

Honolulu Rail Transit Project Presentation

Archaeological Inventory Survey Plan

March 16, 2011



20-Mile, 21-Stop Route East Kapolei to Ala Moana Center



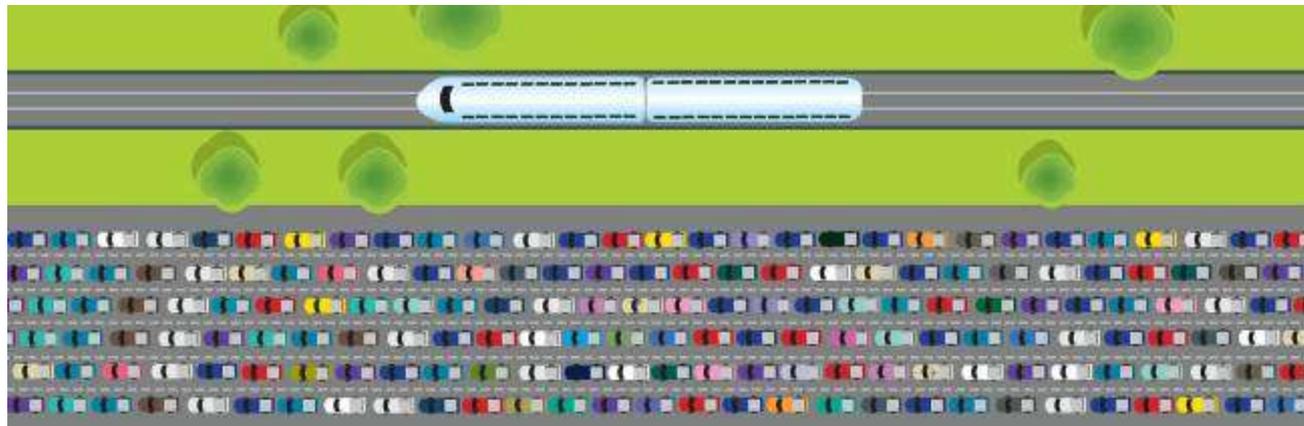
Operating Details

- **When will trains run?**
 - From 4 a.m. to Midnight
 - Every 3 minutes during morning and afternoon rush hour
 - Every 6 minutes during mid-day hours
 - Every 10 minutes during evening hours
- **How fast will trains travel?**
 - Over 55 mph top speed
 - 30 mph average with stops



Transportation Benefits

- Estimated 116,000 average weekday ridership in 2030
- Reduced traffic delay by 18% in 2030
- Estimated 40,000 fewer vehicles on the road in 2030



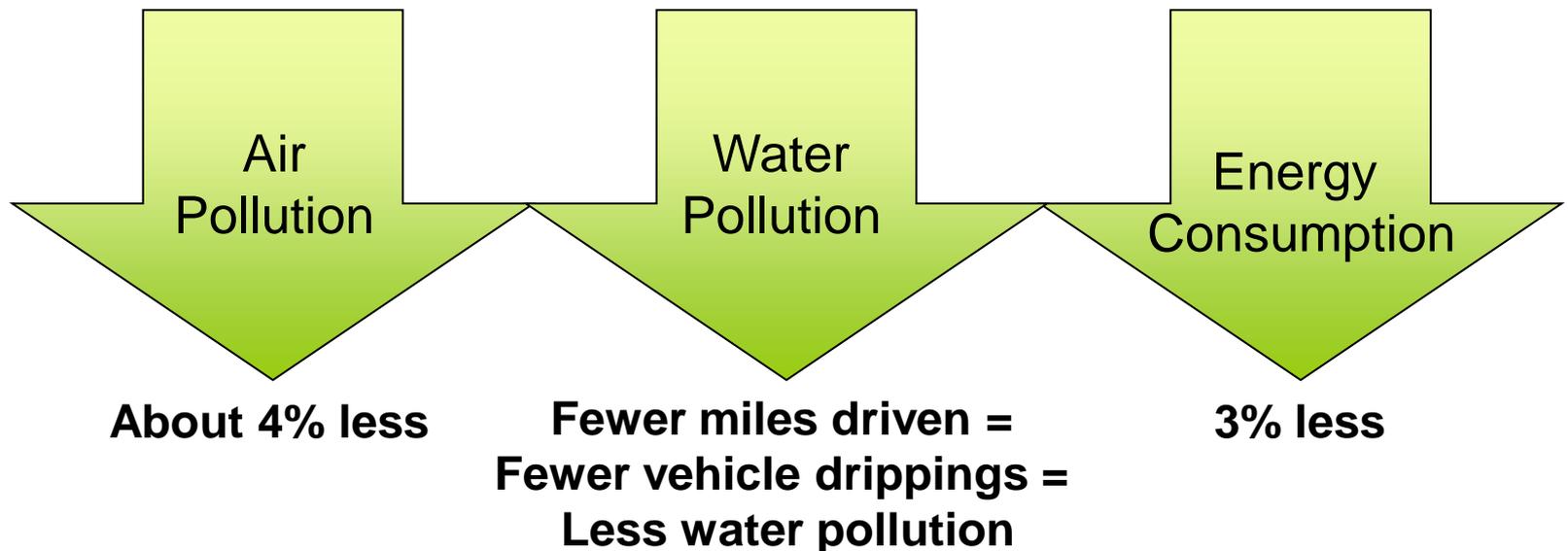
Economic Benefits

- Approximately 10,000 jobs each year attributed to rail construction
- Along with TOD, rail will infuse our economy with Billions of Dollars in the next decade.
- Rail will be Hawaii's single largest job creator
- Supports City of Kapolei as urban center
- Redevelopment around stations



Environmental Benefits

- REDUCED because of rail:



Data source: Final Environmental Impact Statement, June 2010

CONSTRUCTION SECTION MAPS



HONOLULU RAIL TRANSIT STATION DESIGNS

Station Canopy Design



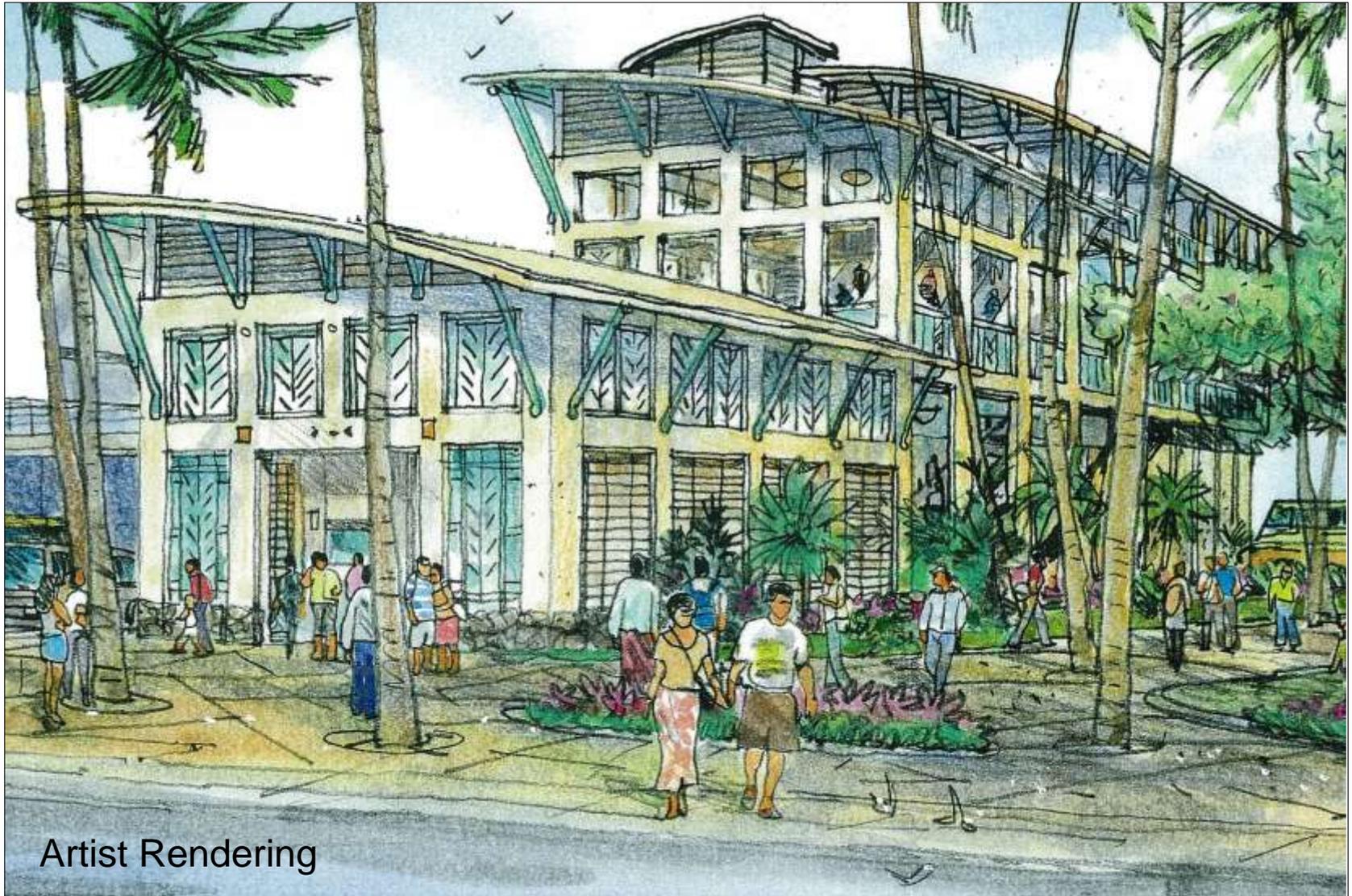
Artist Rendering

East Kapolei Station Rendering

Artist Rendering



West Loch Station Rendering



Artist Rendering

Consultation on Development of the Archaeological Inventory Survey Plan

City Center Section (Middle Street to Ala Moana Center)



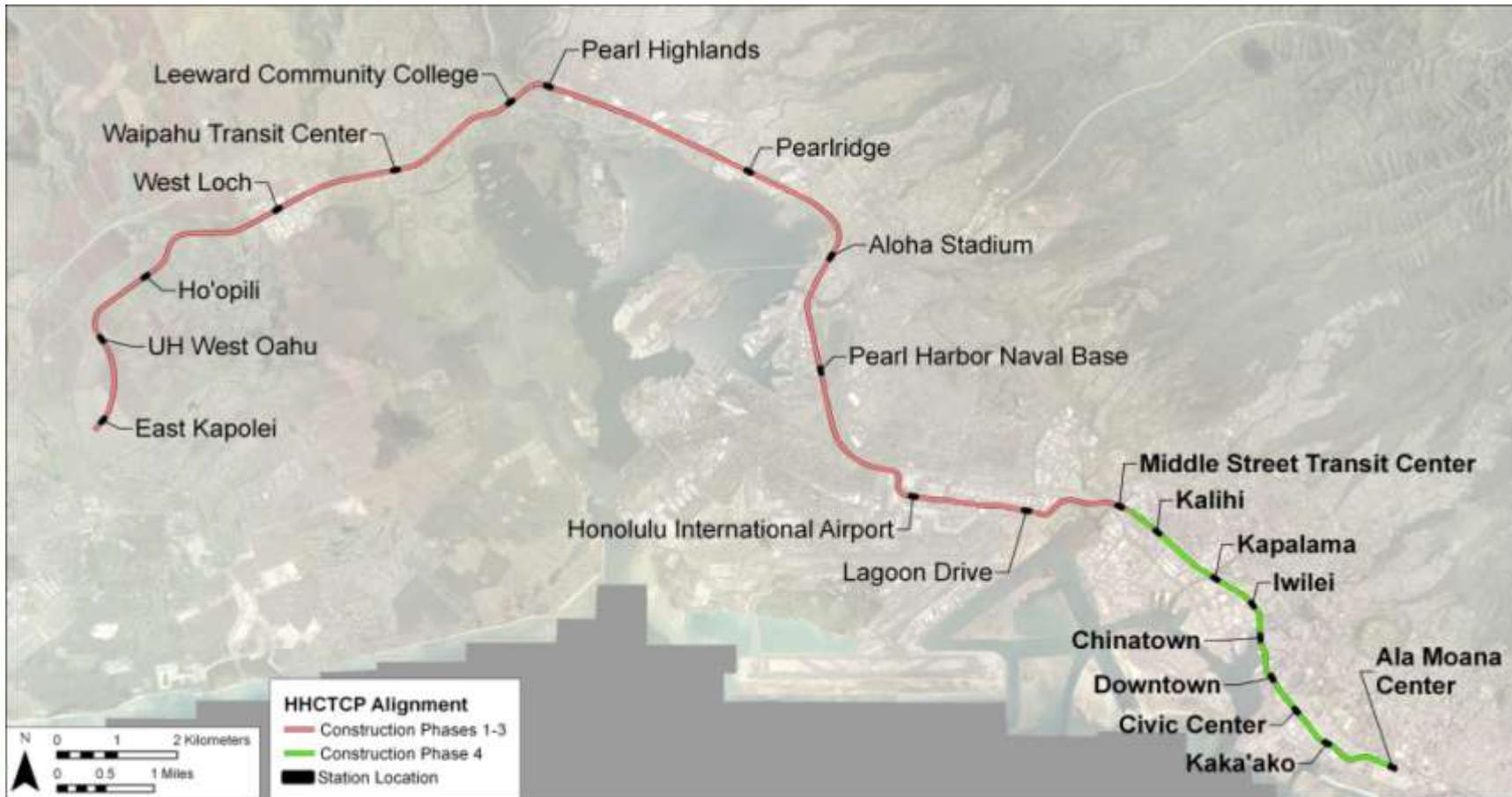
March 16, 2011



Programmatic Agreement

- Continuing consultation to follow the provisions of the Programmatic Agreement
- Focus on the City Center Section (Construction Phase 4) portion of the transit route because of community concerns and previous archaeological finds

Map of the Entire Transit Route



We Need Your Comments and Perspectives On the Archaeological Inventory Survey Plan for the City Center Section:

- The consultation process related to potential findings
- Any previous findings in these areas that you wish to bring to our attention
- Any historical or cultural sources you wish to bring to our attention
- The scope of the archaeological investigation for City Center Section
- Proposed methods

Process

1. **Consult** with interested parties until completion of City Center
2. **Develop a draft** of the archaeological inventory survey plan (AISP) as informed by this consultation regarding the scope of the investigation
3. **Submit draft** of AISP to State Historic Preservation Division (SHPD) for review and approval
4. **Proceed with fieldwork** for the archaeological inventory survey (AIS) based on preliminary transit design

Process

- 5. Adjust** the interim and final designs based on findings to minimize impact to cultural resources, especially burials
- 6. Analyze, interpret, and report on findings**, during and after completion of fieldwork
- 7. Submit AIS report** to SHPD for review and approval
- 8. Prepare draft mitigation plan(s)** for SHPD review and approval
- 9. Implement mitigation** and prepare final mitigation report(s)

Purpose

- The results of the archaeological testing will inform the interim and final design phases for the purpose of avoiding and protecting cultural resources
- The goal is to perform archaeological testing in a way that allows the project to have the least possible effect on cultural resources including burials
- All burial finds will be considered previously identified, and treatment decisions will include appropriate consultation with the O‘ahu Island Burial Council and cultural and lineal descendants according to HAR Chapter 13-300
- Consultation with concerned parties will continue throughout the entire process

Schedule

- Fieldwork for the City Center AIS is planned to start in Fall of 2011 with completion estimated one year later
- City Center Section construction is planned to start approximately in the Spring of 2014, following all adjustments to design, and all archaeological and other approvals

City Center Section



Previous Archaeological Findings: Kalihi, Kapālama, Downtown and Kaka‘ako



35 Years of Urban Archaeology

Hawaii Community Development Authority
Improvement Districts: Infrastructure Improvements

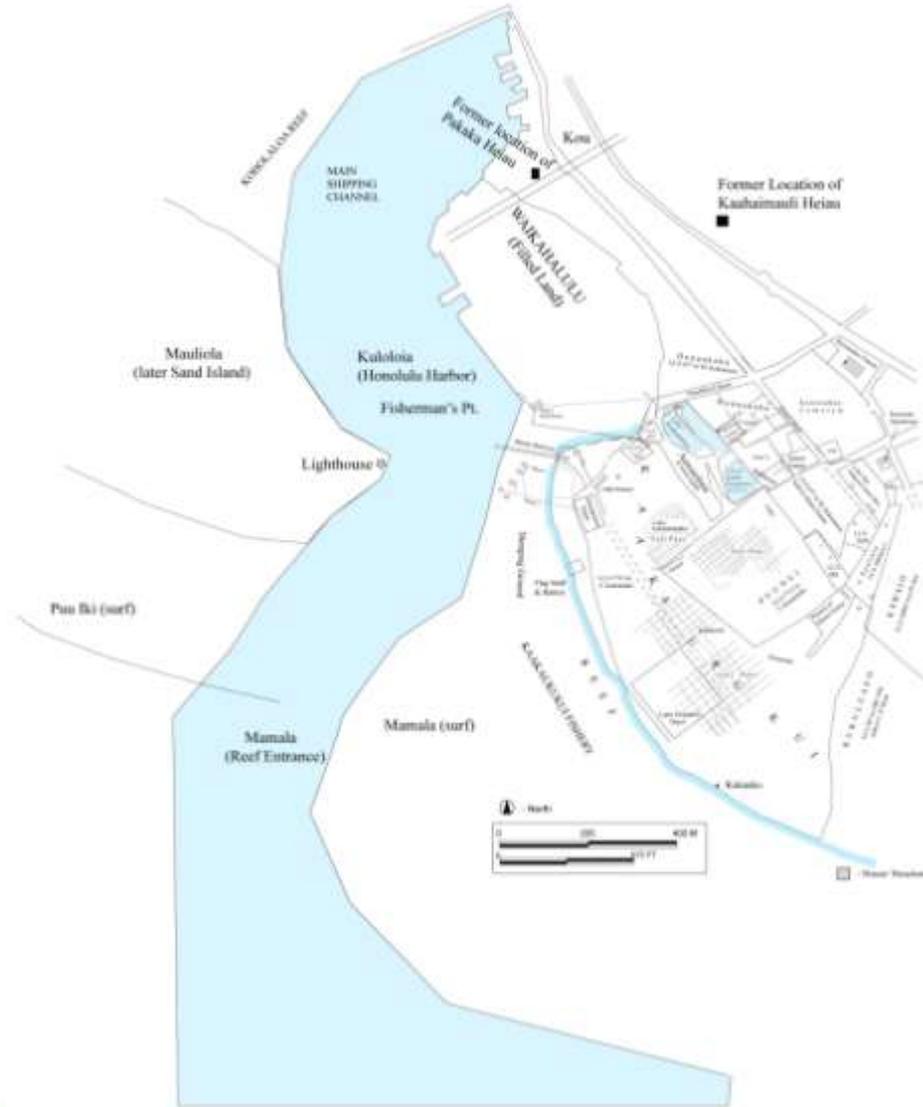


- Storm Drains
- Sewer and Water Improvements
- Underground Electrical Installations

Private and Public Housing and Commercial Development



Reconstruction of Earlier Land Use to Anticipate Archaeologically Sensitive Areas



Designating Sensitive Areas Based on Location of Land Commission Awards (West)



Designating Sensitive Areas Based on Location of Land Commission Awards (East)



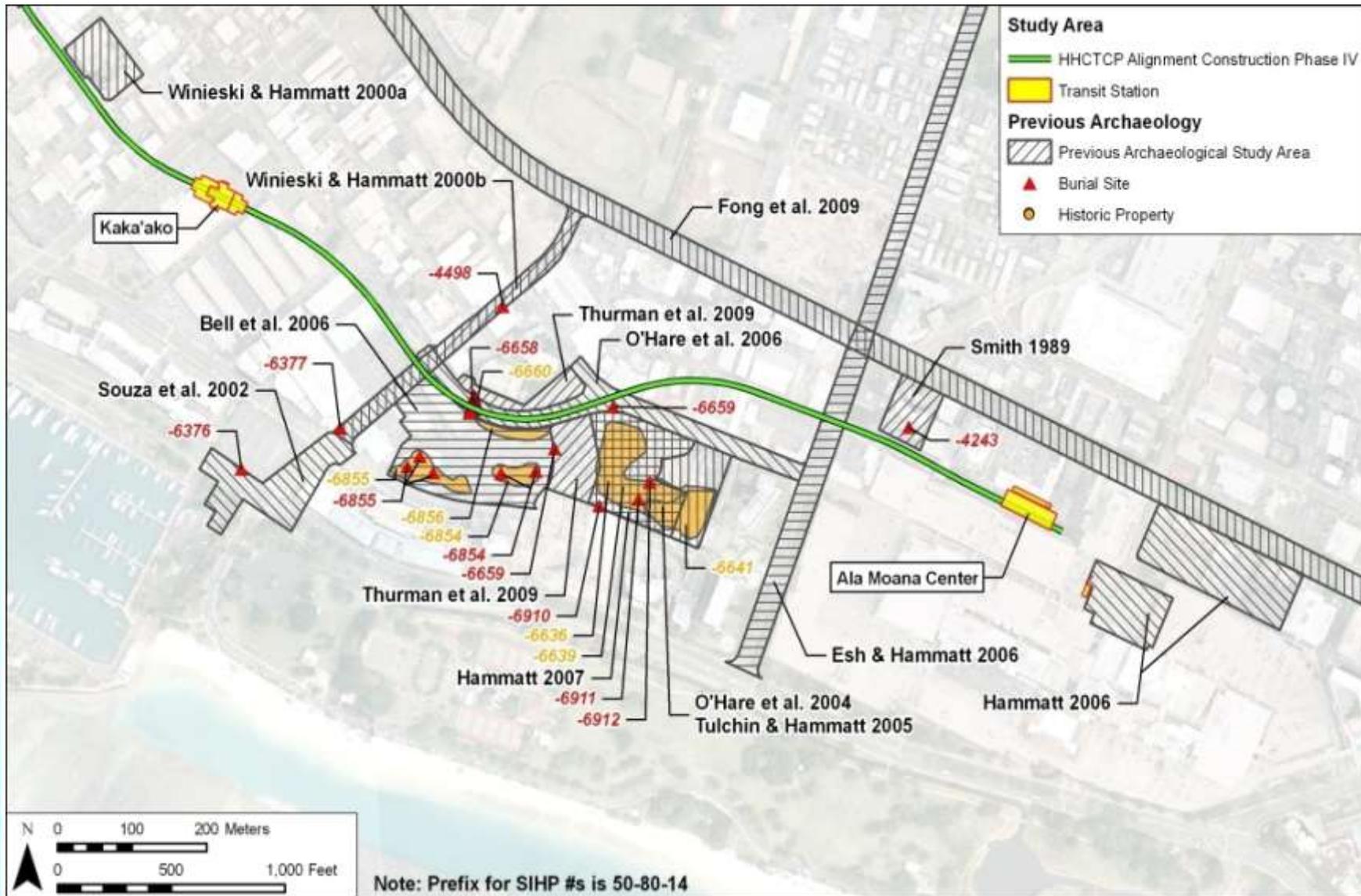
Designating Sensitive Areas Based on Previous Findings: Kalihi and Kapālama



Previous Findings in Northwestern Kaka'ako



Previous Findings in Southeastern Kaka'ako



Archaeologically Sensitive Soil Layers



Urban Archaeology Challenges

- Safety requirements
- Traffic control
- Limited working hours to avoid rush-hour traffic



Night Work



Investigations for Utility Avoidance



Shoring of Trenches



Back Filling and Surface Reconstruction



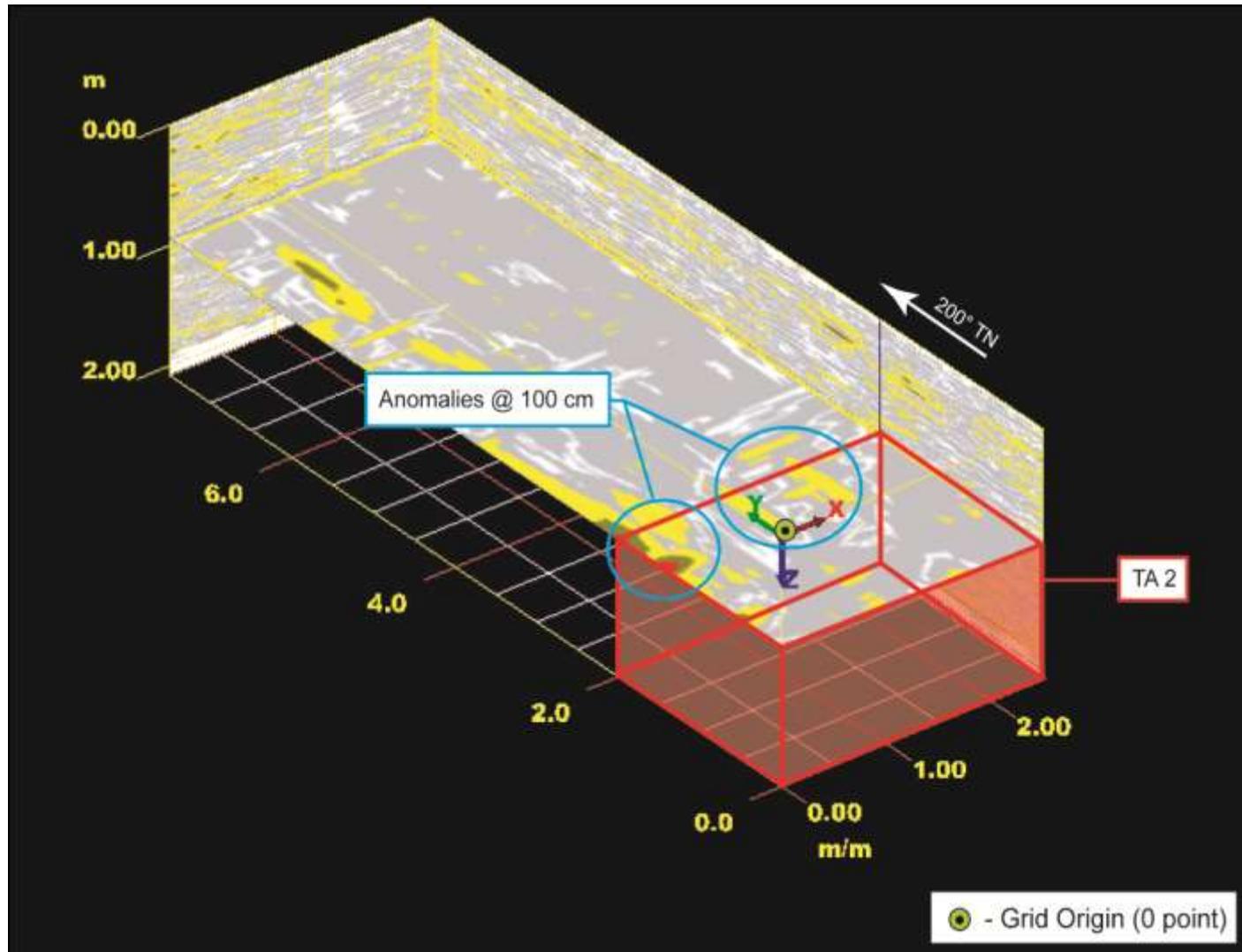
Methods

- Ground Penetrating Radar (GPR)
- Historic Human Remains Detection Dogs (HHRD)
- Open Excavation
- Laboratory Analysis: Charcoal speciation, Carbon-14 Dating and Pollen Analysis, Artifact Identification

Ground Penetrating Radar (GPR) is used to Locate Anomalies Prior to Excavation



Graphic Analysis of GPR Results



Historic Human Remains Detection Dogs (HHRD)



Open Excavation



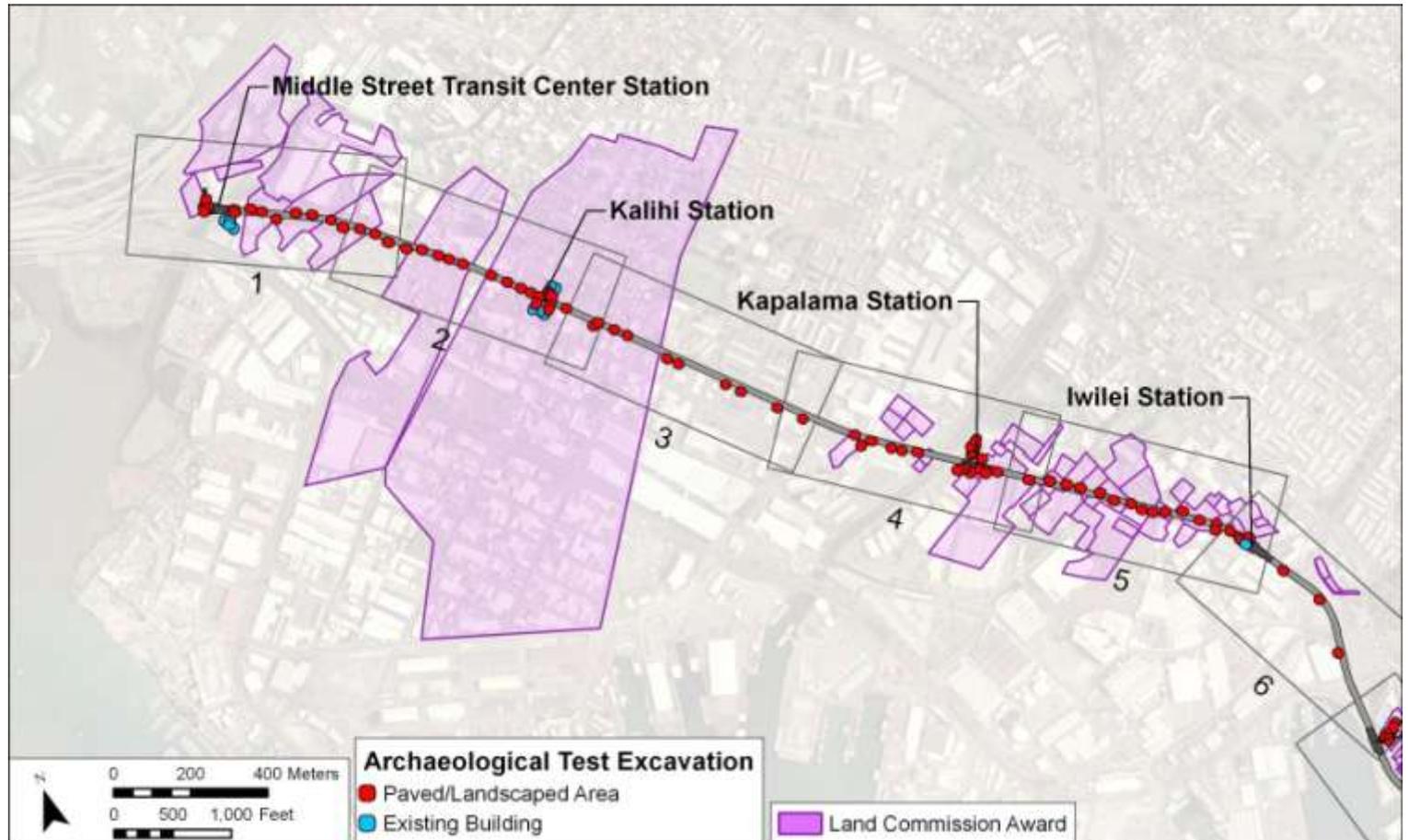
Laboratory Analysis



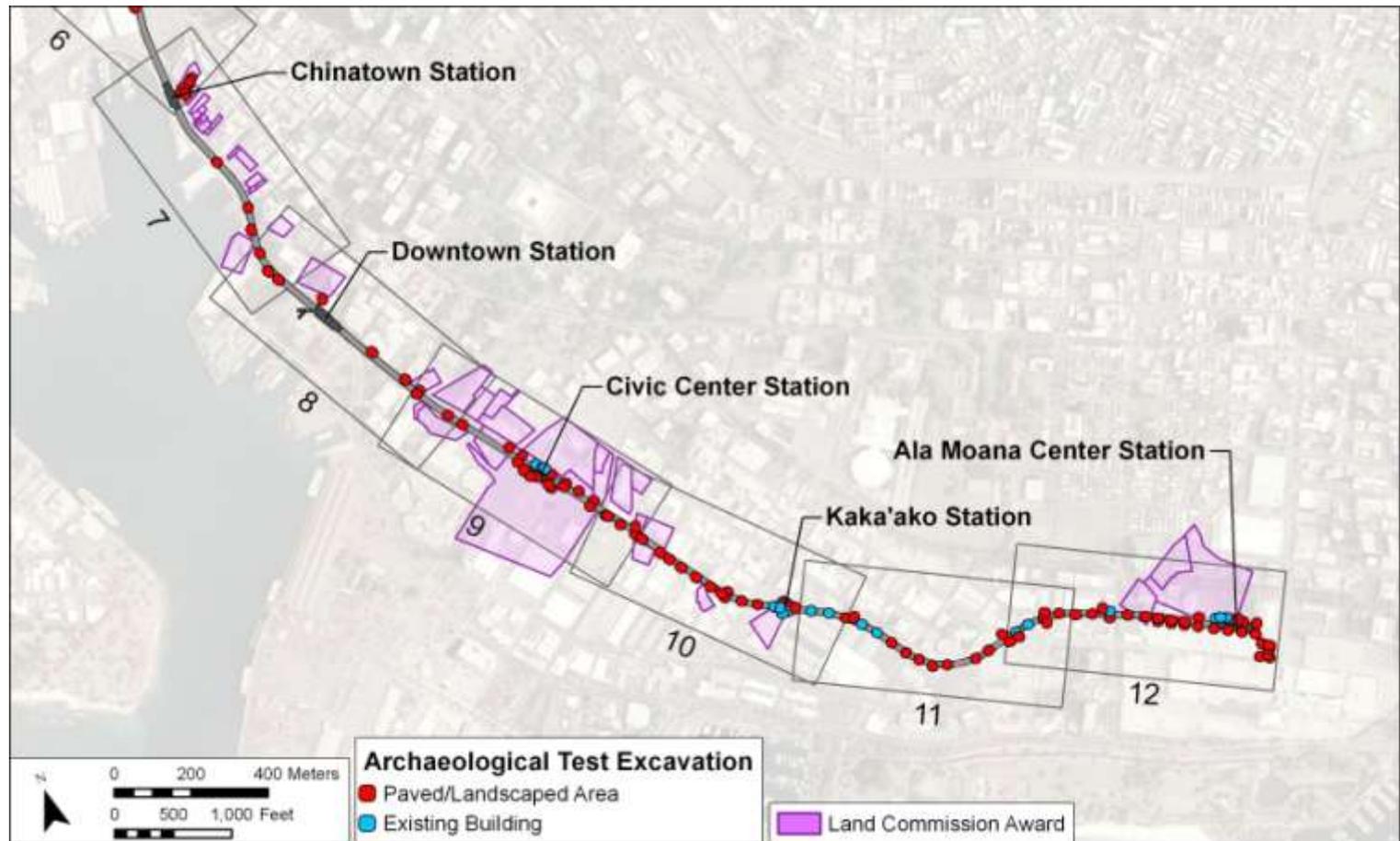
Excavation Strategy

1. Sampling of all areas of ground disturbance
2. More intensive sampling in sensitive areas as determined by previous finds and historic land use
3. Sampling will include station locations, column locations, utility relocations and other project-related ground disturbing activity
4. Sampling will be based on preliminary design and will inform adjustments in subsequent interim and final design phases

Testing Locations in the West Portion of the City Center Section



Testing Locations in the East Portion of the City Center Section



Testing of Areas for Utility Relocation

Draft Archaeological Inventory Survey Plan



LEGEND

Archaeological Test Excavation

- Paved/Landscaped Area
- Existing Building

Archaeological / Historical Data

- ▲ Burial
- Land Commission Award
- Historic Property
- Previous Archaeological Study Area

Existing Utility

- Electric
- Cable TV
- Gas
- Irrigation
- Sewer
- Storm Drain
- Traffic
- Water
- Fuel

Proposed Infrastructure

- Column Foundation
- New Utility

SCALE

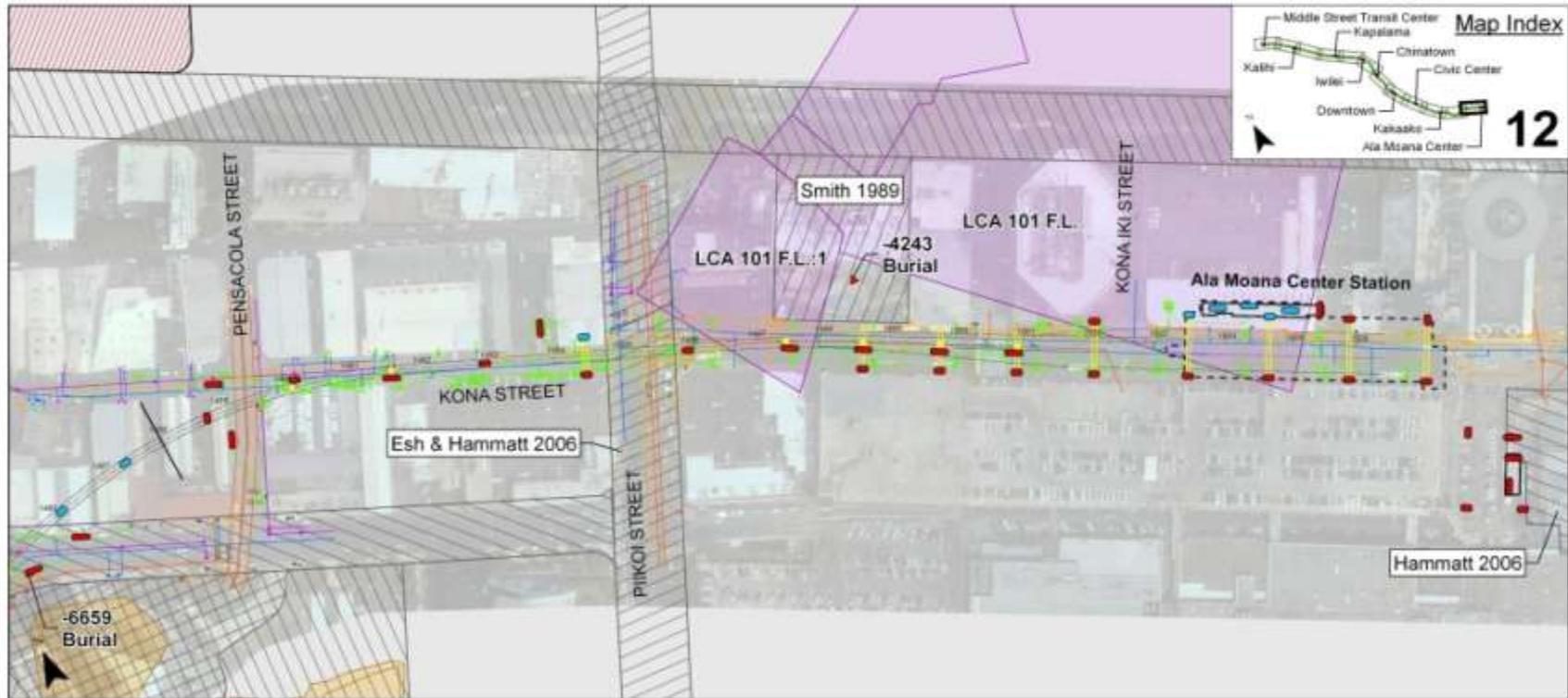
1 inch = 150 feet
 0 150 300 Feet

Honolulu High-Capacity Transit Corridor Project - City Center Section

Preliminary Engineering Plans and Existing Utility Maps, March 2011

Testing in the Ala Moana Area

Draft Archaeological Inventory Survey Plan



LEGEND

Archaeological Test Excavation

- Paved/Landscaped Area
- Existing Building

Archaeological / Historical Data

- ▲ Burial
- Land Commission Award
- Historic Property
- Previous Archaeological Study Area

Existing Utility

- Electric
- Cable TV
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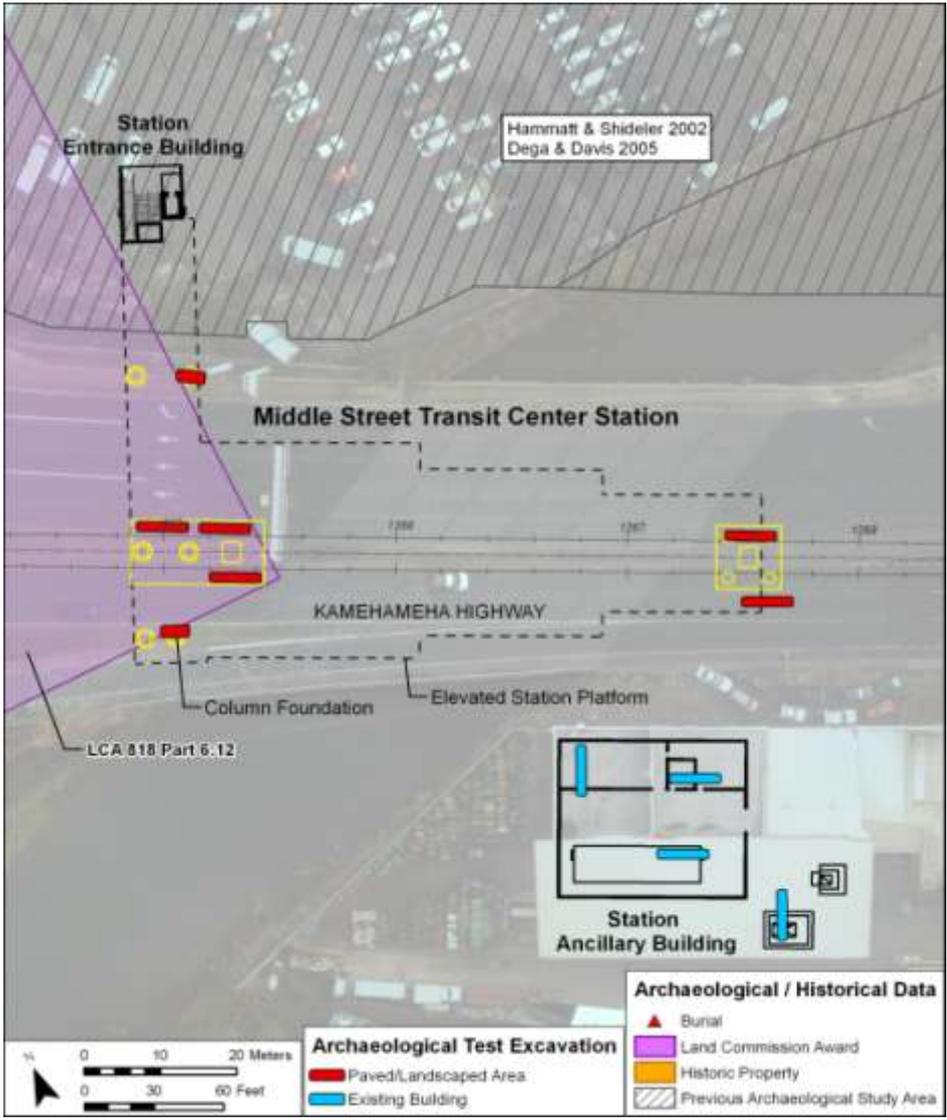
Proposed Infrastructure

- Column Foundation
- New Utility

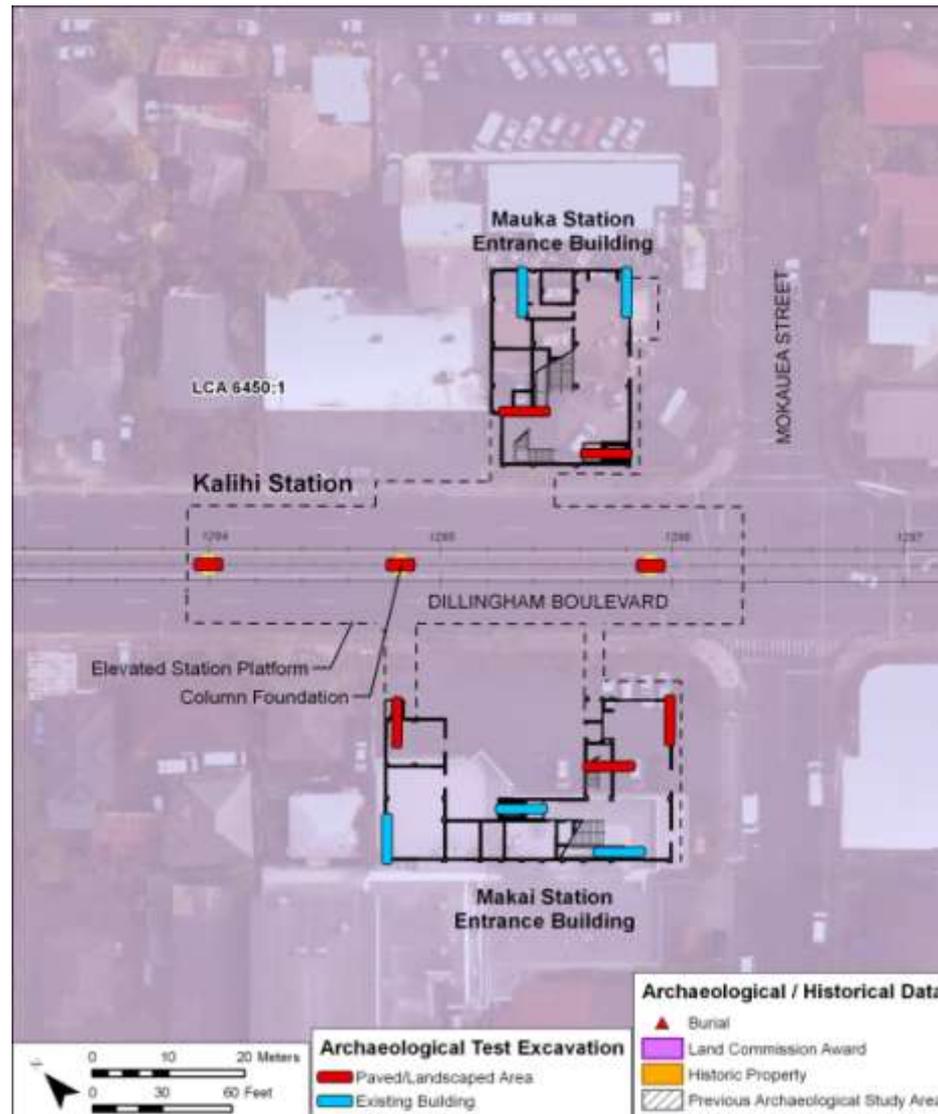
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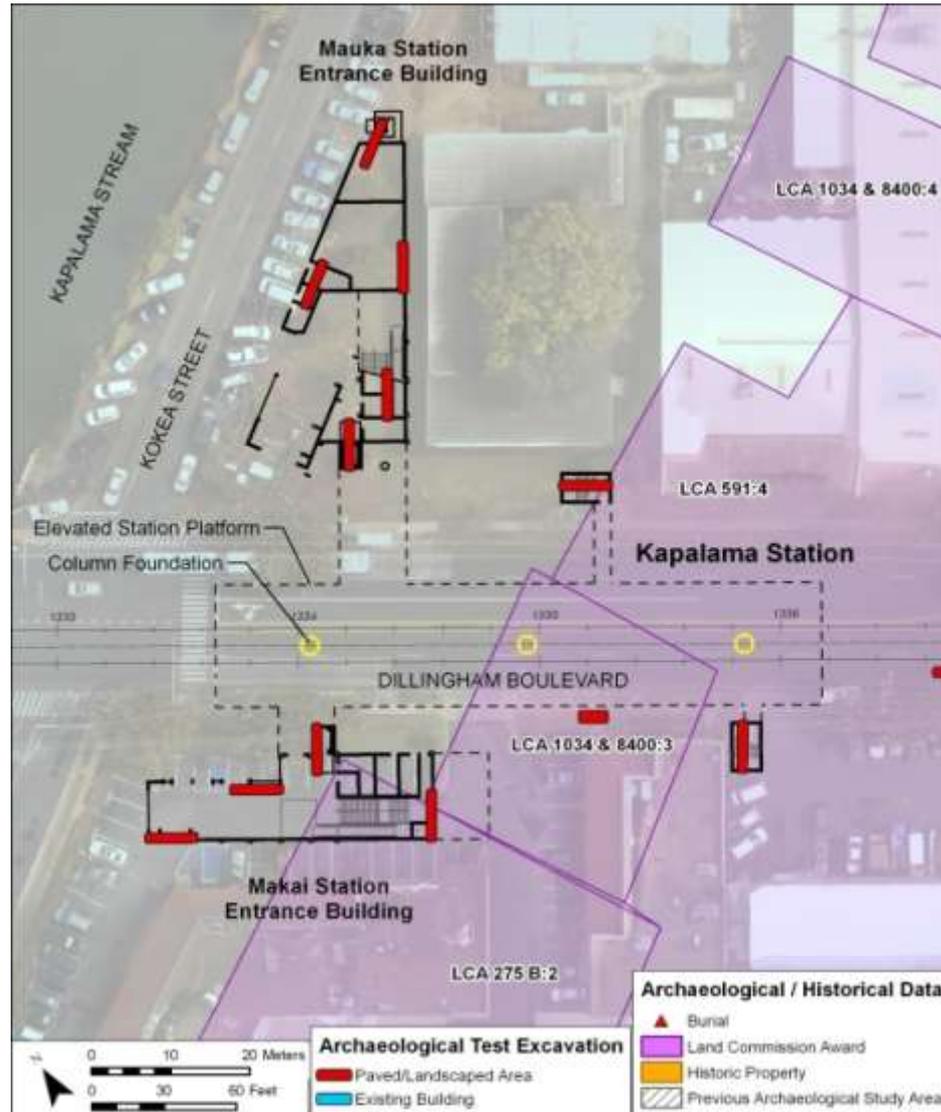
Middle Street Transit Center Station



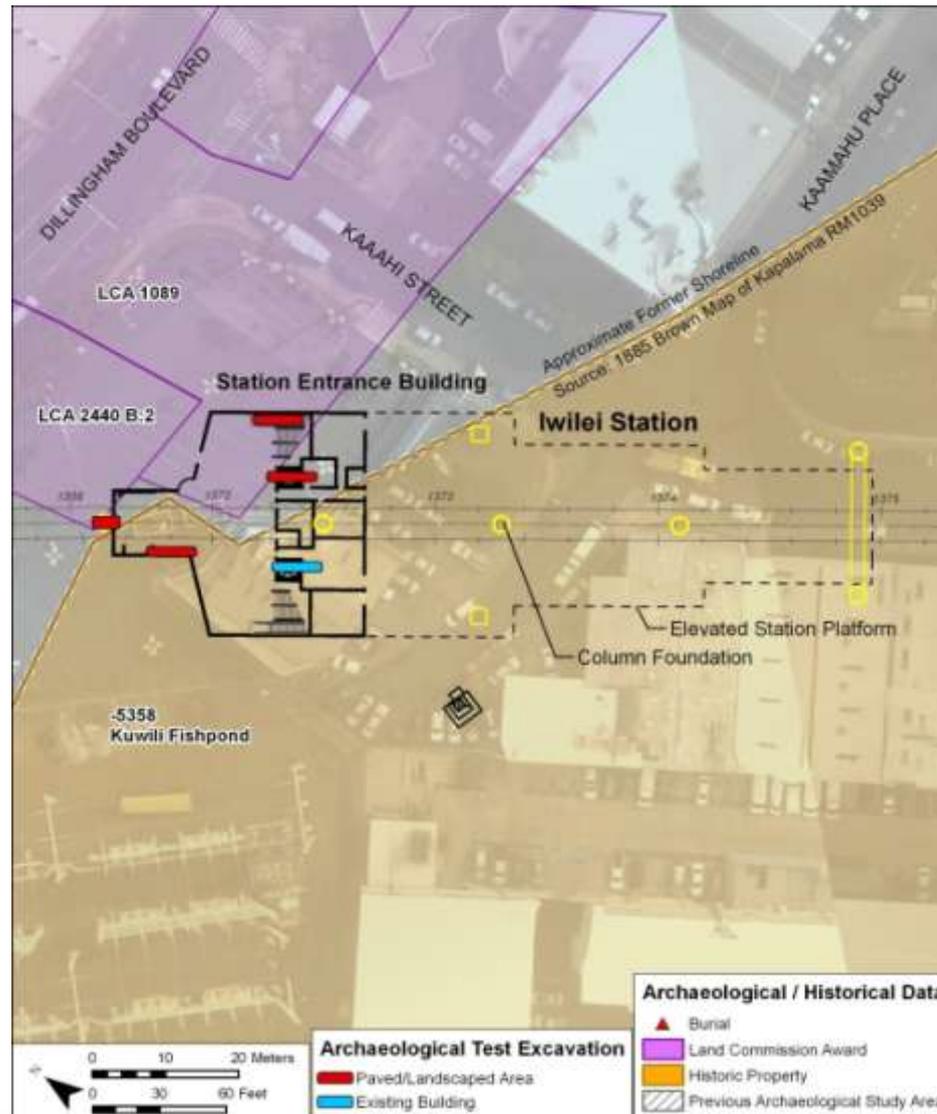
Kalihi Station



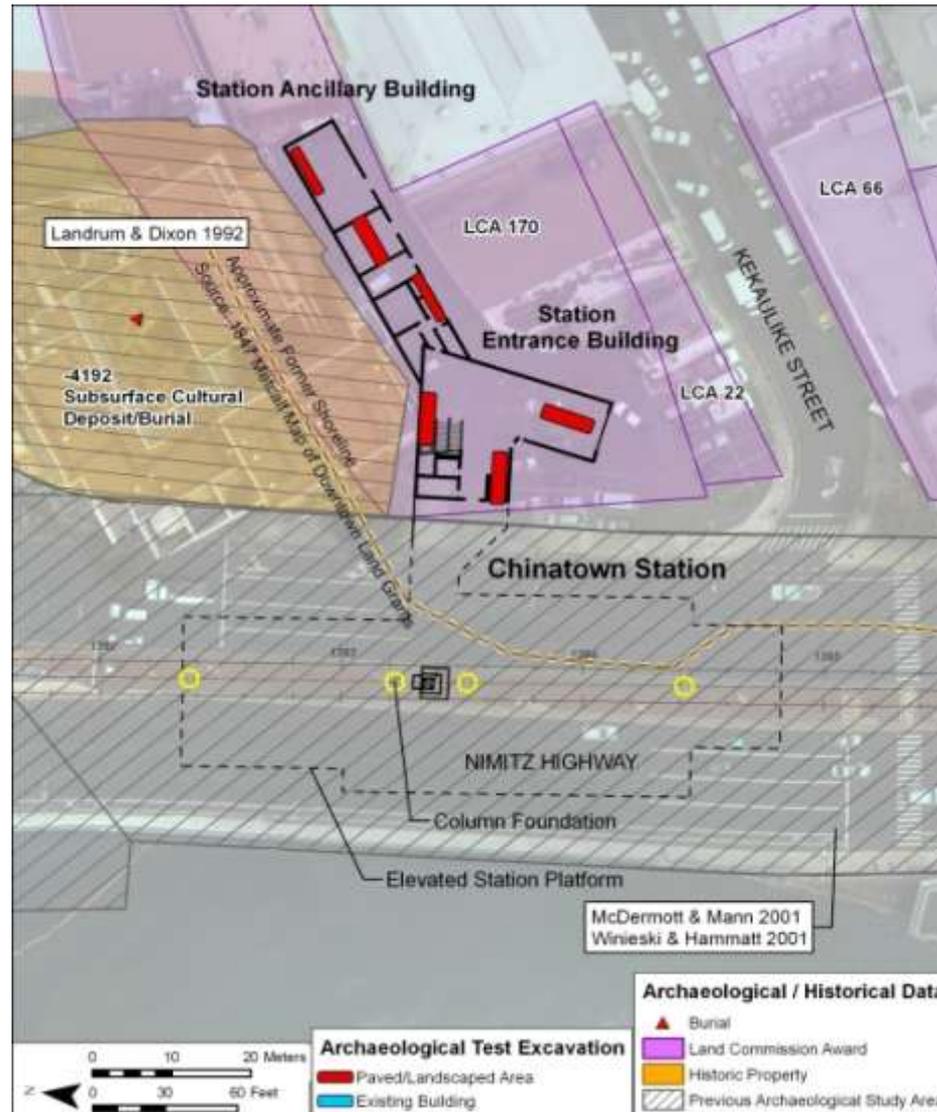
Kapālama Station



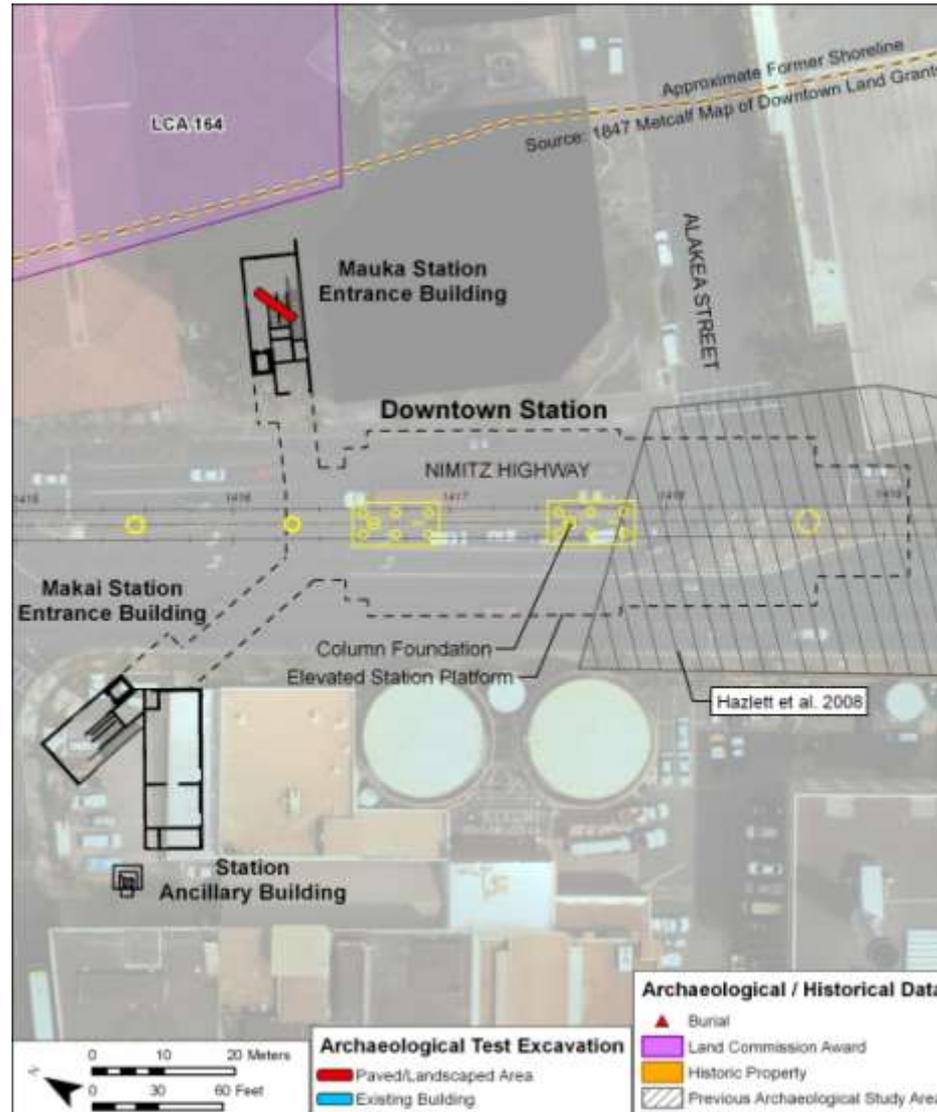
Iwilei Station



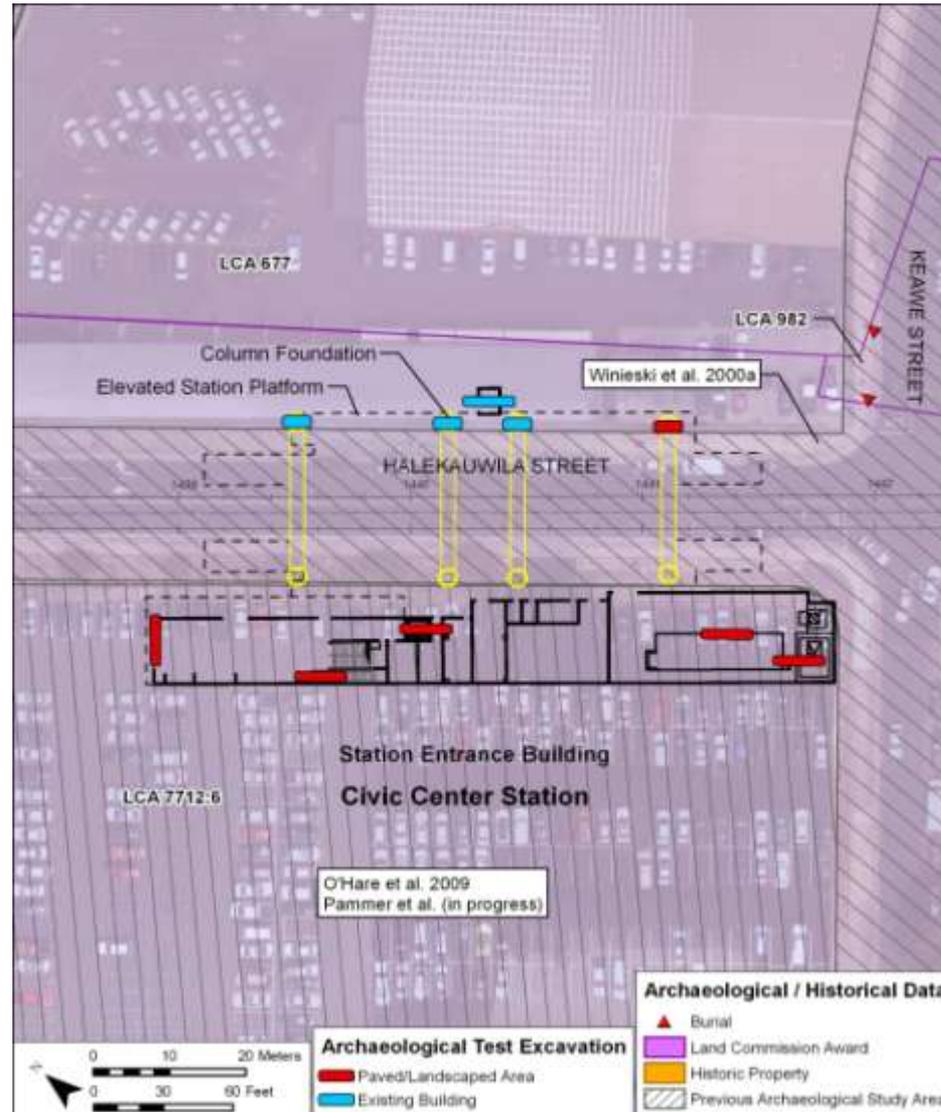
Chinatown Station



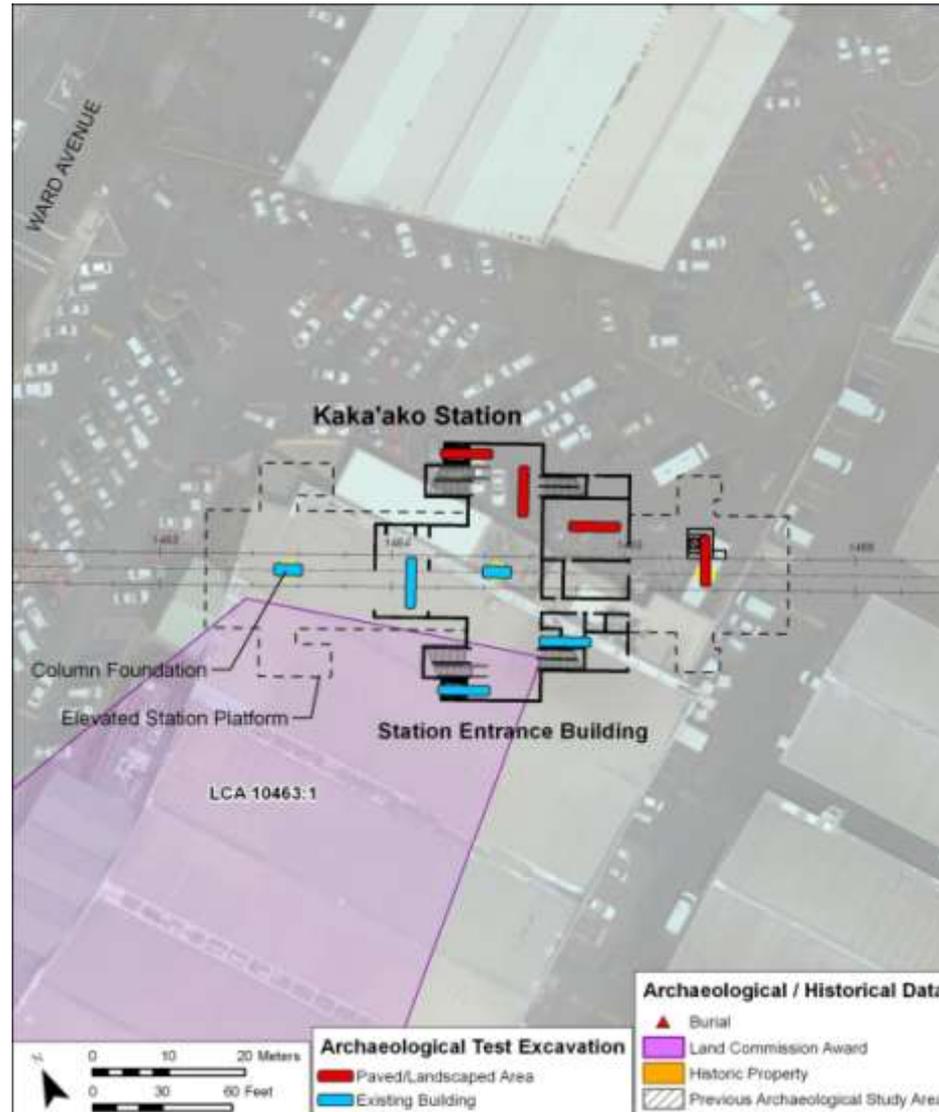
Downtown Station



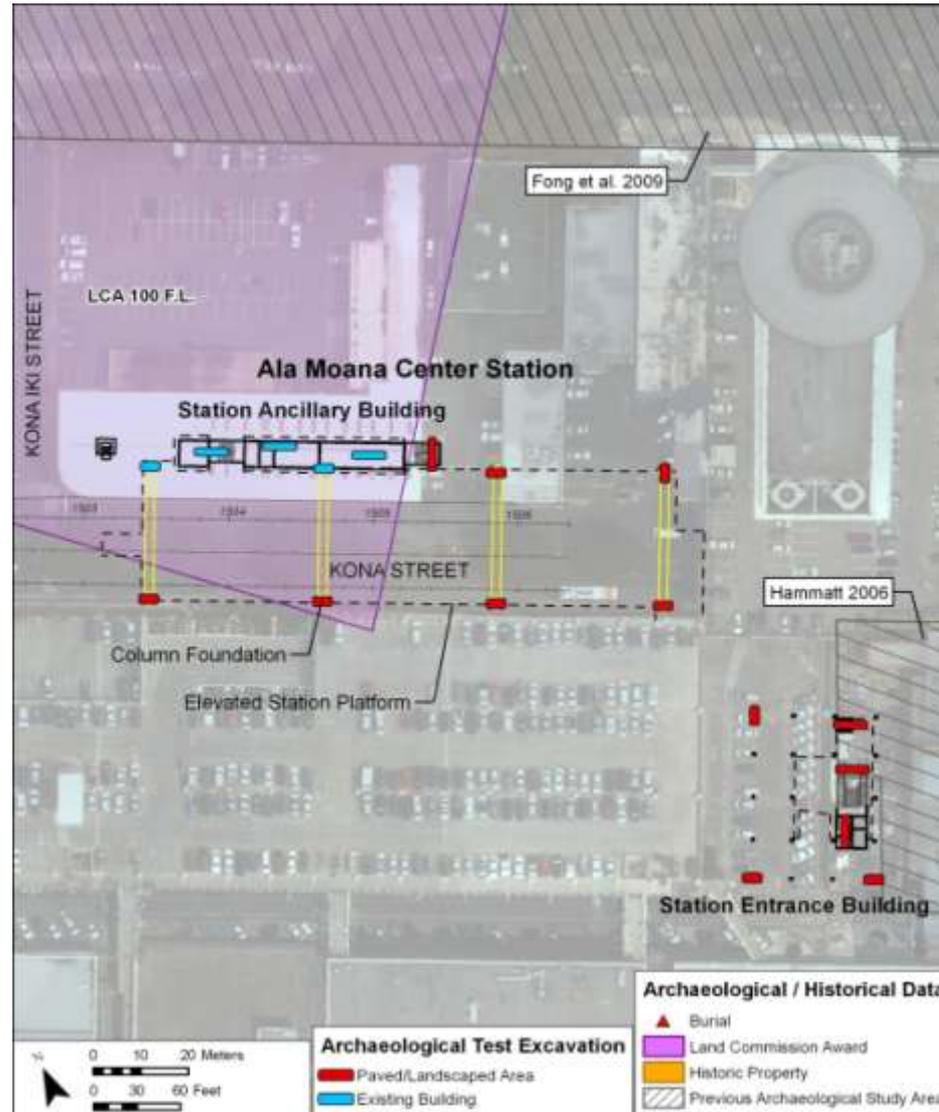
Civic Center Station



Kaka'ako Station



Ala Moana Center Station



Summary

- Archaeological investigation will inform the interim and final design phases to avoid and protect cultural resources including burials
- All burial finds will be treated following consultation with the O'ahu Island Burial Council, and cultural and lineal descendants according to HAR Chapter 13-300
- Consultation will be ongoing

If you have other questions or comments, please contact us at (808) 566-2299 or info@HonoluluTransit.org

For additional information about the project, please visit the project website at www.HonoluluTransit.org

Mahalo!

