
Special Management Area Use Permit and Shoreline Setback Variance Application

Area A: Waipahu

Honolulu Rail Transit Project
June 2013

I. GENERAL INFORMATION

A. Applicant (Name, Address, Phone)

Honolulu Authority for Rapid Transportation
1099 Alakea Street, Suite 1700
Honolulu, HI 96813
(808) 768-6159

B. Recorded Fee Owner (Name, Address, Phone)

Within the Area A: Waipahu portion of the Project, the fixed guideway is being constructed entirely within the existing State of Hawai'i right-of-way (ROW) of Farrington Highway and City and County of Honolulu ROW of Pahu Street.

State of Hawai'i ROW for Farrington Highway is controlled by:
Department of Transportation, Highways Division
869 Punchbowl Street
Honolulu, HI 96813
(808) 587-2150

City and County of Honolulu ROW for Pahu Street is controlled by:
City and County of Honolulu
Department of Transportation Services (DTS)
650 S. King Street, 3rd Floor
Honolulu, HI 96813
(808) 768-8303

An overhead electrical line will be relocated to an existing utility pole within tax map key (TMK) 9-4-011:041, owned by:
Hawaiian Telecom Inc.
1177 Bishop Street
Honolulu, HI 96813.

C. Agent

Honolulu Authority for Rapid Transportation
1099 Alakea Street, Suite 1700
Honolulu, HI 96813
(808) 768-6159

D. Tax Map Key

Within the Area A: Waipahu portion of the Project, the guideway will be built within the existing ROW of Farrington Highway and Pahu Street.

An overhead electrical line will be replaced in TMK 9-4-011:041

E. Lot Area

The guideway will be built within the existing ROW of Farrington Highway and Pahu Street. Therefore, no parcel acquisitions will be required within Area A: Waipahu portion of the Project.

F. Agencies Consulted in Making Assessment

Please see the Introduction to this SMA Application for the agencies consulted and Attachment 2 to this Application for copies of correspondence. Some of the listed public outreach activities did occur in the immediate area of the Area A: Waipahu portion of the Project. This included public meetings at Waipahu Elementary School and Waipahu Neighborhood Board.

II. DESCRIPTION OF THE PROPOSED ACTION

A. General Description

A National Environmental Policy Act (NEPA) and Hawai'i Revised Statutes (HRS) Chapter 343 compliant Final Environmental Impact Statement (EIS) has been prepared for the Project. The information in this discussion is drawn from that document, including the technical reports referenced within it that include detailed information concerning the studies performed to support the Final EIS.¹

1. Brief Narrative Description of Entire Proposed Project

Please see the Introduction to this SMA Application for a description of the entire Project.

2. Relation of Project to Special Management Area

This section discusses the Area A: Waipahu portion of the Project. Area A: Waipahu extends from just Koko Head (i.e., east) of the intersection of Pūpūpuhi Street and Farrington Highway (Project Station 612+45) to the intersection of Waipahu Depot Street/Road and Farrington Highway (Project Station 642+90). This section is an approximately 3,045 linear foot (0.58 mile) portion of the overall Project. Based on Preliminary Engineering designs, the following features are planned to be built within the SMA in this area:

1. About 21 columns and approximately 3,045 linear feet of elevated guideway supported by those columns
2. Relocation of overhead and underground gas, water, electrical, communication and sewer lines
3. Roadway improvements, traffic signals, and lighting

3. Location Map

Figure 1 illustrates the location of the Area A: Waipahu portion of the Project. Detailed maps of the Project in Area A: Waipahu are provided in Attachment A.

¹ Note that while a Draft Supplemental EIS/Section 4(f) Evaluation was published for the Project on May 30, 2013, it was a limited scope document which addressed certain Section 4(f) matters as required by the U.S. District Court for the District of Hawaii. See *HonoluluTraffic.com v. FTA*, Civ. No. 11-00307 AWT, 2012 WL 5386595 (D. Haw. Nov. 1, 2012). Section 4(f) is a matter of federal law.



Figure 1: Overview of Area A: Waipahu Portion of the Project

4. Land Use Approvals Granted and/or Approvals Required

The following land use approvals and other permits are required for Project construction and/or operation within the Area A: Waipahu area:

Federal

- Rivers and Harbors Act Section 9 Bridge Permit: U.S. Coast Guard has provided advanced approval (December 23, 2008)
- Rivers and Harbors Act Section 10 Bridge Permit: application to the U.S. Army Corps of Engineers to be submitted

State

- Clean Water Act (CWA) Section 402, National Pollutant Discharge Elimination System (NPDES) Permit for stormwater associated with construction activities received December 3, 2009
- CWA Section 402, NPDES Permit for dewatering discharges: To be prepared and submitted by contractors as needed
- CWA Section 402, NPDES Permit for hydrotesting discharges: To be prepared and submitted by contractors as needed
- Community Noise Permit: Permit for first construction segment, which includes Area A, was issued on August 26, 2009
- Community Noise Variance: Variance for the first construction segment, which includes Area A, was issued on April 13, 2010
- Agreement for storm drain connection to existing MS4 – construction, dewatering, and operation; right-of-way access to construct Project (use and occupancy): City has developed a master agreement with the Hawai'i Department of Transportation (HDOT).

County

- Grading, grubbing, stockpiling, trenching: To be prepared and submitted by contractors
- Final Design phase one-time review of construction plans by various City agencies
- Final Design Flood Hazard District Compliance: To be submitted by the City as required to comply with Flood Hazard District Regulation (Article 9. Special District Regulations, Section 21-9.10) before construction of segment begins
- Building Permit for work outside of ROW: To be submitted by contractor by construction segment as designs become available

Shoreline Setback

Within Area A: Waipahu, there will be no construction within the 40-foot shoreline setback area.

Environmental Review

The following documents have been published in compliance with HRS Chapter 343 and/or NEPA:

- An EIS Preparation Notice (EISPN) was published in the Environmental Notice dated December 8, 2005 (RTD 2005)
- The Alternatives Analysis was completed in October 2006 (RTD 2006)
- A Notice of Intent (NOI) to prepare an EIS was published in the Federal Register in March 2007 (RTD 2007)
- The Draft EIS was published in the Environmental Notice dated November 23, 2008, and in the Federal Register dated November 21, 2008 (RTD 2008u)
- The notice of availability for the Final EIS was published in the Environmental Notice dated July 8, 2010 and in the Federal Register dated June 25, 2010 (RTD 2010)
- The governor of the State of Hawaii accepted the Final EIS on December 16, 2010. Notice of this determination was published in the January 8, 2011 issue of The Environmental Notice.
- The FTA completed its review of the public and interagency comments on the Final EIS from the H RTP and issued a ROD for the H RTP on January 18, 2011. As stated in the ROD, the H RTP must incorporate all the mitigations for adverse effects presented in the Final EIS, the Section 106 PA, and the ROD. The PA was executed in January 2011.

Project Consistency with General and Development Plans

The Area A: Waipahu portion of the Project is within the Central O'ahu Sustainable Communities Plan area, and it, as well as the entire Project, is consistent with applicable objectives and policies of the City and County of Honolulu General Plan (as amended) (DPP 2002a) and the Central O'ahu Sustainable Communities Plan (DPP 2002). The following sections describe the Project's consistency with a variety of plans. Attachment 3 is Appendix J of the Final EIS, which provides a detailed review of the Project's consistency with land use plans.

City and County of Honolulu General Plan (as amended)

As required by the City Charter, the General Plan for the City and County of Honolulu establishes long-range objectives that focus on the social, economic, environmental, and design objectives for the general welfare and prosperity of the residents of O'ahu. The General Plan also establishes broad policies designed to achieve these objectives. Please see Table 7 of Attachment 3 for details.

Central O'ahu Sustainable Communities Plan

The Central O'ahu Sustainable Communities Plan is the vision document for the area of Central O'ahu that includes the protection of agricultural and preservation areas, revitalization of Waipahu and Wahiawa, and

continued development of master planned communities in Mililani, Royal Kunia, Koa Ridge, and Waiawa. The Project is consistent with land use objectives included in this plan.

Protected views and vistas, including mauka and makai views and views of prominent landmarks in the study corridor, are identified in City development plans, including the Central O'ahu Sustainable Communities Plan. Protected views and vistas identified in the Central O'ahu Sustainable Communities Plan include views of the Wai'anae Mountains from the Waipahu Cultural Garden; views of the O'ahu Sugar Mill from Waipahu Depot Road; and views of Pearl Harbor from Farrington Highway near Waipahu High School. The Project will be makai of the viewline from Waipahu Cultural Garden to the Wai'anae Mountains. The Project crosses Waipahu Depot Road on Farrington Highway at the Diamond End of the Area A: Waipahu area; however, the Project does not lie within the viewline from Waipahu Depot Road, which ends at Farrington Highway, to the former O'ahu Sugar Mill. The view of Pearl Harbor from Farrington Highway near Waipahu High School is not in the vicinity of the Area A: Waipahu area. Therefore, the Project within the Area A: Waipahu area will not interfere with any of the identified views listed in the Central O'ahu Sustainable Communities Plan.

Land Use Ordinance

The Project will be consistent with the City and County of Honolulu Land Use Ordinance (LUO). The Project will be constructed almost entirely within existing rights-of-way, and zoning does not regulate such uses. Where elements of the Project will be outside any rights-of-way, the Project is considered a "public use and structure," for the purposes of the LUO, which is a permitted principal use in all zoning districts.

Please see Tables 10 and 11 of Attachment 3 for details.

Other Plans

Additional land use plans and policies that promote transit-oriented development (TOD) patterns, pedestrian-friendly environments, and an inter-modal transportation network include the following:

- Hawai'i Statewide Transportation Plan (HDOT 2002)
- O'ahu Regional Transportation Plan 2030 (OahuMPO 2007)
- Waipahu Town Plan (DPP 1995)
- Waipahu Transit-Oriented Development Neighborhood Plan (DPP 2009)

Summary of Relationship to Land Use Plans, Policies, and Controls

Within the Area A: Waipahu area, the Project will link Honolulu with outlying developing areas and activity centers that have been designated for future residential and employment growth through the land use plans discussed above.

B. Technical Characteristics

1. Use Characteristics

The 0.58-mile portion of the Project in the Area A: Waipahu area is part of the larger 20-mile fixed guideway transit system between East Kapolei and Ala Moana Center. The transit system will operate from approximately 4 a.m. to midnight on the fixed guideway in the Area A: Waipahu portion of the Project. Section 2.5 of the Final EIS (Attachment 1) provides additional detail on Project operation.

2. Physical Characteristics

Preliminary plan and profile drawings of the Area A: Waipahu portion of the Project, are provided in Attachment A. These plans generally illustrate that the Project will consist of an elevated fixed guideway with two sets of tracks. There will be approximately 21 columns and 3,045 linear feet of elevated guideway supported by those columns within the Area A: Waipahu portion of the Project. The bottom of the guideway will be approximately 18 to 30 feet above the ground surface and supported by columns that are 6 to 8 feet wide and located approximately every 120 feet. The guideway deck is about 30 feet wide and incorporates an integrated parapet wall at the edge of the guideway that extends 3 feet above the top of the rail; the parapet wall will reduce noise exposure from transit vehicles to the surrounding area.

3. Construction Characteristics

Construction of the Project in Area A: Waipahu will occur within the existing highway, primarily in the median. Construction work details will be developed during Preliminary Engineering and Final Design. The following primary construction activities will occur:

- Utility relocation, including trenching within the highway. This will primarily be accomplished using backhoes and excavators.
- Column installation, including drilling a shaft, pouring the foundation, and forming and pouring the column. This will be accomplished using cranes, bucket-auger drill equipment, and concrete.
- Guideway installation, including erection of a “bridge” between each column using pre-cast concrete segments. This will be accomplished using a gantry crane.
- Track and system installation. This will be accomplished using specialized equipment to lay the track plus standard electrical equipment to install the control and power systems.

4. Utility Requirements

Electrical, stormwater, gas, communications, traffic signals, and other utilities will be relocated within the Area A: Waipahu portion of the Project.

5. Liquid Waste Disposal

There are no bathrooms within the Area A: Waipahu portion of the Project; therefore, no connection to the sewer system for liquid waste disposal will be made within this portion of the Project.

6. Solid Waste Disposal

During operation, the Project will not generate solid waste within the Area A: Waipahu area. There are no stations in this portion of the Project, and the train windows will not open, so items cannot be thrown from the train as it passes along the Area A: Waipahu guideway. Because waste will not be generated within this portion of the Project, disposal is not anticipated to take place within the Area A: Waipahu portion of the Project.

Prior to construction, the contractor will be required to prepare and implement the following plans to mitigate construction impacts related to wastes:

- Construction Safety and Security Plan
- Construction Health and Safety Plan
- Construction Contaminant Management Plan
- Construction Contingency Plan
- Solid Waste Management Plan

7. Access to Site

During operation, access to the rail system in Area A: Waipahu will be from the West Loch and Waipahu Transit Center stations, which are outside of Area A: Waipahu. During construction, access to the site will be along Farrington Highway.

Within the Area A: Waipahu area, the Project will not affect access to any site. During construction, short-term access impacts within Area A: Waipahu may occur. Waikele and Kapakahi Streams are in this portion of the Project, but access will be maintained to the extent possible during construction. Because there are multiple access points to these streams, overall access is not expected to be adversely affected.

8. Other Pertinent Information

A Final EIS was prepared for the Project and is a joint NEPA and Hawai'i Revised Statutes (HRS) Chapter 343 Final EIS. The information in this SMA Permit Application is drawn from information contained in the Final EIS, including supporting technical reports referenced within it that include detailed information concerning project-specific field studies performed to support the Final EIS.

C. Economic and Social Characteristics

1. Estimated Cost and Time Phasing of Construction

Estimated Costs

It is estimated that the cost of construction for the entire 20-mile alignment will be about \$5.16 billion; construction within the SMA will exceed \$500,000.

Time Phasing of Construction

Construction on the Project commenced in April 2012. However, construction was halted due to the Hawaii State Supreme Court ruling. Project construction will resume when all necessary approvals are obtained. The system is planned to be fully operational, from East Kapolei to Ala Moana Center, in 2019.

2. Other Pertinent Information

A Final EIS compliant with NEPA and HRS Chapter 343 has been prepared for the Project. The information in this section is drawn from information contained in the Final EIS, including supporting technical reports referenced within it that include detailed information concerning the project-specific field studies performed to support the Final EIS.

D. Environmental Characteristics

1. Soils

In the Area A: Waipahu portion of the Project, the two soil types found along the Project alignment are Waipahu Silty Clay (WzB) and Tropaquepts (TR). Waipahu Silty Clay is typical of terraces, has slopes of 2 to 6 percent, is well-drained, and transmits water moderately well. Tropaquepts are typical of floodplains, have slopes of 0 to 2 percent, and are poorly drained, although they transmit water fairly well. The majority of the area is currently developed, and the Area A: Waipahu portion of the Project will be constructed within the median of the existing highway.

2. Topography

In the Area A: Waipahu portion of the Project, the topography is generally flat with some slight slopes. No major grading activities will occur within the Area A: Waipahu portion of the Project. The existing grade of the highway will not change.

3. Surface Runoff, Drainage, and Erosion Hazard

Because the Area A: Waipahu area is currently developed, surface runoff in the area travels to a drainage system and/or directly to Waikele or Kapakahi Streams nearby. The Farrington Highway storm drain system is extensive and under the control of HDOT. The City and County of Honolulu also has an extensive storm drain system that serves the surrounding community. The low slopes of the lands in this location, combined with the soil types and level of development in the area, contribute to a minimal erosion threat.

4. Federal FIRM Zone, Land Use Ordinance (LUO) Flood Hazard District, Other Geological Hazards

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 15003C0238G, revised January 19, 2011, indicates that the Area A: Waipahu portion of the Project lies within Flood Zones AEF, AE, X, and XS. Flood zones AEF and AE are associated with Waikele and Kapakahi Streams. Figure A-FZ in Attachment A illustrates the location of the flood zones. Please see the flood zone definitions below. These floodplains largely convey stormwater toward the ocean. The Project will not adversely impact or interfere with these floodplains and their functions.

- Flood Zone AE: The flood insurance rate zones that correspond to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. In most instances, base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.
- Flood Zone AEF: The area within Zone AEF is reserved to pass the base flood, with the “F” standing for floodway.
- Flood Zone XS: The flood insurance rate zones that correspond to the 500-year floodplains (0.2 percent annual flood risk) that are determined in the Flood Insurance Study by detailed methods.
- Flood Zone X: Areas determined to be outside of the 500-year flood plain.

In regard to the Land Use Ordinance (LUO) Flood Hazard District compliance, HART will submit documents as required to comply with Flood Hazard District Regulation (Article 9. Special District Regulations, Section 21-9.10) before associated construction in Area A: Waipahu begins.

Floods, hurricanes, earthquakes, and tsunamis can all affect Hawai'i. The International Building Code (IBC) and the American Association of State Highway and Transportation Officials (AASHTO) provide minimum design criteria to address the potential for damages caused by these hazards. The Project will be designed to meet design standards related to natural hazards. Tsunamis are a concern for coastal portions of O'ahu. The State Civil Defense publishes a series of maps showing areas that should be evacuated in the event of a tsunami warning. The Area A: Waipahu portion of the Project is not within a tsunami evacuation area.

5. Other Pertinent Information

A survey of street trees was conducted in the Project corridor to identify species, size, maturity, condition, and the Project's probable effect on each tree. This information is presented in Section 4.15 of the Final EIS and in the Honolulu High-Capacity Transit Corridor Project Street Trees Technical Report. Trees were also listed as "Notable" or "Excellent," if applicable. Notable trees are those deemed to be important to the urban landscape character, while Excellent trees are mature trees, without any plantings nearby, that have been allowed to expand to their fullest possible canopy and have not been pruned or affected in such a manner to take away from their appearance. Results of the survey revealed that while street trees are prevalent in the Area A: Waipahu portion of the Project, they were not identified as Exceptional or Notable.

Coordination with the DPR Division of Urban Forestry and community groups was initiated at the start of the HRS Chapter 343/NEPA process to identify Exceptional Trees along the guideway alignment. Coordination is ongoing as the Project progresses. Within and around Area A: Waipahu, 27 Rainbow Shower and 5 Tall Fan Palm trees in the center median of Farrington Highway have been transplanted, and 1 Rainbow Shower tree was removed. Another 5 Rainbow Shower trees are planned to be transplanted. These trees were juvenile or semi-mature trees that were originally planted in 2005 as part of a roadway beautification project. Another 6 Monkeypod trees and 1 Chinese Banyan Tree will be pruned or are not affected by the Project.

Additional street tree pruning, removal, and planting will comply with City ordinances. In addition to transplanting existing trees, plans for new plantings will be prepared during Final Design to further mitigate effects of the removal of street trees. HART will coordinate these activities with HDOT's highway landscape architect. To mitigate any substantial effects in areas that require tree removal, special attention will be given to the development of landscaping plans so that new plantings will provide similar advantages to the community.

III. AFFECTED ENVIRONMENT

This section discusses both the affected environment and the Project's impacts to the various resources discussed.

A. Brief Description of Subject Site in Relation to Surrounding Area and Description of Surrounding Area

Waipahu is comprised of moderate-density residential, commercial, and light industrial uses. Waipahu's commercial and light industrial uses are mostly clustered along Farrington Highway. The uses within the Area A: Waipahu portion of Farrington Highway include residences, light industry, commercial establishments, churches, and schools.

Within Area A: Waipahu area, the Project will be constructed within the median of Farrington Highway and is expected to have little impact on the uses along Farrington Highway. The SMA boundary lies along the westbound lane of Farrington Highway.

B. Project Site in Relation to Publicly Owned or Used Beaches, Parks, and Recreation Areas; Rare, Threatened, or Endangered Species and Their Habitats; Wildlife and Wildlife Preserves; Wetlands, Lagoons, Tidal Lands, and Submerged Lands; Fisheries and Fishing Grounds; Other Coastal/Natural Resources

1. Publicly Owned Beaches, Parks, and Recreation Areas

No publicly owned beaches, parks, or recreation areas are adjacent to the Project within the Area A: Waipahu area. Accordingly, there will be no impacts to any such resource due to the Project in Area A: Waipahu.

2. Rare, Threatened, or Endangered Species and Their Habitats/Wildlife and Wildlife Preserves

No rare, threatened, or endangered species were observed in the Area A: Waipahu area and coordination with governmental agencies and the literature review indicate that no there are no designated critical habitats or wildlife preserves within the Area A: Waipahu portion of the Project.

3. Wetlands, Lagoons, Tidal Lands, and Submerged Lands

There are no wetlands, lagoons, tidal lands, or submerged lands in the Area A: Waipahu area.

4. Fisheries and Fishing Grounds

The Project in Area A: Waipahu will not impact the use or availability of coastal or stream-based fishing grounds used because of the distance between the Project and the coast in this area, as well as the linear nature of streams that allow for access at multiple locations.

5. Other Coastal/Natural Resources

As discussed under Part B.1, no publicly owned beaches, parks, or recreation areas are adjacent to the Project within the Area A: Waipahu area. As a result, the Project will not adversely affect opportunities for public enjoyment and use of any recreational, coastal, or natural resources within the Area A: Waipahu area.

C. Relation to Historic, Cultural, and Archaeological Resources

1. Archaeological

An archeological inventory survey (AIS) was completed for the first construction phase of the Project, which includes an approximately 7.4-mile segment from Kualakai Parkway to Waimano Home Road. The AIS Report was approved by SHPD on April 19, 2010. The AIS identified subsurface cultural deposits (lo'i sediments) at one site (SIHP #50-80-09-7751) near the Waipahu Transit Center that is recommended National/Hawai'i Register-eligible under Criterion D. This site is not within Area A: Waipahu. The Final Archaeological Data Recovery Plan for the Waipahu Transit Center Station was approved by SHPD on November 29, 2011, and data recovery was completed in early 2013. The AIS reports are available at <http://www.honolulutransit.org>.

In the unlikely event that subsurface cultural deposits or human skeletal remains are encountered during the course of project-related construction activities, all work in the immediate area will stop and the SHPO will be notified in accordance with Federal and State laws. If archaeological resources are identified during construction, the City will minimize impacts.

2. Cultural

Archival and ethnographic research shows that most of the traditional cultural resources within the Area A: Waipahu portion of the Project have been heavily damaged or destroyed through previous development. Short-term effects are related to site work or construction-related activity and usually only temporarily affect access or operation of identified resources. Potential long-term effects on cultural resources include permanent modification, such as displacement, damage, or destruction. No cultural resources have been identified as having potential long-term adverse effects as a result of the Project in Area A: Waipahu.

HART completed Traditional Cultural Property (TCP) studies for the first three construction phases of the project (East Kapolei to Middle Street). In July 2012, the FTA determined that there are no adverse effects on eligible TCPs for the Project between East Kapolei and Middle Street. No adverse effects as a result of the Project have been identified for any previously identified cultural resources in Area A: Waipahu. No new National Register-eligible Traditional Cultural Properties have been identified in Area A: Waipahu.

3. Historical

Through agency coordination, the Project's Area of Potential Effects (APE) was defined generally as one parcel deep from the fixed guideway alignment in the Area A: Waipahu portion of the Project. The APE also includes parcels immediately adjacent to all facilities associated with the fixed guideway system, including TPSS.

Historical Resources within the Area A: Waipahu Area

In the Area A: Waipahu area there is one historical resource. The Waikele Stream Bridge east-bound span and Bridge over the Oahu Rail and Land Company (OR&L) spur (Tax Map Key: none). Figure A-HR in Attachment A illustrates the location of this historic resource. These two vehicular bridges are a good example of a late 1930s continuous deck girder bridge design. The span's relatively long length indicates the importance of this transportation link in the circle-island main road system during that time. The Waikele Stream Bridge is eligible for nomination to the National Register of Historic Places (NRHP) under Criterion A for its association with the development of the Waipahu community and the transportation history of the area and Criterion C for its design. The fixed guideway will be built in the median of Farrington Highway 10 feet mauka of the east-bound, historic span. It will be approximately 40 feet above the roadway, and there will be no physical or direct impact to the bridges. As the primary views of the bridges are from ground level, the elevated guideway will not eliminate primary views of these architecturally significant historic bridges or alter their relationship to the existing transportation corridor. Farrington Highway is a major transportation corridor, and the Project's visual elements will be in character with the surrounding area.

A finding of adverse effect was made due to effects to integrity, feeling and association pursuant to Section 106 of the National Historic Preservation Act. A Section 106 Programmatic Agreement (PA) was executed in January 2011, and mitigation includes Historic American Engineering Record (HAER) documentation and completion of National Register nomination for this resource. In accordance with Stipulation V of the PA, HART transmitted HAER documentation for the Waikele Stream Bridge to the U.S. Department of the Interior, National Park Service in December 2012 (HAER No. HI-100, Waikele Canal Bridge and Highway Overpass).

Historical Properties in the Vicinity of Area A: Waipahu

Two historic properties are located near the Area A: Waipahu area. The Tanaka-Ishihara House (Tax Map Key 9-4-025:008) and the West O'ahu Christian Church/former American Security Bank (round plan) (Tax Map Key 9-4-027:127) are mauka of the SMA boundary and not within the SMA. FTA has determined that there will be no adverse effect to either resource from the Project.

D. Coastal Views from Surrounding Public Viewpoints and from the Nearest Coastal Highway Across the Site to the Ocean or Coastal Landform

The Project in the Area A: Waipahu area will require installation of the guideway and columns in the median of Farrington Highway, the nearest coastal highway. The 21 roughly 6-foot-wide columns will be spaced about 120 to 150 feet apart and will intermittently obstruct makai views across the highway from the westbound lanes toward the shoreline. However, in this area, makai views are comprised of the surrounding residential, light industrial, and commercial buildings along the highway; ocean and coastal landforms are not currently visible from the highway. The visual effects of the Project will not substantially interfere with or detract from the line of sight toward the sea.

E. Quality of Receiving Waters and Ground Water (Including Potable Water) Resources. Describe Effects on the Groundwater Recharge Cycle within the Groundwater Control Area, Show Existing and Proposed Well Locations with Pumping Estimates. Describe Effects on Receiving Waters – Streams and Ocean Waters

Streams

The Project will cross Waikele and Kapakahi Streams in the Area A: Waipahu area. Both streams have been modified for flood-control purposes and are on the Hawai'i State Department of Health's (HDOH) 303(d) List of Impaired Waters (HDOH 2008). Because the guideway follows the existing major roadway, the points where the Project crosses these two streams coincide with existing bridges where concrete sidewalks are already in place.

Waikele Stream is a concrete-lined channel with a length of approximately 10 miles. Twin highway bridges span Waikele Stream. The ordinary high water mark (OHWM) is estimated to be at 4.25 feet above the concrete bed of the culvert. Waikele Stream is known to support diverse freshwater and amphidromous species.

Kapakahi Stream is a realigned channel that drains a portion of Waipahu and is a perennial channel regularly cleared to maintain flood relief. The stream originates just north of Farrington Highway and is adjacent to Waikele Stream. At times of extreme flooding in Waikele Stream, flood waters may flow into and exit through Kapakahi Stream. The elevation of the OHWM is 0.14 feet above the stream bed immediately downstream of the existing Farrington Highway Bridge. Kapakahi Stream supports a limited amount of non-native species.

The fixed guideway will span both streams and there will be no column construction or other construction-related activities within the stream channels below the OHWM. The fixed guideway will parallel the existing highway bridges crossing the streams and will not directly affect either stream. However, some shading of portions of the streams may occur as a result of the Project. Because the guideway is elevated relative to the surrounding highway bridges, the guideway will only impart minimal additional shading onto the water as compared to the bridges already present in each location. Stormwater discharged from the guideway will be managed using permanent stormwater best management practices (BMPs), including the installation of downspout filters on drains near these streams, prior to discharging to the HDOT MS4 system in the area.

Marine Waters

The Area A: Waipahu portion of the Project is not adjacent to any marine waters.

Flood Zones

The Project will cross two developed flood zones associated with Waikele and Kapakahi Streams in the Area A: Waipahu area. Figure A-FZ in Attachment A illustrates the location of these flood zones. The flood zones traversed by the guideway are AEF and AE; both floodplains have the major function of stormwater conveyance. The guideway in Area A: Waipahu area will be elevated above the floodplains.

There will be no notable adverse impacts on natural and beneficial floodplain values. The Project will not cause significant floodplain encroachment as defined by USDOT Order 5650.2.

Groundwater

In the Area A: Waipahu area, the Project overlies the Pearl Harbor Aquifer Sector of the Southern O'ahu Basal Aquifer (SOBA). The Project meets the coordination requirements of Section 1424(e) of the Safe Drinking Water Act, in accordance with the 1984 Sole Source Aquifer Memorandum of Understanding between the United States Environmental Protection Agency (EPA) and the United States Department of Transportation (USDOT). A Water Quality Impact Assessment was reviewed by EPA, and EPA concurred that contamination of the SOBA will not occur (letter dated March 27, 2009, located in Attachment 2). The construction methods and BMPs employed and the presence of an upward hydraulic gradient in the area will protect groundwater and there will be no adverse effect to groundwater quality.

Caprock overlies the SOBA and impedes the escape of groundwater from this basaltic aquifer. Water in the caprock is brackish and not potable, although water in the upper portion of the caprock has a low enough salinity to be used for irrigation. Beneath the caprock and underlying all of southern O'ahu, the SOBA is heavily used because it contains large supplies of fresh water. The boundary between non-drinking water aquifers and underground sources of drinking water is referred to as the Underground Injection Control (UIC) line by the Hawai'i Department of Health (HDOH). In the Area A: Waipahu area, the Project will be mauka of the UIC line. The Project alignment will be downgradient of active drinking water wells on the island, and the overall groundwater flow direction is seaward. HDOH's Safe Drinking Water Branch (SDWB) publishes groundwater contamination maps, and included in that report are the locations of water wells. Most of these water wells are mauka of the alignment, and all wells makai of the alignment are either inactive or used for irrigation. Potential contamination from the guideway will not migrate to drinking water wells. These wells are drawing from a depth of several hundred feet below ground surface, and the shafts for the Project will not penetrate anywhere near those depths.

Subsurface conditions in the Area A: Waipahu area generally consists of typical caprock, alluvial and marine deposits, and residual soils interlayered with coralline materials and/or basalt bedrock. General water-level elevations in areas where the Project overlies the caprock are expected to vary between elevation +10 and +20 feet above

mean sea level (MSL) where the groundwater is confined by the caprock. Based on existing ground elevations that are typically elevation +40 to +100 feet MSL and higher, depth to groundwater for the areas where the Project overlies basalt is expected to vary from 20 feet below ground surface (bgs) to tens of feet bgs. Where existing ground elevations are elevation 20 feet or less, groundwater elevations are expected within 10 feet of the ground surface.

Two general foundation construction methods will be used to support the aerial guideway structure: single drilled shafts that would be integral with columns and driven piles that would require pile caps for connection to columns. Drilled shafts will be used for most of the alignment because they can be installed faster, require a smaller area of soil disturbance, and are quieter to install than driven piles. At this time, all shafts within the Area A: Waipahu area are planned to be installed using the drilled shaft method. The drilled shafts will be 6 feet in diameter, and the depth of the shaft will depend on local soil conditions. Foundation depths are expected to average 75 feet deep, ranging between 60 and 90 feet bgs. Near Waipahu Street/Road, where deep soft ground conditions were observed, foundation depths may reach 110 feet below ground surface. Most piers for the Project will only penetrate the surficial materials or caprock overlying the basalt aquifer. In places where the piles or shaft will extend into the basalt, the penetration will only be a few tens of feet at most; piers or piles will never penetrate deep into the basalt. Drinking water pumped from the SOBA comes from depths much greater than those anticipated or practical for pile foundations. In the Area A: Waipahu area foundations will penetrate slightly into the basalt.

Groundwater in the shafts or excavations for pile caps could be contaminated with petroleum products or other chemicals. These contaminants will be removed from water pumped from the excavations in accordance with standards established by the HDOH. Petroleum products might require the use of oil/water separators, strippers, or other remediation techniques. The water removed from the excavations or shafts must either be returned to the groundwater system or added to the stormwater drainage system. Any water discharged into the drainage system and surface waterbodies will require a National Pollutant Discharge Elimination System (NPDES) Dewatering Permit. This discharge must meet water quality standards. A monitoring program will ensure compliance with water quality standards. An NPDES Construction Stormwater Permit has been obtained by the Project, and this will ensure proper handling of hazardous materials and other pollutants.

Construction of each pier is expected to take less than one week, and the shafts will only be open long enough to install a rebar cage in the completed shaft and fill it with concrete. Once the shaft is filled with concrete, it is unlikely that an open pathway would remain that could allow surficial contaminants to travel down the side of the shaft. This is because the flowable concrete used for shaft construction will seal against the surrounding soil.

Casing will be required at drilled shaft excavations that extend through soft or loose surficial deposits. Where these unstable deposits extend to considerable depth, the casing may be incorporated into the shaft's structural design. Additionally, where drilled shaft completion depths extend below static water levels, the fluid levels within the excavation must be maintained until concreting is complete for excavation stability. The counterbalancing fluid may be water and naturally derived cuttings, or it could be specially formulated drilling mud. In areas of loose sands or soft clays, casings or

drilling fluids, such as environmentally inert polymer slurry, may be necessary to maintain the integrity of the drilled hole during construction. In either case, this fluid will be managed in accordance with BMPs to protect the environment from uncontrolled releases.

Construction-derived wastes will be managed in accordance with prevailing regulations. Uncontrolled releases will not be allowed. Slurry will be recycled through a de-sander and reused. Water will be collected and treated as needed prior to disposal or reuse. No contaminated soils will be disposed of in the Sole Source Aquifer area. No long-term impacts to the SOBA are anticipated.

The Project will slightly increase impermeable surfaces in the Area A: Waipahu area. By installing permanent BMPs, most runoff will be directed back into the ground to recharge the groundwater system, resulting in little change in the amount of infiltration. In this way, although runoff from surrounding surfaces may enter the groundwater system along a different path than before, the groundwater recharge needed to sustain the aquifer system will continue. Therefore, the Project will not result in any long-term changes to groundwater levels. Runoff from the guideway is expected to be relatively free of pollutants and will not threaten groundwater quality.

F. Include Suitable and Adequate Location and Site Maps

Please see Attachment A.

G. Other Pertinent Information

A Final EIS compliant with NEPA and HRS Chapter 343 was prepared for the Project. The information in this section is drawn from information contained in the Final EIS, including supporting technical reports referenced within it that include detailed information concerning the project-specific field studies performed to support the Final EIS.

IV. PROJECT IMPACTS

This section discusses impacts within the Area A: Waipahu area specifically. The Introduction portion of the SMA application provides a project-wide discussion of impacts related to CZM objectives and SMA guidelines.

A. Coastal Zone Management Objectives

The text in italics below is copied directly from HRS Section 205A-2, Coastal Zone Management Program; Objectives and Policies.

1. Recreational Resources

A. *Provide coastal recreational opportunities accessible to the public.*

Section 4.5 of the Final EIS (Attachment 1) describes the Project's effect on parks and recreation areas. Please see Section III.B.1 for details regarding publicly owned beaches, parks, and recreation areas, and Section III.B.5 for details regarding other coastal/natural resources in the Area A: Waipahu area.

While the portion of the Project in the Area A: Waipahu area does not provide any new coastal recreational opportunities for the public, it will not affect the existing coastal recreational resources or their uses by the public. Overall, the Project will improve the availability of access to existing and future parks and recreational facilities along the alignment.

2. Historic Resources

A. *Protect, preserve, and, where desirable, restore those natural and manmade historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.*

Section 4.16 of the Final EIS (Attachment 1) discusses the Project's effect on archaeological, cultural, and historic resources. Please see Section III.C for details regarding historic resources in the Area A: Waipahu area. There is a moderate chance of encountering burials, as well as pre- and post-contact archaeological resources in the Area A: Waipahu area. The historic Waikele Stream Bridge east-bound span and Bridge over OR&L spur is also within the Area A: Waipahu area.

The Project will affect the integrity of the setting, feeling, and association of the historic Waikele Stream Bridge eastbound span and Bridge over OR&L spur. There will be an adverse effect on this resource, although the bridge will not be physically altered by the Project. Because the Project will result in adverse effects and avoidance is not possible, a PA was prepared in consultation with the SHPO and the Section 106

consulting parties to outline measures to minimize and mitigate the Project's effects on these resources.

In accordance with Stipulation V. of the PA, HART prepared the Historic American Engineering Record (HAER) documentation for the Waikele Stream Bridge and transmitted it to the U.S. Department of the Interior, National Park Service in December 2012 (HAER No. HI-100, Waikele Canal Bridge and Highway Overpass).

3. Scenic and Open Space Resources

- A. *Protect, preserve, and, where desirable, restore or improve the quality of coastal scenic and open space resources.*

Section 4.8 of the Final EIS (Attachment 1) identifies the Project's impacts and mitigation measures related to protected views. Please see Section III.D for details regarding coastal views in the Area A: Waipahu area.

Scenic impacts associated with the Project in the Area A: Waipahu area include a potential change in the setting of a historic resource (Waikele Stream Bridge), alteration of 'Ewa-Koko Head and mauka-makai views, and the introduction of project components that are out of scale or character with their setting. The guideway will obstruct present makai views toward the shoreline, but most views in this area comprise a wider panoramic scene, and visual effects of the Project will be low. In addition, the Project will be built within the median of the existing Farrington Highway and will be located in an industrial and commercial setting.

4. Coastal Ecosystems

- A. *Protect valuable coastal ecosystems, including reefs, from disruption and minimize adverse impacts on all coastal ecosystems.*

Section 4.14 of the Final EIS (Attachment 1) discusses the Project's effect on water quality, which could impact coastal ecosystems. Please see Section III.B.4 and III.B.5 for details regarding coastal/natural resources in the Area A: Waipahu area.

The Project will not have an adverse impact on coastal ecosystems. There will be no direct drainage into Pearl Harbor in the Area A: Waipahu portion of the Project because of the distance between the alignment and the coast. The Project is being designed so as to ensure minimal environmental impacts throughout the alignment through the use of construction and permanent BMPs. Stormwater runoff will be filtered through landscaped median areas and sedimentation collars where possible. Stormwater will be filtered through specially designed bioinfiltration units near water bodies on the HDOH 303(d) list of water quality limited segments. In locations where space does not allow for their use, downspout filters will be installed on drains near impaired waters. Permanent BMPs will be installed as part of the Project to address stormwater quality before the water is discharged to streams or

existing storm drain systems. The BMPs will promote a natural, low-maintenance, sustainable approach to managing and increasing stormwater quality. At a minimum, all stormwater downspouts from the guideway will include erosion-control BMPs and energy dissipation devices to prevent any scour of landscaped medians.

5. Economic Uses

- A. *Provide public or private facilities and improvements important to the State's economy in suitable locations.*

Section 4.3 of the Final EIS (Attachment 1) discusses the Project's effect on economic activity. To accomplish the economic development objectives for O'ahu's urban corridor, suitable infrastructure must be developed. The Project will improve infrastructure and provide long-term benefits to residents, businesses, and commuters. The portion of the Project within the Area A: Waipahu area will not adversely affect coastal-dependent economic activities.

6. Coastal Hazards

- A. *Reduce hazard to life and property from tsunamis, storm waves, stream flooding, erosion, subsidence, and pollution.*

The portion of the Project within the Area A: Waipahu area is not in a tsunami evacuation zone, thus representing no associated risk. The Project is being designed to applicable standards and specifications regarding storm weather and associated risks. Erosion is not expected to be an issue in this area because of the slight slopes, as well as the soil types and level of development. Sea-level rise may impact the Project because of its fairly low elevation, but that impact is not expected to occur until sometime in the future. According to project engineers' estimates, and based on a general analysis of the topography and contours in the area, sea level would have to rise more than 8 feet to impact the portion of the Project in Area A: Waipahu area. Subsidence is not expected to be an issue in the area according to initial geological findings. Project foundations, the columns on which the guideway sits, will be installed to a depth sufficient to prevent subsidence. The Project is not expected to increase pollution.

7. Managing Development

- A. *Improve the development review process, communication, and public participation in the management of coastal resources and hazards.*

The Project will require State and City permits and approvals that include provisions for public participation and ensure protection of coastal resources, as described in Section 4.21 of the Final EIS (Attachment 1). The Project also will provide necessary infrastructure to accommodate existing and planned future travel demand. The Project is consistent with

the transportation and land use elements of adopted State and Local government plans.

8. Public Participation

- A. *Stimulate public awareness, education, and participation in coastal management.*

Chapter 8 of the Final EIS (Attachment 1) discusses the Project's public outreach activities. Agencies, non-governmental groups, and the public have been engaged throughout the Project's planning process. Various public outreach activities were held near the Area A: Waipahu area, as discussed in Section I.F.6.

9. Beach Protection

- A. *Protect beaches for public use and recreation.*

The portion of the Project within the Area A: Waipahu area is not adjacent to or abutting a beach and will not affect coastal erosion in this area.

10. Marine Resources

- A. *Promote the protection, use, and development of marine and coastal resources to assure their sustainability.*

The portion of the Project within the Area A: Waipahu area is not adjacent to or abutting a shoreline and will not affect marine resources.

B. SMA Guidelines

The text in italics below is copied directly from ROH Chapter 25-3.2, Review Guidelines.

The following guidelines shall be used by the council or its designated agency for the review of developments proposed in the SMA.

- a) *All development in the special management area shall be subject to reasonable terms and conditions set by the council to ensure that:*

- 1) *Adequate public access, by dedication or other means, to and along the publicly owned or used beaches, recreation areas and natural reserves is provided to the extent consistent with sound conservation principles;*

Please see Section III.B.1 for details regarding publicly owned beaches, parks, and recreation areas in the Area A: Waipahu area.

The portion of the Project within the Area A: Waipahu area will not adversely affect access to and along publicly owned beaches, recreation areas, and natural reserves as none of these facilities exist in the Area A: Waipahu area. Waikele and Kapakahi Streams, the only areas potentially

considered recreation and natural areas with the Area A: Waipahu area, will not experience any direct or adverse impacts due to the Project and will remain open and accessible during construction and operation of the Project. Once constructed, the Project will increase mobility and improve options to access public recreation areas, such as public beaches and parks.

- 2) *Adequate and properly located public recreation areas and wildlife preserves are reserved;*

The portion of the Project within the Area A: Waipahu area will not adversely affect or in any way diminish the quality of public recreation areas or wildlife preserves. There are no wildlife preserves in the Area A: Waipahu area.

- 3) *Provisions are made for solid and liquid waste treatment, disposition and management which will minimize adverse effects upon special management area resources; and*

For the portion of the Project within the Area A: Waipahu area, HART will ensure that proper containment, treatment, and disposal methods for solid and liquid wastes are followed during construction and operation of the Project in accordance with Federal, State, and Local regulations as discussed in the Final EIS (Attachment 1) Section 4.12 Hazardous Waste and Materials. There will be no adverse impacts to SMA resources.

- 4) *Alterations to existing land forms and vegetation; except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, wind damage, wave damage, storm surge, landslides, erosion, sea level rise, siltation or failure in the event of earthquake.*

The portion of the Project within the Area A: Waipahu area will not adversely affect water resources. During construction (as described in the Final EIS (Attachment 1) Section 4.18.10 Construction Phase Effects Water Resources), temporary BMPs for the management of stormwater will be designed, installed, and maintained to reduce the potential for impacts to water resources from erosion and other construction activities. Permanent BMPs also will be designed and installed on downspouts that drain the guideway near HDOH 303(d) listed impaired waters, including Waikele and Kapakahi Streams. The Project will avoid or minimize impacts on recreational and scenic amenities where reasonable. The Project will not impact floodways, cause wind damage, wave damage, storm surges, landslides, erosion of coastal resources, sea level rise, or siltation. The Project is designed to meet seismic standards and other natural hazards as applicable.

- b) *No development shall be approved unless the council has first found that:*

- 1) *The development will not have any significant adverse environmental or ecological effect except as such adverse effect is minimized to the extent*

practicable and clearly outweighed by public health and safety, or compelling public interest. Such adverse effect shall include but not be limited to the potential cumulative impact of individual developments, each one of which taken in itself might not have a significant adverse effect and the elimination of planning options;

In the Area A: Waipahu area, there will be no significant adverse environmental or ecological impacts due to the Project as discussed in the Final EIS (Attachment 1) Section 4.13.3 Ecosystems Environmental Consequences and Mitigation. The Project design includes measures to avoid and minimize impacts to the environment, and there will be no significant cumulative impact from the Project within the SMA as discussed in the Final EIS Section 4.19. The Project's impacts are outweighed by the Project's benefit of providing additional mobility in the study corridor, as well as improving corridor travel reliability, access, and transportation equity.

- 2) *The development is consistent with the objectives and policies set forth in Section 25-3.1 and area guidelines contained in HRS Section 205A-26;*

As discussed above, the portion of the Project within the Area A: Waipahu area is consistent with the objectives and policies set forth for Special Management Areas.

- 3) *The development is consistent with the county general plan, development plans and zoning. Such a finding of consistency does not preclude concurrent processing where a development plan amendment or zone change may also be required;*

The portion of the Project within the Area A: Waipahu area is consistent with all plans and zoning, as discussed in Section II.A.4 and Attachment 3.

- 4) *That the development has been adequately planned to minimize the risk from coastal hazards such as tsunamis, hurricanes, wind, storm waves, flooding, erosion, and sea level rise; and*

The portion of the Project within the Area A: Waipahu area has been adequately planned and designed to the extent practical to minimize risk from coastal hazards and is not located in a tsunami evacuation zone. The Project design meets applicable standards and specifications regarding storm weather and construction in floodplains. Temporary and permanent BMPs will minimize risk to coastal areas from erosion. According to Project engineers' estimates, based on a general analysis of the topography and contours in the area, sea level would have to rise more than 8 feet to impact the portion of the Project in the Area A: Waipahu area.

- 5) *That the development does not impede public access to the shoreline or beach area.*

The portion of the Project within the Area A: Waipahu area will not impede public access to shoreline or beach areas; the closest shoreline is 1,250 feet from the Project in the Area A: Waipahu area. Conversely, the Project will increase mobility and, thereby, access to such areas outside of the Area A: Waipahu area.

c) *The council shall seek to minimize, where reasonable:*

- 1) *Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;*

The Project will not require any of the above activities in the Area A: Waipahu area.

- 2) *Any development which would reduce the size of any beach or other area usable for public recreation;*

There are no beaches in the Area A: Waipahu area. In addition, the Project will not reduce or impact any other areas usable for public recreation because it will be constructed within the median of an existing highway.

- 3) *Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;*

The portion of the Project within the Area A: Waipahu area will not reduce or restrict public access to tidal and submerged lands, beaches, portions of rivers and streams within the SMA, and the mean high tide line where there is no beach. Waikele and Kapakahi Streams will be spanned by the fixed guideway and will not be directly impacted; access to these streams will be maintained. Public access to the shoreline in this area will not be reduced or restricted by the Project because of the distance between the fixed guideway and the shoreline.

- 4) *Any development which would substantially interfere with or detract from the line of sight toward the sea from the state highway nearest the coast; and*

The portion of the Project within the Area A: Waipahu area will require installation of the guideway and columns in the median of Farrington Highway, the state highway nearest the coast in this area. As Farrington Highway is at-grade and the fixed guideway will be on columns, the approximately 21 columns within the Area A: Waipahu area will intermittently obstruct makai views across the highway toward the shoreline. However, most views in this area comprise a wider panoramic scene dominated by residential, commercial, and industrial buildings, and the ocean and coastal landforms are not currently visible from the highway. Overall, the Project has minimized its visual intrusion to the extent possible.

An evaluation of the SMA Coastal Views is provided in Section 4.8 of the Final EIS (Attachment 1; page 4-103).

- 5) *Any development which would adversely affect water quality, existing areas of open water free of visible structures, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

The portion of the Project within the Area A: Waipahu area will not adversely affect water quality in this area. Section 4.14 and 4.18.10 of the Final EIS (Attachment 1) discuss BMPs to be employed during operation and construction of the Project, respectively, to limit water quality impacts. The streams are spanned by the fixed guideway and not directly impacted; also in addition, these streams already contain visible structures and modifications. The Project will not adversely impact Pearl Harbor in this area because of the distance between the guideway and the coast. Existing and potential fishing grounds are likely coastal or associated with Waikele and Kapakahi Streams; there will be no interference with any of these areas as a result of the Project. The Project will not adversely affect any wildlife habitats or potential or existing agricultural uses of land, as it will be constructed in the median of an existing highway.

V. MITIGATION MEASURES

The Project Mitigation Monitoring Program is included as Attachment 4.

Attachment A: SMA Plans

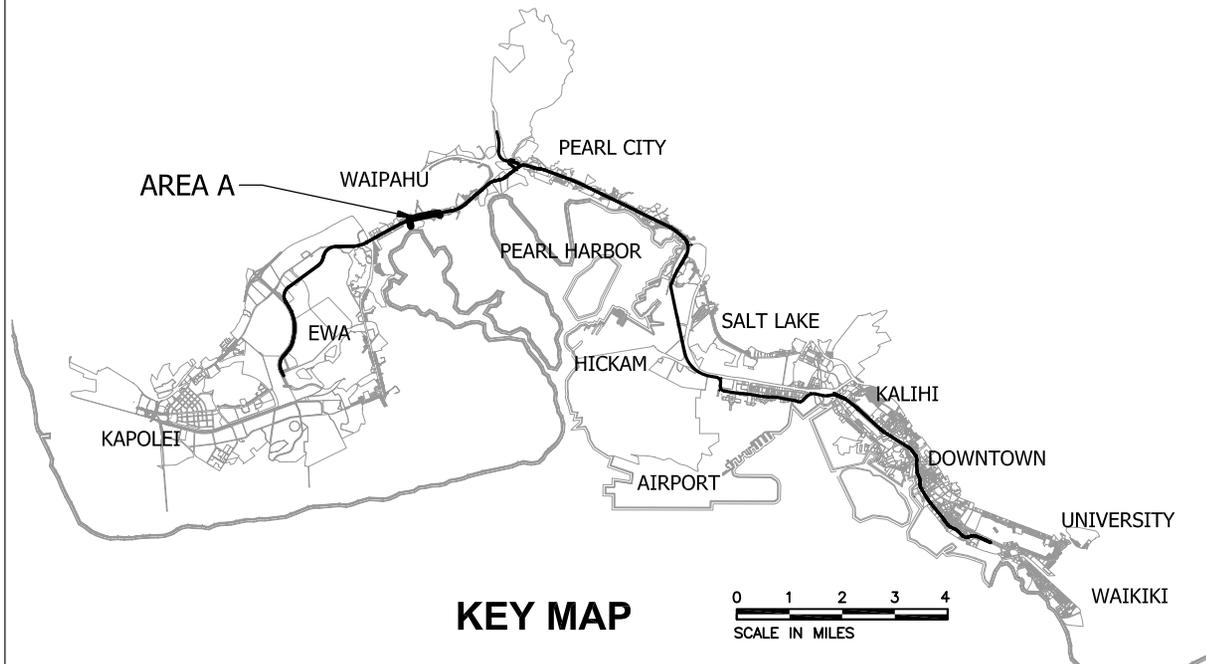
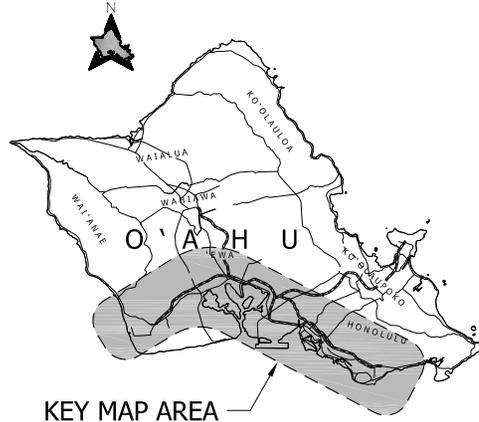
- A-00 to A-05: SMA Line Plan Sheets
- A-FZ: Flood Zones
- A-HR: Historic Resources

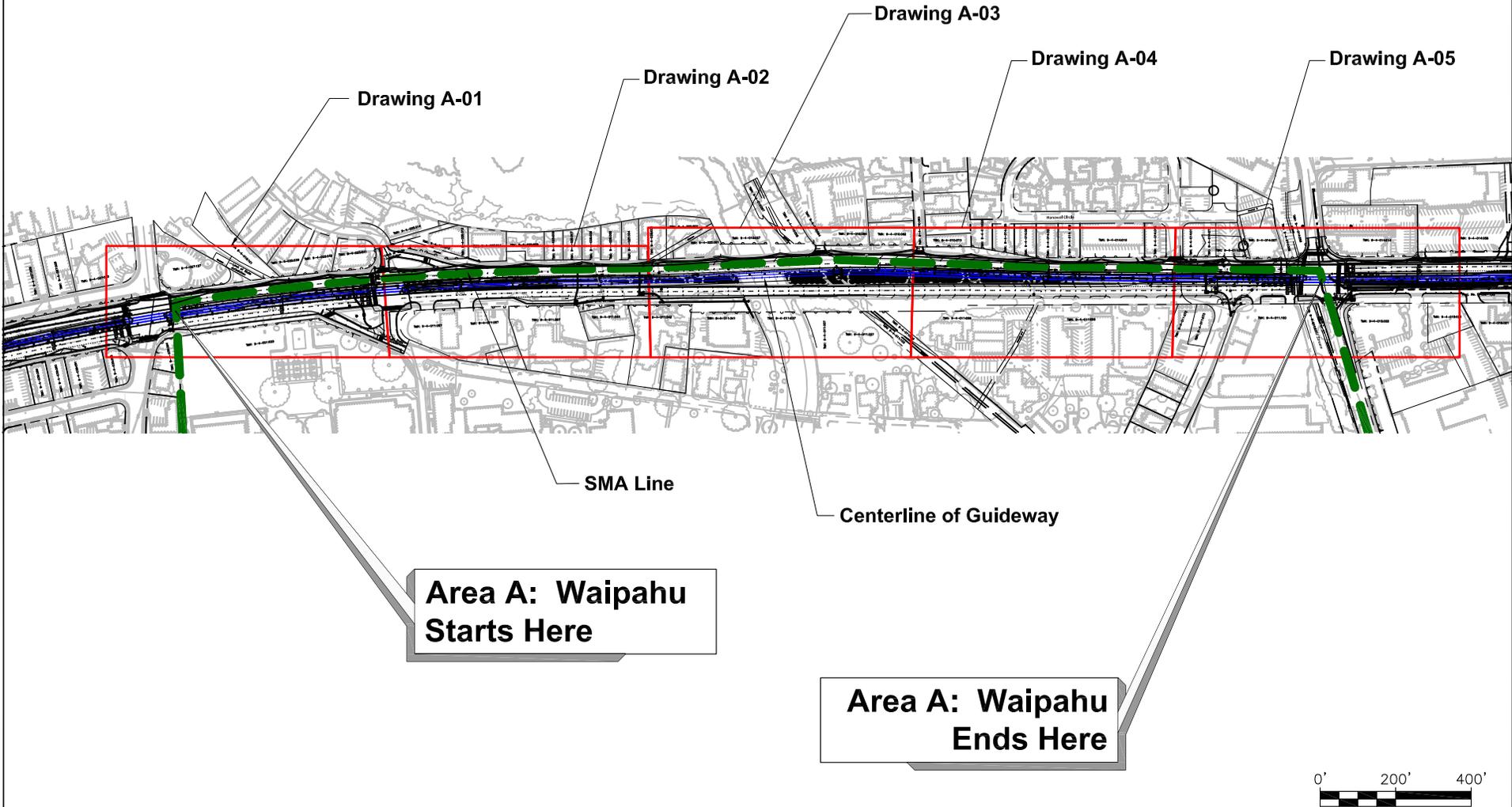
Special Management Area Use Permit and Shoreline Setback Variance Application

Attachment A: Area A SMA Plans

Honolulu Rail Transit Project
June 2013

HONOLULU RAIL TRANSIT PROJECT SPECIAL MANAGEMENT AREA USE PERMIT AREA A: WAIPAHU





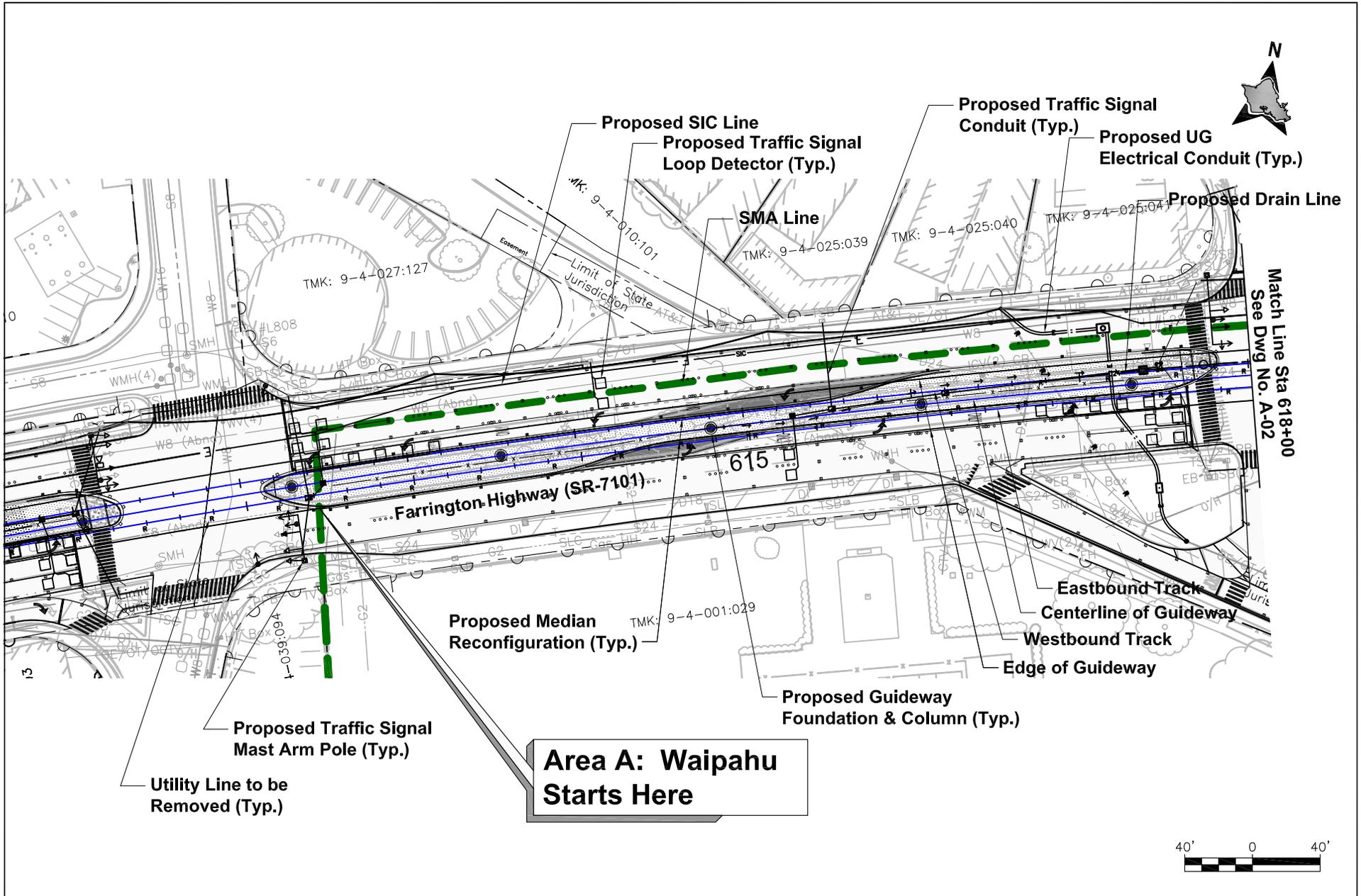
**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
**AREA A
OVERVIEW**

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A-00

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Date:
05-20-2013

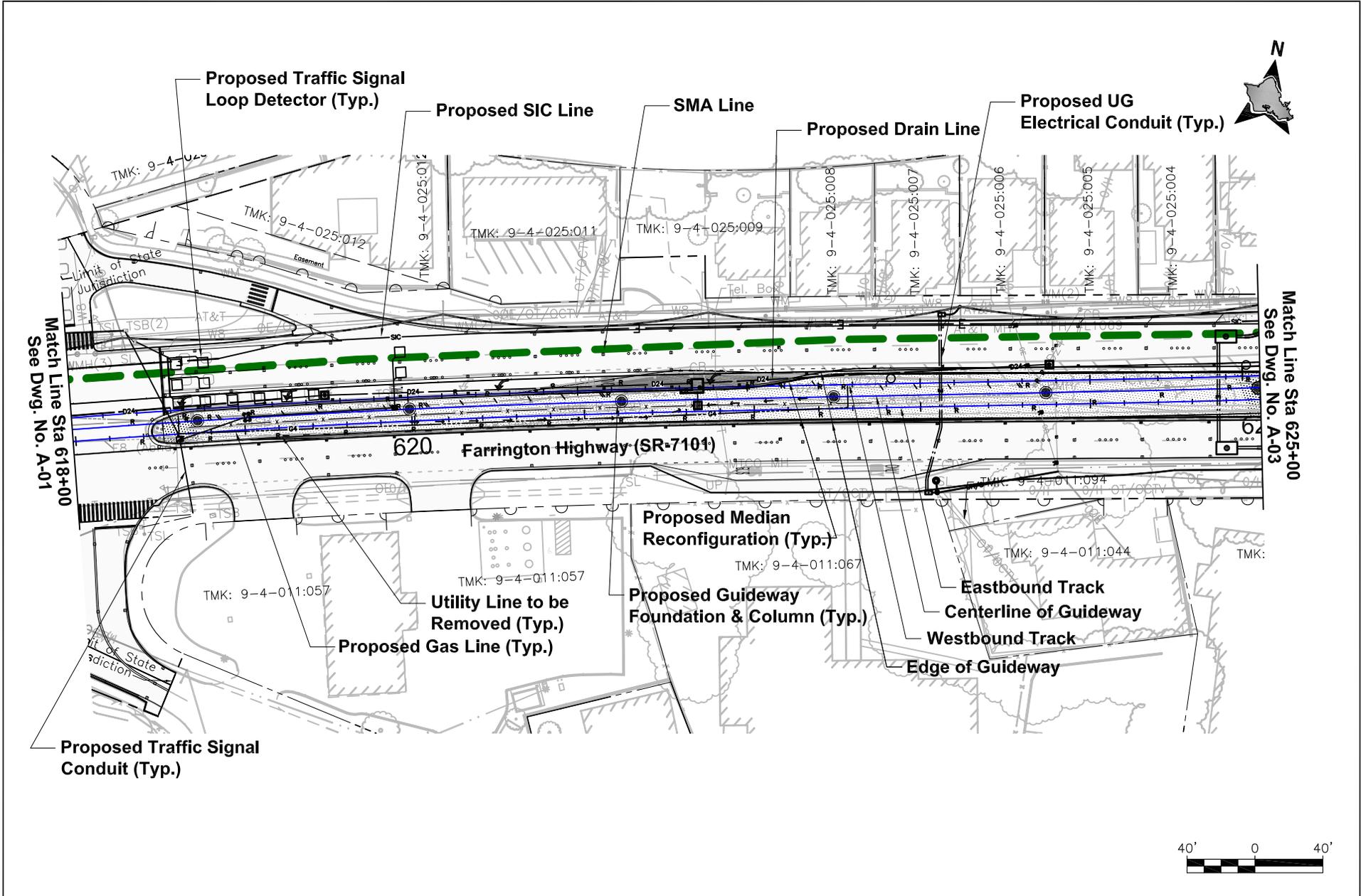


**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
**AREA A
PLAN**

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Drawing No:
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Date:
05-20-2013



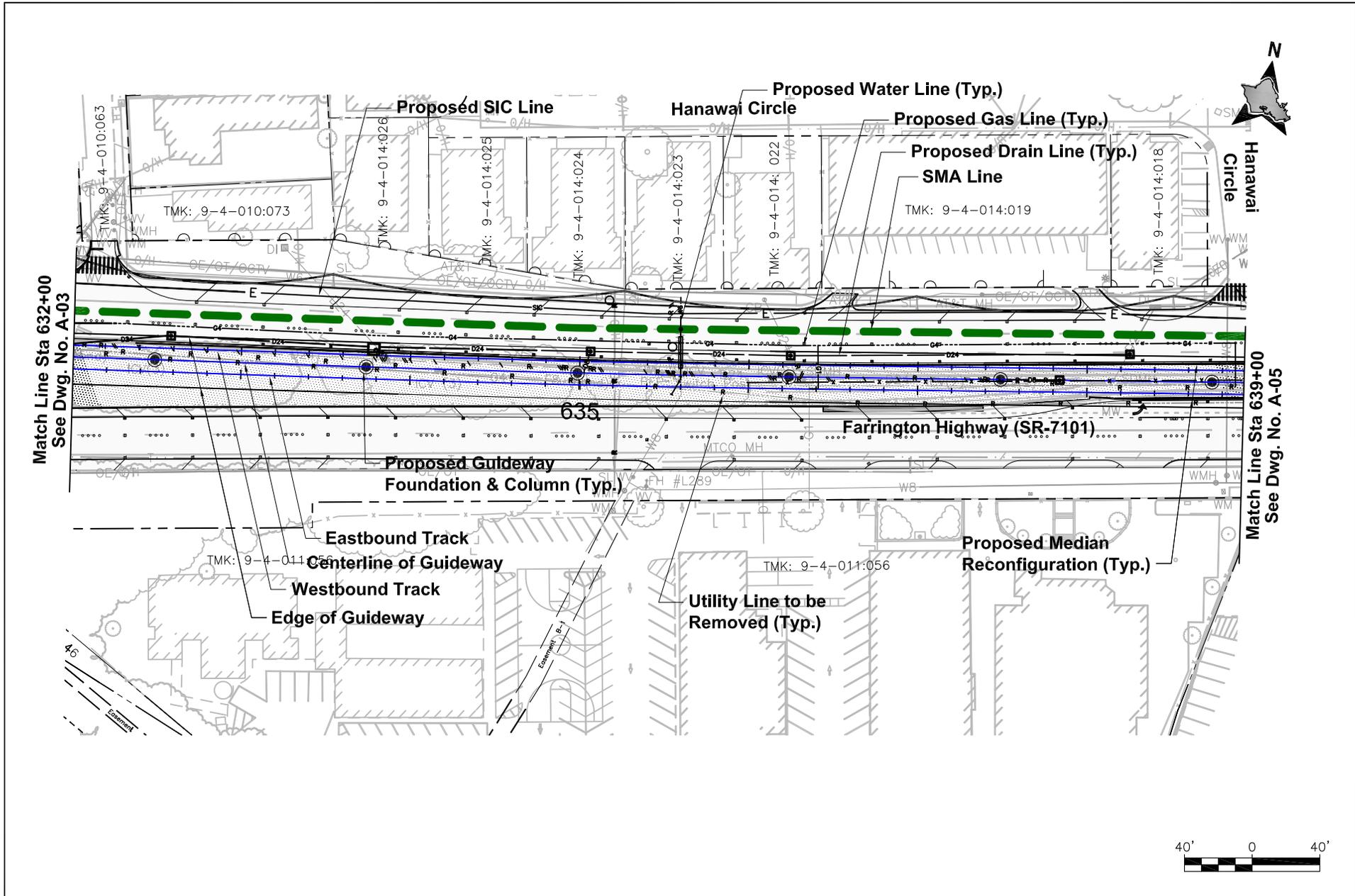
**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
**AREA A
PLAN**

STA 618+00 TO STA 625+00

Drawing No:
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Date:
05-20-2013



**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
**AREA A
PLAN**

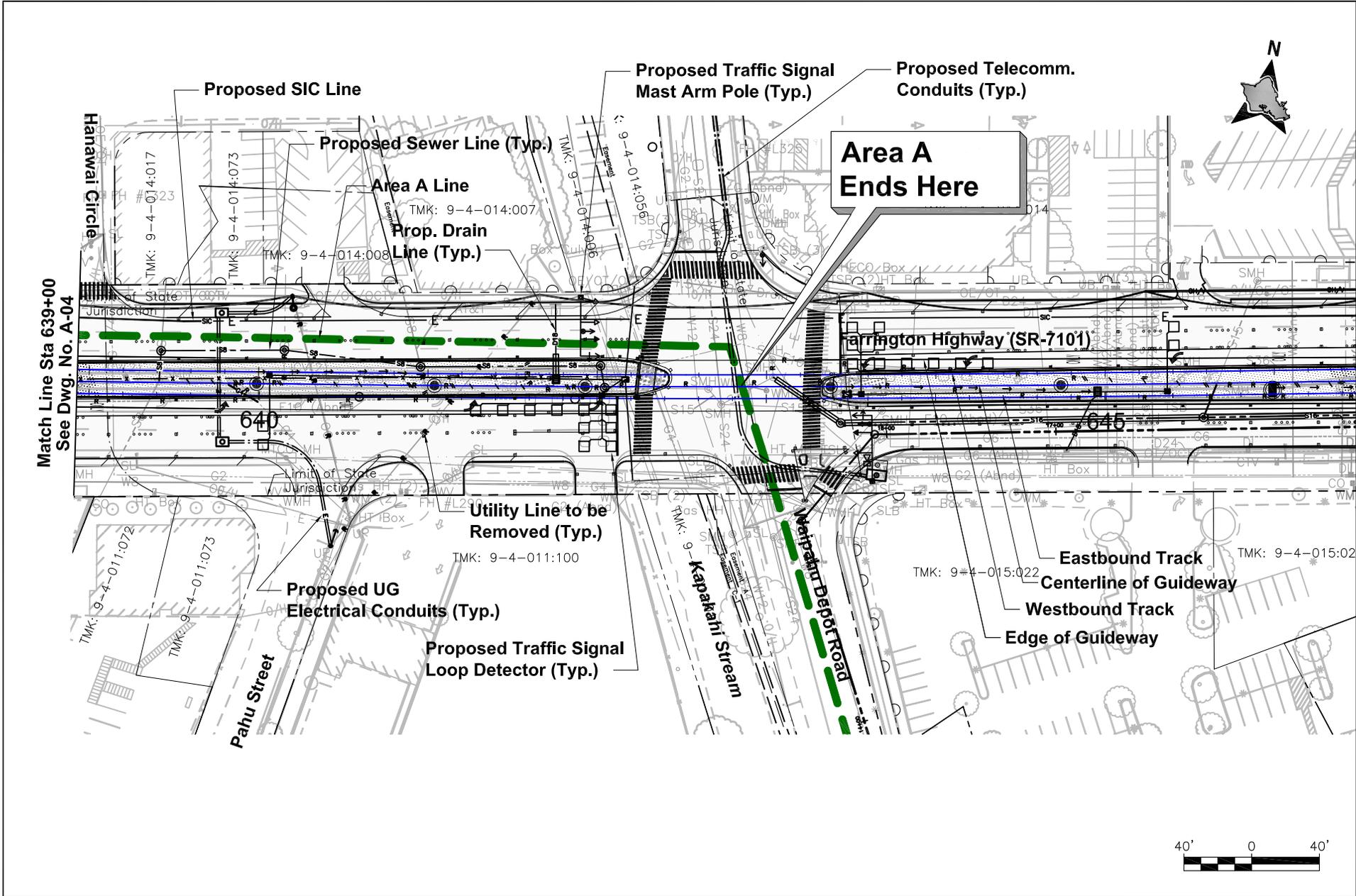
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A-04

Date:

05-20-2013



Match Line Sta 639+00
See Dwg. No. A-04



**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
**AREA A
PLAN**

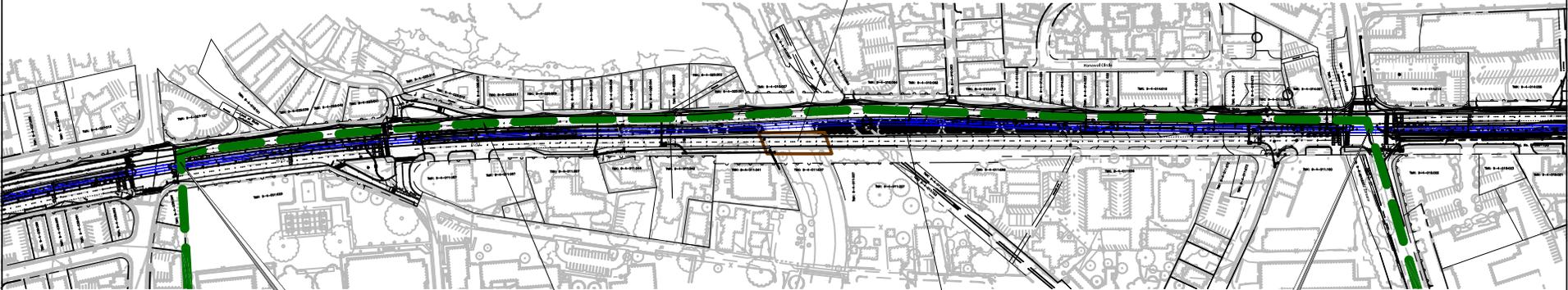
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Drawing No:
A-05

Date:
05-20-2013



Historic Resource:
Waikele Stream Bridge
east-bound span and
Bridge over the OR&L
spur



SMA Line

Centerline of Guideway

**Area A: Waipahu
Starts Here**

**Area A: Waipahu
Ends Here**



**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA

HISTORIC RESOURCES

STA 611+00 TO STA 646+00

Drawing No:

A-HR

Date:
05-20-2013



**HONOLULU
RAIL TRANSIT PROJECT**

SPECIAL MANAGEMENT AREA
AREA A
FLOOD ZONES (2011)
STA 611+00 TO STA 646+00

Drawing No:
A-FZ
Date:
05-20-2013