# OahuMPO Technical Advisory Committee

March 13th, 2020

I. Call to order by Chair

II. Introductions/Roll Call

III. February 14th, 2020 Meeting Minutes

IV. Reports

A. Executive Director

V. Old Business

# VI. New Business

A. OWP Work Element Presentation: PM Peak Tow Away Zone Time Modifications on Urban Arterials Study

# PM Tow-Away Zone Modification Study

*Prepared by Austin, Tsutsumi and Associates in Cooperation with the Oahu Metropolitan Planning Organization and the United States Department of Transportation*

AustinTsutsumi
& ASSOCIATES, INC.
Engineers & Surveyors

# Project Team

Matt Nakamoto, P.E.

Principal In Charge

Eric Imada, P.E.

Project Manager

Kelcee Fujimoto

Project Engineer

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# Project Objective

Improve traffic operations while balancing the current and future needs of the two Study Areas during the afternoon peak hour by extending PM Tow-Away Zone hours, as appropriate. This study focuses on vehicular operational conditions.

# Project Scope

"PM Tow-Away Zone" is defined as Tow-Away Zones between the hours of **3:30 PM to 5:30 PM**.

Project studies the <u>extension</u> of these hours at locations where they <u>currently</u> exist.

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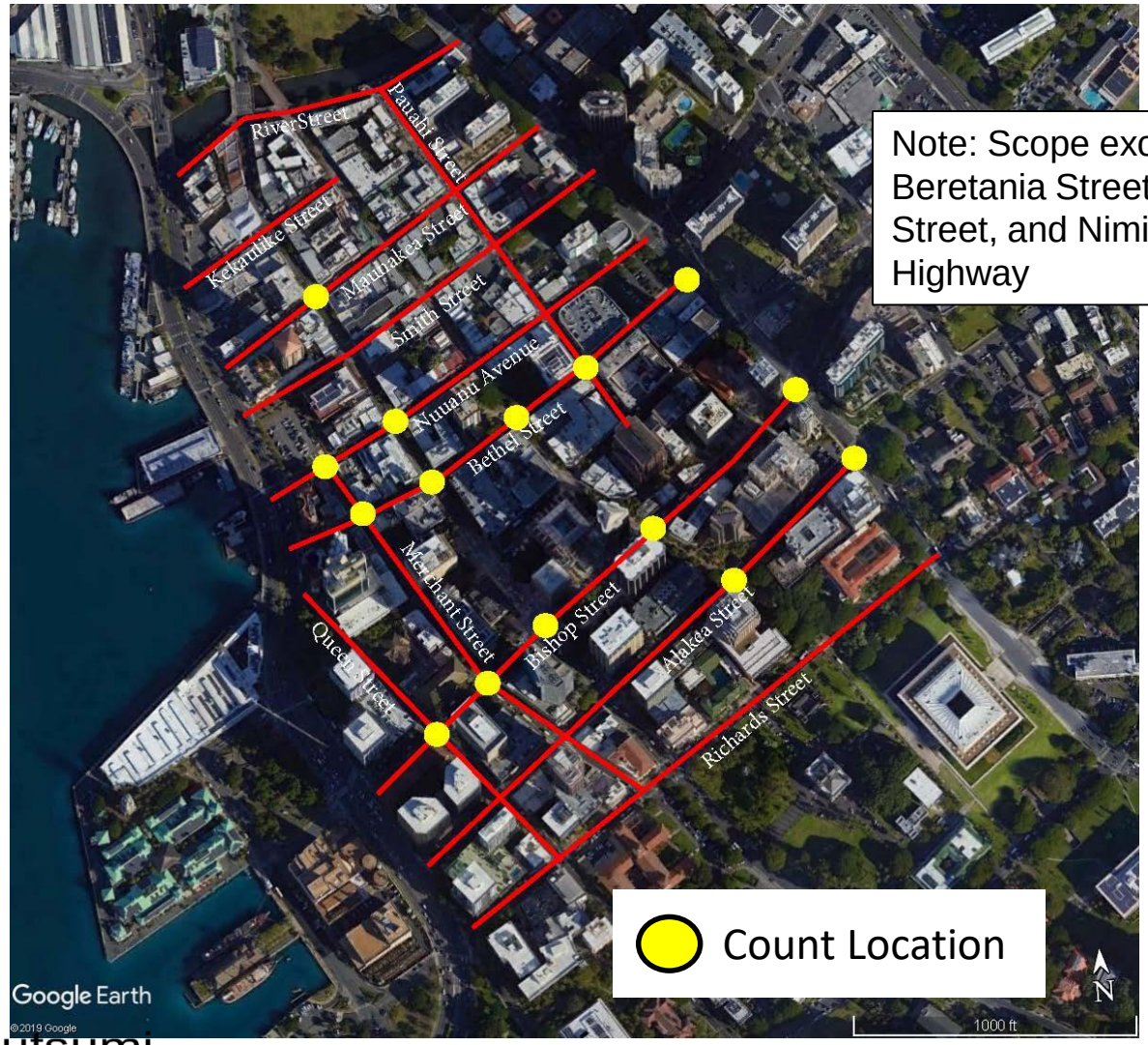
# Downtown/Chinatown Study Area




Note: Scope excludes Beretania Street, King Street, and Nimitz Highway

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# Urban Core Study Area

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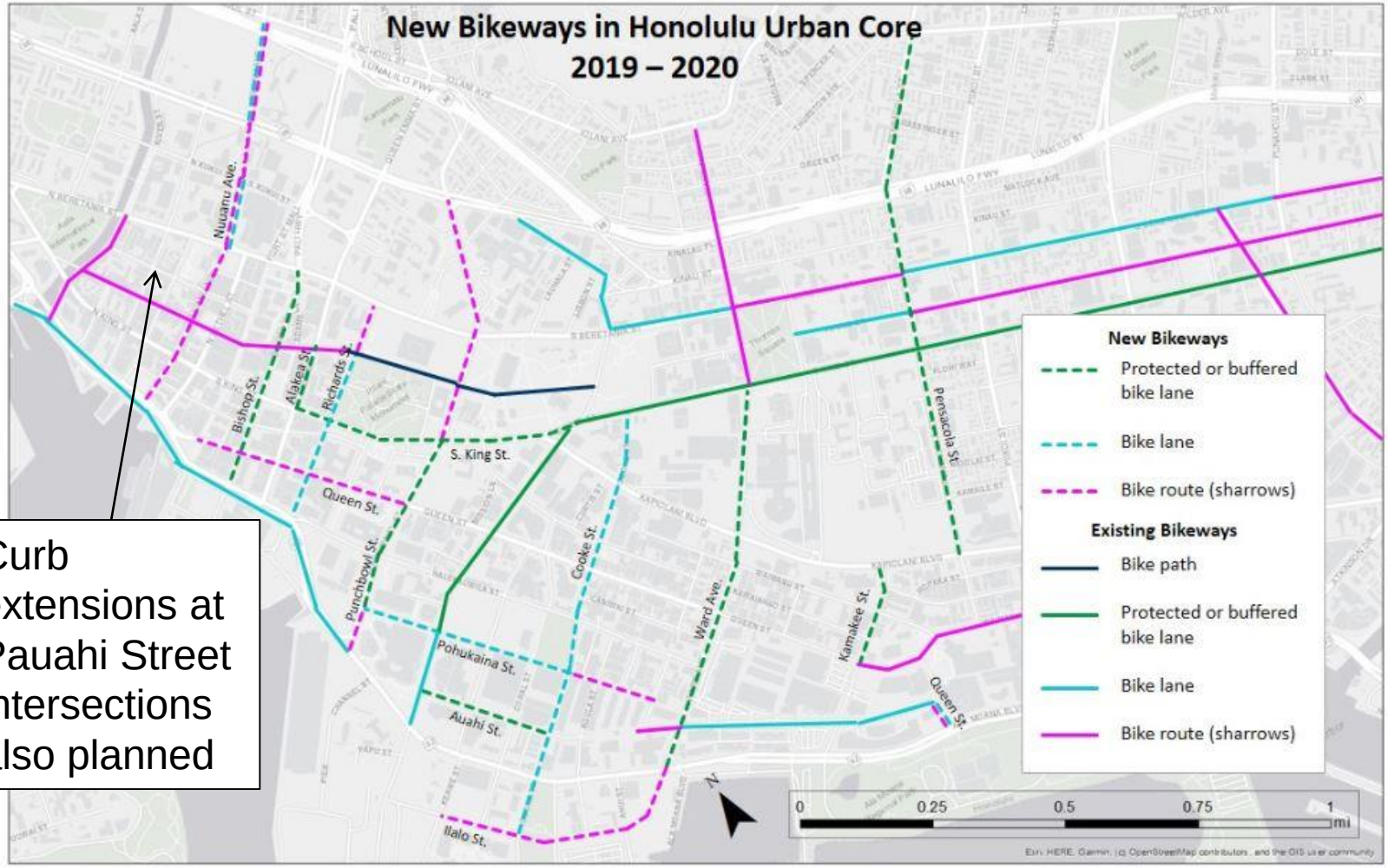
# Complete Streets Improvements




Curb extensions at Pauahi Street intersections also planned

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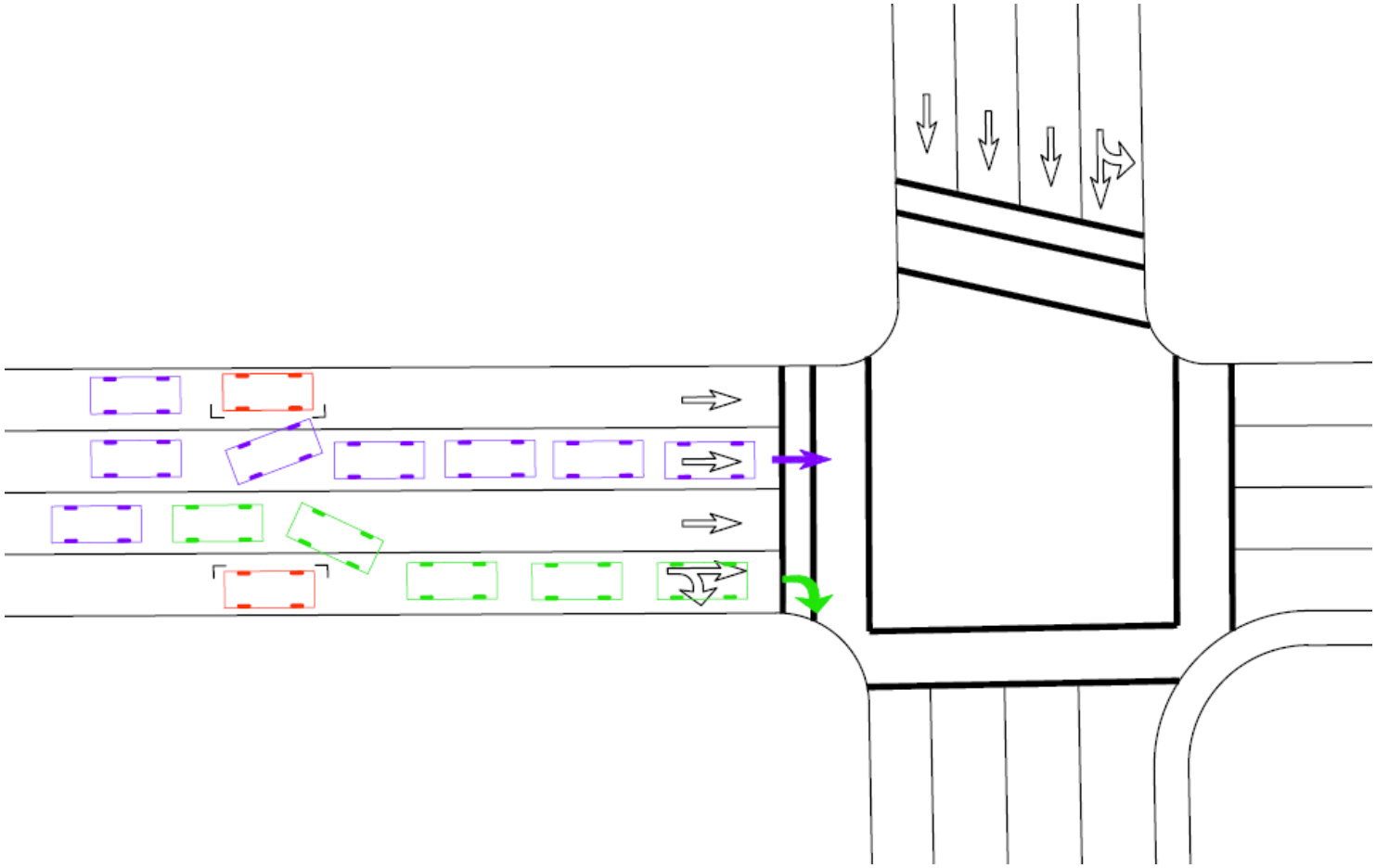
# Potential Impacts of Curbside Parking during PM Peak



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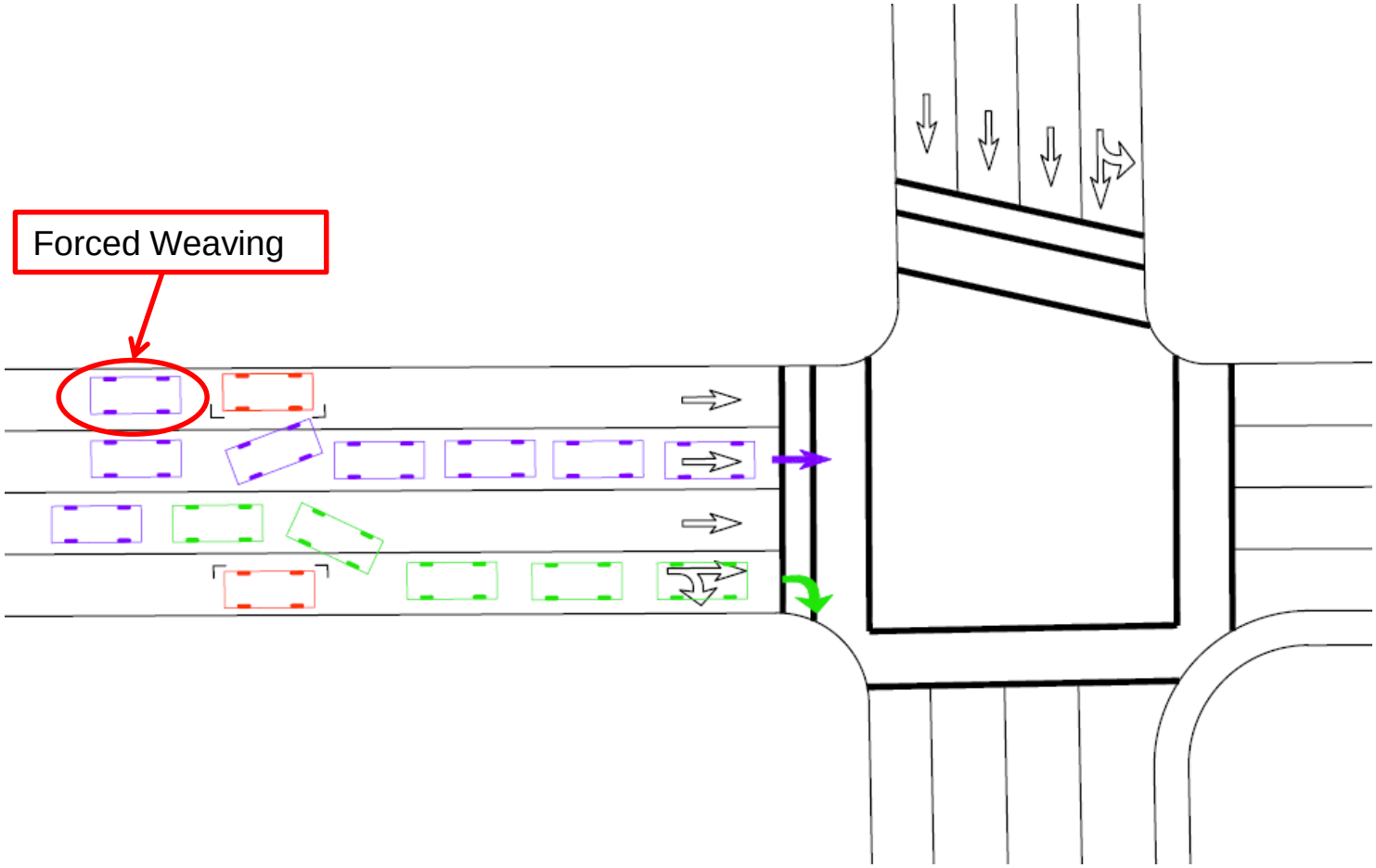


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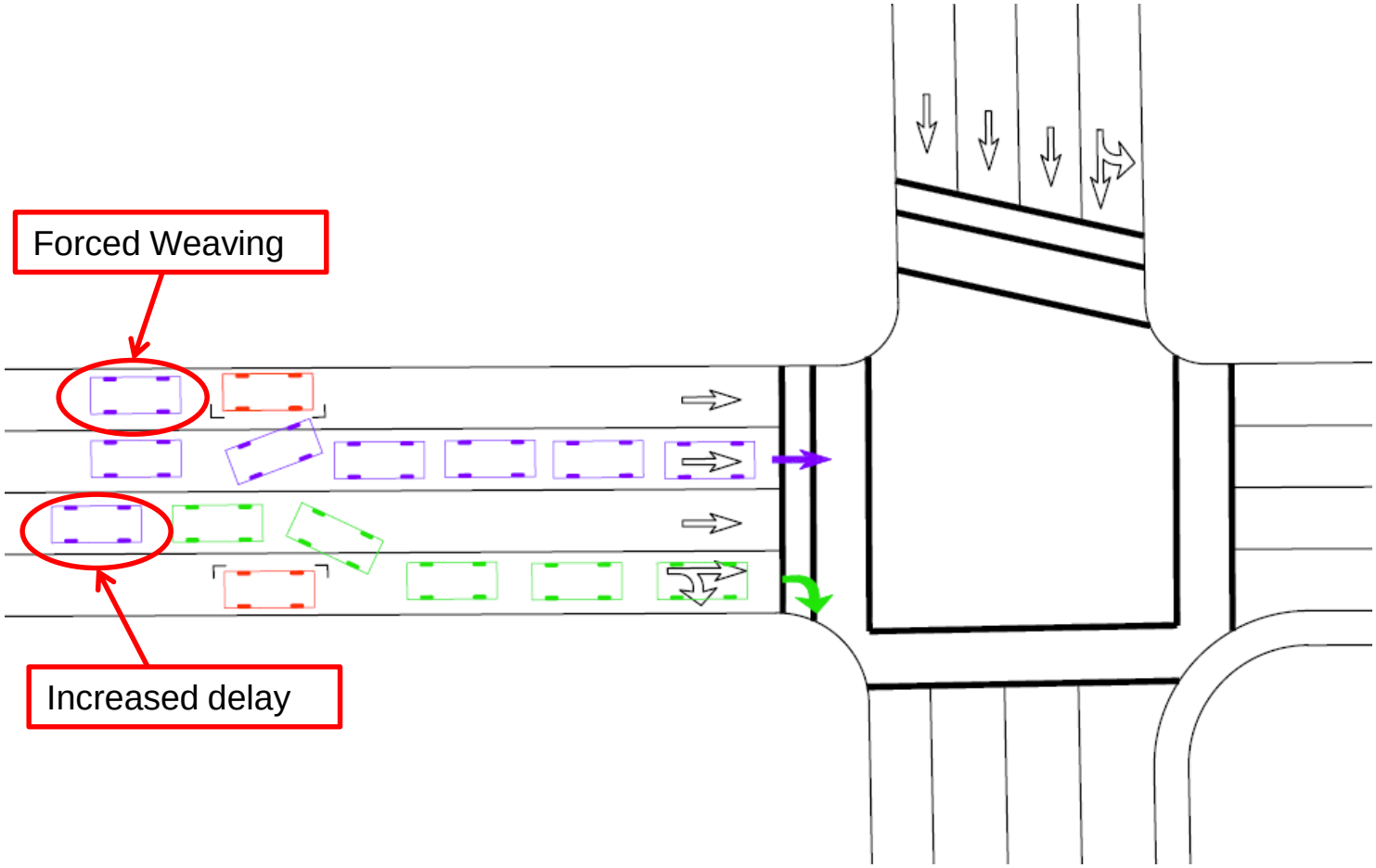


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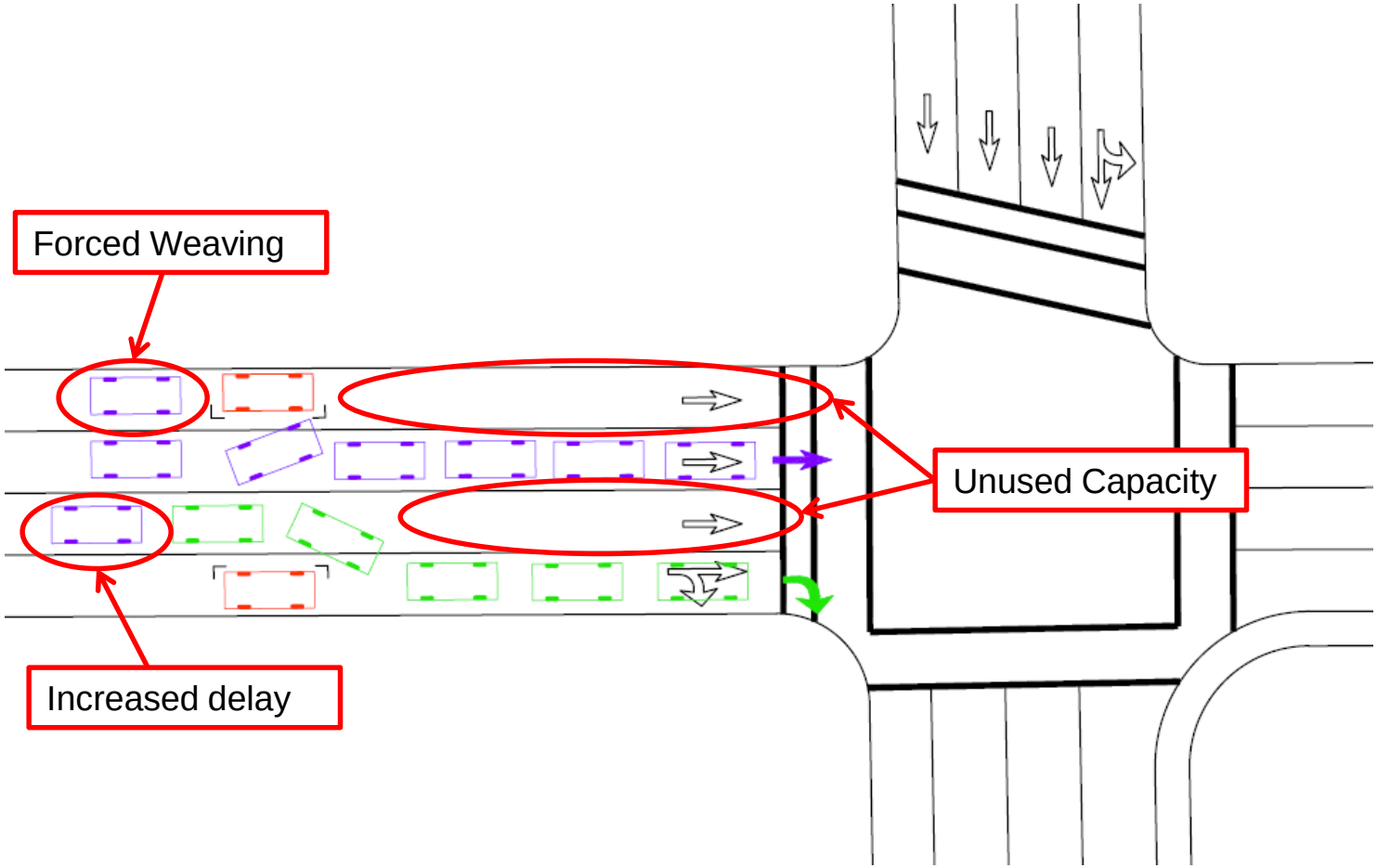


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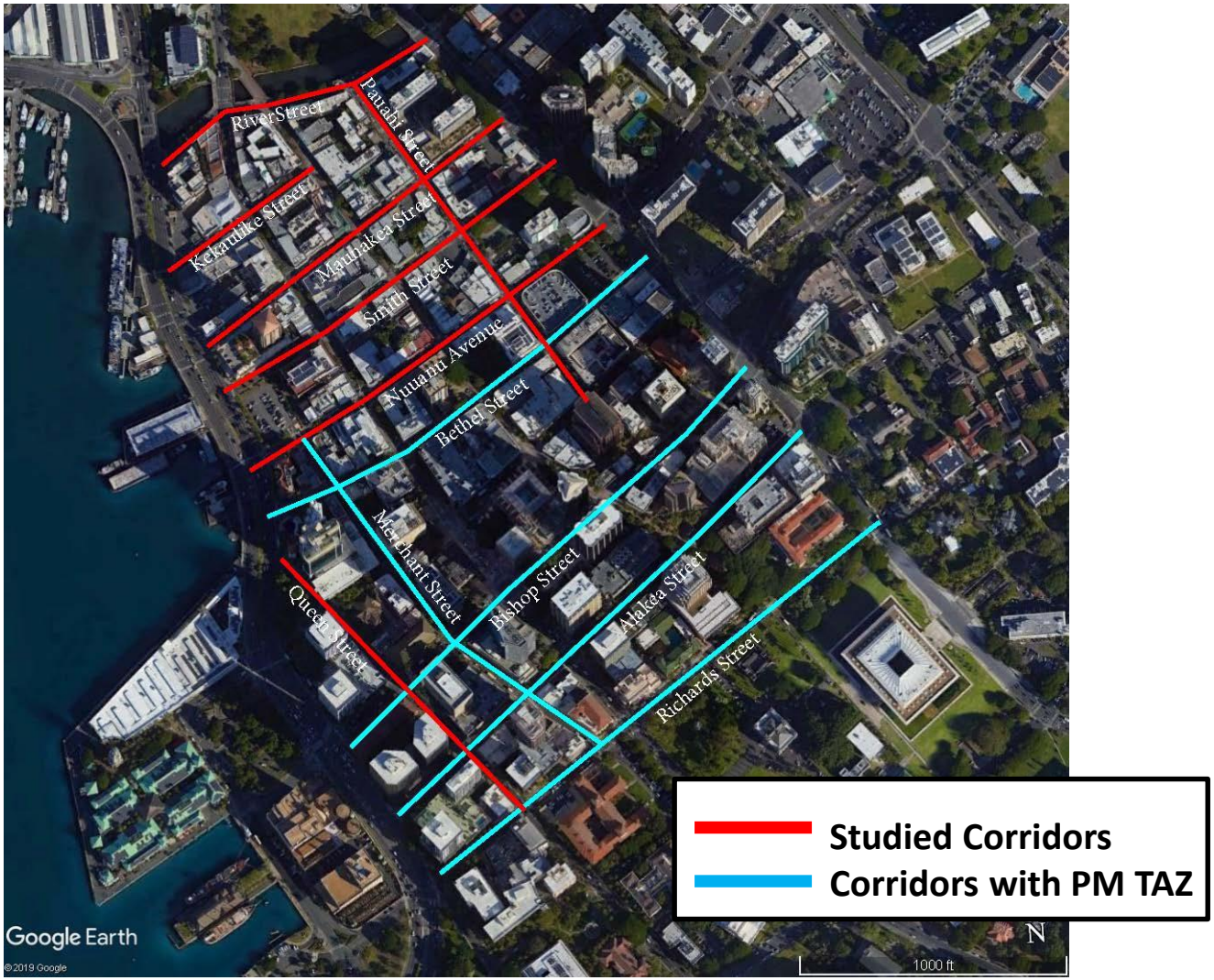
# Methodology

1. **Compile Parking Inventory Map to determine locations of PM TAZ**

# Downtown/Chinatown Corridors with PM TAZ

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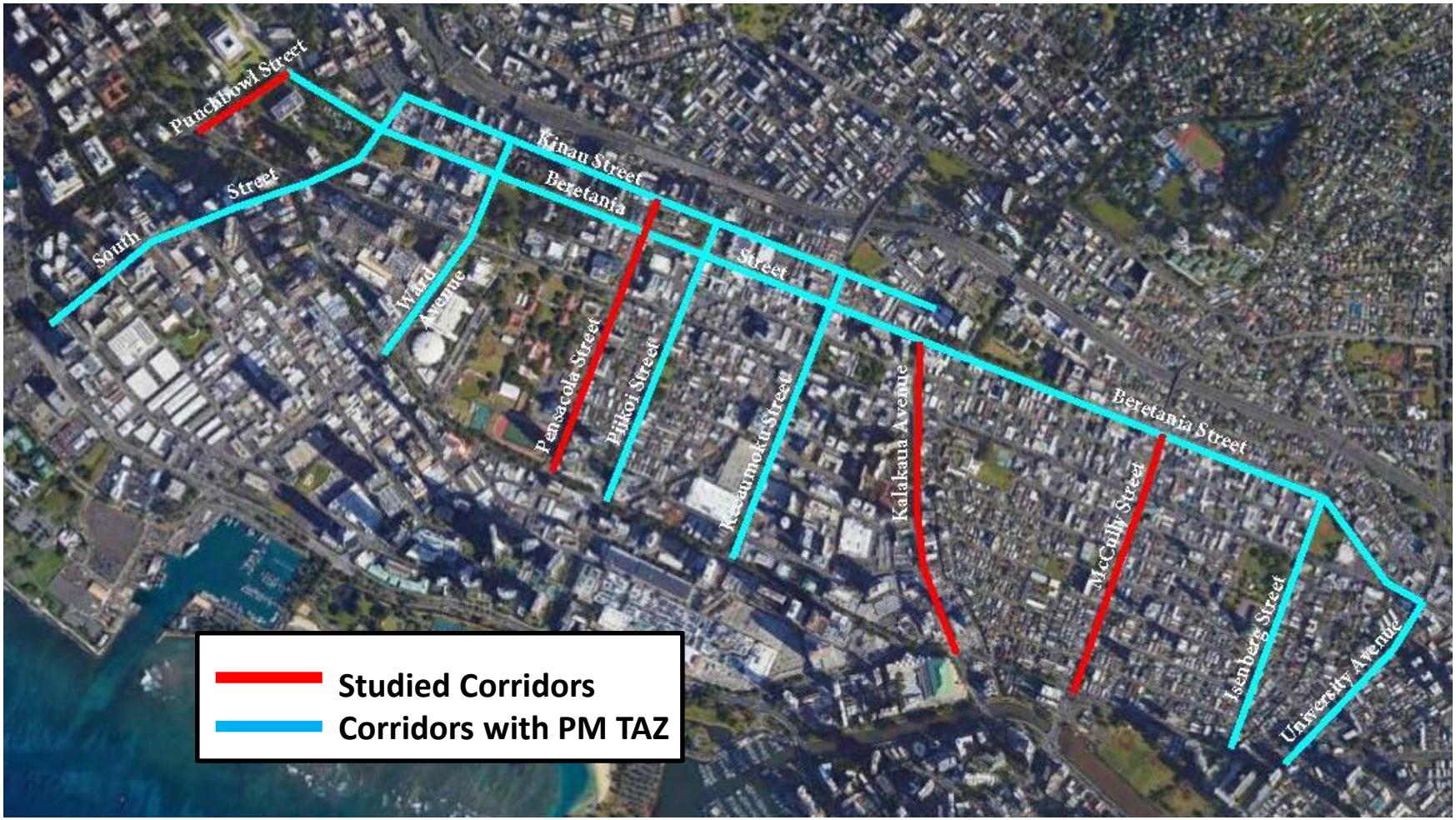
# Urban Core Corridors with PM TAZ

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# Methodology

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2. **Collect Data**

# Methodology

1. **Compile Parking Inventory Map to determine locations of PM TAZ**
2. **Collect Data**
   - Turning movement counts
     - 35 locations, 3 work days (Wednesday-Friday)
   - Travel Time Runs (TTR)
     - 20-min intervals from 3:00 PM – 6:40 PM
   - Field Observations
     - Queuing, congestion/problem areas, TAZ compliance, parking utilization, etc.

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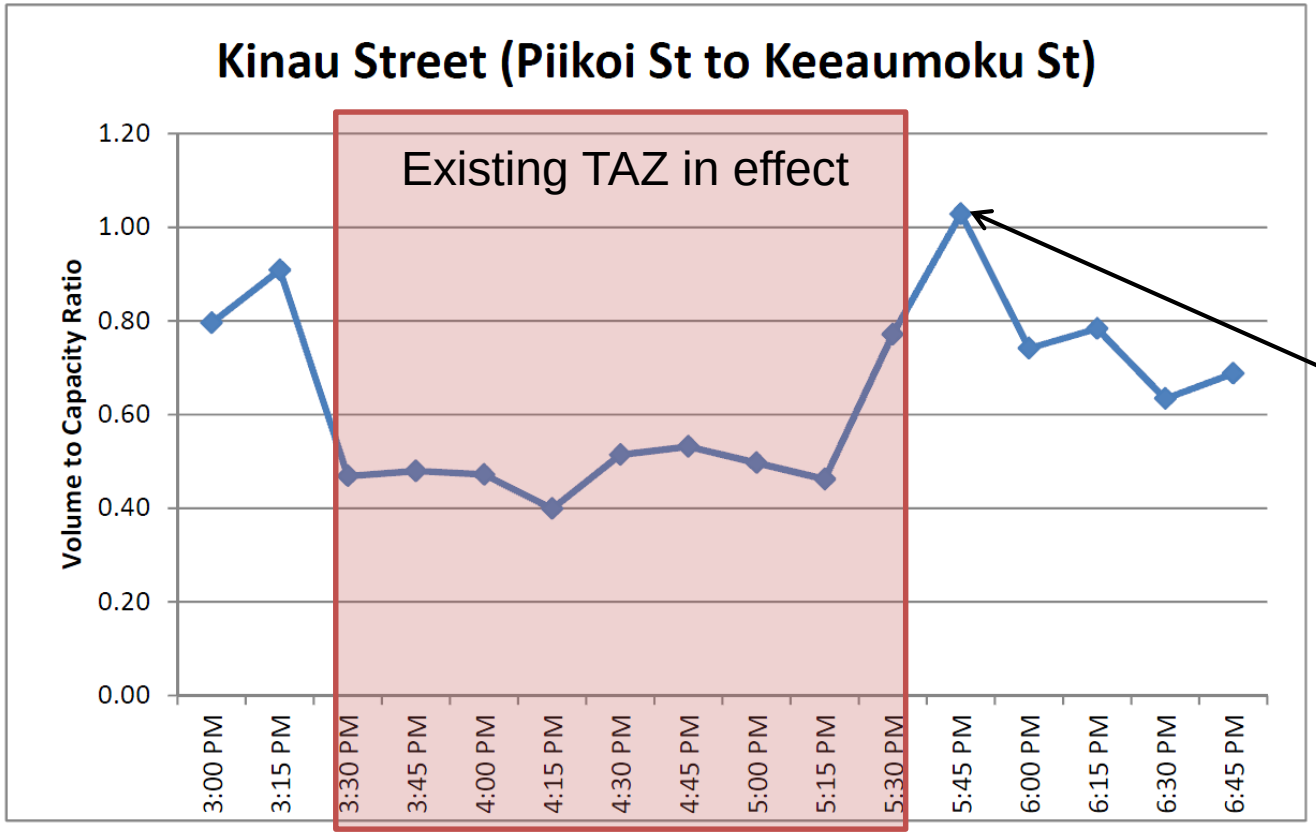
3. **Analyze & synthesize data**

# Volume Data Analysis




**Peak after TAZ suggests that capacity provided by TAZ restrictions is still needed after 5:30 PM**

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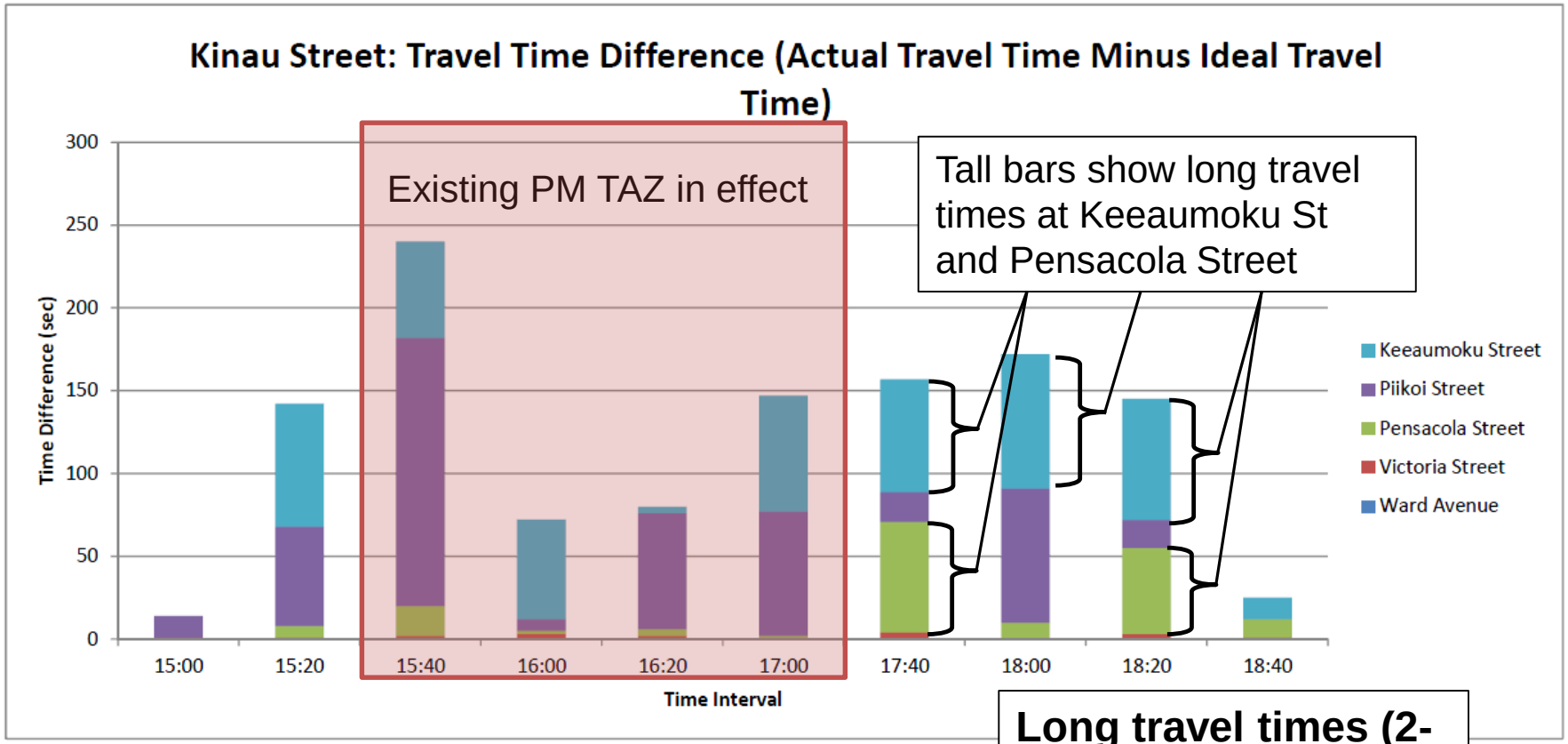
# Travel Time Data Analysis




**Long travel times (2-3 min more) persist after TAZ end**

"Ideal Travel Time" = Lowest Travel Time Experienced

"Time Difference" = Difference from Ideal Travel Time

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   - Field Observations
     - Queuing, congestion/problem areas, TAZ compliance, parking utilization, etc.
3. **Analyze & synthesize data**
4. **Make Recommendations**

# General Findings

- TAZ violations frequent and common throughout both study areas
  - May be due to inadequate or hard-to-read signs
  - TAZ & “No Parking” areas not enforced

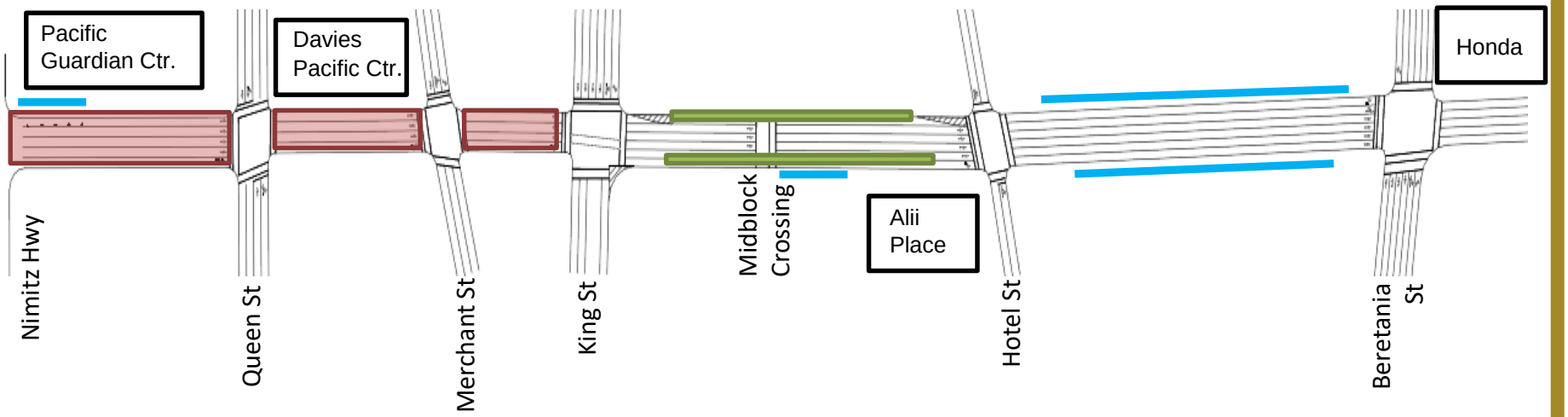
*Faded TAZ Sign on east curb of Keeaumoku Street*

# General Recommendations

- **<u>Enforce TAZ</u>**: Can lead to increased revenue to City, alleviate traffic congestion
- **<u>Maintain signage</u>**: Ensure that signs are visible and easy to read.
- **<u>Paint curbs</u>**: Visually indicates TAZ (no need to check signs while driving past)
- **<u>Colored Parking Meters</u>**: Visually indicates loading zone, hourly parking, etc.
- **<u>Parking Maps</u>**: Online parking maps for drivers to plan trips and know where to park.

# Alakea Street Findings & Recommendations

- Spillback due to long cycles at King Street, takes 2-3 cycles to clear. Persists until approx. 5:40 PM
- Stops in no-parking areas for passenger pick-up

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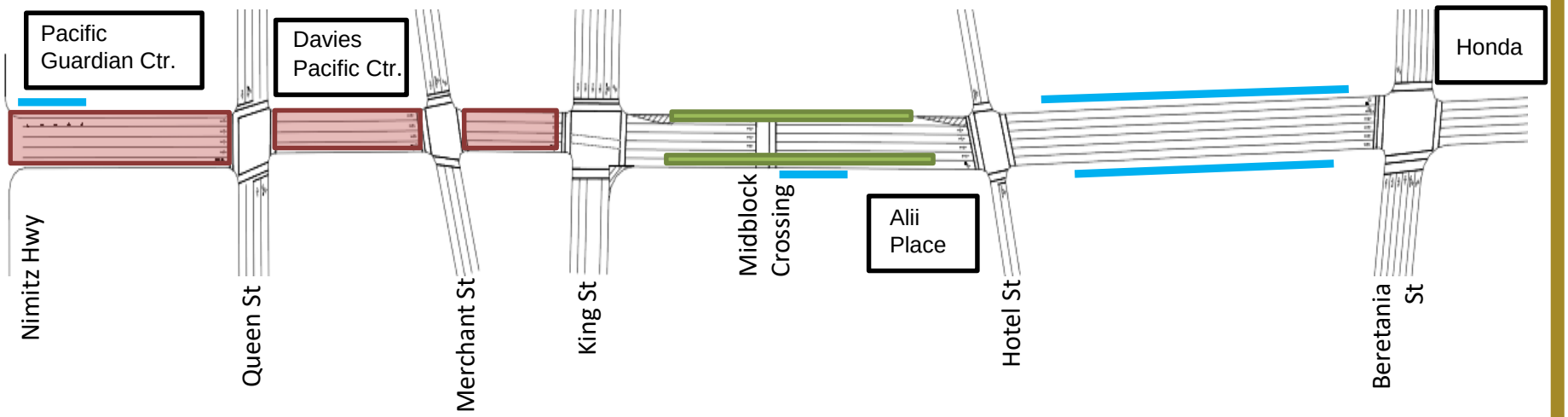


RECOMMENDATIONS

- Alakea Street Corridor TAZ Extension to 6:00 PM
  **NEW HOURS: 3:30 PM – ~~5:30 PM~~ 6:00PM (30-min Ext.)**

PM TAZ

No. of Affected Stalls: 39 stalls for additional 30 minutes

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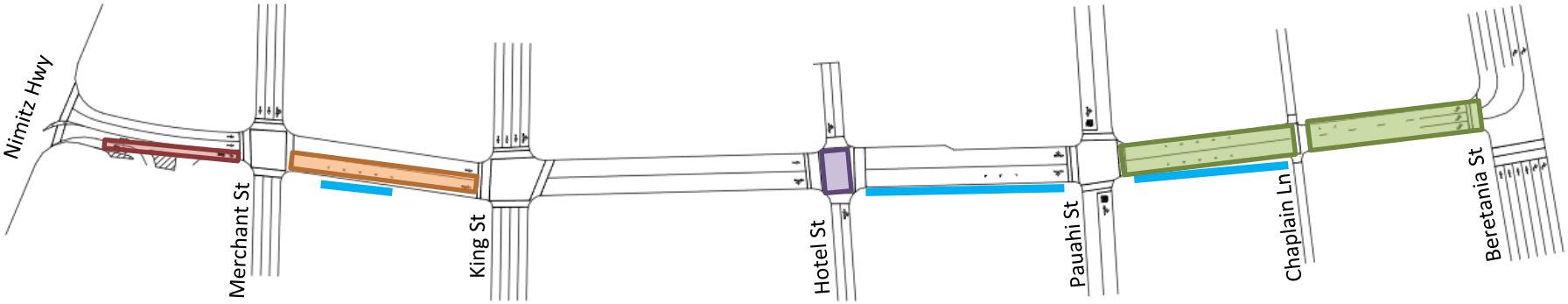
# Bethel Street Findings & Recommendations

- Weaving in/out of RT-only lane causes congestion
- Spillback due to RT extends through marked stalls. Persists until approx. 5:45 PM
- Long cycle lengths interrupt progression
- Spillback due to long cycles at Bethel St/Beretania St

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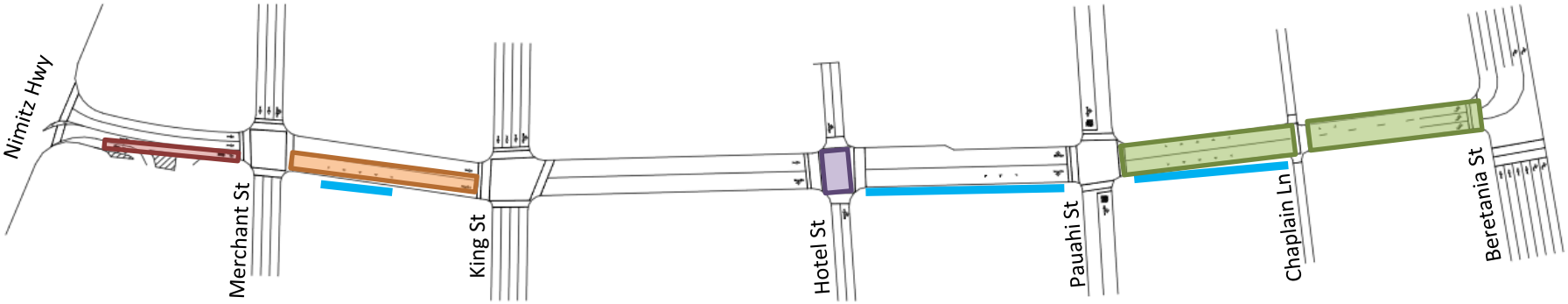


RECOMMENDATIONS

- Bethel Street Corridor TAZ Extension to 6:00 PM
  **NEW HOURS: 3:30 PM – ~~5:30 PM~~ 6:00PM (30-min Ext.)**

PM TAZ

No. of Affected Stalls: 10 stalls for 30 minutes

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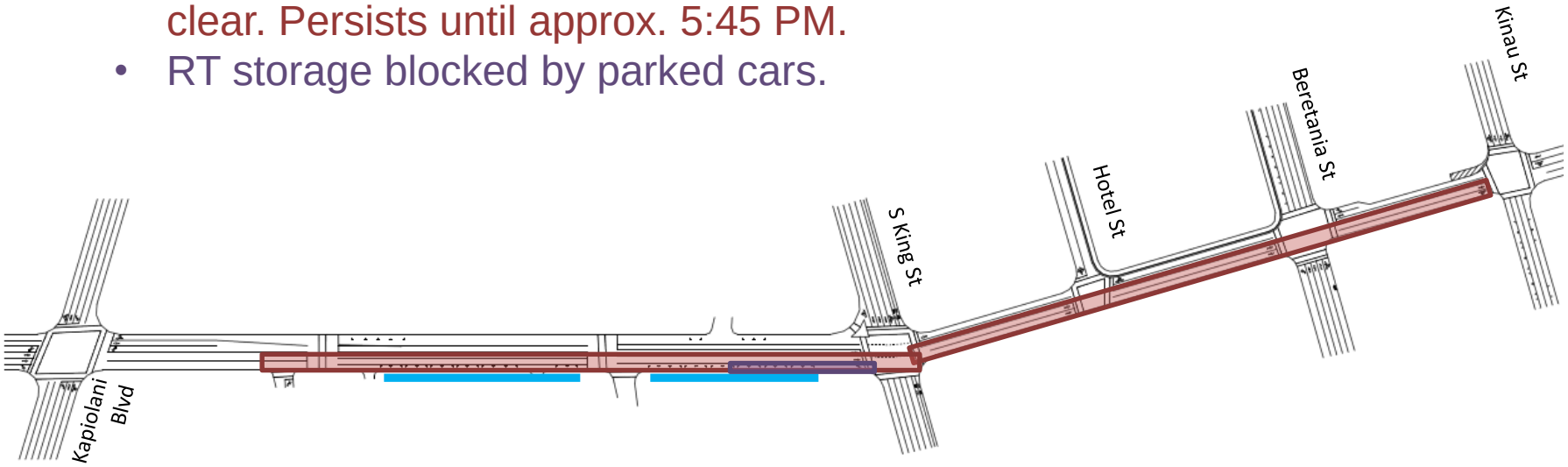
# Ward Avenue Findings & Recommendations

- Queueing along Maukabound Ward Ave takes 5-7 cycles to clear. Persists until approx. 5:45 PM.
- RT storage blocked by parked cars.

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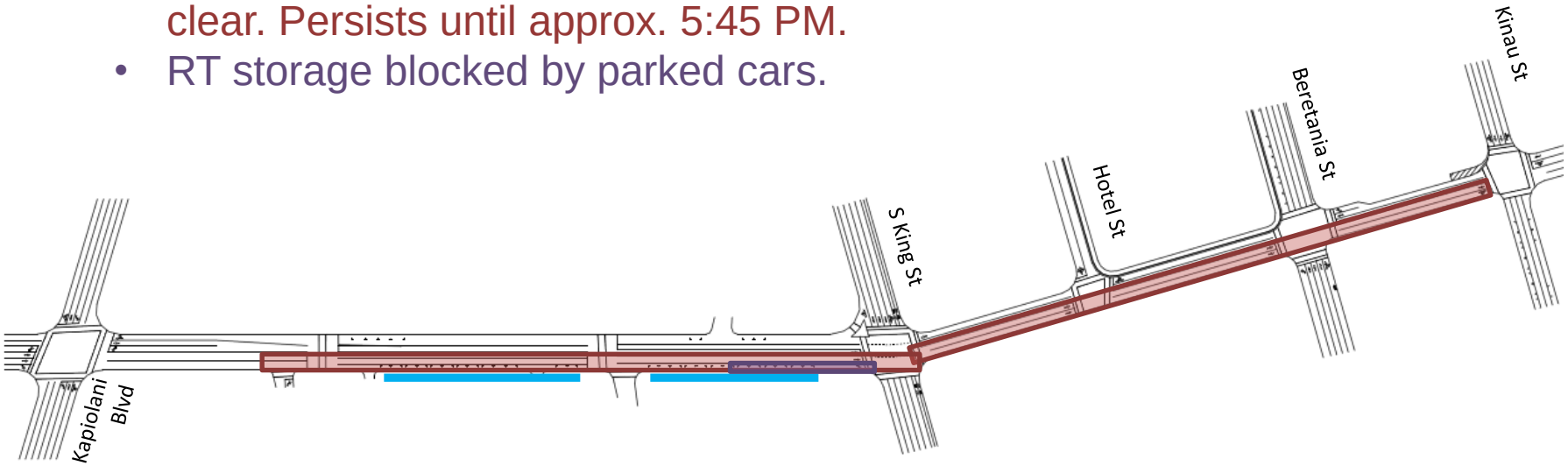


RECOMMENDATIONS

- Ward Avenue Corridor TAZ Extension to 6:00 PM
  **NEW HOURS: 3:30 PM – ~~5:30 PM~~ 6:00PM (30-min Ext.)**

PM TAZ

No. of Affected Stalls: 26 stalls for additional 30 min

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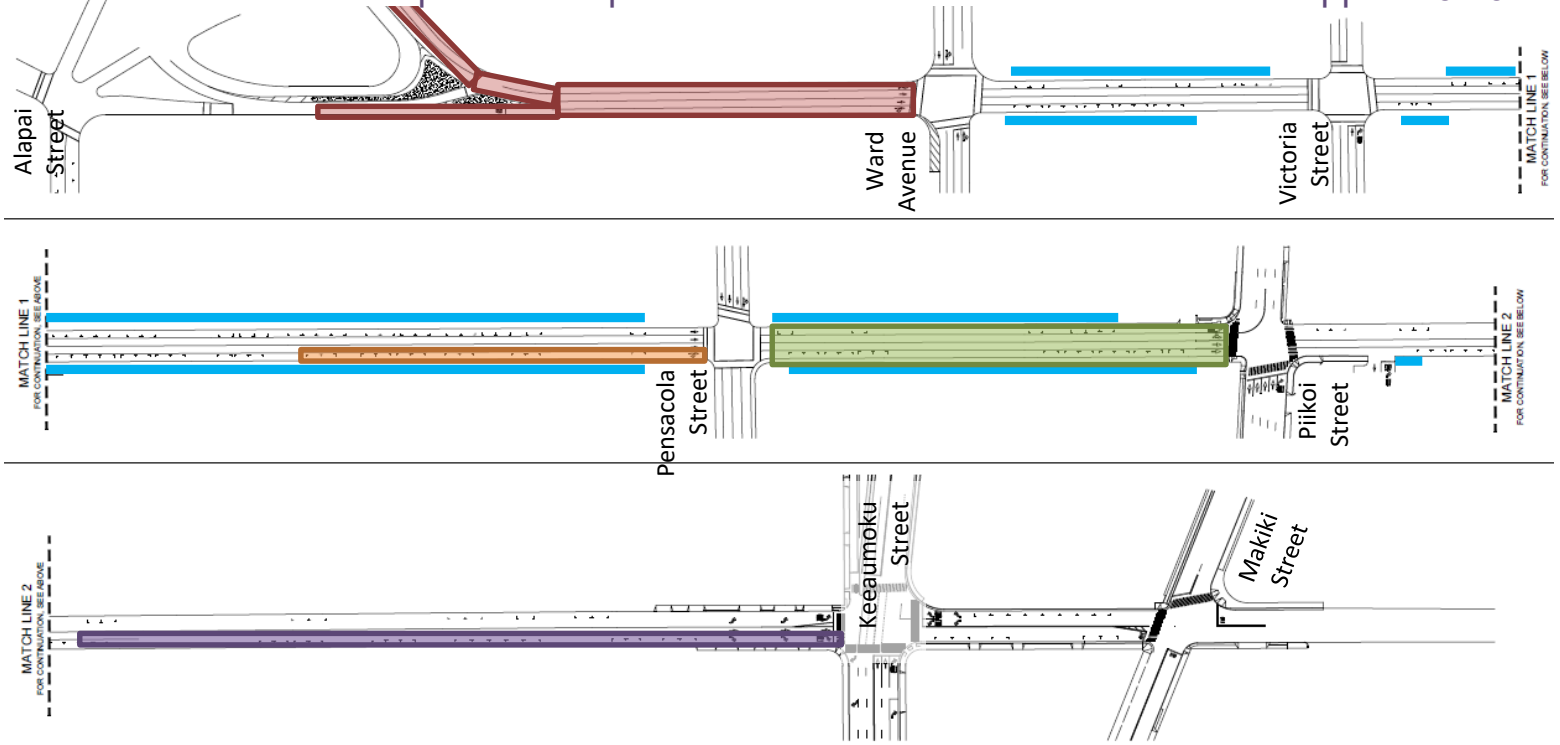
# Kinau Street Findings & Recommendations

- Congestion due to weaving in/out of RT only lane
- RT spills out of “pocket” and blocks through lanes. Persisted through end of study period at 7:00 PM
- Congestion due to blocking from Piikoi Street
- RT at spills out of “pocket” and blocks TH lane. Persists until approx. 6:20 PM

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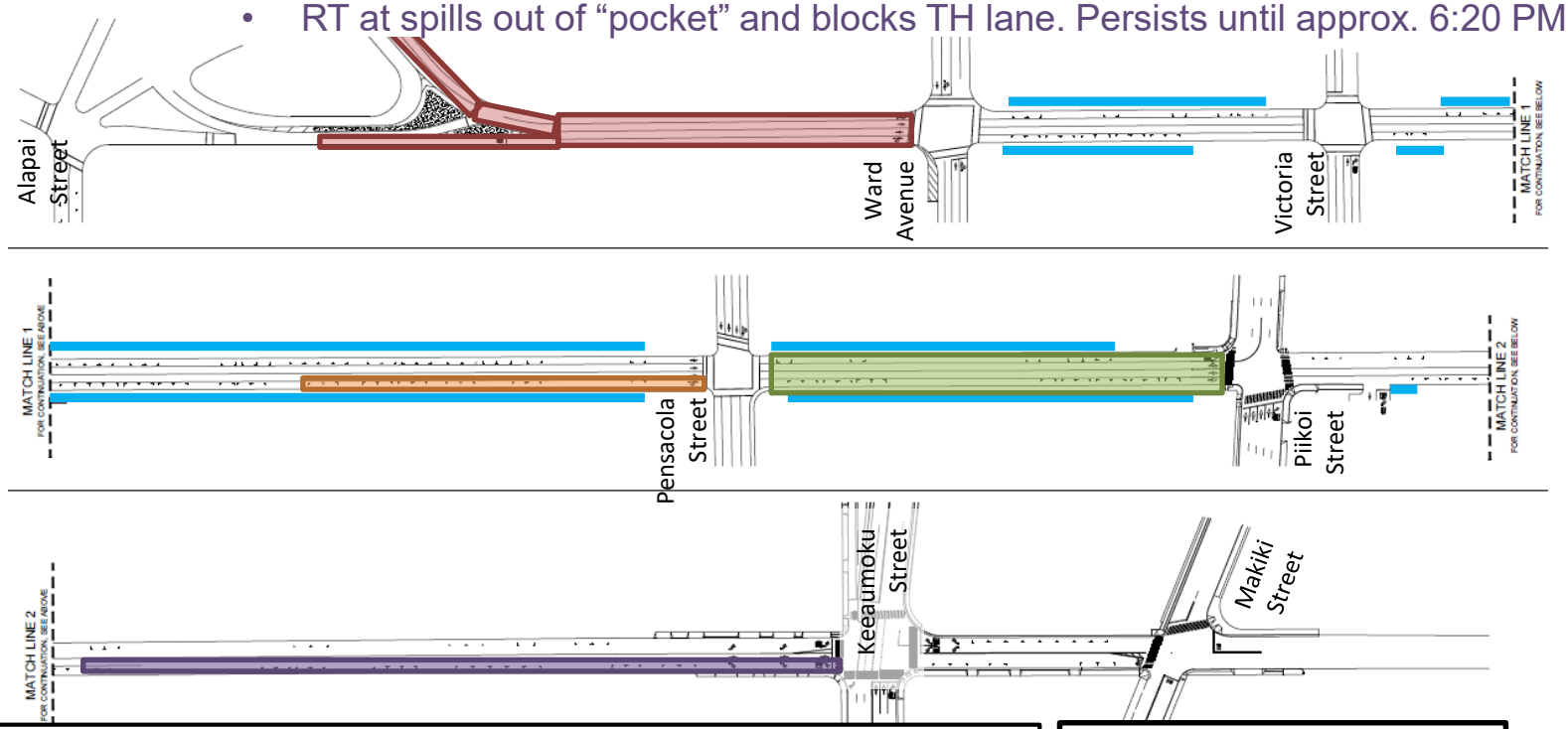


RECOMMENDATIONS

- Kinau Street Corridor TAZ Extension to 6:00 PM

  **NEW HOURS: 3:30 PM – ~~5:30 PM~~ 6:30PM (1 hr Ext.)**

PM TAZ

No. of Affected Stalls: 87 stalls for additional 1 hr

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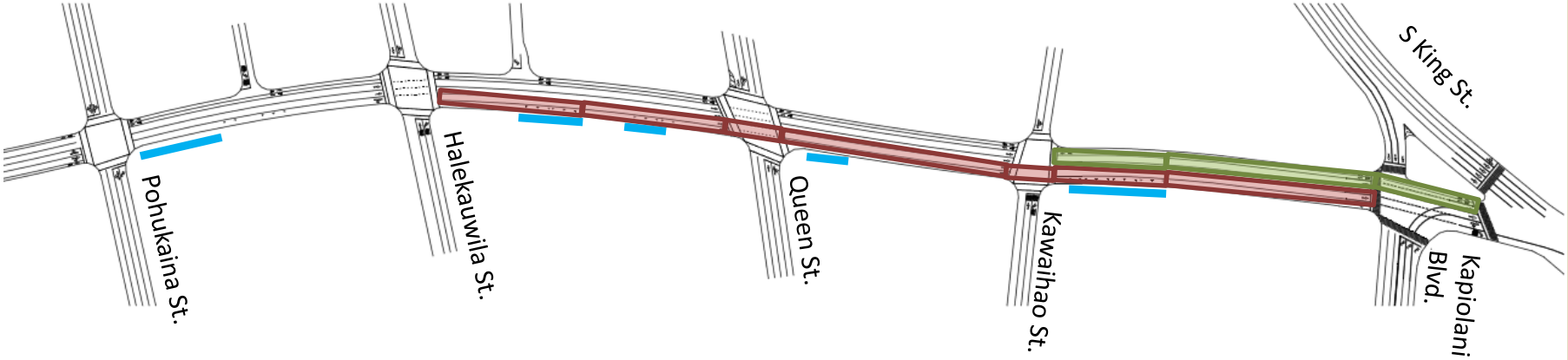
# South Street Findings & Recommendations

- High RT volume spills through marked parking stalls. Persists until approx. 5:45 PM.
- Spillback from Beretania St/Alapai St extends along South Street

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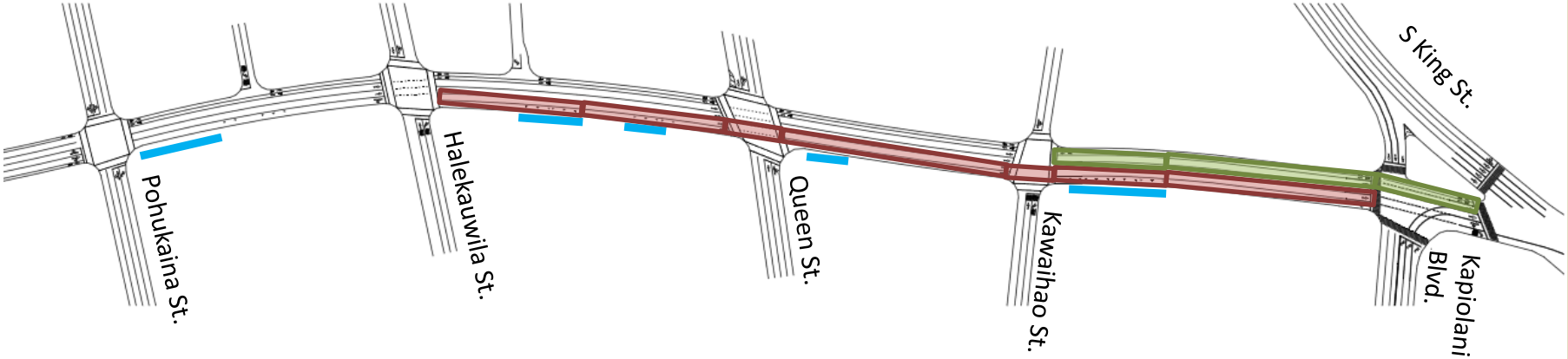


RECOMMENDATIONS

- South Street Corridor TAZ Extension to 6:00 PM
  **NEW HOURS: 3:30 PM – ~~5:30 PM~~ 6:00PM (30-min Ext.)**

PM TAZ

No. of Affected Stalls: 20 stalls for additional 30 min

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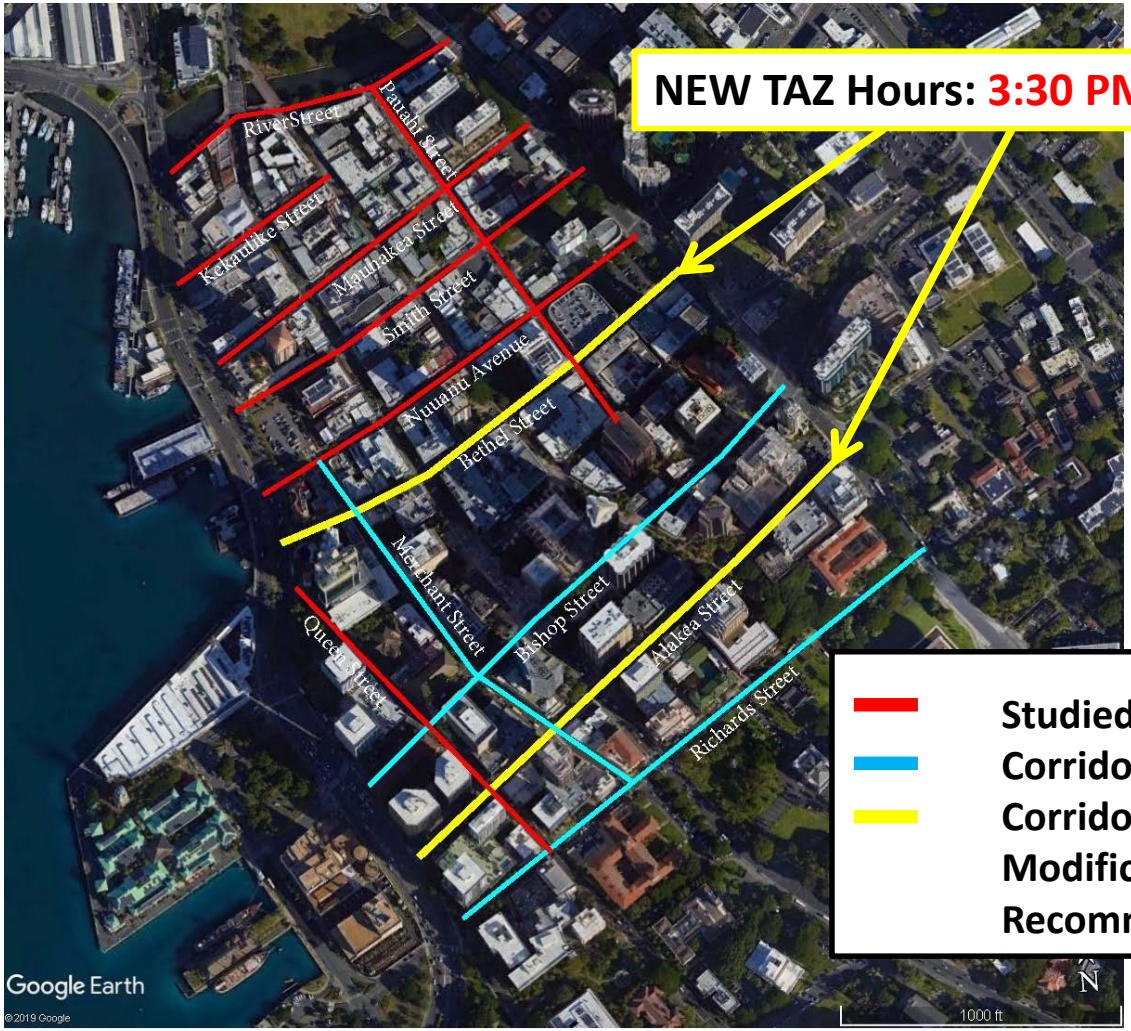
# Corridor Recommendations Summary

- Downtown/Chinatown
  - Alakea Street Corridor TAZ Extension
    3:30 PM – ~~5:30 PM~~ **6:00PM (30-minute Extension)**
  - Bethel Street Corridor TAZ Extension
    3:30 PM – ~~5:30 PM~~ **6:00PM (30-minute Extension)**
- Urban Core
  - Ward Avenue Corridor TAZ Extension
    3:30 PM – ~~5:30 PM~~ **6:00PM (30-minute Extension)**
  - South Street Corridor TAZ Extension
    3:30 PM – ~~5:30 PM~~ **6:00PM (30-minute Extension)**
  - Kinau Street Corridor TAZ Extension
    3:30 PM – ~~5:30 PM~~ **6:30PM (1-hour Extension)**

# Downtown/Chinatown Recommendations Summary Map

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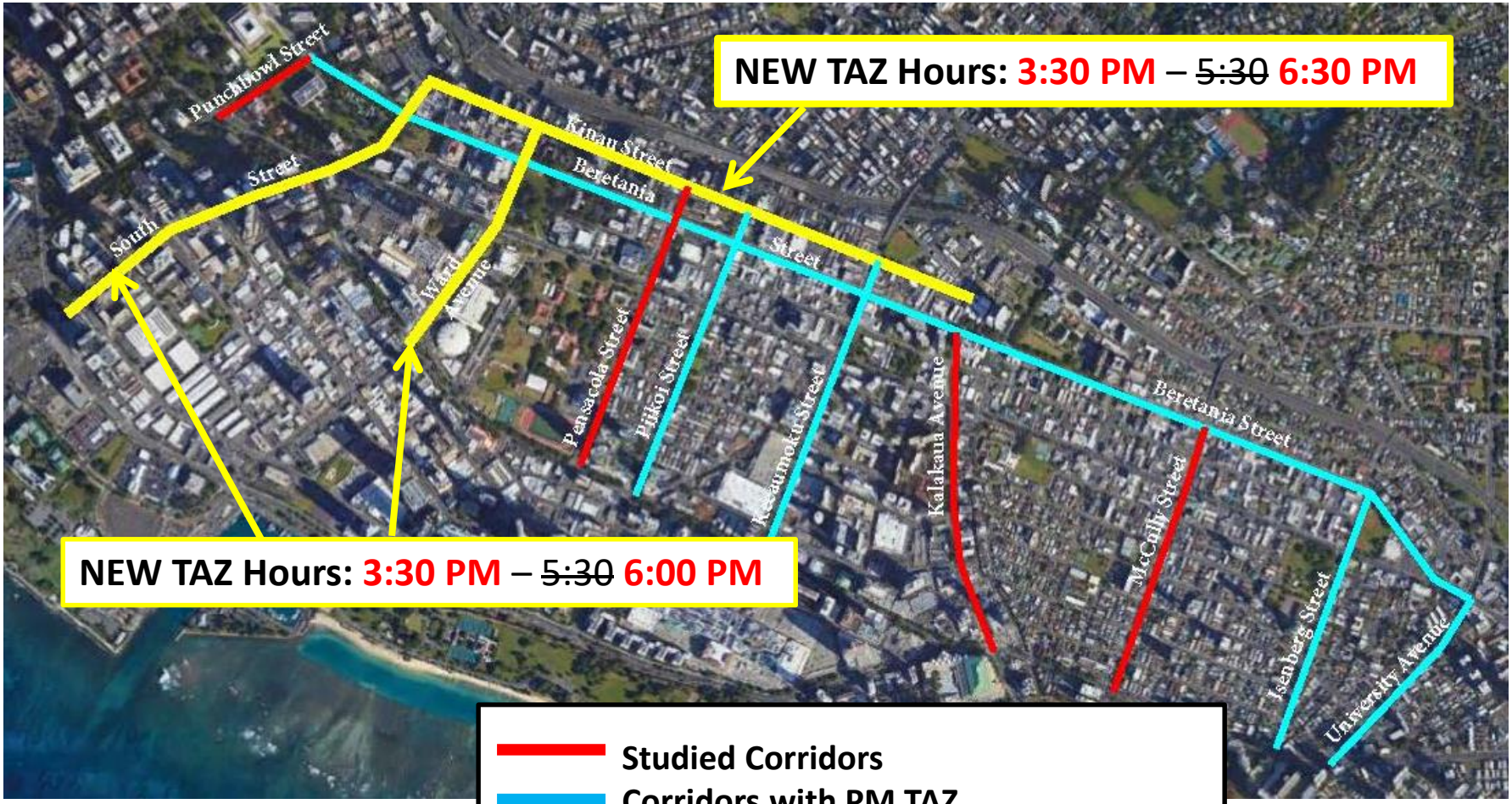
# Urban Core Recommendations Summary Map

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# Questions?

## Links to Draft Reports

Downtown/Chinatown: https://austintsutsumiassociates.sharefile.com/d-s2ceaf644ec648e39

Urban Core: https://austintsutsumiassociates.sharefile.com/d-s56fd945e87049c29

## ATA Contact Information

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**Eric Imada, P.E.**
Project Manager
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# VI. New Business

## B. Congestion Management Process Update

# Background

1. MPO/TMA- Population >= 200,000
2. CMP implementation by the ORTP and TIP
   - Project Evaluation and Scoring

2. CMP must include Performance Measures
   - Travel Time Index
   - Speed Index
   - Planning Time Index
   - Severity
   - Total Impact

# Process Steps

1. Develop Objectives for Congestion Management
2. Define CMP Network
3. Develop Multimodal Performance Measures
4. Collect Data / Monitor System Performance
5. Analyze Congestion Problems and Needs
6. Identify and Assess CMP Strategies
7. Program and Implement CMP Strategies
8. Evaluate Strategy Effectiveness

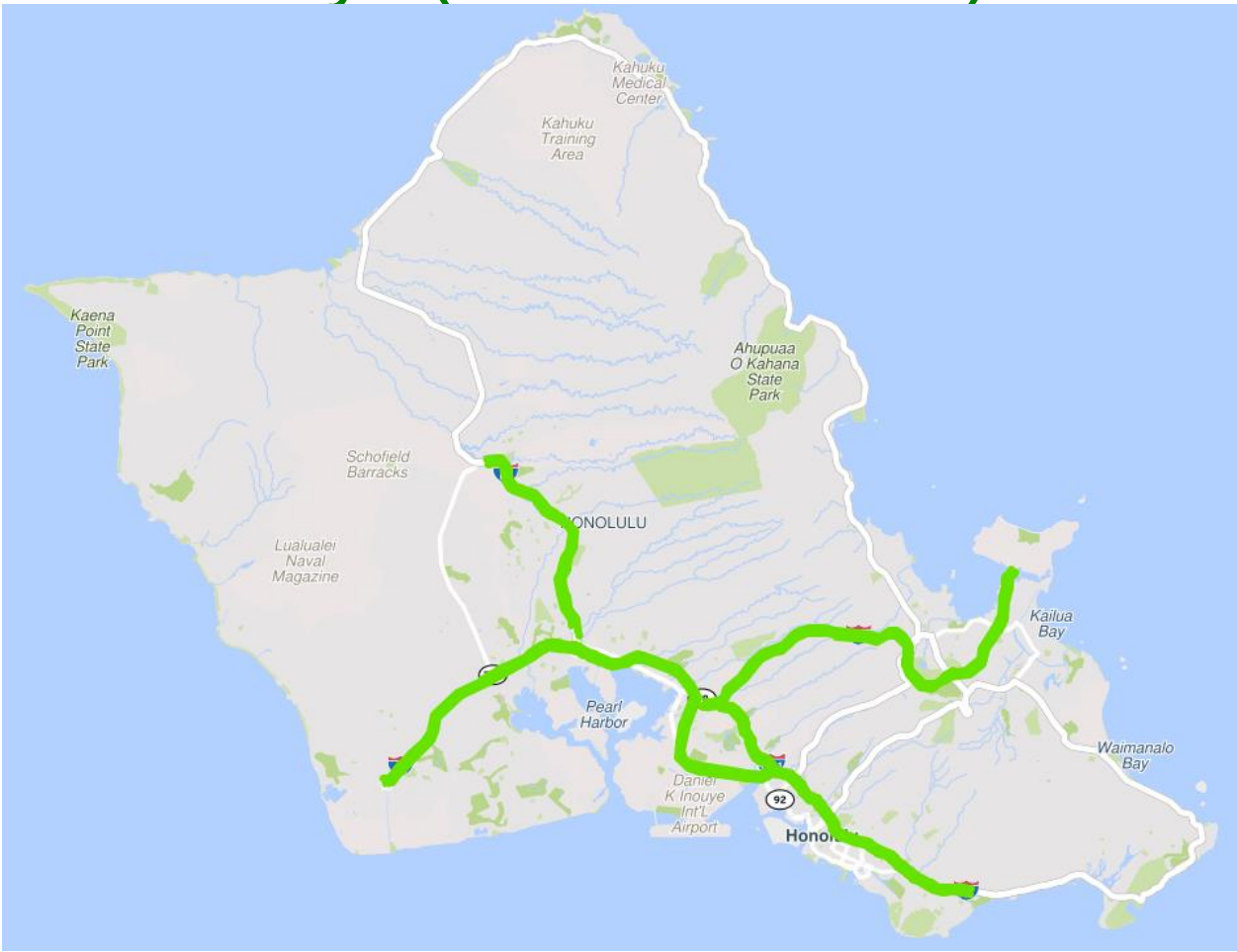
# 1. Develop Objectives for Congestion Mgt

| REGIONAL GOALS | CMP GOALS |
|---|---|
| 1. Improve safety and quality of life | 1. Improve Safety |
| 2. Support active and public transportation | 2. Increase Mobility |
| 3. Preserve and maintain the transportation system | 3. Improve Efficiency |
| 4. Support a reliable transportation system | |
| 5. Improve the resiliency of the transportation system | |
| 6. Improve air quality and environmental assets | |
| 7. Promote an equitable transportation system | |

| CMP OBJECTIVES |
|---|
| 1. Reduce crashes for all modes through better planning, design, and incident response |
| 2. Reduce demand for travel by auto |
| 3. Reduce congestion with TDM and TSM strategies |

# 2. Define CMP Network

- Freeways (106 lane miles)



- Arterials (382 lane miles)

# 3. Develop Multimodal Perf. Measures

1. Travel Time Index
2. Speed Index
3. Planning Time Index
4. Severity of Congestion
5. Total Impact

# 4. Collect Data / Monitor System Perf.

- NPMRDS
  - archived speed and travel time data for the NHS
  - Probe-based
  - 5 minute intervals
  - updated each month

# 5. Analyze Congestion Problems and Needs

- Thresholds
  - Freeways
    - Speed Index: <0.8 = congested
  - Arterials
    - Speed Index: <0.53 = congested
  - Peak Periods
    - AM Peak: 6 - 10am
    - PM Peak: 3 - 6pm

# 6. Identify and Assess CMP Strategies

1. TDM
2. TSM
3. Public Transit Improvements
4. Active Transportation
5. Land Use & Growth Management
6. Operational Enhancements
7. Corridor Preservation and Management
8. Adding Capacity

# 7. Program and Implement CMP Strategies

- ORTP project prioritization
- TIP project evaluation

# 8. Evaluate Strategy Effectiveness

- Before-and-after studies
- Guidance for project evaluations

VII. Invitation to interested members of the public to be heard on matters not included on the agenda

VIII. Announcements

IX. Adjournment