

# Kalihi

COMPLETESTREETS

Final Community Meeting  
October 26, 2021

Honolulu COMPLETESTREETS



# Aloha!

Thank you for taking the time to meet with the City and County of Honolulu Complete Streets team to share your thoughts on the roadway safety concepts for N. King Street, Waiakamilo Road/Houghtailing Street, and School and Middle Streets.

We will review the proposed design changes with you, sharing the design tradeoffs we faced and our team's recommended solutions.

We seek your feedback and comments on the proposed solutions.

Mahalo for your participation!



# Introductions – The Team

- City and County of Honolulu, Department of Transportation Services
  - Renee Espiau
  - Daniel Alexander
- Nelson\Nygaard
  - Drusilla van Hengel
  - Michael Riebe
- PBR HAWAII
  - Catie Cullison
  - Theresa Dean
- Austin Tsutsumi & Associates



*Honolulu* COMPLETESTREETS



*Honolulu* COMPLETESTREETS

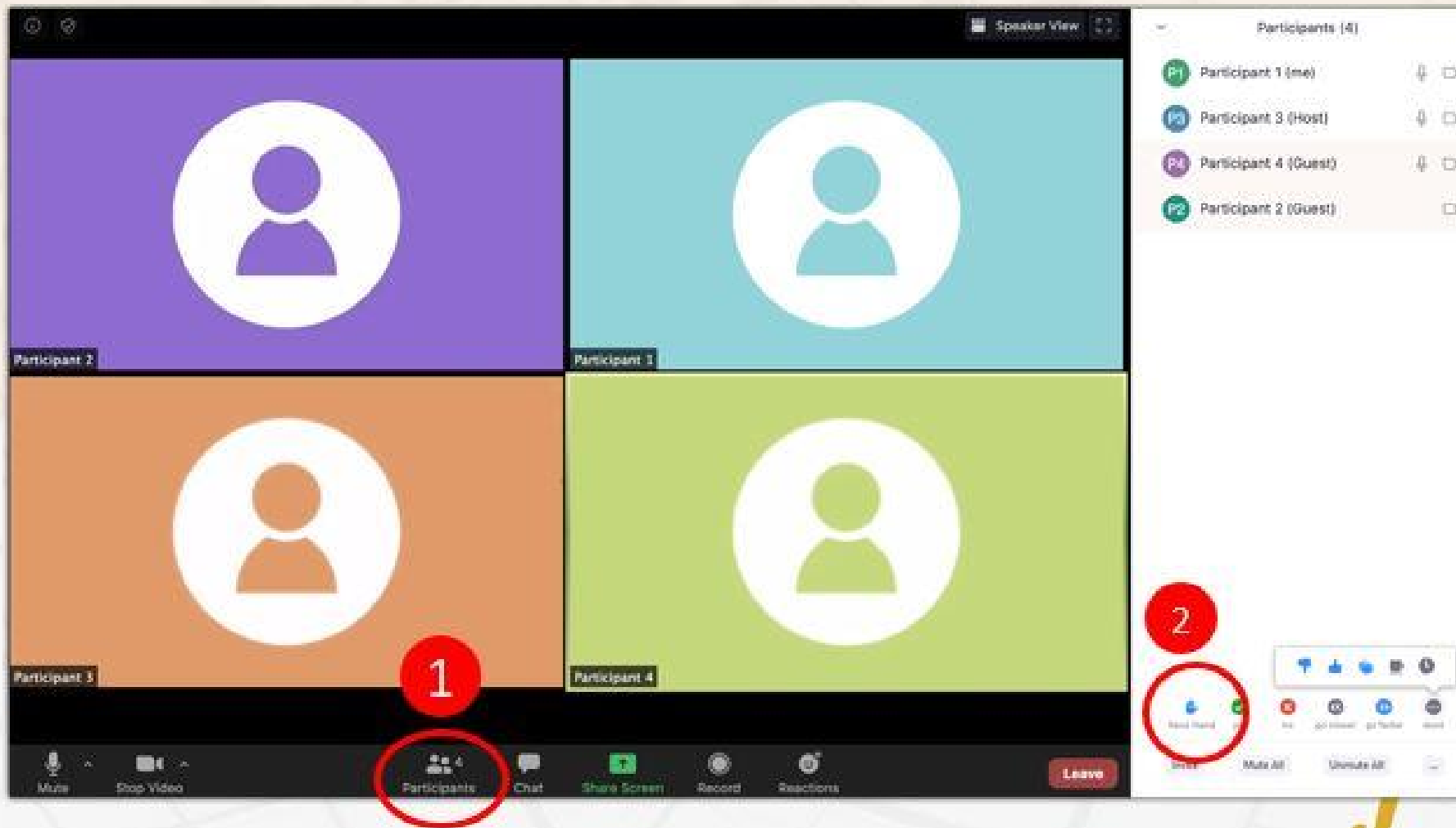


# "Netiquette"

- This meeting will be recorded
- You will be muted upon entry to today's meeting for sound quality. Please do not unmute yourself until the presenter has called on you to speak.
- Your questions are welcome! **Please feel free to use the “Raise Hand” function to be recognized.**
- Impersonating or mocking people or institutions are not allowed. Neither are blatantly false statements or foul language. Participants who engage in this behavior will be removed.

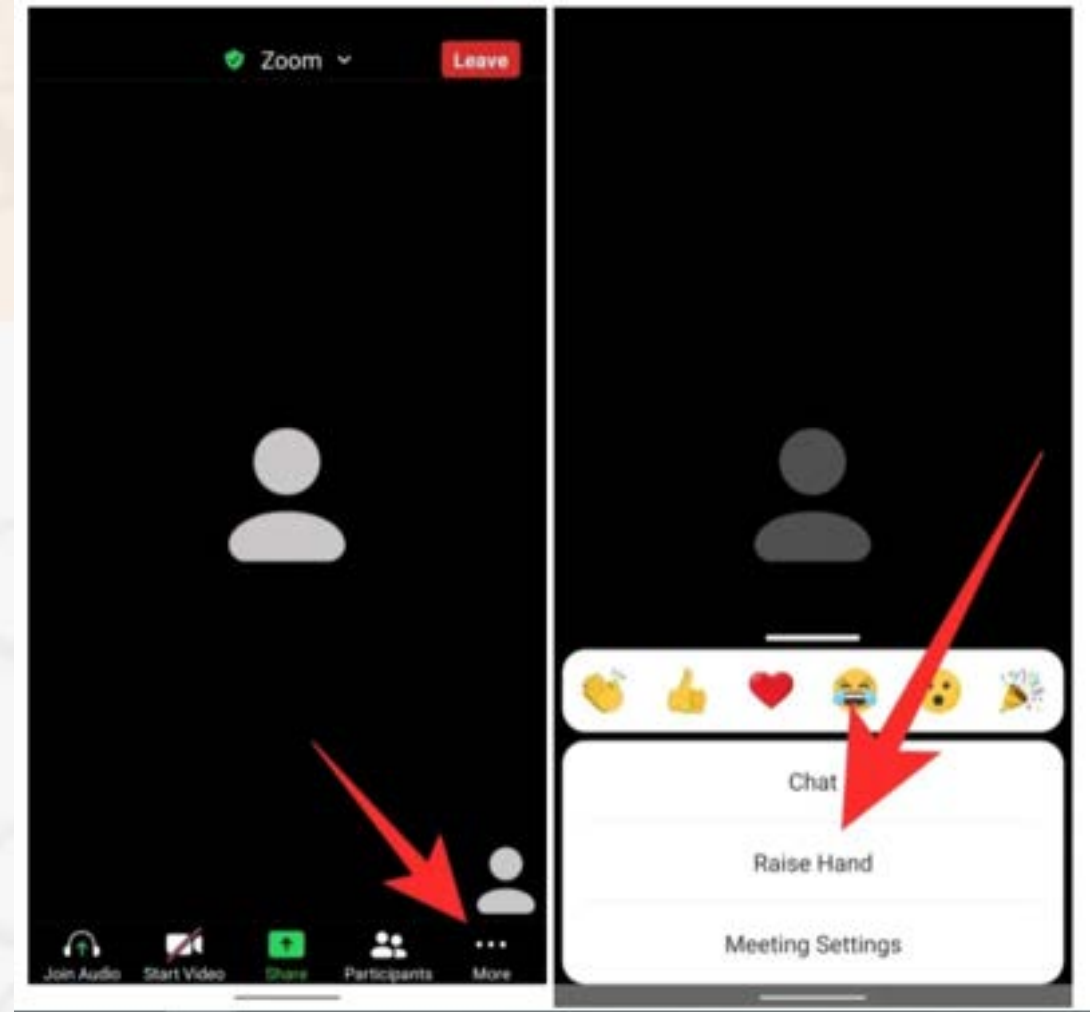


# HOW TO “RAISE HAND” - COMPUTER



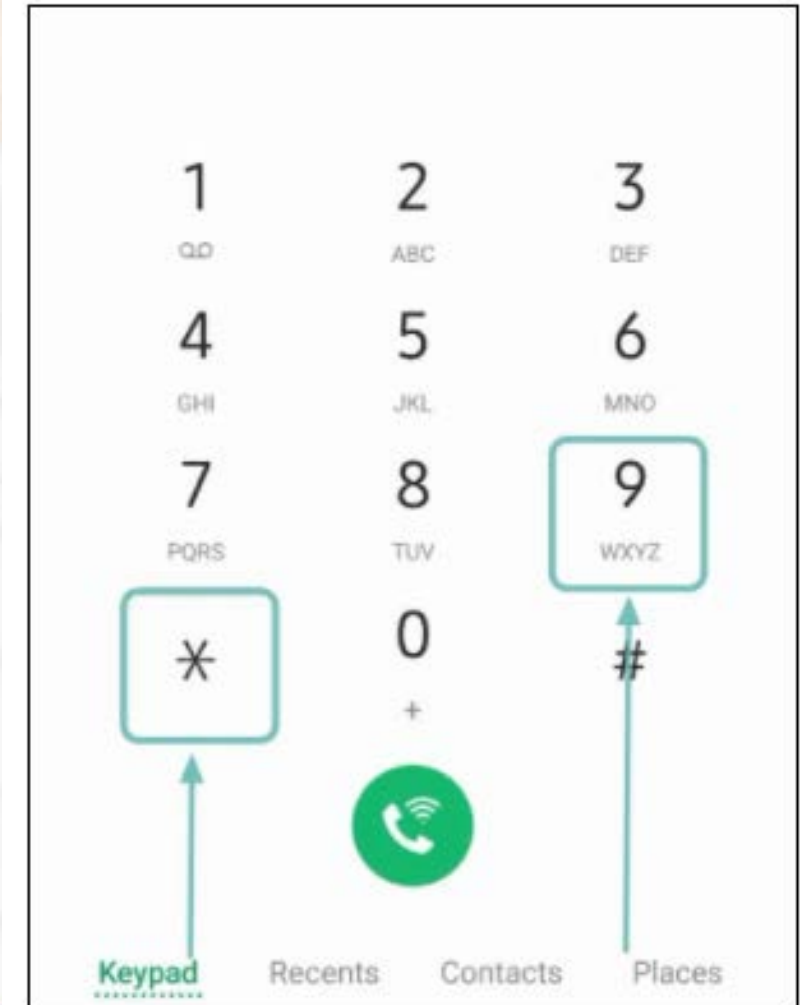
# HOW TO “RAISE HAND” - PHONE APP

1. If toolbar not visible: tap screen to toggle on
2. Choose ...More
3. Click “raise hand”



# HOW TO “RAISE HAND” - CALL

1. Open phone dial pad
2. Dial \*9 to “raise hand”
3. Dial \*9 again to “lower”



# ZOOM Housekeeping

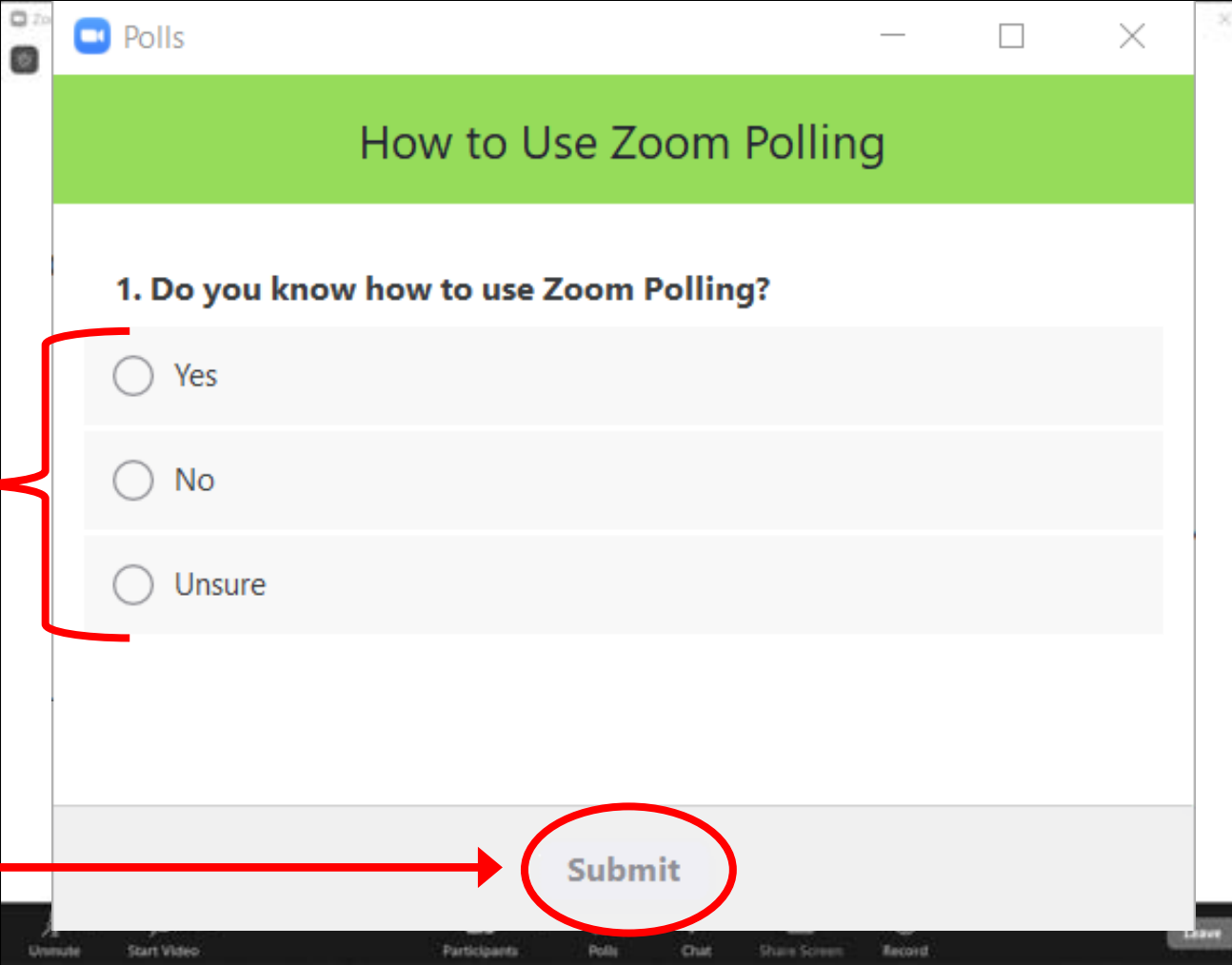
## Polling

When we open the Zoom Poll, a pop-up box will appear on your screen. Then please follow steps 1 through 3.

When the poll closes, we will share the responses with the group.

**1** Choose your response

**2** Click submit



The screenshot shows a Zoom poll window titled "Polls" with a green header "How to Use Zoom Polling". The poll question is "1. Do you know how to use Zoom Polling?". There are three radio button options: "Yes", "No", and "Unsure". At the bottom of the poll window, there is a "Submit" button. A red circle highlights the "Submit" button, and a red arrow points from the "2 Click submit" text to it. A red bracket groups the three radio button options, and a red arrow points from the "1 Choose your response" text to it.

**3**

If you choose 'Other' or if you wish to clarify your answer, please submit your thoughts in the chat





# Practice/Warm Up Poll (poll #1)

Question: How would you like to get around Kalihi?

- a. Walk
- b. Bike
- c. TheBus or TheHandi-Van
- d. Roll in a scooter, wheelchair, or other means
- e. Drive (or ride as a passenger) in a car
- f. Skateboard, one-wheel, or Segway
- g. Some other way



# Meeting Agenda

- Complete Streets Overview
- Introduction to Roadway Safety Design Tools
- Proposed Designs for Major Corridors:
  - North King Street
  - Waiakamilo Road / Houghtailing Street
  - School Street / Middle Street
- Breakout Room Discussion #1 (20 minutes)
- Breakout Room Discussion #2 (20 minutes)
- Next Steps



# Meeting Objectives

- Share how community input and roadway data informed the safety proposals
- Describe what is proposed along the Kalihi corridors
- Hear your input on the proposed plans



# Introduction

## What are “Complete Streets”?

Complete Streets (ROH 14-33) is a transportation approach that provides safe facilities for people of all ages and abilities whether they are walking, using a wheelchair, on a bike, riding transit, or in a car.



# Introduction

## What are “Complete Streets”?



People on Foot and  
Universal Access



People on Cycles



People Using  
Collective Transport



People in Personal  
Motorized Vehicles



People Moving  
Goods and City  
Services



People Doing  
Business



King St

HARRINGTON HIGH SCHOOL

LEFT ON ARCADE ONLY

King Airport



Waikamilo Rd / Houghtailing St	Schools	Bus Transit Center
N King St	Colleges	Planned Rail Transit
Middle St / N School Street	University Properties	
	School Properties	

**Kalihi Area: Project Corridors**

0 0.5 1 Miles

Sources: City and County of Honolulu, State of Hawaii



# Kalihi Complete Streets Project Schedule



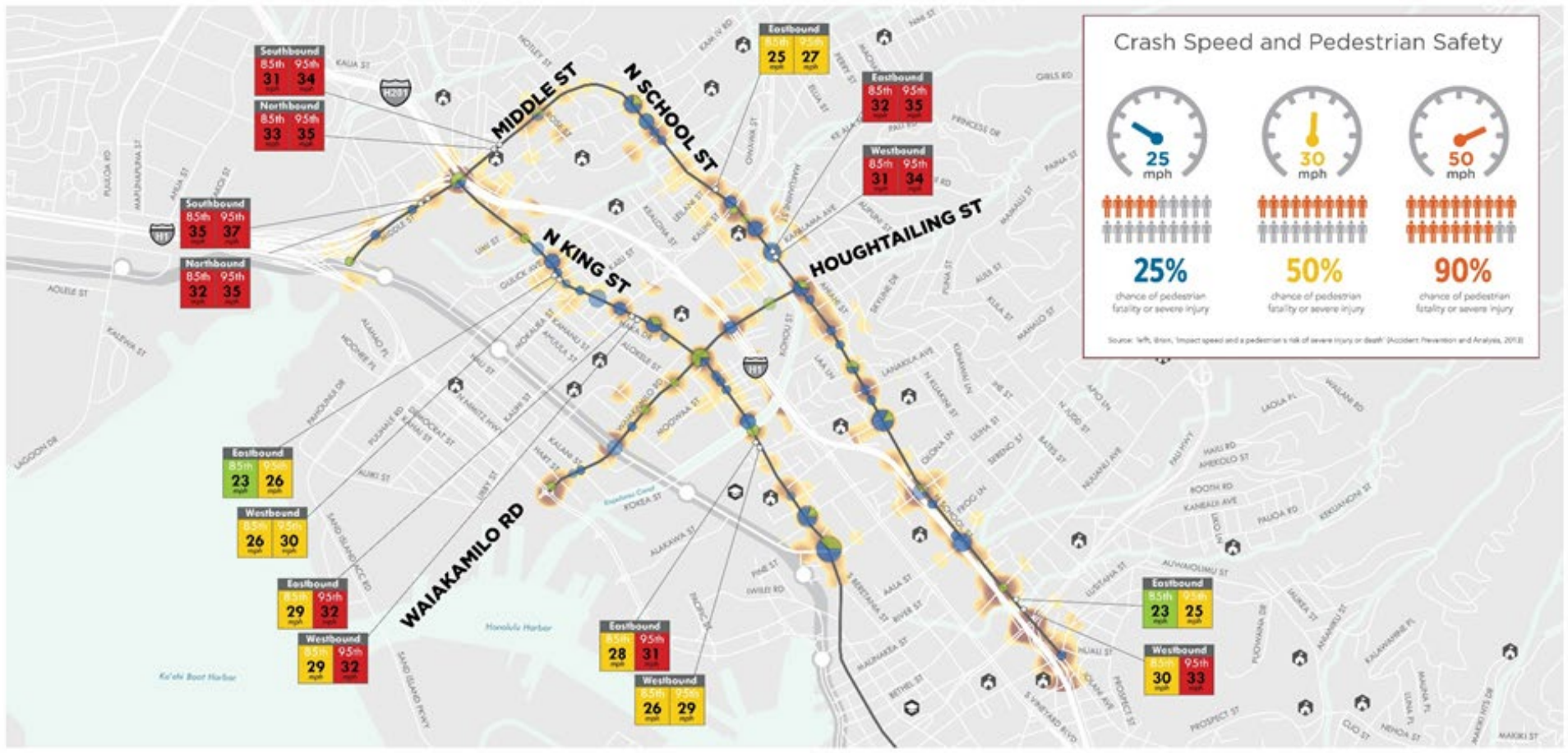


# Existing Pedestrian Safety Problems





**SAFETY SNAPSHOT**

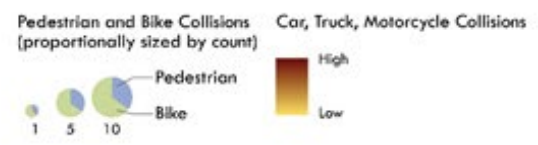


### Crash Speed and Pedestrian Safety

25 mph	30 mph	50 mph
<b>25%</b>	<b>50%</b>	<b>90%</b>
chance of pedestrian fatality or severe injury	chance of pedestrian fatality or severe injury	chance of pedestrian fatality or severe injury

Source: Iff, Ben, 'Impact speed and a pedestrian's risk of severe injury or death' (Accident Prevention and Analysis, 2018)

**Collisions (2012 - 2016)**



**Traffic Speed (2018) - 85th/95th Percentile**



No data available for Waikamilo Rd or Houghtailing Street.

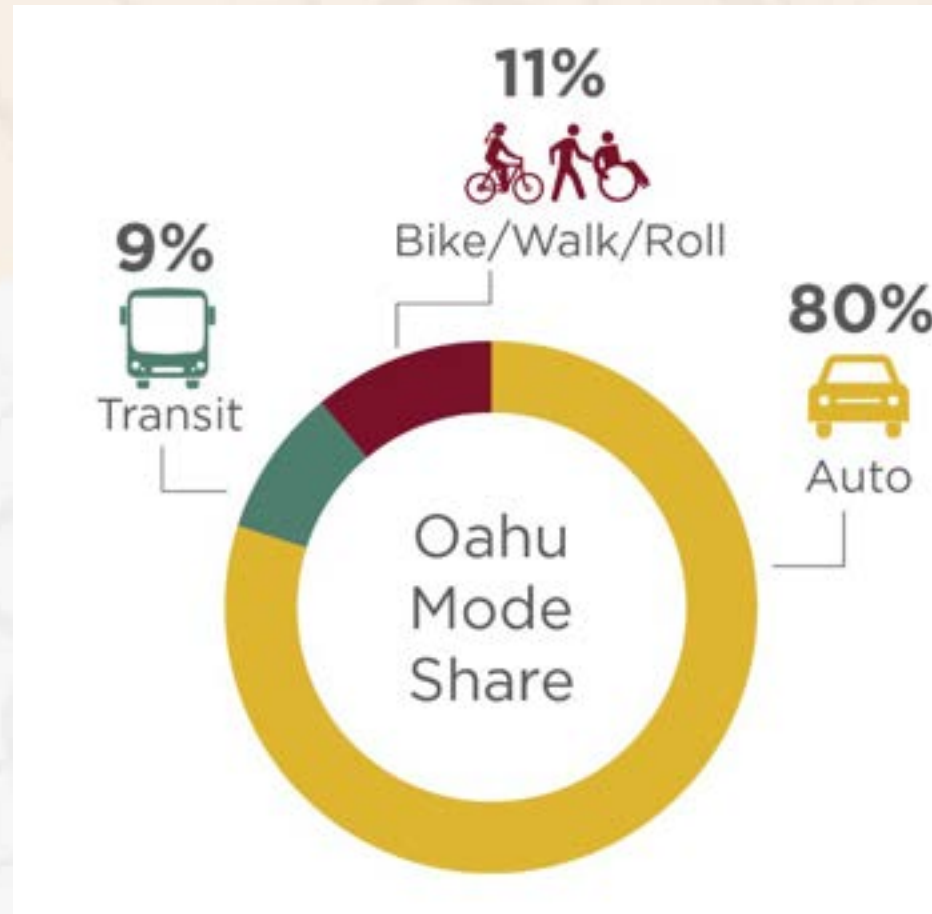
- Colleges / Universities
- Public Schools
- Proposed Rail Transit



# Upcoming Improvement - Richard Lane/ North King Street



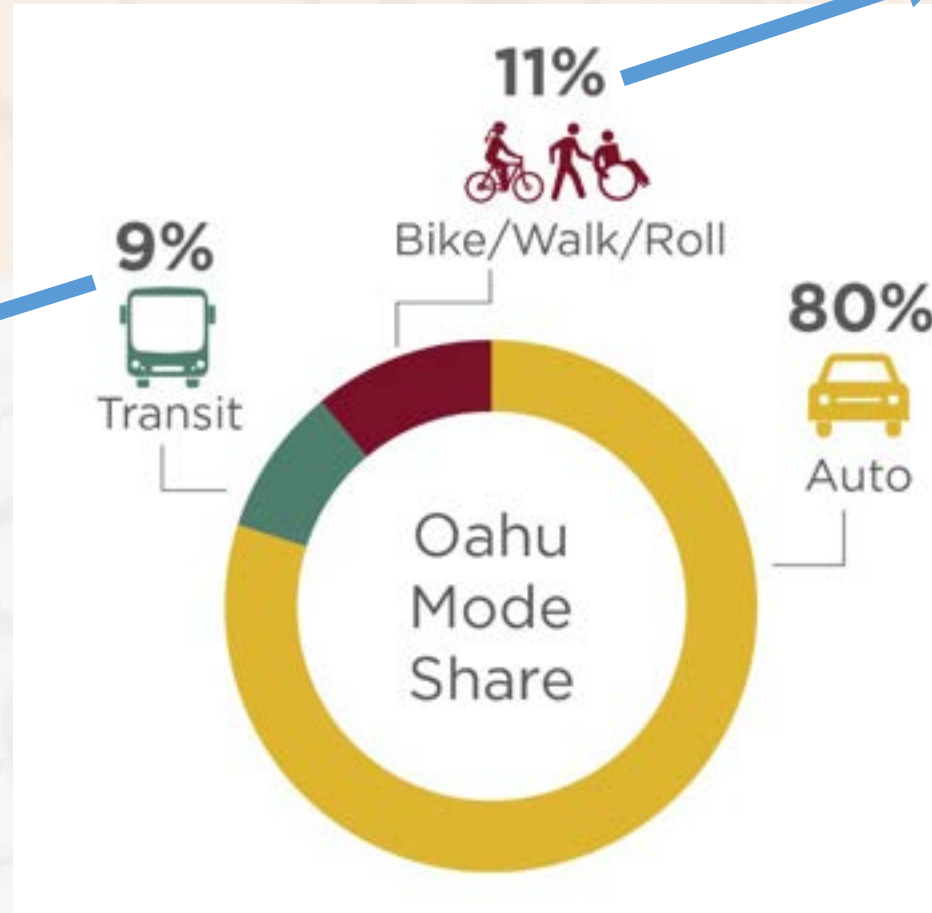
# Getting Around Kalihi Area



# Getting Around Kalihi Area

**Kalihi:**  
**6% - 24%**

**Kalihi:**  
**6% - 41%**



**Kalihi:**  
**48% - 87%**



# Community Engagement

- Community events
- Community Workshop #1 (2019)
- Web-mapping and online comments
- Stakeholder meetings
- Three Community Advisory Committee Meetings



# Outreach Summary – This is what we have heard

- Concern for pedestrian safety, specifically related to elderly and youth
- Need for better bike facilities
- Support for added street trees for shade and comfort
- Need safe networks that connect Kalihi to Downtown and nearby neighborhoods
- Consider rail access and mauka-makai corridors
- Improvements should accommodate emergency access
- Small businesses are a critical component of Kalihi's community fabric



A photograph of a street in Kalihi, Hawaii. A cyclist in a white shirt and dark pants is riding on the right side of the road. Several cars are driving in the same direction. The background shows residential buildings and trees. The scene is bright and sunny.

# KALIHI COMPLETE STREETS THEMES

Improving walking and transit experiences

Improving biking facilities


Safe connections


Support business access





# Complete Streets Tools





 **People on Foot and Universal Access**

 **People on Cycles**

 **People Using Collective Transport**

 **People in Personal Motorized Vehicles**

 **People Moving Goods and City Services**

 **People Doing Business**

# PEDESTRIAN IMPROVEMENTS

- Crosswalk enhancements
- Curb extensions
- Sidewalks
- Lighting
- Trees and vegetation
- Transit stop improvements



North King Street at Haka Drive



# Design Elements

## Enhanced Crossings – Pedestrian Refuge Islands



North King Street at Morris Lane



# Design Elements

## Enhanced Crossings – Rectangular Rapid Flashing Beacons



Kamakee Street



# Design Elements

## Enhanced Crossings – Raised Crosswalk



# Design Elements

## Enhanced Crossings – Curb Extensions



Waialae Avenue (Kaimuki)



# Design Elements

## Enhanced Crossings – Curb Extensions



South King Street (Moiliili)





North King Street

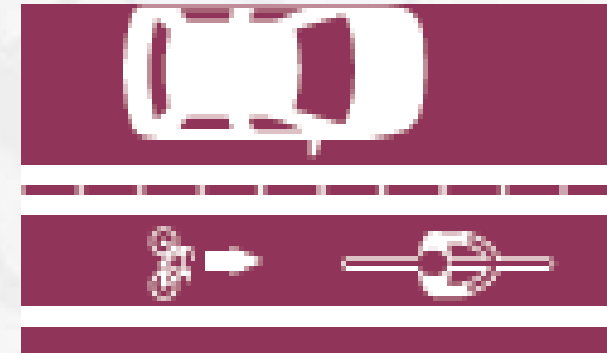


# Design Elements

## Bikeways - Protected Bike Lane



Ward Ave (Honolulu)

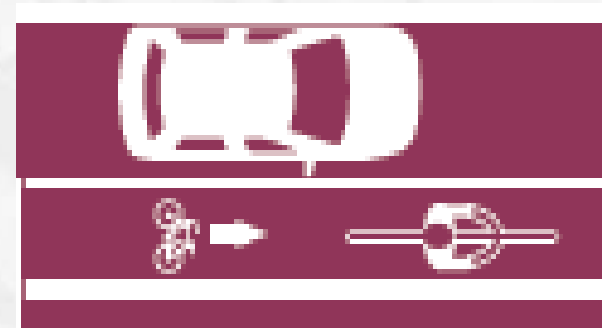


# Design Elements

## Bikeways - Bike Lane



Kamehameha IV Road



# Design Elements

## Roadway Reconfiguration - Road Diets



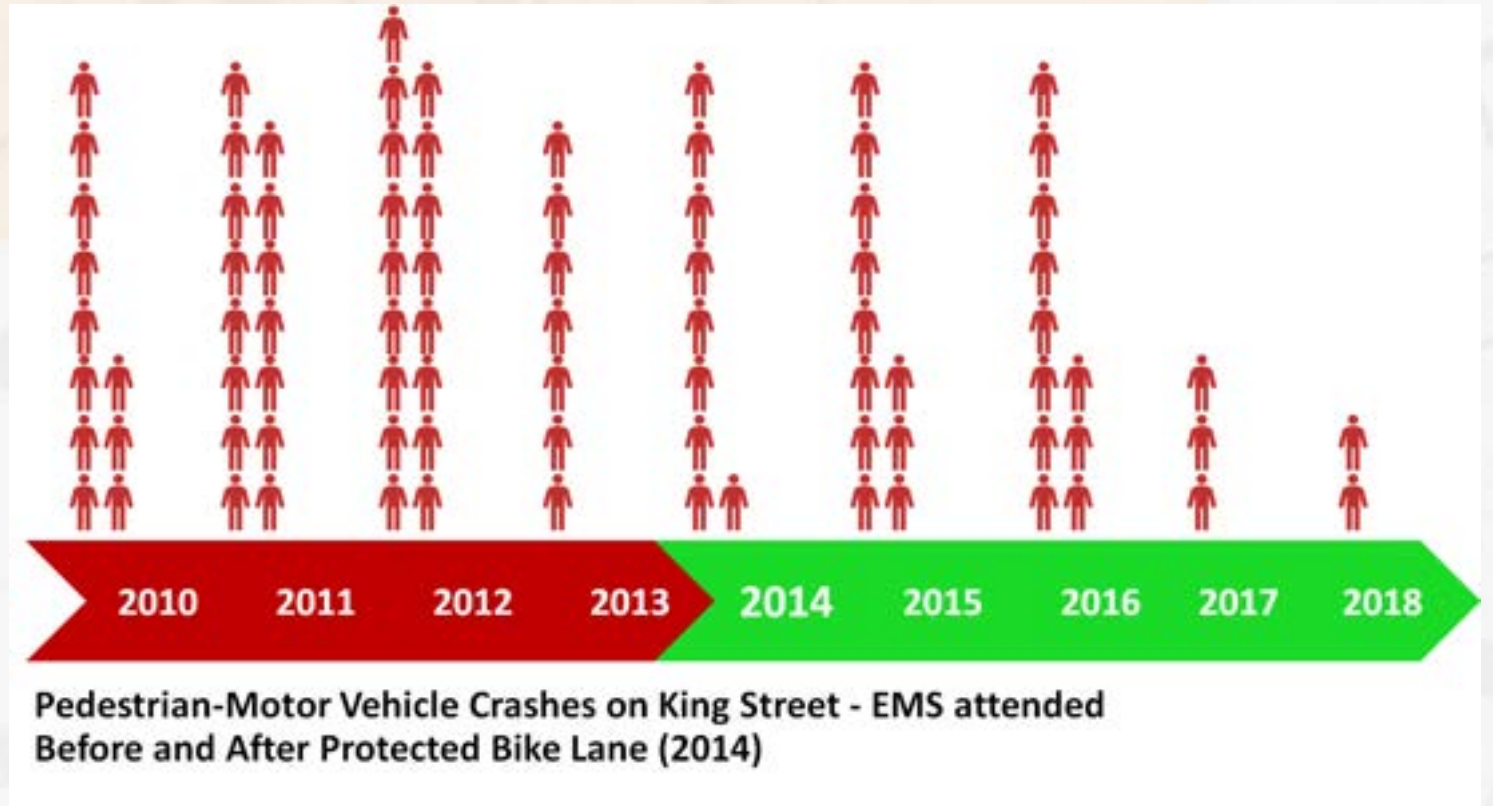
Kamehameha IV  
Road



# Improving Bike Facilities



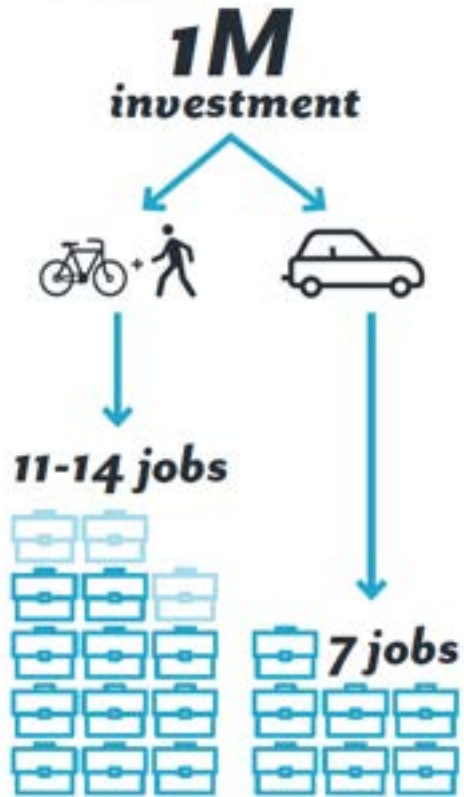
# Bike Facility Benefits Beyond Bicyclists



# Bike Facilities Benefits Beyond Bicyclists

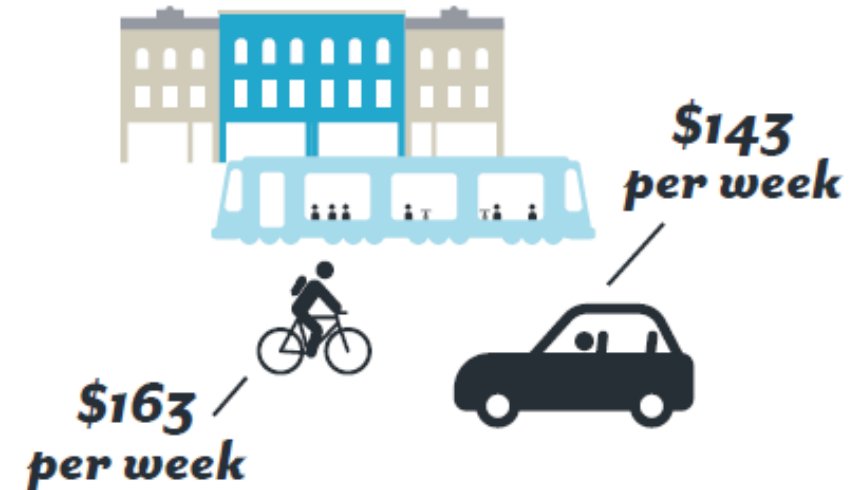
## Bike projects create more jobs.

Bicycling and walking projects create 11-14 jobs per \$1M spent, versus only 7 jobs per \$1M spent on highway projects.<sup>11</sup>



## Cyclists spend more on local retail.

People on bicycles spend more on local retail per week than other modes: \$163 per week compared to \$143 per week.<sup>14</sup>



# How do complete street improvements support small business?



- Lower cost transportation options retain employees.
- Supports local access for people dependent on walking, biking and transit.



# Adding Complete Streets Elements

1. Widen road
2. Remove or repurpose car/bus travel lanes
3. Narrow vehicle travel lanes or use available excess space
4. Reconsider on-street parking





# 1. Widen Road



# 2. Remove full corridor car/bus travel lanes

Kamehameha IV Road Before



North King Street



Kamehameha IV Road After



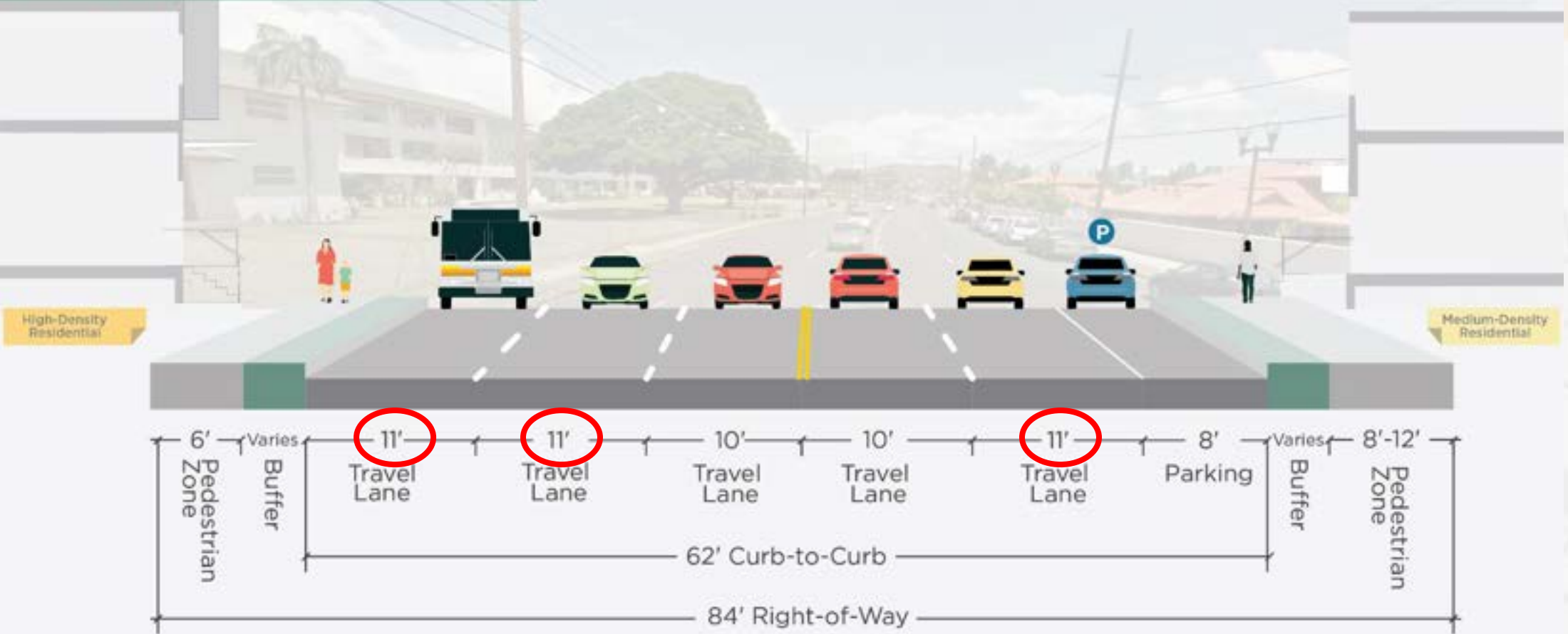
North School Street



# 3. Reduce vehicle travel lane widths

N King St | Kalihi St to Houghtailing St/Waiakamilo Rd

## Existing Conditions



# 4. Reconsider on-street parking

- Included evaluation of occupancy and turnover
- While occupancy is high overnight, turnover is low during the day
- Focusing on parking supporting businesses



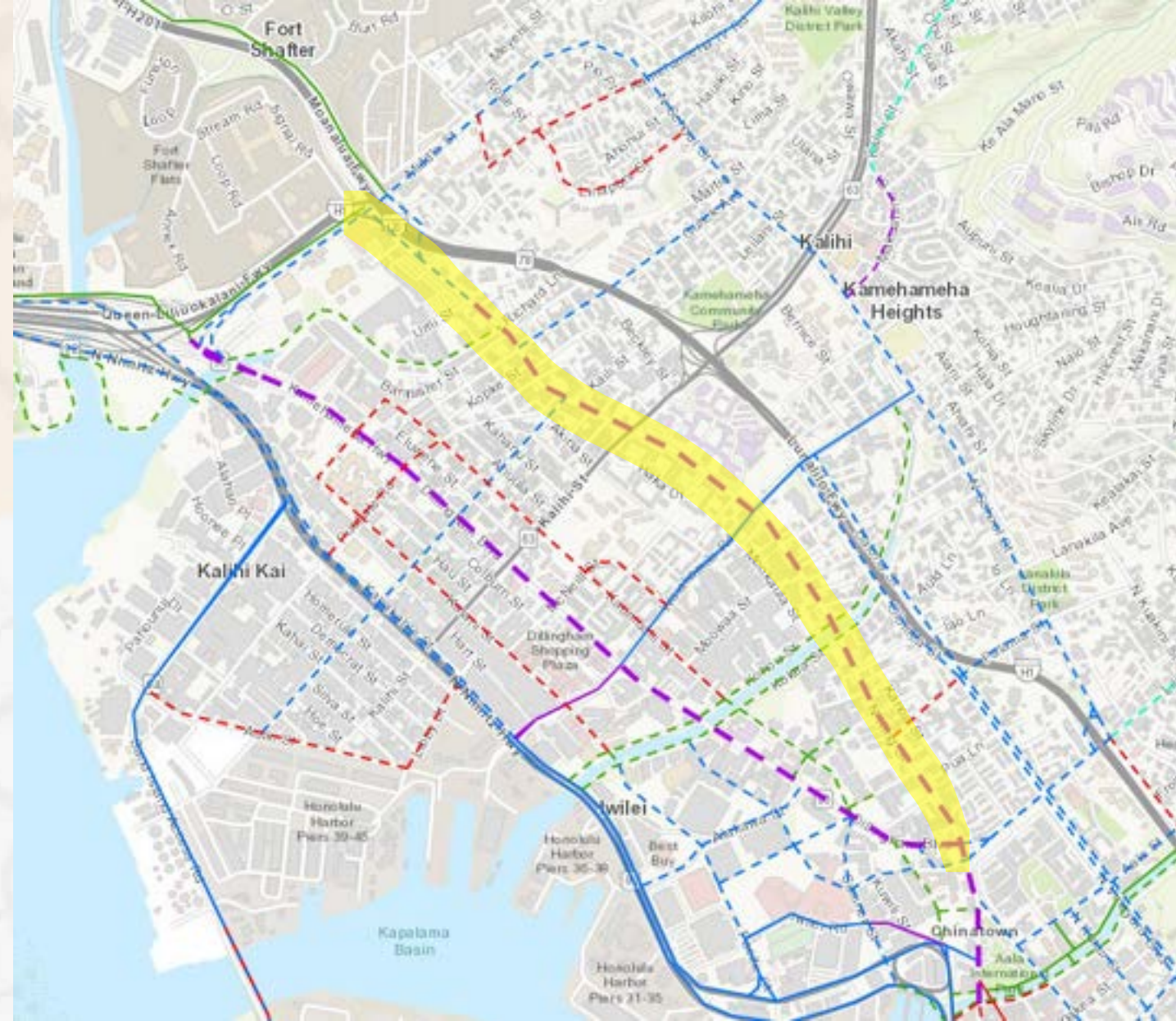
ON TARGET

# North King Street



# North King Street

- Bike Connections



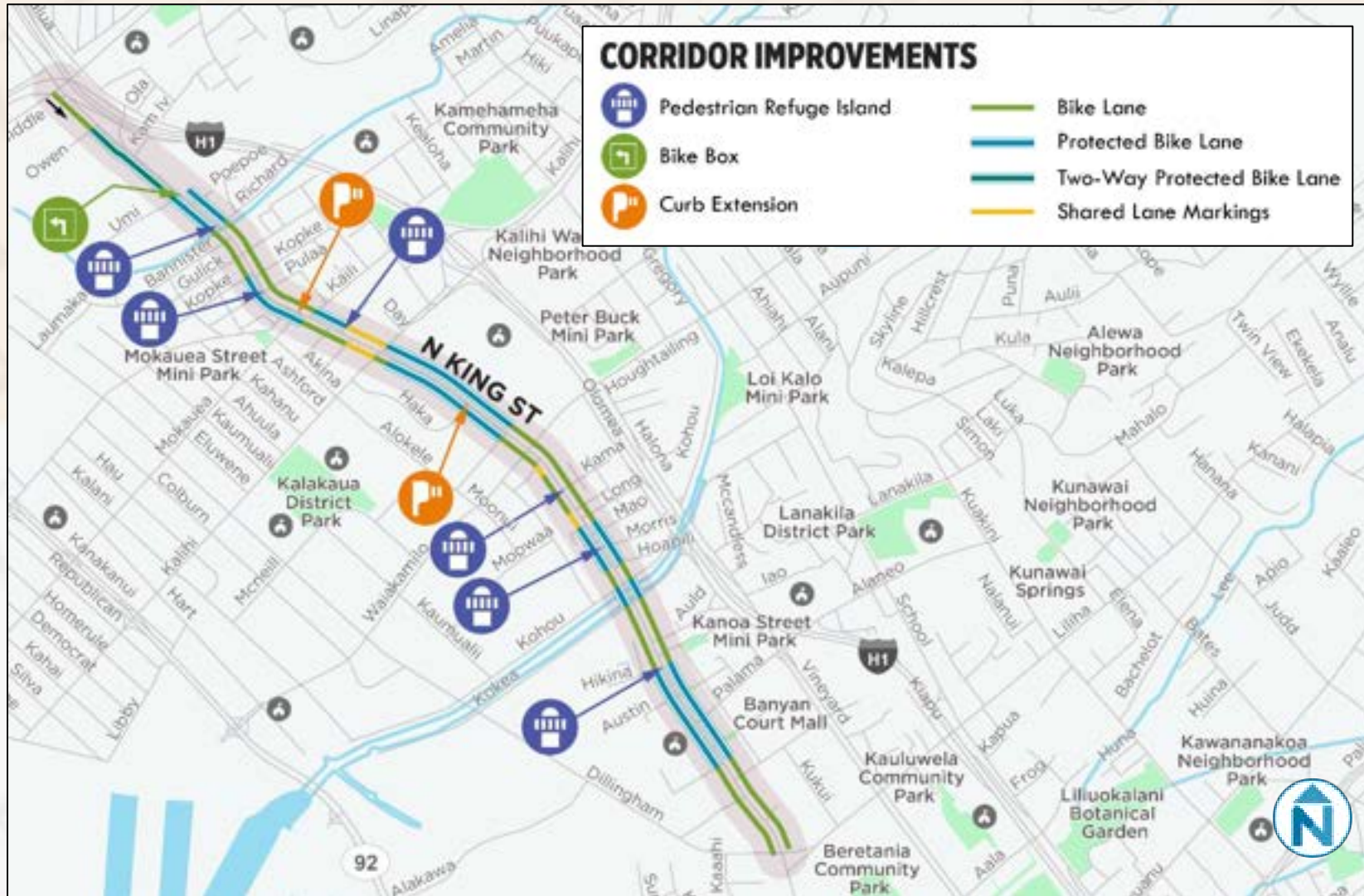
**Existing\_Bikeways**

- Shared Use Path
- Protected Bike Lane
- Buffered Bike Lane
- Bike Lane
- Climbing Lane
- Shoulder Bikeway
- Shared Roadway

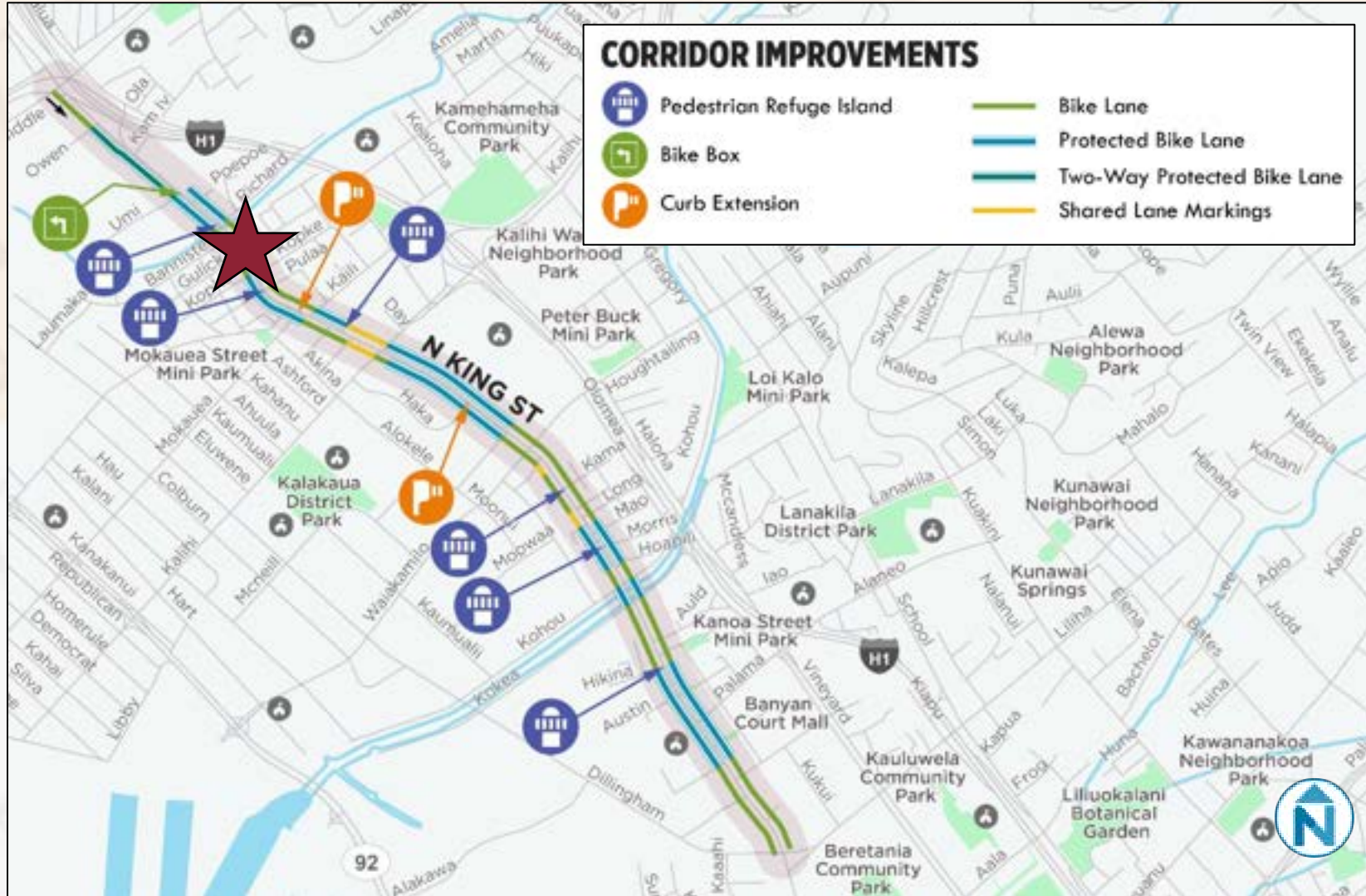
**Proposed\_Bikeways**

- Shared Use Path
- Protected Bike Lane
- Buffered Bike Lane
- Bike Lane
- Climbing Lane
- Shoulder Bikeway
- Shared Roadway

# North King Street – Corridor Improvements



# Proposed Improvements: Bike Lanes at King + Gulick







Remove 3 on-street parking spaces

Maintain On-street Parking

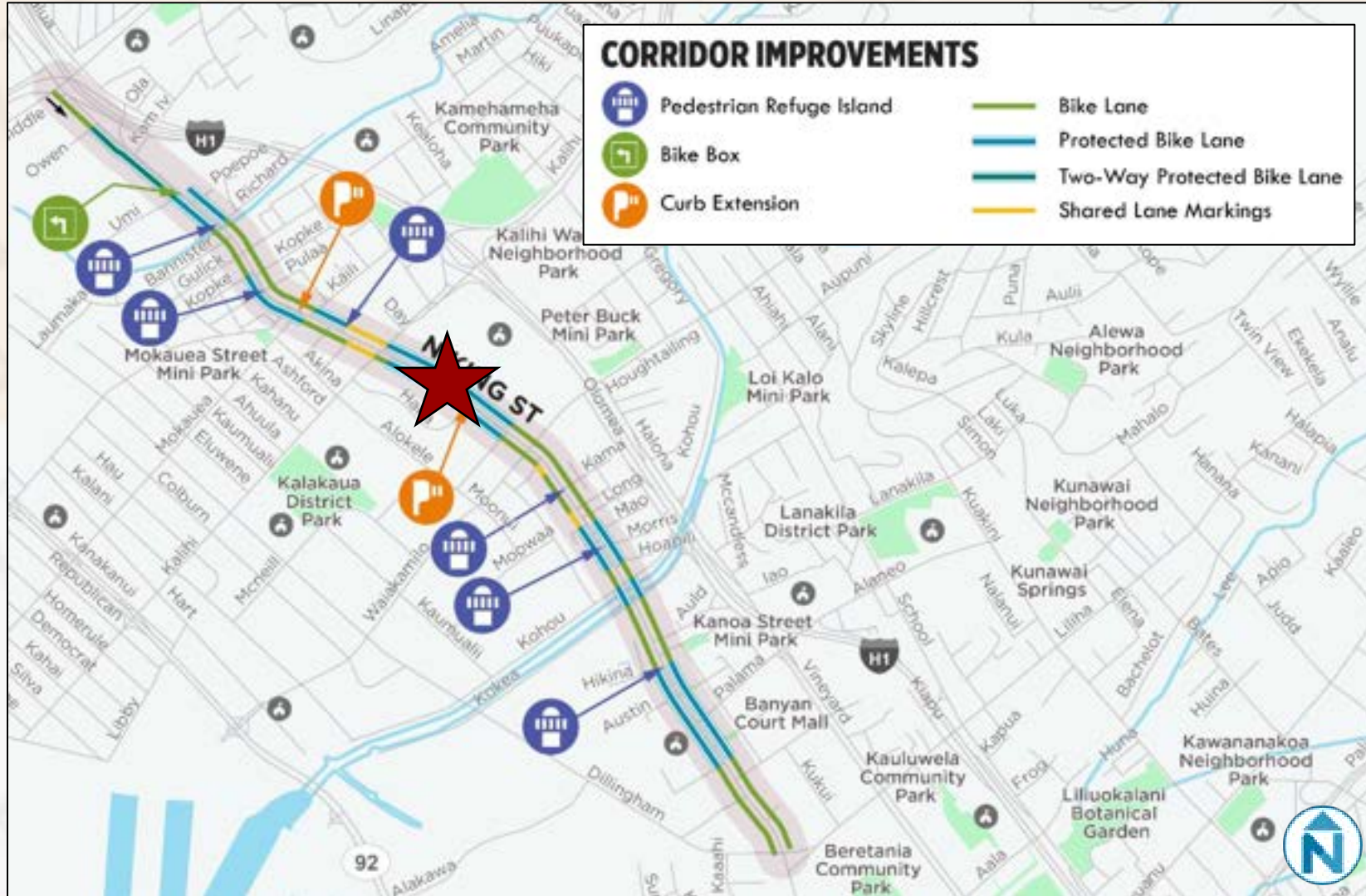
Loading Zone

Protected Bike Lane

Bike Lane



# Proposed Improvements: Protected Bike Lanes on North King Street by Farrington High School



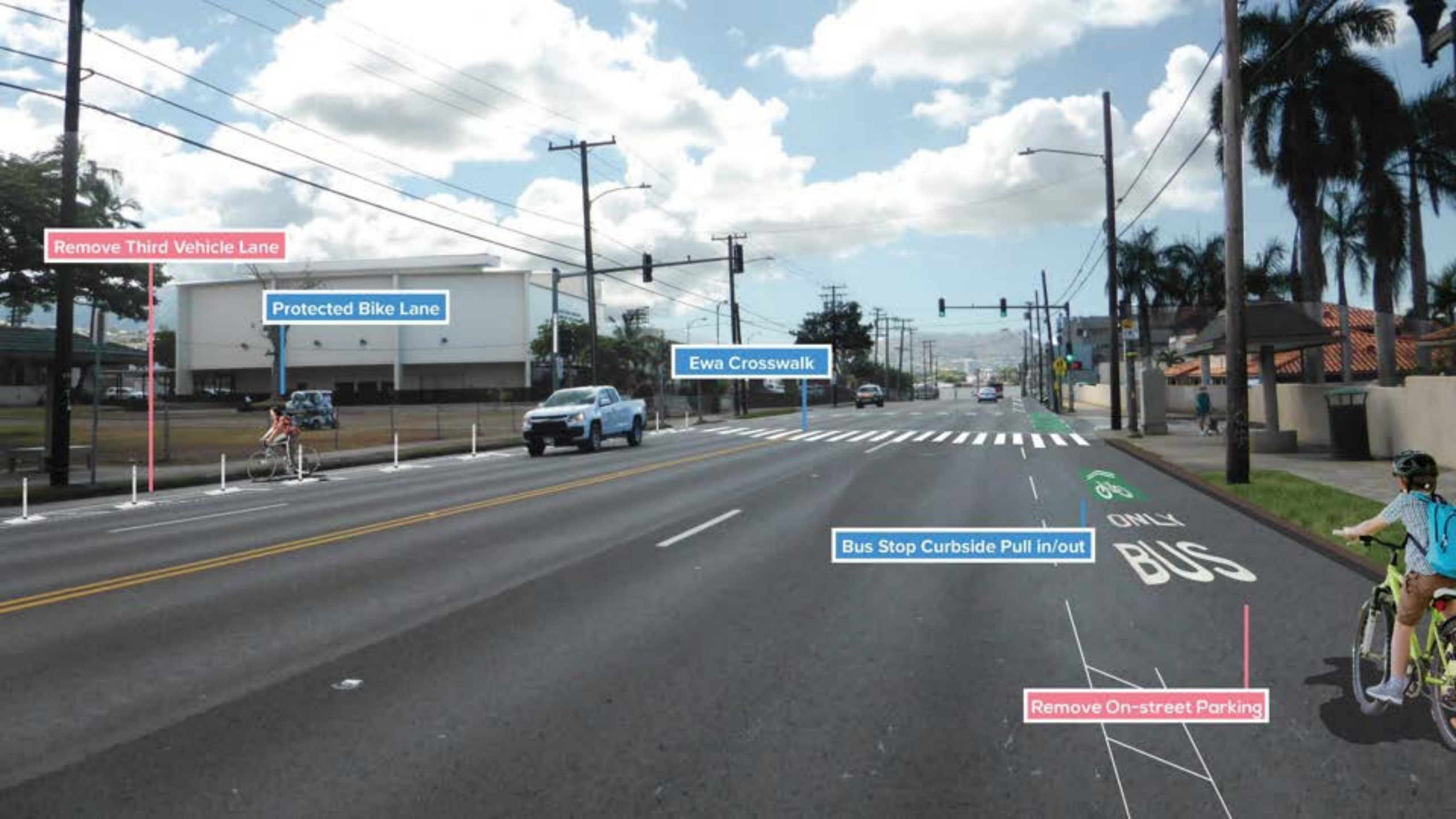
Remove Third Vehicle Lane

Protected Bike Lane

Ewa Crosswalk

Bus Stop Curbside Pull in/out

Remove On-street Parking



# Proposed Improvements: N King + Morris Lane





Remove on-street parking

Rapid Flashing Beacon System with Push Button Activation

Pedestrian Refuge Island

Protected Bike Lane

Protected Bike Lane

Remove on-street parking

# Reconsider On-Street Parking

## N King Street Parking Use



**166**

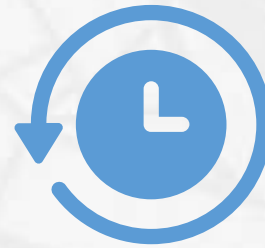
Parking spaces on the North King Street project corridor (302 spaces including side street blocks)

**WIDE RANGE OF OCCUPANCY**



Lower occupancy during the day, higher overnight

**LOW TURNOVER**



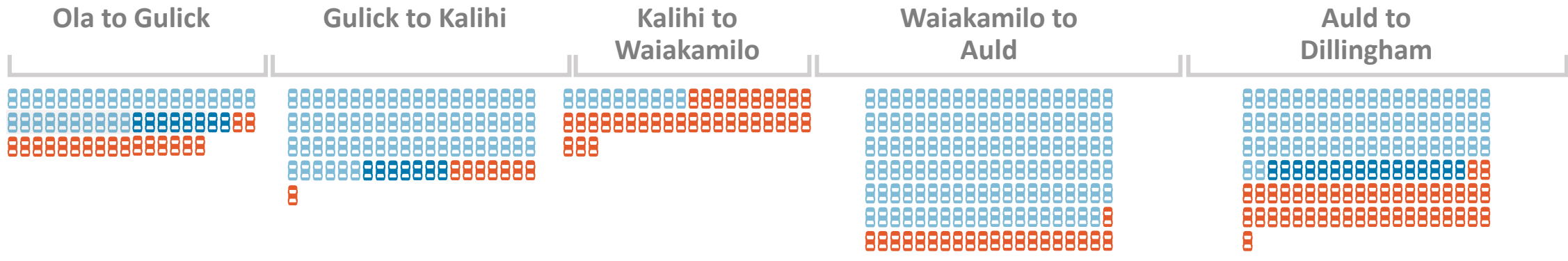
**More than half** of vehicles overstaying time limits



# Reconsider On-Street Parking

## PROPOSED PARKING CHANGES

- Parking Retained
- Parking Removed
- Parcels with Parking
- Parcels with No Business Parking
- Project Corridor Study Area



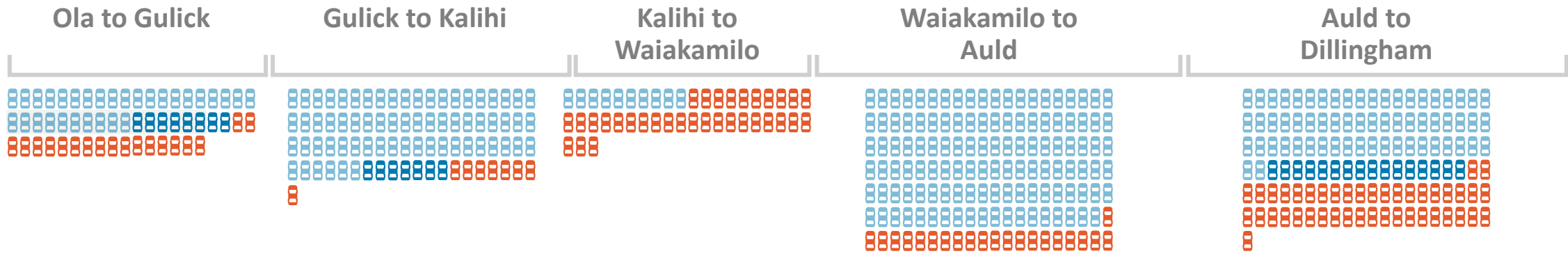
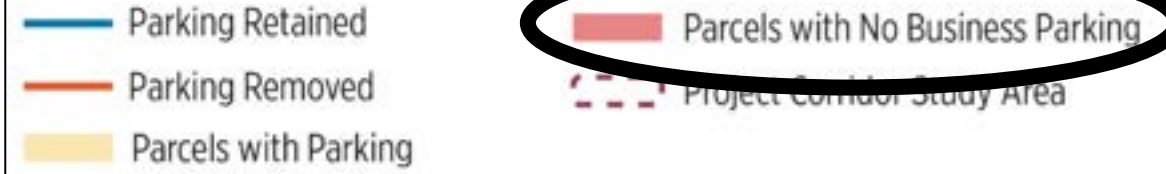
■ Parking Removed (N King St)

■ Parking Retained (N King St)

■ Parking Retained (Side Street)

# Reconsider On-Street Parking

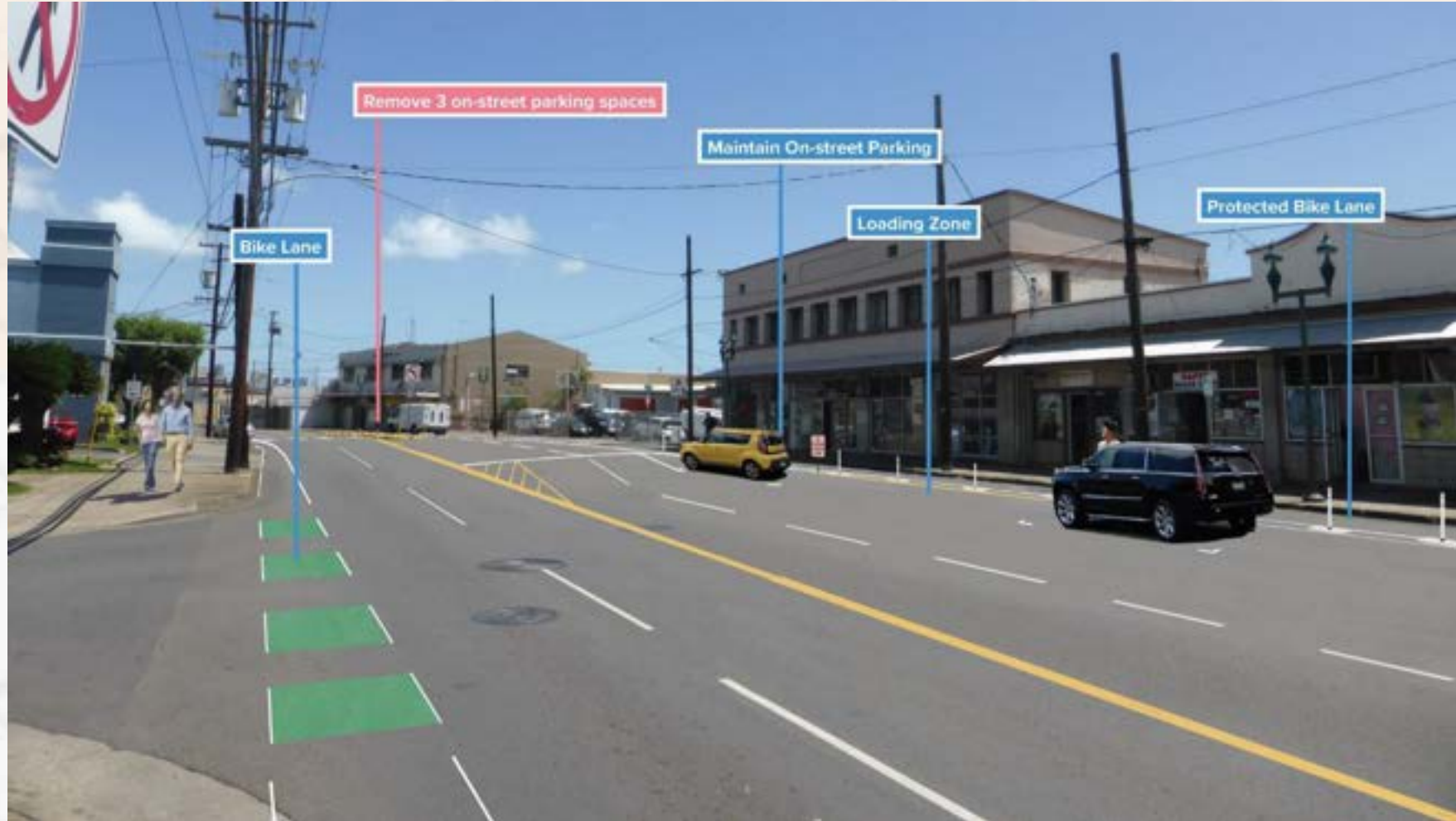
## PROPOSED PARKING CHANGES



■ Parking Removed (N King St)     
 ■ Parking Retained (N King St)     
 ■ Parking Retained (Side Street)



# Reconsider Parking – Sensitive to businesses that do not have off-street parking



# Polling Question #2

Question: What are your thoughts on the proposed North King Street improvements?

- a. love it
- b. like it
- c. like it with some modifications
- d. not sure
- e. don't like it



# Polling Question #3

Question: Which elements of the proposed designs along North King Street do you think are most important?

(You may choose more than one answer.)

- a. Pedestrian Refuge Islands
- b. Rectangular Rapid Flashing Beacons
- c. Protected Bike Lanes
- d. Curb Extensions on side streets
- e. None – no improvements
- f. I'm not sure





Waiakamilo Road/Houghtailing Street

# Waiakamilo Road /Houghtailing Street – Corridor Improvements



## CORRIDOR IMPROVEMENTS

-  Pedestrian Refuge Island
-  Curb Extension
-  Sidewalk Tree / Landscaping Opportunity
-  Protected Bike Lane (Converted from existing bike lane)
-  Existing Bike Lane



# Waiakamilo Road Between McNeill Street and Alokele Street



## CORRIDOR IMPROVEMENTS

-  Pedestrian Refuge Island
-  Curb Extension
-  Sidewalk Tree / Landscaping Opportunity
-  Protected Bike Lane (Converted from existing bike lane)
-  Existing Bike Lane

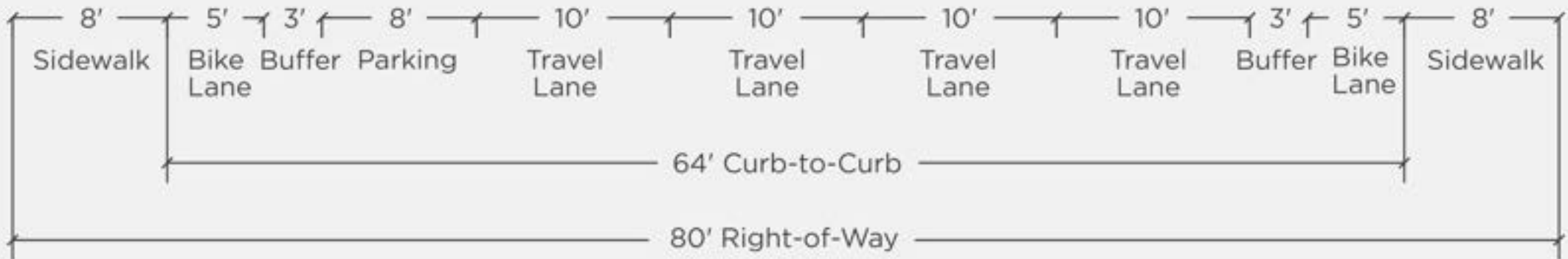


# Proposed Conditions



Business Mixed Use - Community

Business Mixed Use - Community



# Waiakamilo Road – "Road Diet" Alternative Between Kaumualii Street and Alokele Street



- Reduce to 3 lanes with a center turn lane
- Improves safety
- Fewer lanes for pedestrians to cross
- Reduces speeding
- Maintains more parking



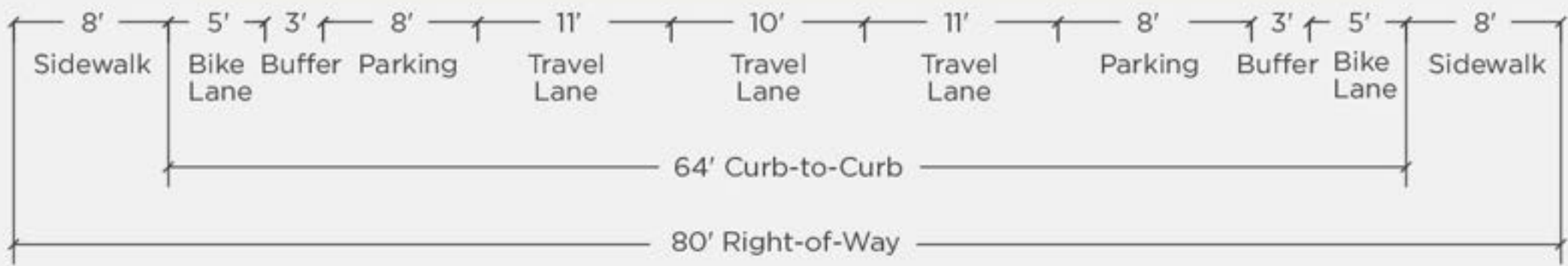


# Proposed Conditions - Alternative



Business Mixed Use - Community

Business Mixed Use - Community



# Road Diet Example



Kamehameha IV  
Road



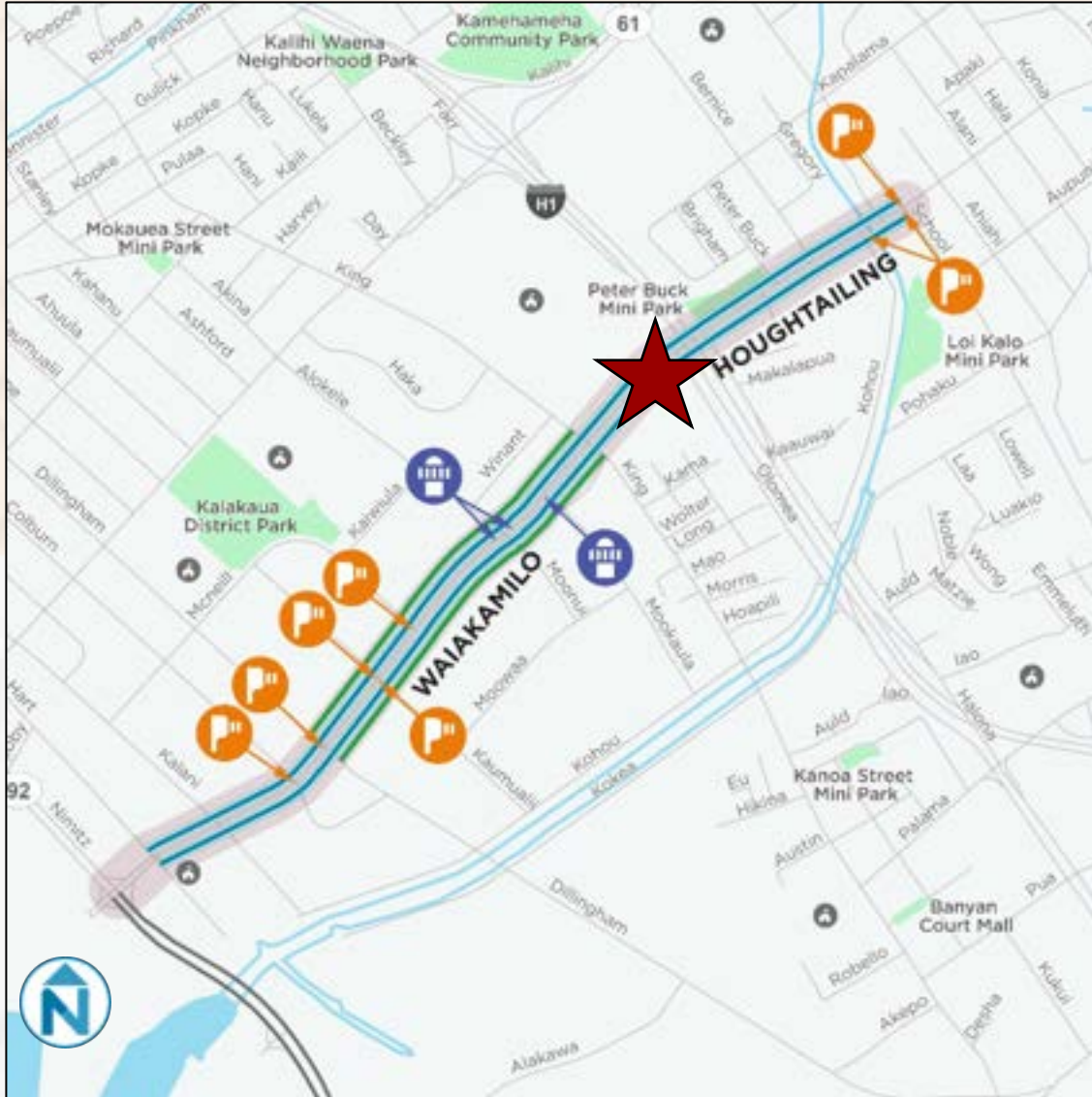
# Polling Question #4

Question: Which alternative do you prefer for Waiakamilo Road between Kaumualii Street and Alokele Street?

- a. 4 Lanes – 2 lanes in each direction with no left turn lane, protected bike lanes, and parking on the Ewa side only
- b. "Road Diet" – 1 lane in each direction and left turn lanes, protected bike lanes, and parking on both sides
- c. Neither, prefer no change
- d. I'm not sure



# Houghtailing Street Between N King and H-1



## CORRIDOR IMPROVEMENTS

-  Pedestrian Refuge Island
-  Curb Extension
-  Sidewalk Tree / Landscaping Opportunity
-  Protected Bike Lane (Converted from existing bike lane)
-  Existing Bike Lane

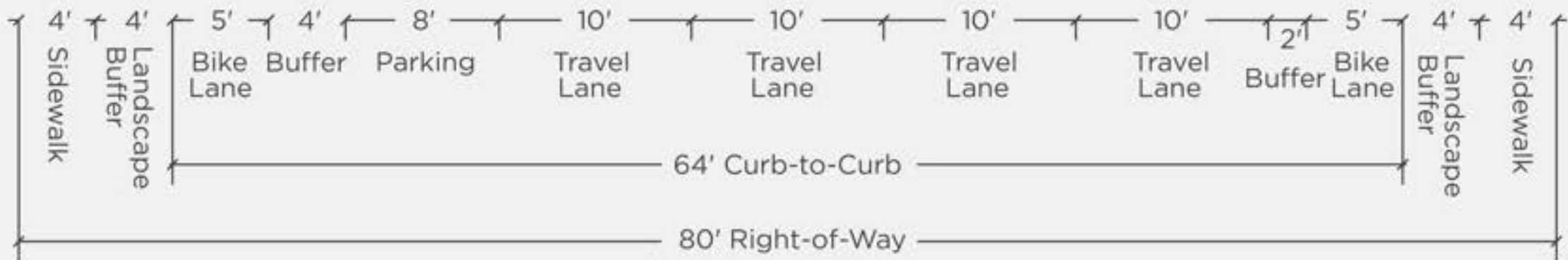


# Proposed Conditions

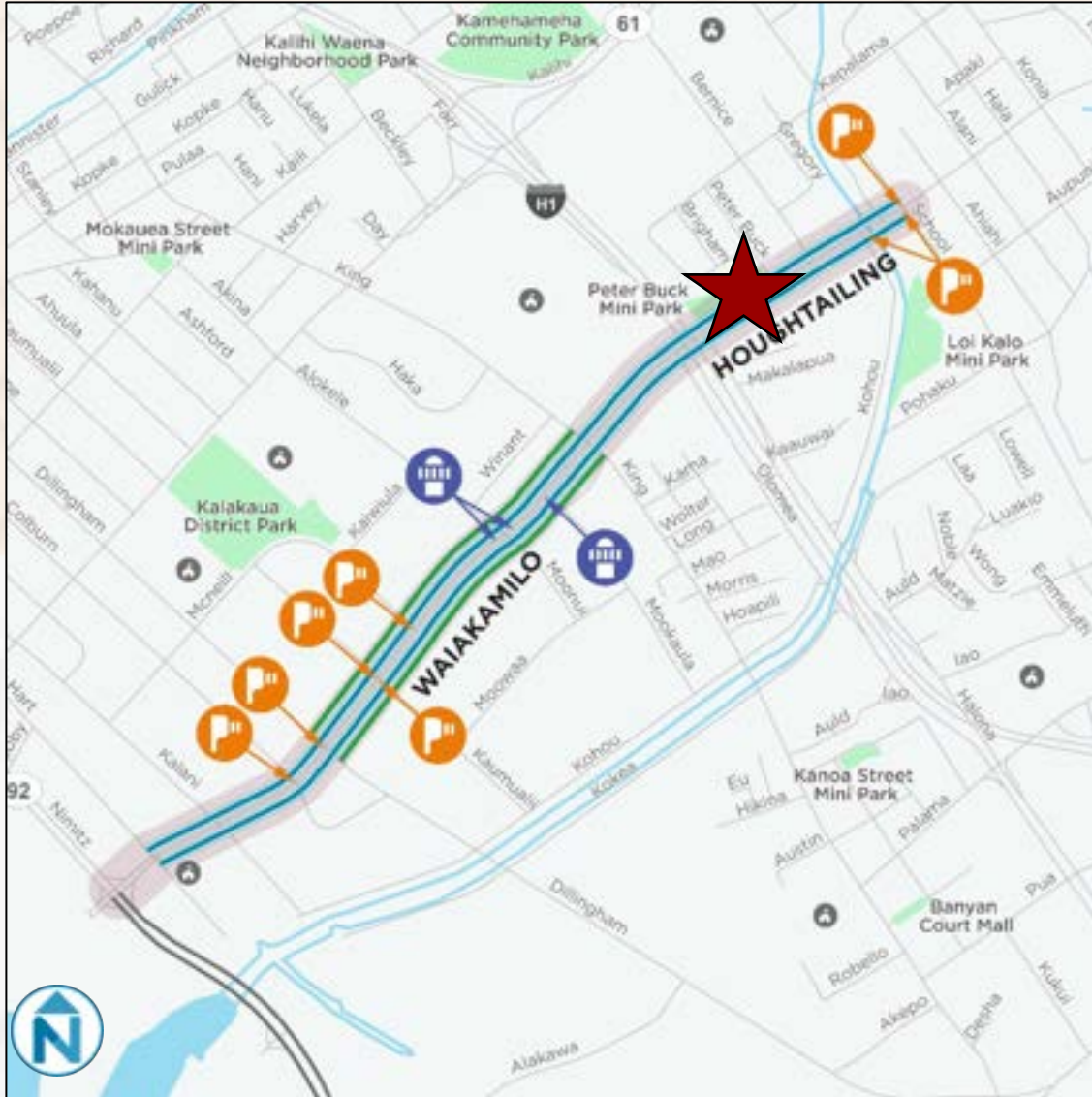


Farrington High School

Business - Neighborhood



# Houghtailing Street Between Halona Street (H1) and Peter Buck Street



## CORRIDOR IMPROVEMENTS



Pedestrian Refuge Island



Curb Extension



Sidewalk Tree / Landscaping Opportunity

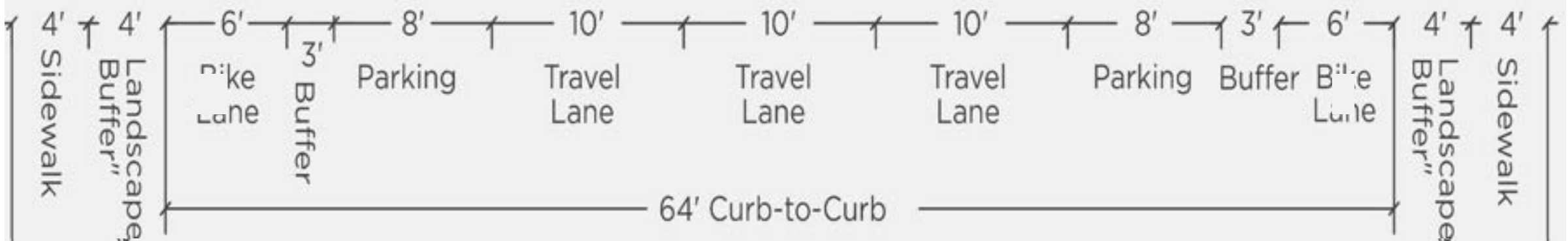


Protected Bike Lane (Converted from existing bike lane)



Existing Bike Lane





# Polling Question #5

Question: Which elements of the proposed designs along Waiakamilo Road/Houghtailing Street do you think are most important? (You may choose more than one answer.)

- a. Pedestrian Refuge Islands
- b. Curb Extensions
- c. New Sidewalk Trees / Landscaping
- d. Protected Bike Lanes
- e. None – no improvements
- f. I'm not sure





# Polling Question #6

Question: Do you feel that the plans shown will create a safer environment for people walking and biking to jobs, school, homes, TheBus, and the future rail station near HCC?

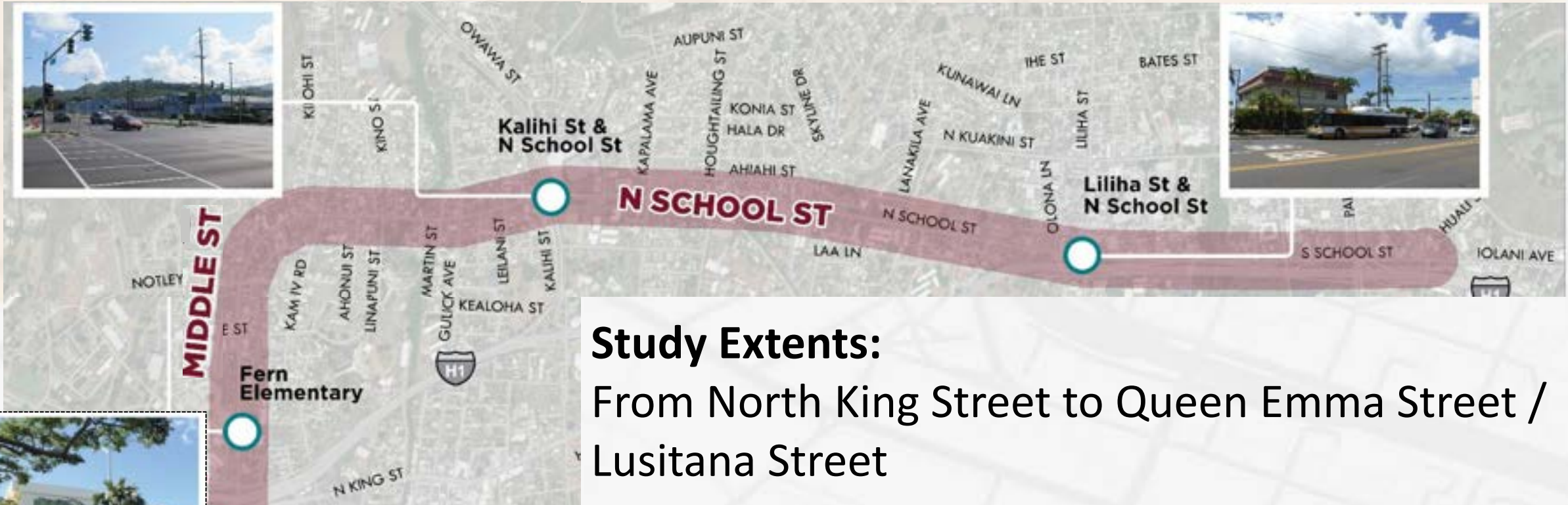
- a. Yes
- b. No
- c. Somewhat
- d. Not sure/don't know



# Middle Street & School Street



# Middle Street & School Street



## Study Extents:

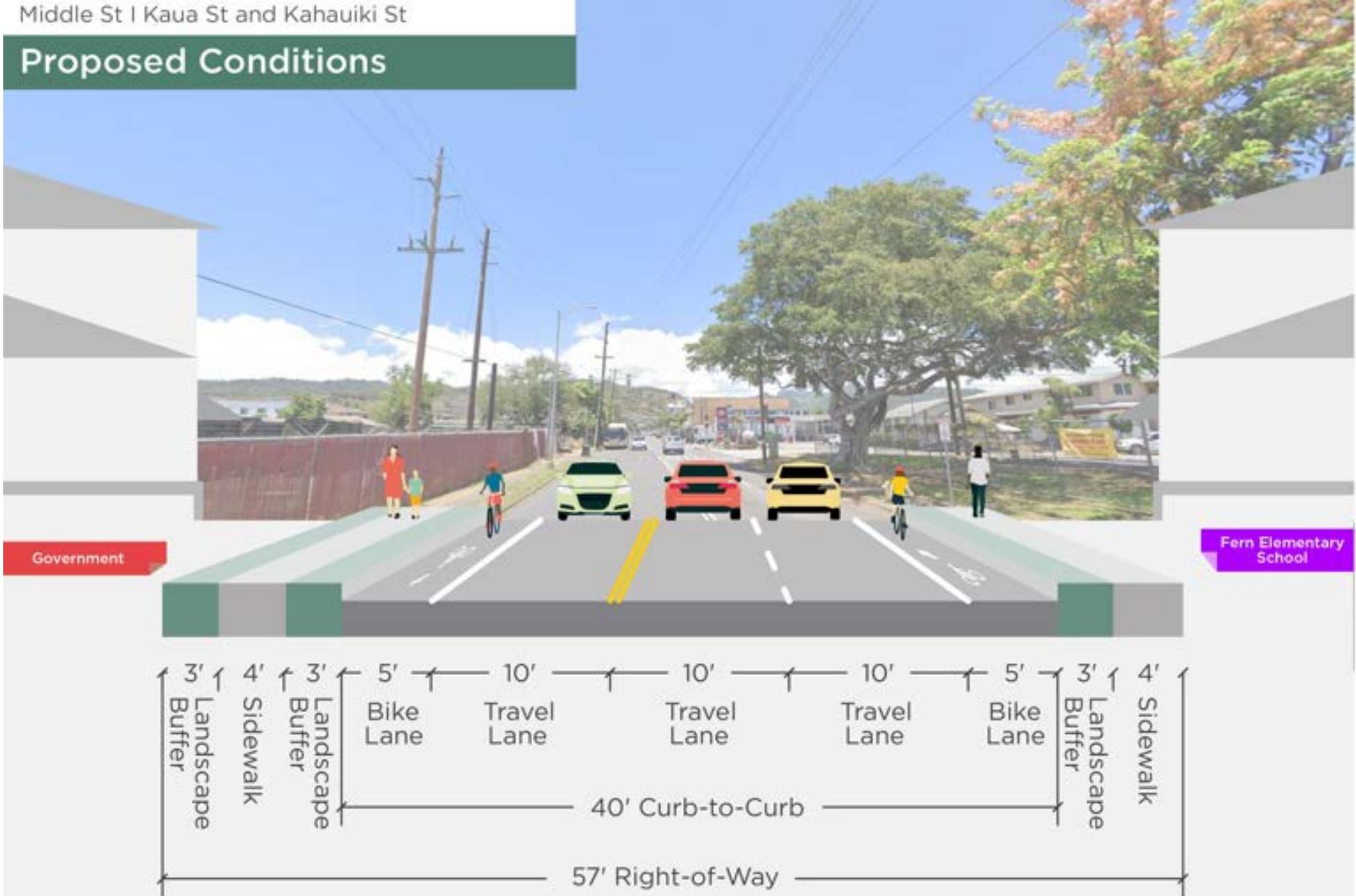
From North King Street to Queen Emma Street / Lusitana Street



# Middle Street at Fern Elementary



# Proposed Conditions



# School Street at Kamehameha IV Road



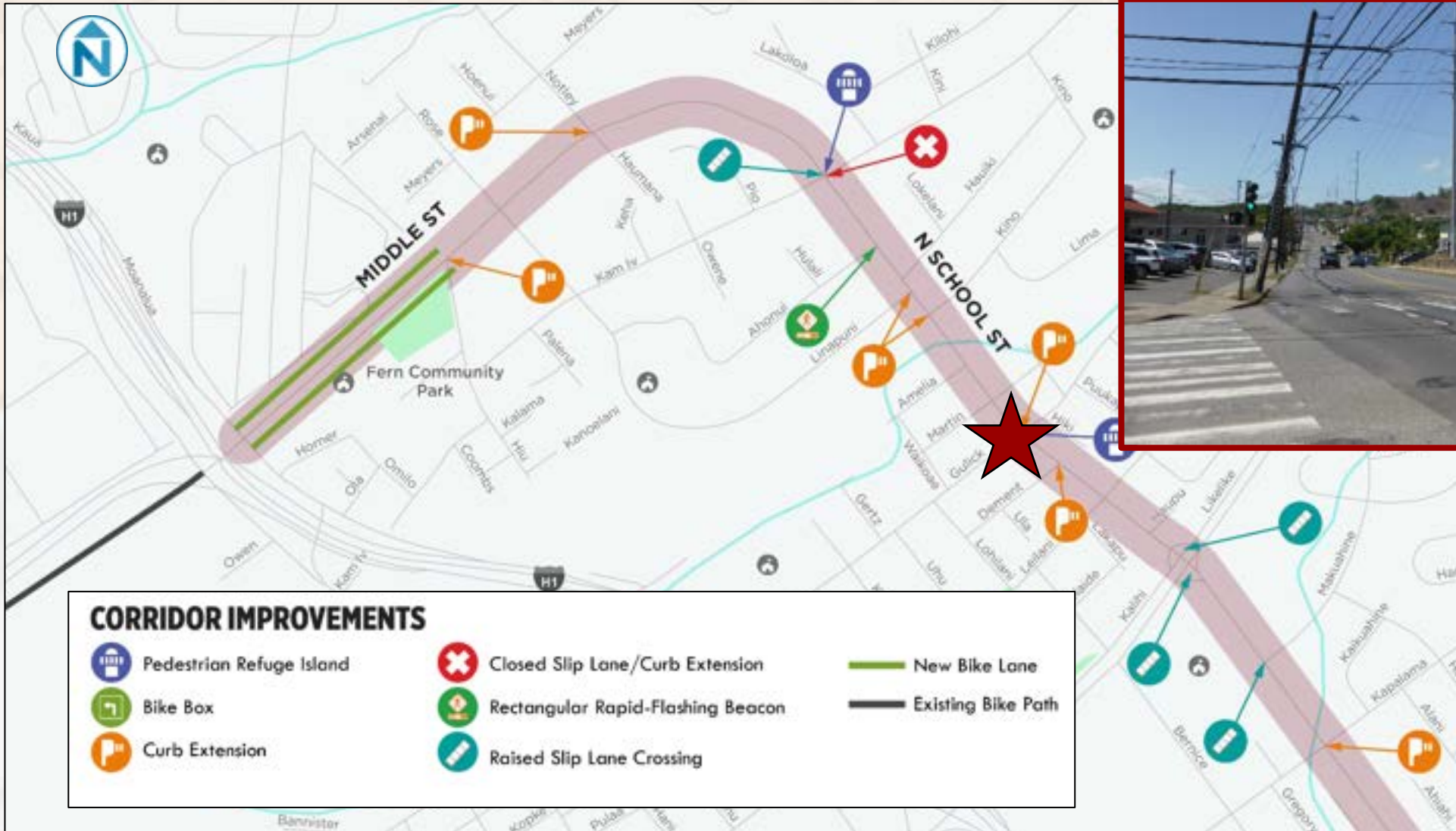
# Proposed Improvements: North School Street at Kamehameha IV Road



-  Raised Slip Lane Crossing
-  Pedestrian Refuge Island
-  Closed Slip Lane/Curb Extension



# School Street at Gulick Avenue







Curb Extension

Pedestrian Refuge Island

Curb Extension

EAST SIDE  
CHOP SUV

# School Street Uncontrolled Crosswalks



# Preserving Uncontrolled Crosswalks



Kamakee Street (Kakaako)



Sarasota, Florida



High Visibility Crosswalk

Rapid Flashing Beacon System  
with Push Button Activation



# School Street – Between Liliha and Nuuanu



# School Street bike connection – Liliha-Nuuanu



Nuuanu Ave. bike lane makai of School St.

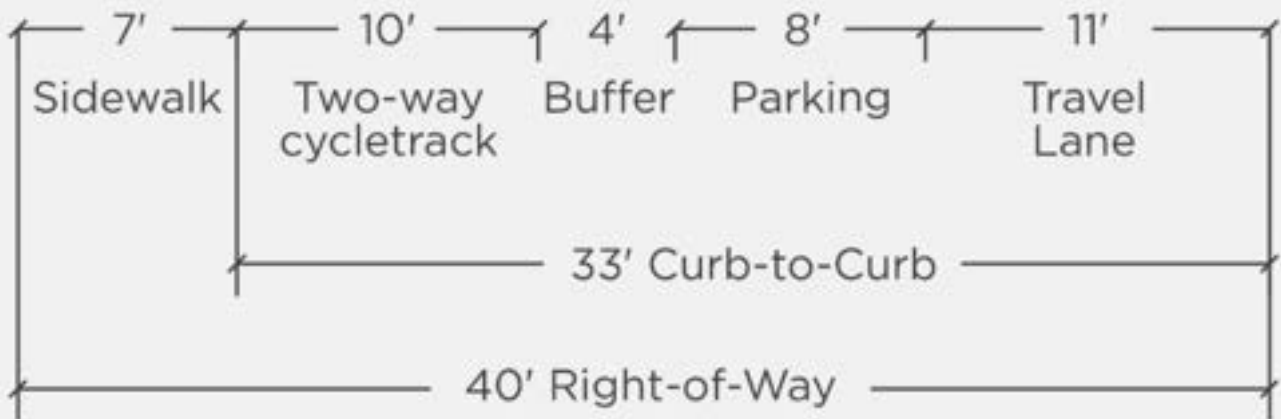


# Proposed Conditions



Apartments/Business  
Mixed-use-  
Community

H1 Freeway



# Polling Question #7

Question: Which elements of the proposed designs along Middle Street and School Street do you feel are most important? (You may choose more than one answer.)

- a. Rectangular Rapid-Flashing Beacons
- b. Raised Crosswalks
- c. Curb Extension
- d. Closed Slip Lane
- e. Middle Street bike connection (between North King Street and Kahauiki Street)
- f. School Street bike connection (between Liliha Street and Nuuanu Avenue)
- g. None – No Improvements.
- h. I'm not sure





# **BREAKOUT SESSION #1**

**Time: 20 minutes**

**Choose a corridor and engage with technical experts  
to provide feedback on designs**



# Protocols

1. Your questions and comments are welcome! Please type your name in the chat and a facilitator will call on you.
2. To preserve sound quality, please keep yourself muted until you are called on or asked to unmute.
3. We recognize time may be limited, please extend kindness by also allowing others to ask questions and provide their comments.



# Breakout Session #1

Select a Room Using the Breakout Room Feature at the bottom of your screen. Ways to participate:

- Enter your questions directly into the chat function.
- "Raise your hand" to discuss comments or questions with facilitators.



# Breakout Session #1

- Room 1: Middle & School Streets
- Room 2: North King Street
- Room 3: North King Street
- Room 4: Waiakamilo Road & Houghtailing Street



# **BREAKOUT SESSION #2**

**Time: 20 minutes**

**Choose a corridor and engage with technical experts to provide feedback on designs**



# Breakout Session #2

- Room 1: Middle & School Streets
- Room 2: North King Street
- Room 3: North King Street
- Room 4: Waiakamilo Road & Houghtailing Street



# Next Steps

- Design contract for North King Street Bikeway
- Roadway repaving is upcoming along Middle Street, North School Street, Houghtailing Street, and Waiakamilo Road



# Mahalo for your time today!

**ASK | LEARN | SHARE | CONNECT**

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[www.facebook.com/hnlcompletestreets](https://www.facebook.com/hnlcompletestreets)

