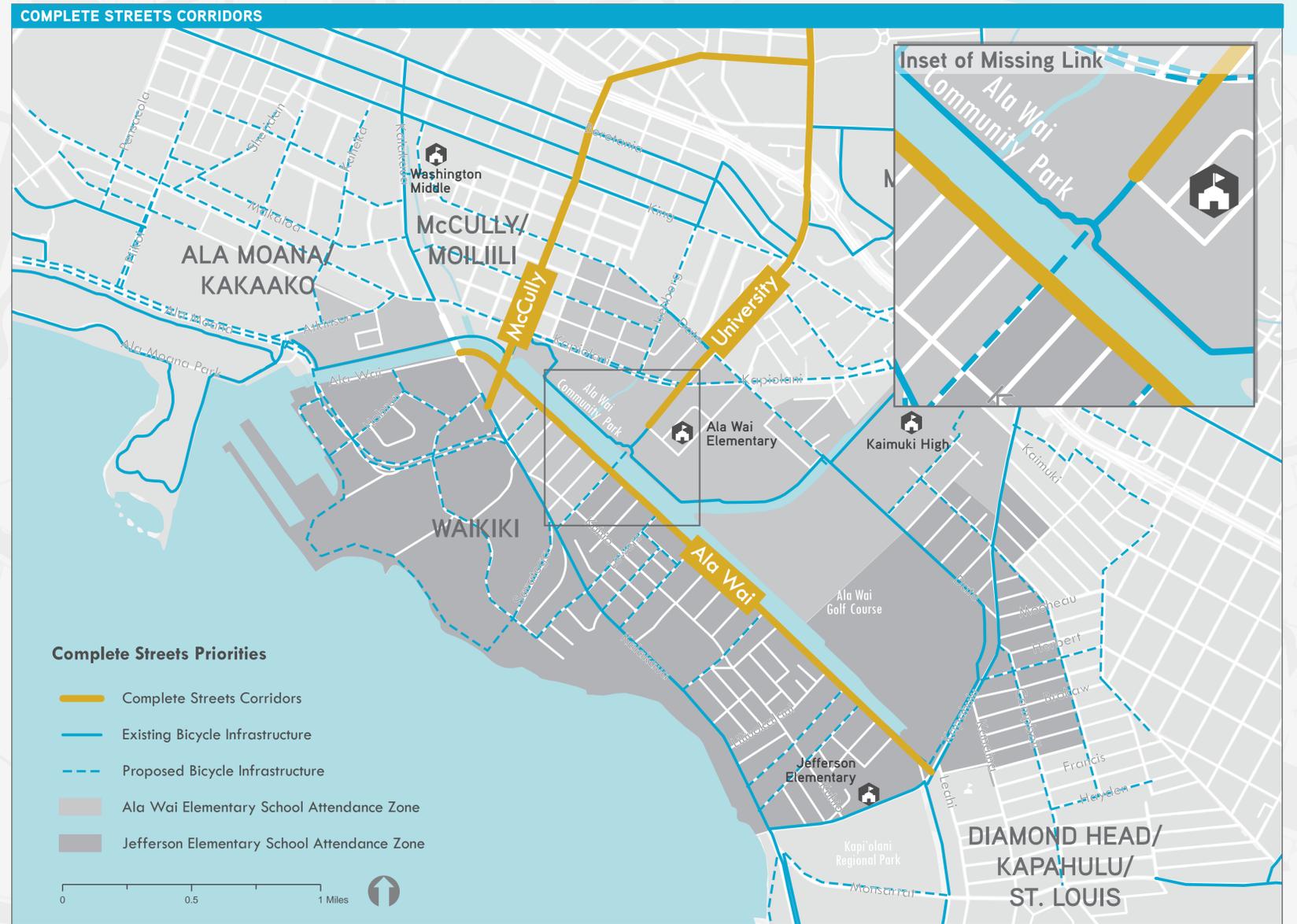
**3,000+**  
people could walk or bike to work.



A significant number of short commutes occur **between Waikiki and the neighborhoods on the mauka side of the canal.**



Source: 2017 Longitudinal Employment-Household Dynamics (LEHD), U.S. Census



	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
EXPANDS THE AREA ACCESSIBLE BY WALKING AND BIKING	○	●	●	●	●	●	○	○	●
EXPANDS THE POTENTIAL FOR WALK AND BIKE COMMUTING	○	●	●	●	●	●	○	○	●
CONNECTS PRIORITY BICYCLE AND PEDESTRIAN FACILITIES	○	●	●	●	●	○	○	○	●



HIGH - ● MEDIUM - ● LOW - ○

# POTENTIAL ENVIRONMENTAL IMPACTS 10 POINTS

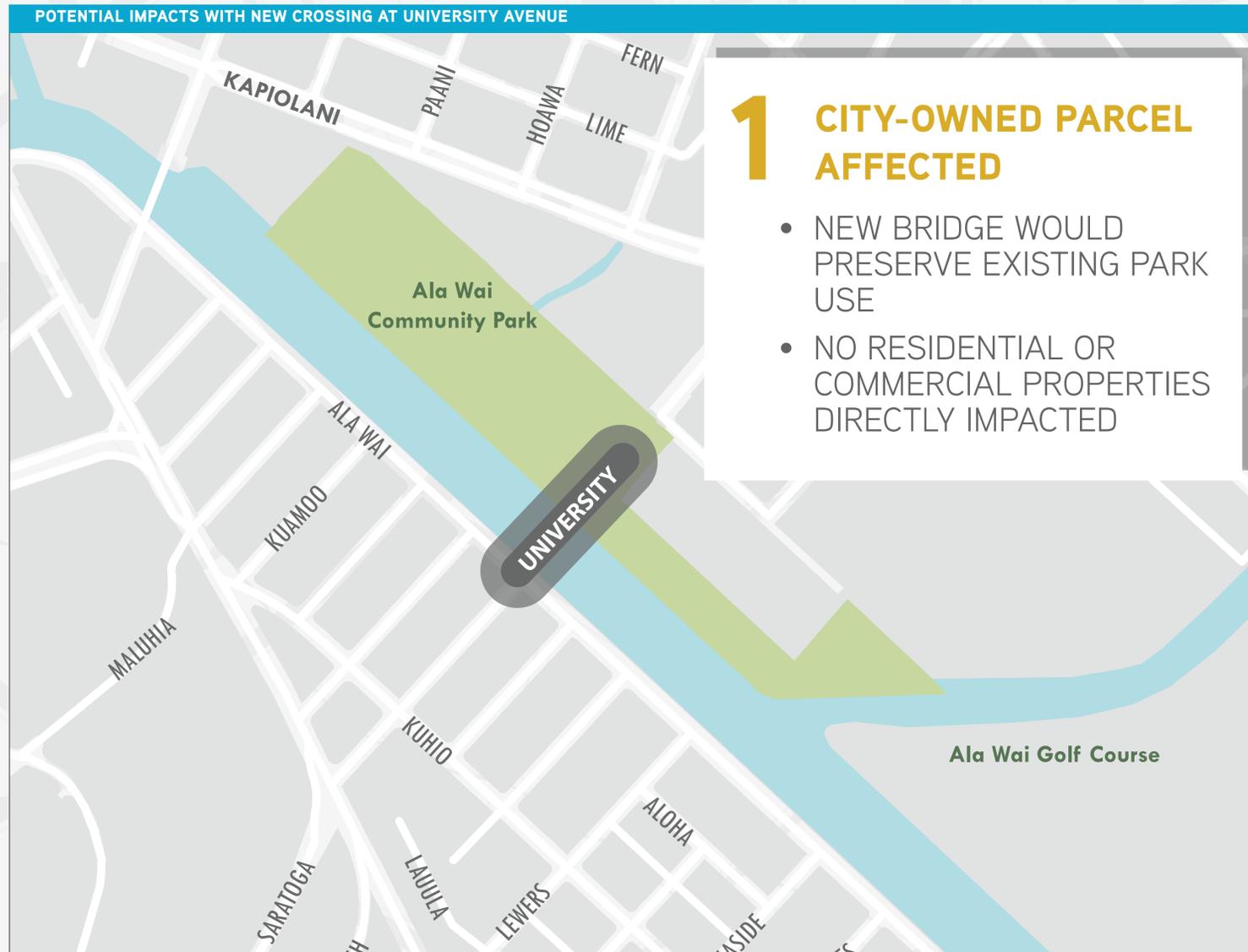
New bridges do not directly impact private properties in the study area. Minimal impacts to parks would not affect the intended recreational use of Ala Wai Community Park or the Ala Wai Golf Course.

## Land use in the walk and bike sheds:

15% is dedicated to preserved lands, parks, and other recreational facilities

46% is dedicated to low to medium density residential or mixed-use

13% is dedicated to community or neighborhood commercial



	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
POTENTIAL IMPACTS TO SECTION 4(F) PROPERTIES	●	●	●	●	●	●	●	●	●
NUMBER OF POTENTIAL IMPACTED RESIDENTIAL PROPERTIES (DIRECT)	●	●	●	●	●	●	●	●	●
NUMBER OF POTENTIAL IMPACTED BUSINESS PROPERTIES (DIRECT)	●	●	●	●	●	●	●	●	●
POTENTIAL FOR INDIRECT IMPACTS TO RESIDENTIAL PROPERTIES	●	●	●	●	●	●	●	●	●
POTENTIAL FOR INDIRECT IMPACTS TO BUSINESSES/COMMUNITY	●	●	●	●	●	●	●	●	●

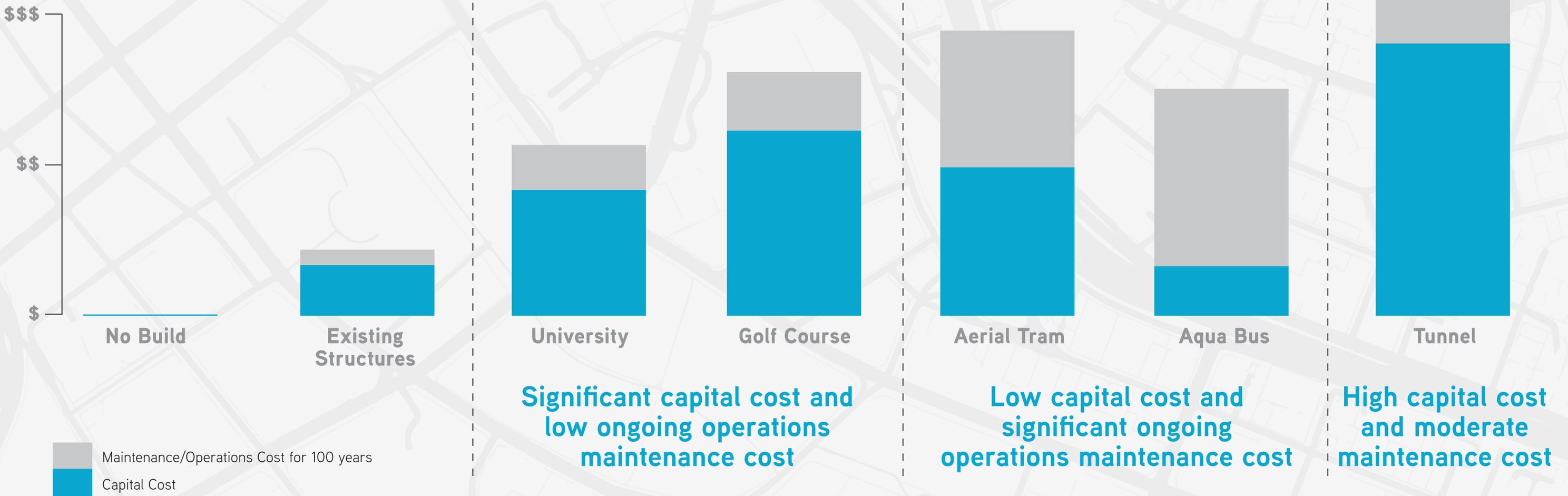


HIGH - ● MEDIUM - ● LOW - ○

# IMPLEMENTATION 10 POINTS

New bridges require significant capital cost with low ongoing maintenance cost, while other alternatives require ongoing operations and maintenance cost.

## CAPITAL COST & MAINTENANCE/OPERATIONS ESTIMATES



	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
CAPITAL COST	●	●	●	●	●	○	○	○	○
OPERATIONAL COST	●	●	●	●	●	●	○	○	●
DESIGN AND CONSTRUCTION TIME	●	●	●	●	●	●	○	○	○
EASE OF IMPLEMENTATION/CONSTRUCTABILITY	●	●	●	●	●	○	○	●	○



HIGH - ● MEDIUM - ● LOW - ○

# SAFETY FROM TRAFFIC 10 POINTS

A new crossing at University Avenue, provides a **low-crash link**, a connection for people walking and biking through areas with fewer collisions.

## Pedestrian and Bicycle Collisions (2014 - 2018)

- x High crash link
- x Low crash link
- ↖ Number of collisions

### Intersection Collisions

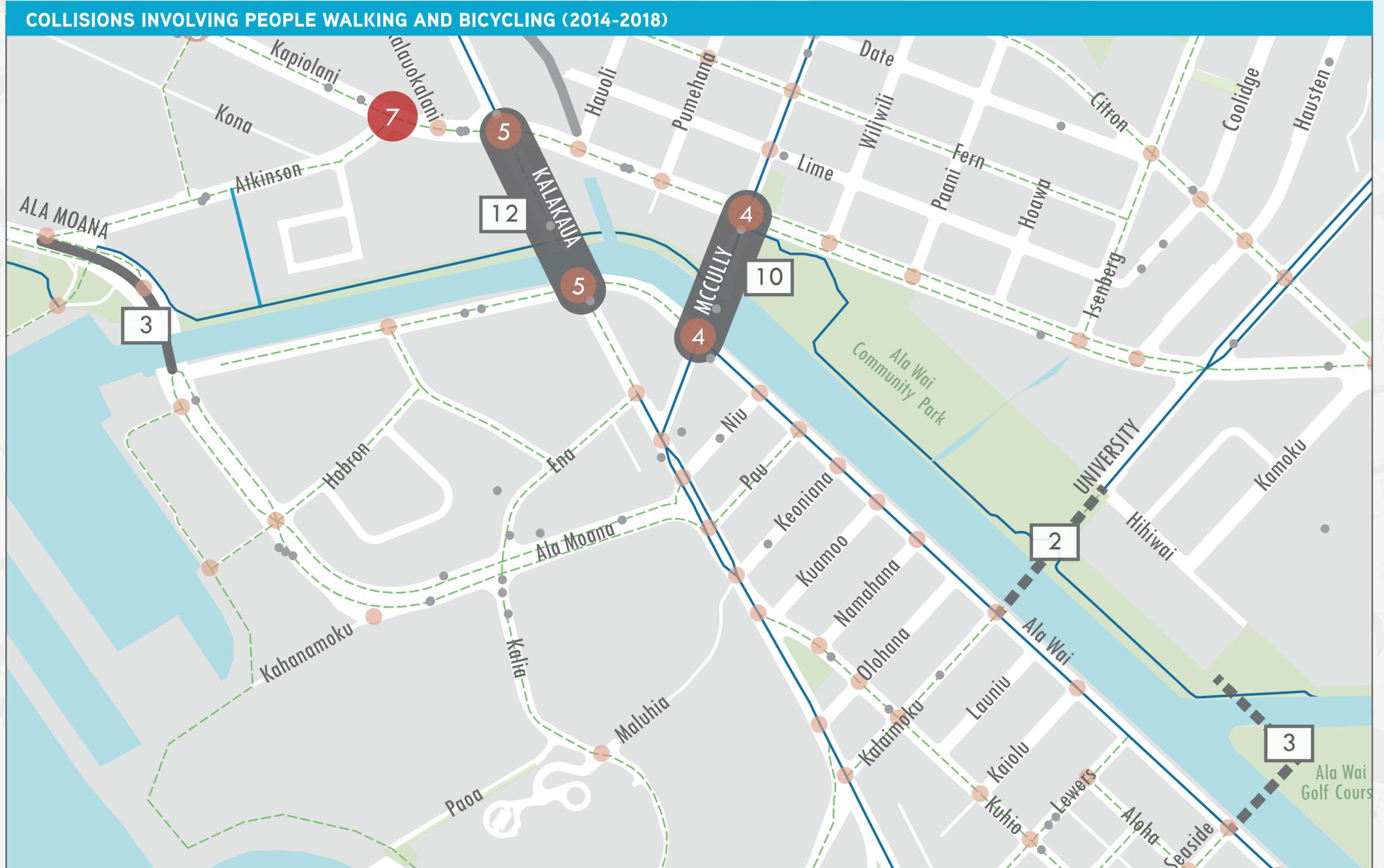
- 1 - 3
- 4 - 6
- 7 - 8
- Non-Intersection Collisions

### Bike Network

(2018 O'ahu Bike Plan)

- Existing Bicycle Infrastructure
- - - Proposed Bicycle Infrastructure

Source: Hawaii Department of Transportation



IMPROVES SAFETY ALONG HIGH CRASH CORRIDORS

IMPROVES THE SAFETY AND COMFORT OF WALK OR BIKE TRIPS

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
IMPROVES SAFETY ALONG HIGH CRASH CORRIDORS	○	●	●	●	●	●	●	●	●
IMPROVES THE SAFETY AND COMFORT OF WALK OR BIKE TRIPS	○	●	●	●	●	●	●	●	●



HIGH - ● MEDIUM - ● LOW - ○

# TRAVEL TIME AND CONVENIENCE 10 POINTS

A crossing at University Avenue **reduces travel times for people walking and bicycling** between Waikiki and McCully-Moilili

## Kainoa

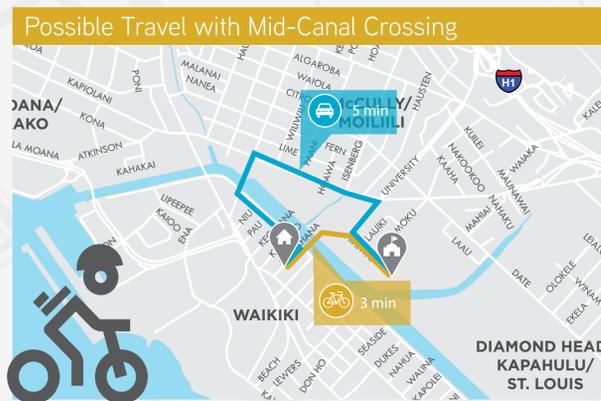
Lives on Namahana Street and **bikes to school** at Ala Wai Elementary



**Kainoa could save:**



**8 min.**



## Lucy

Lives in Moilili on Nakookoo St and **walks to work** at the Sheraton in Waikiki



**Lucy could save:**



**9 min.**



## Peter

Is a **car-free UH student** and wants to **go surfing** at Canoes in Waikiki



**Peter could save:**



**7 min.**



Source: Google Maps

REDUCES TRAVEL TIMES FOR PEOPLE WALKING

REDUCES TRAVEL TIMES FOR PEOPLE BICYCLING

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
REDUCES TRAVEL TIMES FOR PEOPLE WALKING	○	○	○	○	●	●	○	○	●
REDUCES TRAVEL TIMES FOR PEOPLE BICYCLING	○	○	○	○	●	●	○	○	●

HIGH - ● MEDIUM - ○ LOW - ○



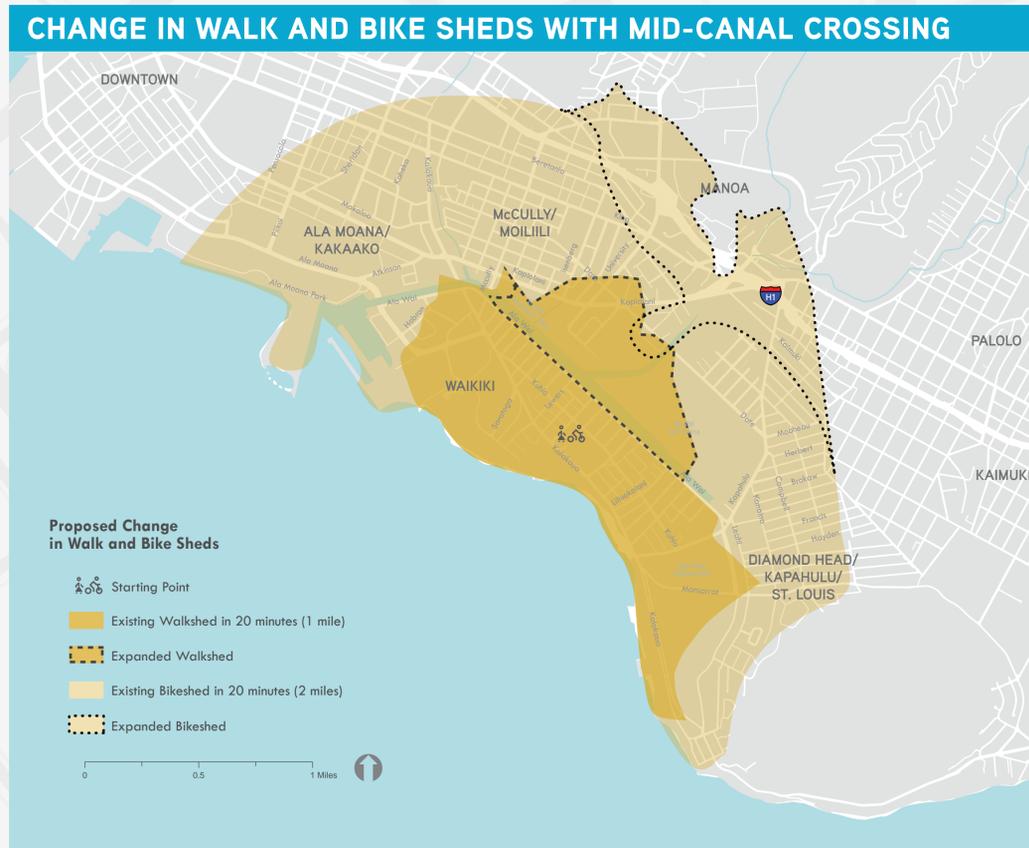
# ENHANCE SUSTAINABLE MOBILITY AND IMPROVE PUBLIC HEALTH 10 POINTS

A new canal crossing expands walk and bikesheds, **allowing more people to walk and bike for short trips.**

9,000+ MORE walk trips possible



9,000+ MORE bike trips possible

Source: 2016 American Community Survey 5-Year Estimates

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
INCREASES SUSTAINABLE TRANSPORTATION MODE SHARE	○	●	●	●	●	●	○	○	●
ENCOURAGES PHYSICAL ACTIVITY	○	●	●	●	●	●	○	○	●

HIGH - ● MEDIUM - ● LOW - ○

# AFFORDABLE ACCESS 5 POINTS

**Seniors, youth, and low-income residents** would be best served by a new crossing.

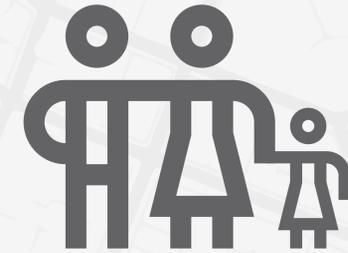
A new crossing would allow the following people to **walk or bike for short trips...**



1,000 KUPUNA (65 AND OVER)



1,000 YOUTH (18 AND UNDER)



16 LOW-INCOME FAMILIES



1,200 LOW-INCOME EMPLOYEES

Source: 2010 Census, 2016 American Community Survey 5-Year Estimates, and 2015 Longitudinal Employment-Household Dynamics (LEHD)

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
SERVES ELDERLY POPULATION	○	○	○	○	●	●	●	●	●
SERVES LOW INCOME POPULATION AND EMPLOYEES	○	○	○	○	●	●	●	●	●

HIGH - ● MEDIUM - ● LOW - ○



# IMPROVED NON-MOTORIZED EMERGENCY EVACUATION AND PUBLIC SAFETY 5 POINTS

New canal crossings **create new, faster, direct routes** to the Tsunami Evacuation Safe Zone and **increase public safety** by activating places that are often hidden from view now.

A crossing at University Ave will **decrease evacuation times from Wakiki by...**

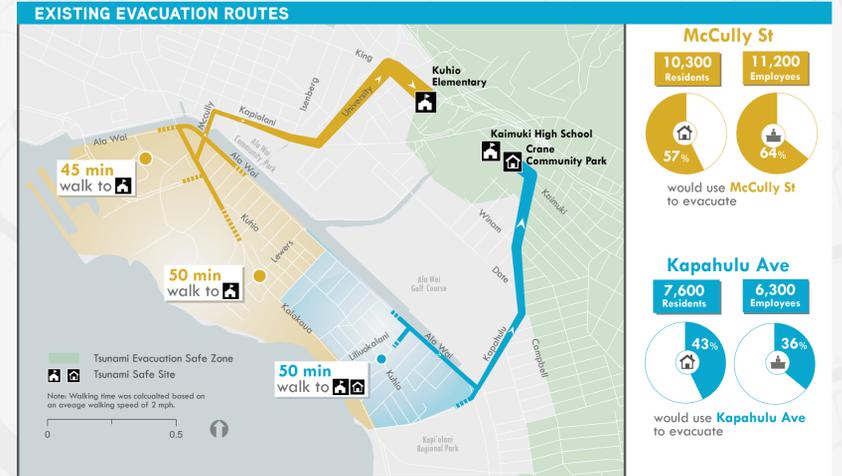
 → **15 MINUTES** FOR 20,000 PEOPLE

A convenient crossing will **increase foot and bicycle traffic around the canal...**

**NEW BRIDGE RIDERSHIP FORECAST =**

**1,300 - 4,300**

**DAILY TRIPS & EYES ON THE STREET**



IMPROVES TSUNAMI EVACUATION ROUTES AND TIMES  
IMPROVES FOOT AND BIKE TRAFFIC TO INCREASE EYES ON STREET

	NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
IMPROVES TSUNAMI EVACUATION ROUTES AND TIMES	○	○	○	○	●	●	○	○	○
IMPROVES FOOT AND BIKE TRAFFIC TO INCREASE EYES ON STREET	○	●	●	●	●	●	●	●	●

HIGH - ● MEDIUM - ● LOW - ○

# VIBRANT CANAL 3 POINTS

New bridges are an opportunity to enhance the vibrancy of the canal with **active, safe, destination-quality public spaces.**

## LANDMARK DESTINATION



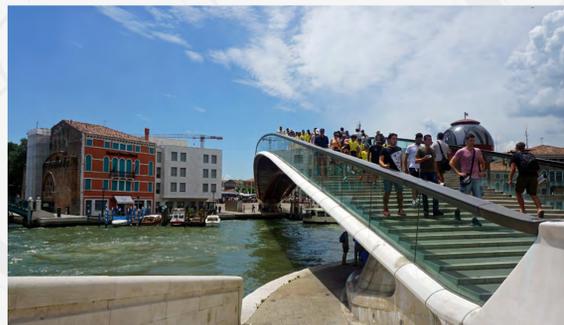
MILLENNIUM BRIDGE, LONDON, UNITED KINGDOM



PUENTE DE LA MUJER, SEVILLE, SPAIN



CANOE BRIDGE, VANCOUVER, CANADA



CONSTITUTION BRIDGE, VENICE, ITALY



35TH STREET BRIDGE, CHICAGO, ILLINOIS



35TH STREET BRIDGE, CHICAGO, ILLINOIS

## VIBRANT PUBLIC SPACE



INNER HARBOUR BRIDGE (KISSING BRIDGE), COPENHAGEN, DENMARK



MILLENNIUM BRIDGE, LONDON, UNITED KINGDOM



HELIX BRIDGE, SINGAPORE

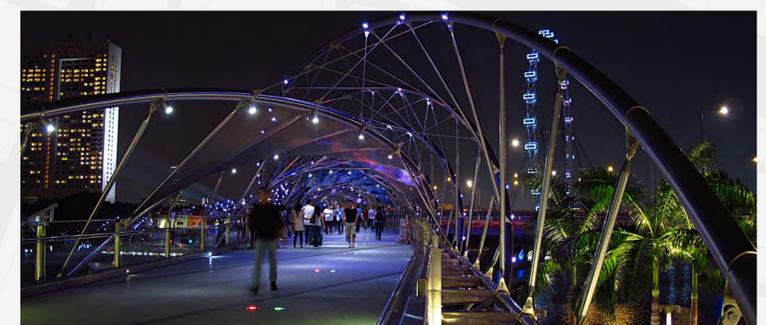
## SAFE CROSSING AT ALL TIMES OF DAY



PUENTE DE LA MUJER, SEVILLE, SPAIN



MILLENNIUM BRIDGE, LONDON, UNITED KINGDOM



HELIX BRIDGE, SINGAPORE



**Honolulu**  
COMPLETE STREETS



CREATES A LANDMARK CHARACTER OR DESTINATION QUALITY

NO BUILD	ALA MOANA	KALAKAUA	MCCULLY	UNIVERSITY	GOLF COURSE	AERIAL TRAM	AQUABUS	TUNNEL
○	●	●	●	●	●	●	●	○

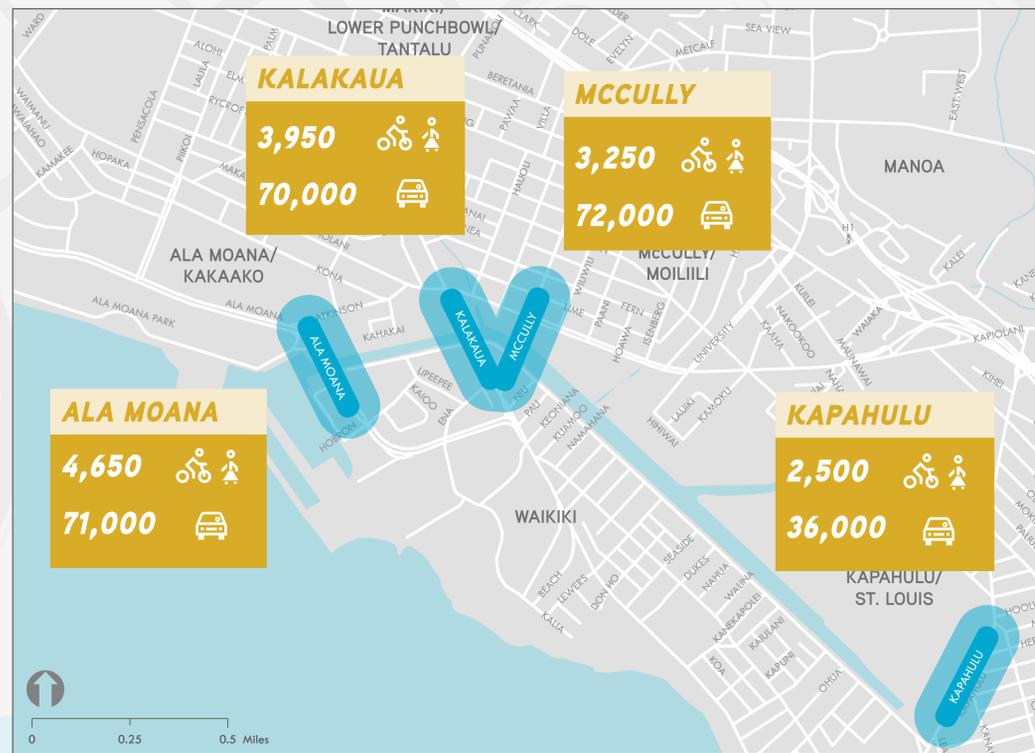
HIGH - ● MEDIUM - ● LOW - ○

# BRIDGE USE ESTIMATES

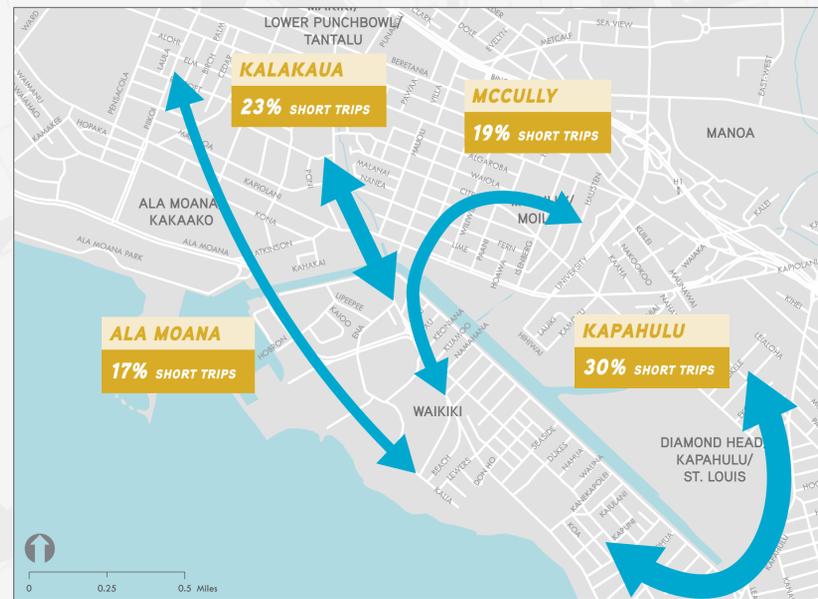
How many current trips across the Ala Wai **could be taken on foot or bicycle?**

## 3 STEP PROCESS

**1** We looked at the how many *people are using the existing crossings* on a daily basis by mode.



Source: September 2018 Road Counts.  
Car icons represent drivers and passengers in cars and motorcycles, based on 2017 National Household Travel Survey.



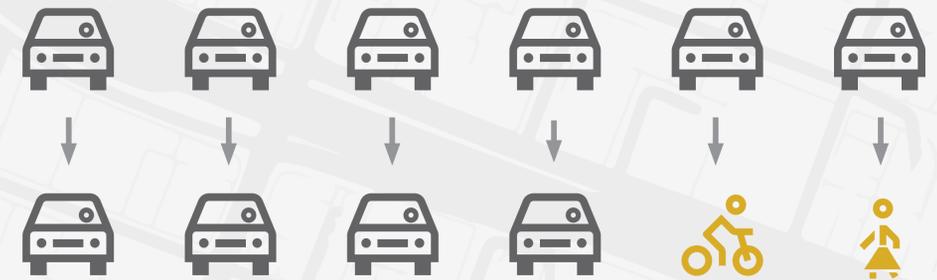
Source: 2017 AirSage Origin-Destinations

**2** We looked at what proportion travelers are taking *short trips across the canal*.

**SHORT TRIP < 2 MILES**

**3** We estimated what proportion of existing travelers would:

**SHIFT MODE** from driving across the canal to taking the trip by foot or bicycle, and

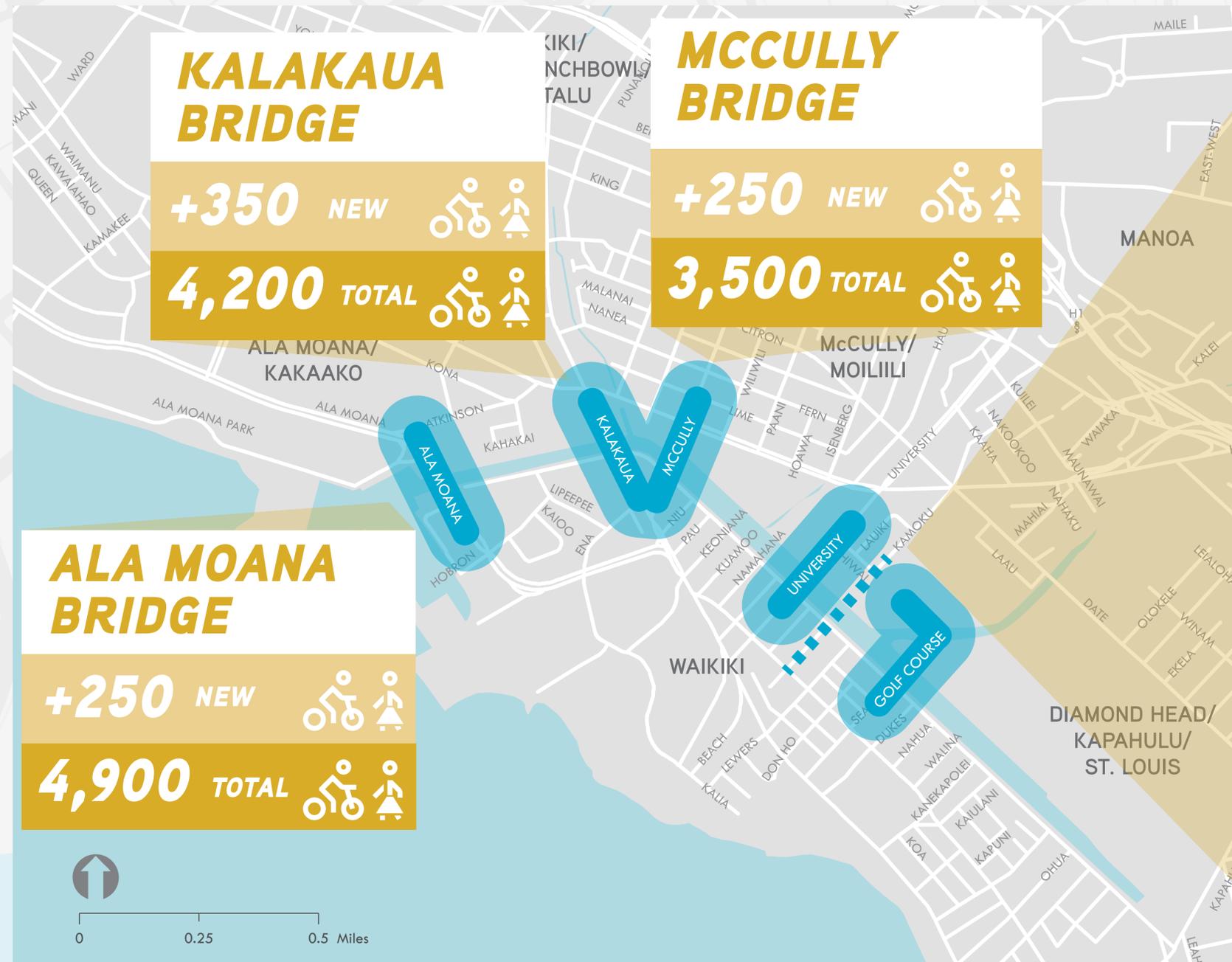


**SHIFT ROUTE** from their current bicycle and walking route to a new crossing.



# BRIDGE USE ESTIMATES

Each alternative would attract a different number of **daily trips by foot and bicycle.**



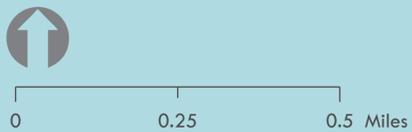
## NEW BRIDGE (UNIVERSITY OR GOLF COURSE)

**CONSERVATIVE SCENARIO**  
 LOW MODE SHIFT\* & LOW ROUTE SHIFT\*\*

**MODERATE SCENARIO**  
 MODERATE MODE SHIFT\* & HIGH ROUTE SHIFT\*\*

**OPTIMISTIC SCENARIO**  
 HIGH MODE SHIFT\* & HIGH ROUTE SHIFT\*\*

	NEW TRIPS 	TOTAL TRIPS 
<b>CONSERVATIVE SCENARIO</b> LOW MODE SHIFT* & LOW ROUTE SHIFT**	+100	1,300
<b>MODERATE SCENARIO</b> MODERATE MODE SHIFT* & HIGH ROUTE SHIFT**	+750	3,600
<b>OPTIMISTIC SCENARIO</b> HIGH MODE SHIFT* & HIGH ROUTE SHIFT**	+1,500	4,300



\***MODE SHIFT** = PROPORTION OF DRIVERS AND MOTORCYCLISTS WHO WOULD SWITCH TO WALKING OR BIKING FOR THEIR SHORT TRIP (LESS THAN 2 MILES) ACROSS THE CANAL

\*\***ROUTE SHIFT** = PROPORTION OF PEOPLE WHO CURRENTLY WALK OR BIKE WHO WOULD SWITCH THEIR ROUTE TO A NEW BRIDGE FROM THE MCCULLY BRIDGE OR AROUND KAPAHULU

# BRIDGE TYPE: CONCRETE ARCH (BIFURCATED)

A bifurcated arch bridge balances a sense of openness and connection to the surrounding environment, while maintaining a clear span across the canal with reduced impact to view corridors.

## PROS

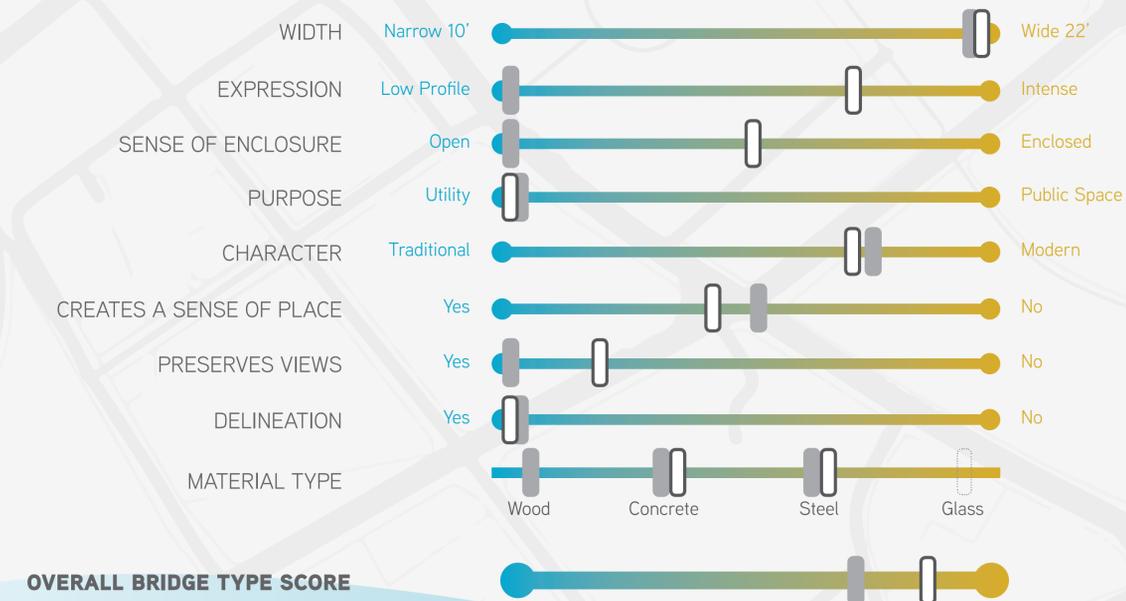
- Maintains sense of openness
- Structural delineation separates people bicycling and walking
- Least amount of impact to view corridors while maintaining a clear span across canal (no piers in the water)
- Concrete is easy to maintain

## CONS

- Potential impact on view corridors
- Potential temporary trestle needed across canal during construction

## RANGE OF POSSIBLE BRIDGE EXPERIENCES

How does this bridge concept score compared to expressed community feedback?



Concept Score  Community Feedback\* on Preferred Bridge Experience

\*Source: Community Kickoff Meetings, September 2018



How well does this bridge type achieve your desired bridge experience?

Vote: Place your sticker here

Comments?

# BRIDGE TYPE: CONCRETE CABLE-STAYED

A concrete cable-stayed bridge maintains a sense of openness while creating a visible landmark.

## PROS

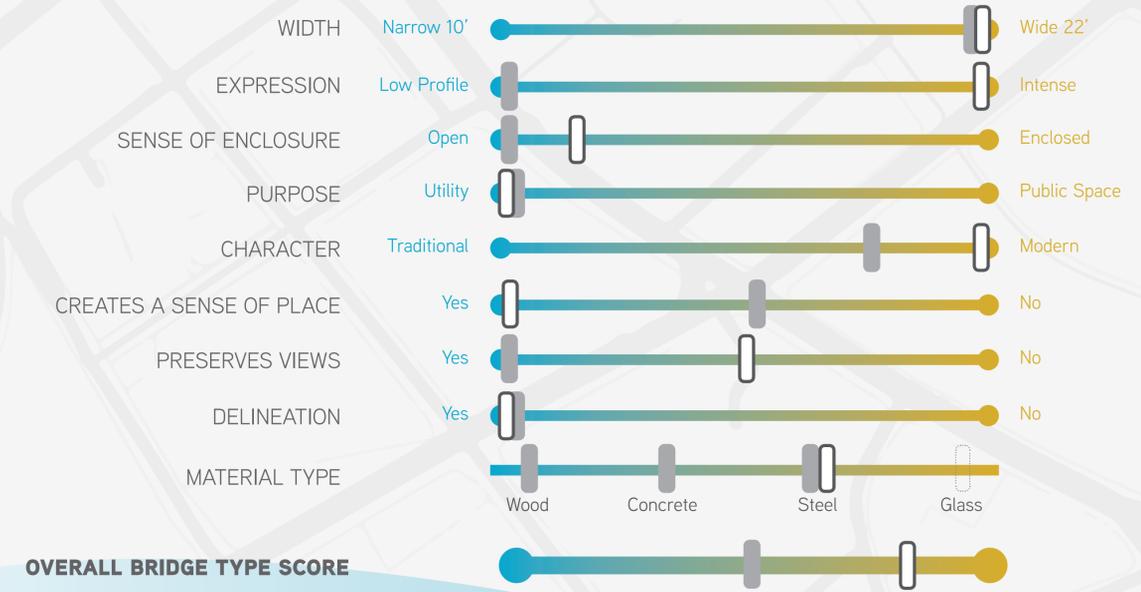
- Creates a sense of place and destination-quality landmark
- Structural delineation separates people bicycling and walking
- Sense of openness
- Maintains a clear span over canal (no piers in the water)

## CONS

- Impacts views toward Diamond Head
- Geotechnical and structural considerations with cantilevered tower

## RANGE OF POSSIBLE BRIDGE EXPERIENCES

How does this bridge concept score compared to expressed community feedback?



Concept Score  Community Feedback\* on Preferred Bridge Experience

\*Source: Community Kickoff Meetings, September 2018



How well does this bridge type achieve your desired bridge experience?

Vote: Place your sticker here

Comments?

# BRIDGE TYPE: STEEL LENTICULAR

A steel lenticular truss bridge is visually interesting and implementable, although it has a greater sense of enclosure.

## PROS

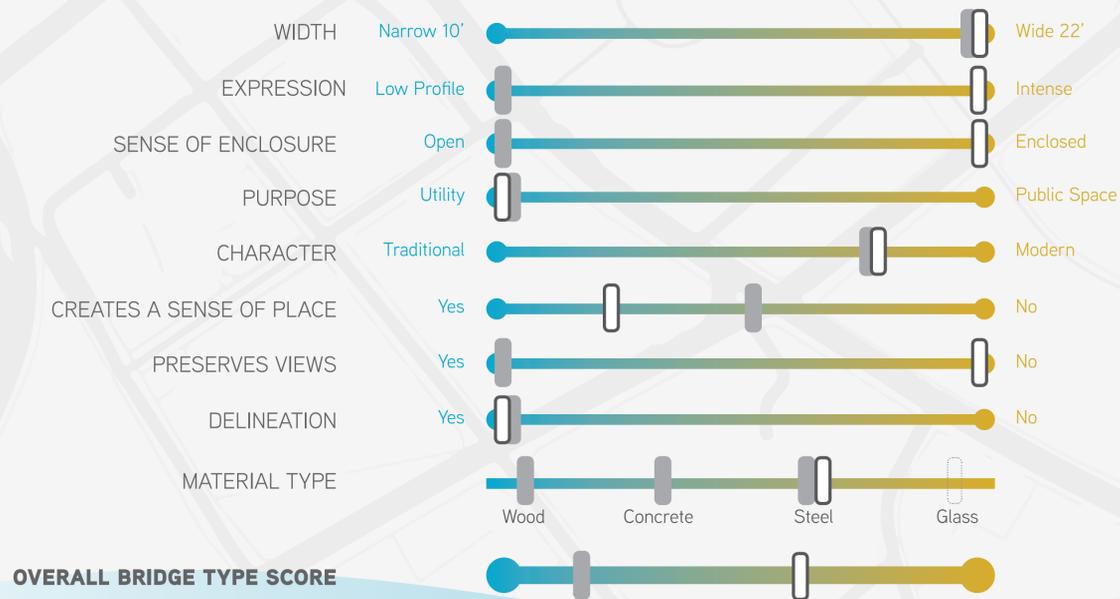
- Visually interesting overhead bridge structure
- Modern character
- Traditional bridge implementation
- Maintains a clear span over canal (no piers in the water)

## CONS

- Impact on view corridors
- Sense of enclosure; disconnection from surrounding setting
- No structural separation for people
- Steel is difficult to maintain in the Hawaiian marine environment

## RANGE OF POSSIBLE BRIDGE EXPERIENCES

How does this bridge concept score compared to expressed community feedback?



Concept Score  Community Feedback\* on Preferred Bridge Experience

\*Source: Community Kickoff Meetings, September 2018



How well does this bridge type achieve your desired bridge experience?

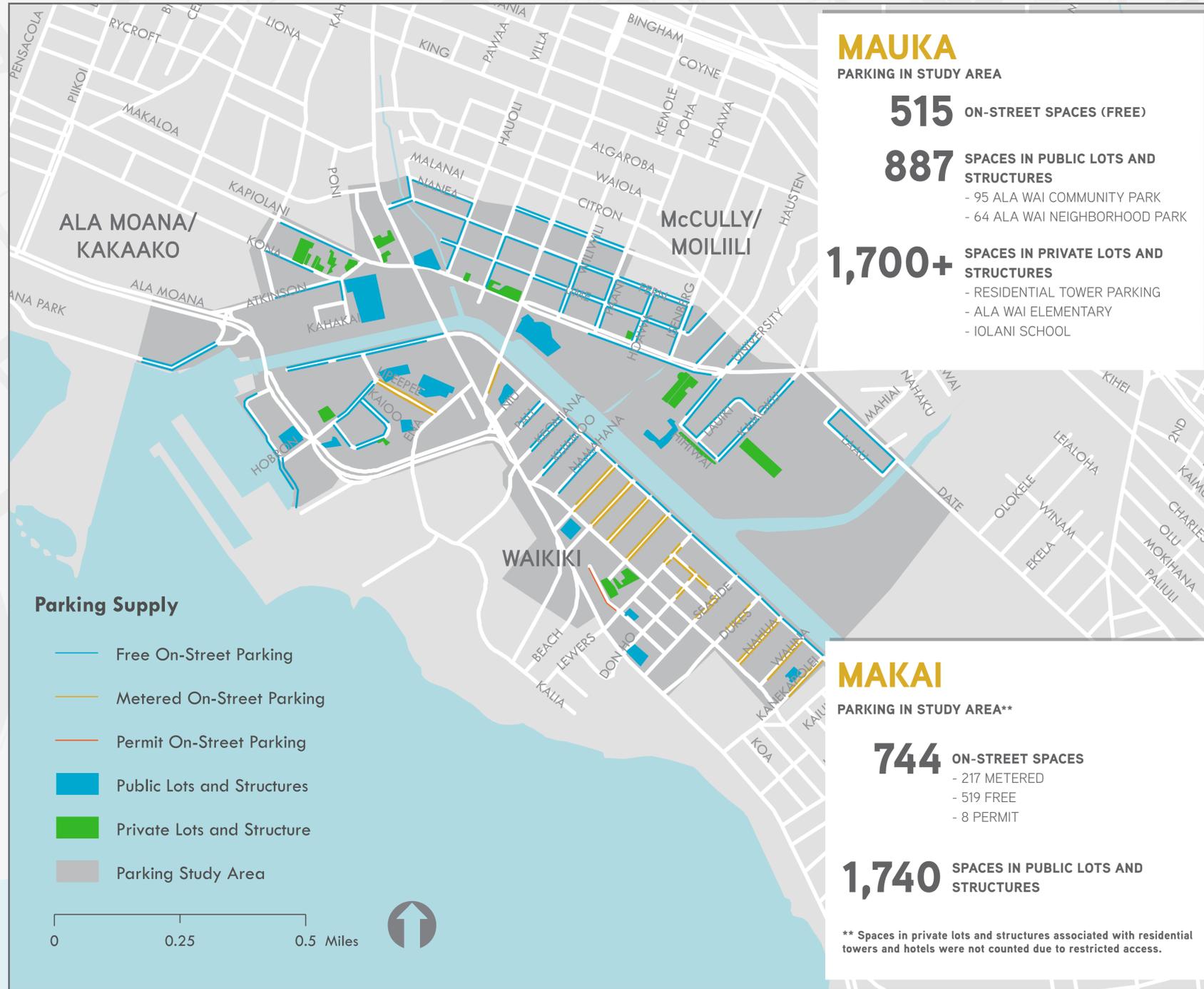
Vote: Place your sticker here

Comments?



# PARKING SUPPLY

What ideas do you have for **managing parking demand to ensure access for all?**



## EXAMPLE STRATEGIES



### RESIDENT PERMIT PARKING PROGRAM

- Rate structure for types of residents
- Visitor Permits
- Strong enforcement



### WAYFINDING, SIGNAGE, AND INFORMATION

- Readily available parking information before arrival
- Signage to and from appropriate parking locations



### PARKING PRICING

- Tiered parking rates based on demand
- Ensure adequate turnover to support businesses



### TRANSPORTATION DEMAND MANAGEMENT

- Reduce demand for parking through mobility improvements for transit riders, bicyclists, and pedestrians



### SHARED PARKING

- Create agreements to make private parking available when not in use by owners and occupants

What ideas do you have?



# CULTURAL CONTEXT & URBAN DESIGN

What elements of **local cultural context** could be used to inform bridge design?



TARO FIELDS (1940)



BANANA FIELDS (1880s)



RICE FIELDS (1900)



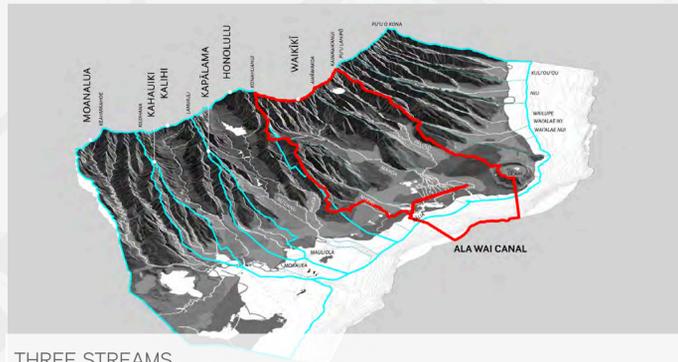
WAIKIKI (1880s)



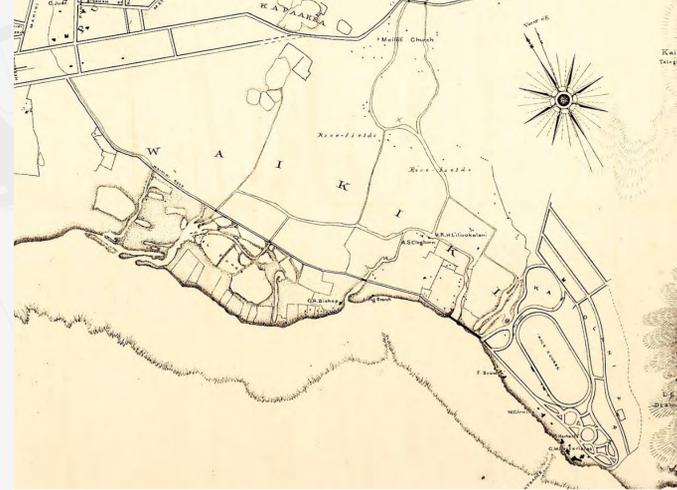
APUAKEHAU (1890)



ALA WAI CANAL (1927)



THREE STREAMS



MAP OF WAIKIKI (1887)



VIEW OF WAIKIKI (1880s)



KAPIOLANI PARK RACE TRACK (1900s)



KAPIOLANI PARK POLO



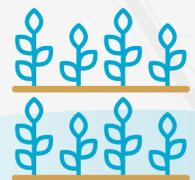
SHORELINE FISHING (1956)



RECREATIONAL AND COMPETITIVE PADDLING



WAIKIKI DUCK RACE



**AHUPUA'A MOMONA**  
ABUNDANCE + NOURISHMENT



**KAHAWAI EKOLU**  
WATER + WEALTH



**ALA WĀWAE**  
PEOPLE



**MEA LE'ALE'A**  
RECREATION

What ideas do you have on how local cultural context could inform bridge design?



# FUTURE PROJECT PHASES & UPCOMING WORK

What analysis is most important to you for further study?

CATEGORY	PLACE YOUR STICKER HERE
 Parking Study and Effective Demand Management Plan	
 Urban Design and Landscape Maintenance Plan	
 Context Sensitive Lighting Plan	
 Further Public Engagement	
 Further Project Design Visualization, Renderings and Physical Model	
 Viewshed Impact Assessment	
 Further Environmental Assessment, Technical Studies and Permitting	
 Wayfinding Plan	
 Cultural and Historical Heritage Assessment	

What other categories of analysis are important to you?



# ADDITIONAL COMMENTS

