

**Review of Current City and State Ordinances
Honolulu High-Capacity Transit Corridor Project
Final**

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Prepared for:
City and County of Honolulu

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Appendix A: Zoning Designations

Acronyms and Abbreviations

BRT	bus rapid transit
CZM	Coastal Zone Management
DBA	District Boundary Amendment
HCC	Honolulu Community College
HCDA	Hawai'i Community Development Authority
HCT	high-capacity transit
NRHP	National Register of Historic Places
PUC	Primary Urban Center
ROH	Revised Ordinances of Honolulu
SMA	Special Management Area
TOD	transit-oriented development

Executive Summary

This *Review of Current City and State Ordinances* has been undertaken to help understand how current zoning and development standards at the City and State levels may or may not support station area development as discussed in the *HHCTCP Station Area Development Potential Report*, which identifies parcels within each of the 21 project station areas that may be appropriate for transit-oriented development (TOD). The City's Department of Planning and Permitting (DPP), as well as the Hawaii Community Development Authority (State) are in the process of creating new plans and zoning ordinances for each station that will affect future development around rail transit. For example, DPP has been leading a community-based process over the last two years that will create individual TOD plans for each of the station areas within its jurisdiction. It is expected that these plans and accompanying ordinances will contain policies and regulations that will help create more livable communities in the station areas that will take advantage of the improved access provided by the new transit system. These new plans and ordinances, however, have not yet been adopted and are not in place at the time of this report, and therefore are not reflected in this analysis.

The review found that current zoning as established in the City and County Land Use Ordinance (LUO) tends not to maximize the full development potential of the project station areas defined as a one-half mile radius of each station. With the exception of recently adopted commercial mixed-use zoning in the East Kapolei station area and around stations located in the City Center portion of the project between Kalihi and Ala Moana Center, zoning within the majority of the other project station areas is not consistently supportive of rail transit use or TOD.

Current regulations, which also include general development standards that deal with site design, tend to favor auto use and auto-oriented development (e.g., strip malls, surface parking lots) at the expense of pedestrians, bicyclists and transit riders by generally allowing only low-to-medium densities, single/segregated uses, building setbacks away from the street, and no minimum block sizes. This is particularly true of station areas in the Farrington Highway and Kamehameha Highway portions of the corridor, as well as in the older neighborhoods along the City Center portion. Uses in these areas are dominated by older suburban uses, particularly retail businesses oriented around the automobile.

The City & County's recent TOD ordinance (March 2009, Ordinance 09-4) is a positive step towards promoting redevelopment potential and transit-oriented development. The intent behind these "special districts" located 2,000 feet around stations is to promote mixed-use development, affordable housing, higher densities tied to the provision of community amenities, reduced auto dependence, and a human-scale built environment that encourages walking, bicycling, and transit use. However, more definition is needed to effectively

encourage this type of development. The TOD ordinance does a good job of describing and promoting the general concepts of TOD, but does not enact specific regulations for zoning. Such regulations will become part of the TOD special district zoning regulations and may include restricted/conditional uses, maximum front and street side yard setbacks, minimum floor area ratios (FARs), principal street building entrances (i.e. on the street with transit service), minimum requirements for ground-level front façade window space, and off-street parking requirements that are below what is normally prescribed (typically 60 percent of the norm in TOD zones).

The Kaka‘ako Community Development District, is an independent entity located just Koko Head of Downtown controlled by the State of Hawai‘i Community Development Authority. This development area is exempt from City & County zoning and general development regulations. The Mauka Area Rules Unofficial Compilations (Hawai‘i Administrative Rules §15-22, June 2005) establishes three mixed-use zones for the Kaka‘ako Community Development District—all of which support TOD to various degrees. The yet-to-be-adopted *Mauka Area Plan Working Draft* of May 2007 also promotes Smart Growth concepts and provides a more definitive vision for the built character of the District which is highly supportive of TOD. Adoption of the revised Mauka Area Plan and Rules, which includes a form-based code, is expected sometime in 2011. These regulations offer a greater deal of flexibility in terms of the scale, character, and mix of future development in the Civic Center and Kaka‘ako station areas.

Introduction

The purpose of this report is to evaluate how current ordinances of the City and County of Honolulu (the City) and the State of Hawai'i (the State) either support or hinder the integration of the Honolulu High-Capacity Transit Corridor Project (the Project) with local communities, including the potential for future transit-oriented development (TOD) near stations.

This report is one of several documents that have been prepared or will be prepared to analyze the Project's integration with the larger Honolulu community, including the Final Environmental Impact Statement, various permit applications, TOD plans, and documents in support of Preliminary Engineering. This report supports the overall effort by the City to create a successful rail transit system and to integrate it within the larger community. The City recognizes that what happens around stations is as important as the rail project itself. To support coordination of transportation and land uses in the corridor and other efforts underway by the City, currently adopted and applicable City and State ordinances were examined, including the following:

- The following articles of Chapter 21 of the City and County of Honolulu Land Use Ordinance:
 - Article 3—Primary Zoning Districts and Zoning District Regulations
 - Article 4—General Development Standards
 - Article 5—Specific Use Development Standards
 - Article 6—Off-Street Parking and Loading
 - Article 9—Special District Regulations; including
 - Subsection 9.30—Hawai'i Capital
 - Subsection 9.60—Chinatown
 - Subsection 9.80— Waikīkī
 - Subsection 9.100— Transit-Oriented Development
- City and County of Honolulu Development Plans (Chapter 24)
- City and County of Honolulu Special Management Area (Chapter 25)
- City and County of Honolulu 2005 Subdivision Rules and Regulations (Subdivision Street Standards Chapter)
- Hawai'i Revised Statutes Chapter 205A—Coastal Zone Management Part II Special Management Area
- State of Hawai'i 2005 Kaka'ako Community Development District, Mauka Area Plan and Rules

In addition, an evaluation was conducted of planned development around each fixed guideway station along the study corridor using existing development plans and studies. The following plans were considered:

- 'Ewa Development Plan (August 1997, revised May 2000)
- Central O'ahu Sustainable Communities Plan (December 2002)
- Waipahu Neighborhood TOD Plan Public Review Draft (December 2008)
- Primary Urban Center (PUC) Development Plan (June 2004)

- Kaka‘ako Mauka Area Plan Working Draft (May 2007)
- Kalihi-Palama Action Plan (September 2004)
- ‘Aiea-Pearl City Livable Communities Plan (May 2004)

Part 1 of this report includes an evaluation of existing ordinances and other regulations that could either support or hinder integration of the Project and TOD. Existing ordinances and other regulations may *support* integration of the Project and TOD in the sense that they promote a greater mix of land use types and medium-to-high densities that encourage walking, cycling, and transit use (elements of Smart Growth). Conversely, existing ordinances and other regulations may *hinder* integration of the project and TOD in the sense that various land use types remain separated, low-rise, and low-density (i.e. a pattern of development that tends to discourage transit use). Part 2 discusses “Best Practices” for station interface planning. Lastly, each station is evaluated with recommendations for TOD planning in that area. Areas within one-half mile of stations were examined, with particular emphasis on the zoning and plans for areas within one-quarter mile of stations.

In March 2009 the City established a TOD Special District as part of the Land Use Ordinance (Chapter 21 of the Revised Ordinances of Honolulu (ROH). TOD zones will be established around each fixed guideway station. As discussed below under Chapter 21, Article 9.100, the regulations applicable to a TOD zone are *in addition* to underlying zoning districts and, if applicable, special district regulations, and may supplement and modify the underlying regulations. If any TOD regulation conflicts with an underlying zoning district or special district, the regulation applicable to the TOD zone shall take precedence. Accordingly, many features of other City ordinances that are not supportive of the Project or TOD currently will be superseded by the TOD ordinance. Additionally, the Development Plans will be updated with the appropriate information, policies, and guidelines stemming from the Neighborhood TOD Plans that will be created for each station area. However, as stated in Article 9.100-4 (f), identification of important neighborhood historic, scenic, and cultural landmarks, and controls to protect and enhance these resources, will be part of TOD development regulations.

This evaluation discusses how current ordinances support or hinder the Project and potential TOD in project station areas. As discussed in the introduction, ordinances that support the Project, TOD and transit in general tend to promote mixed use and higher density development, with design elements that encourage walking and bicycling. Conversely, ordinances that could hinder success of the Project are ones that mandate lower densities, segregated land uses, excessive parking requirements and contain design elements that would result in an environment that is uncomfortable for pedestrians and bicyclists. With that in mind, the general ordinance provisions are summarized and analyzed below.

1.1 City and County of Honolulu Land Use Ordinance (Chapter 21)

1.1.1 Article 3—Primary Zoning Districts and Zoning District Regulations

This article regulates specific land uses allowed in the different zoning districts, along with basic development requirements, such as minimum building setbacks and maximum building heights.

An analysis of existing zoning was conducted. There is a wide range of agricultural, residential, business, industrial, and public zoning districts that are currently found within one-half mile of the planned project stations. The relevant districts and their general characteristics are summarized in Table 1. With the exception of the mixed-use zones [Apartment mixed-use (AMX)/ Business mixed-use (BMX)], the majority of the zoning districts along the study corridor and related development regulations are not consistently supportive of rail transit. This is because they tend to allow only low-to-medium densities, segregate uses, and support auto-oriented development (e.g., parking lots in front of buildings and building setbacks away from the street). Low-to-medium development densities tend to increase walking distances for pedestrians coming to/from transit, thereby limiting the potential for trip-chaining (where multiple activities can be performed in a single round-trip walk) and decreasing the comfort and convenience of transit-based activities in general. Similarly, auto-oriented development (front surface parking and large building setbacks—i.e., long, open spaces between sidewalks and buildings—are indicative of this) discourages transit use by:

- marginalizing pedestrians (i.e., creating an environment where the number of cars greatly outnumbers the number of pedestrians);
- making the walking environment less appealing functionally and aesthetically; and
- Diminishing pedestrian safety due to the often high speed of traffic on adjacent streets serving auto-oriented development.

Table 1: Summary of Existing Relevant Zoning Districts

Zoning District	Summary	Evaluation	Stations Affected
<p>Agricultural Districts AG-1 and AG-2</p>	<p>Agricultural Districts are in areas devoted primarily to agricultural uses and very low density development. This designation is intended to maintain a strong agricultural economic base, prevent unnecessary conflicts among incompatible uses, minimize the cost of providing public improvements and services, and to manage the rate and location of development consistent with the City's adopted land use policies. The AG-1 District conserves and protects important agricultural lands, and the AG-2 District conserves and protects agricultural activities on smaller parcels.</p>	<p>Residential and commercial uses are generally not allowed within Agricultural Districts. Additionally, higher density communities would conflict with the purpose of this district. However, much of the agricultural land along the alignment is planned for future development, as outlined in the various Development Plans. It is assumed rezoning would take place in these locations as appropriate.</p>	<p>East Kapolei, UH West O'ahu, Ho'opili, Leeward Community College, Pearl Highlands, Pearlridge</p>
<p>Residential Districts R-3.5, R-5, R-7.5</p>	<p>Residential Districts are intended to allow for a range of residential densities, although detached residences are the primary use within this district. Non-dwelling uses that support and complement residential neighborhood activities, such as neighborhood grocery stores, daycare facilities, and schools, are also allowed with a conditional use permit. According to Table 21-3.2 within Chapter 21 of the Revised Ordinance of Honolulu (ROH), the minimum lot area for one-family detached dwellings ranges from 3,500 square feet for R-3.5 to 7,500 square feet for R-7.5. Two-family detached dwellings have a minimum lot area ranging from 7,000 square feet (R-3.5) to 14,000 square feet (R-7.5). Maximum lot areas are not defined. This table also establishes a 50 percent maximum building area for this district. Additional setbacks are required for heights over 30 feet.</p>	<p>Although limited, the mix of uses allowed in this district helps lay the groundwork for TOD. However, the lack of maximum lot size regulations could hinder higher density development near transit stations. The lack of maximum lot sizes may be especially inappropriate in the more developed areas of the corridor, such as Waipahu and Kalihi.</p>	<p>West Loch, Waipahu Transit Center, Leeward Community College, Pearl Highlands, Pearlridge, Aloha Stadium, Middle Street Transit Center, Kalihi, Kapālama, Iwilei</p>

Table 1: Summary of Existing Relevant Zoning Districts (continued)

Zoning District	Summary	Evaluation	Stations Affected
<p>Apartment and Apartment Mixed Use A-1, A-2, A-3, AMX-2, AMX-3, Apt. Precinct, and Apt. Mixed Use Subprecinct</p>	<p>The purpose of the Apartment District (A-1, A-2, and A-3) is to allow for a range of apartment densities and some commercial uses. Uses and activities that complement apartment use, such as special needs housing for the elderly, neighborhood grocery stores, daycare facilities, and schools, are allowed with a conditional use permit.</p> <p>The purpose of the Apartment Mixed Use District (AMX-2 and AMX-3) is to allow some commercial uses in apartment neighborhoods. The additional commercial uses are permitted under varying intensities and are intended to support the daily and weekly commercial service needs of the neighborhood, lessen automobile dependency, create more diverse neighborhoods, and optimize the use of both land and available urban services and facilities. Mixing may occur horizontally and vertically, but controls are established to maintain the character of these neighborhoods primarily as apartment neighborhoods.</p> <p>Table 21-3.3 of the ROH establishes minimum lot sizes and maximum building area for all Apartment and Apartment Mixed Use Districts. This table also establishes maximum commercial use densities for Apartment Mixed Use Districts. The districts define maximum densities using minimum lot sizes or Floor Area Ratio (FAR) standards. They do not have minimum density requirements.</p> <p>In the A-2, A-3, AMX-2, and AMX-3 Districts, parking lots and garages may extend to side and rear property lines, provided that an area or areas of open space equivalent to the area to be used for parking or accessory use structures are provided elsewhere on the zoning lot. There are no minimum lot areas for off-site parking facilities.</p>	<p>Both the Apartment and Apartment Mixed Use District allow for higher density and a greater mix of commercial and residential uses than allowed under the Residential District. Accordingly, these districts are more supportive of TOD than other residential districts. The allowance for horizontal mixing of uses within the Apartment Mixed Use District is especially supportive of TOD. Additionally, the goal of the Apartment Mixed Use District to lessen automobile dependency is supportive of both the Project and TOD.</p> <p>As with the Residential District, the lack of maximum lot sizes could hinder higher density development near transit stations.</p> <p>Locating parking areas at the rear of property lines is generally supportive of TOD.</p>	<p>West Loch, Waipahu Transit Center, Leeward Community College, Pearl Highlands, Pearlridge, Aloha Stadium, Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Ala Moana Center</p>
<p>(continued)</p>	<p>The Apartment Precinct and Apartment Mixed Use Subprecinct are zoning designations within the Waikīkī Special District. A small part of the Waikīkī Special District is within one-half mile of the Ala Moana Center Station. Uses allowed within this designation are provided in Table 21-9.6(a) of the ROH. Additionally, Section 21-9.80-5 establishes transitional height setbacks, which encourages buildings with graduated, stepped forms. Joint development and joint use of parking are allowed with a conditional permit.</p>		

Table 1: Summary of Existing Relevant Zoning Districts (continued)

Zoning District	Summary	Evaluation	Stations Affected
Business District B-1	<p>Business Districts allow for a typical array of commercial and office uses. B-1 Neighborhood Districts do not allow residential uses as part of the mix.</p> <p>The intent of the B-1 Neighborhood Business District is to provide relatively small areas which serve the daily retail and other business needs of the surrounding population. It is intended that this district be generally applied to areas within or adjacent to urban residential areas, along local and collector streets, but not along major travel routes or on a large scale basis. It will also be applied to rural and urban fringe town centers that may or may not be located along major travel routes.</p>	<p>Since the Business District does not allow residential uses, this designation is unsupportive of the mix of uses that are typical of TOD.</p> <p>The B-1 zone is additionally unsupportive of TOD since it supports lower density commercial uses. Currently, B-1 zones are found within one-half mile of the Waipahu Transit Center and Aloha Stadium Stations.</p>	Waipahu Transit Center, Aloha Stadium
Business District B-2	<p>Business Districts allow for a typical array of commercial and office uses. Business Community (B-2) Districts do not allow residential uses as part of the mix.</p> <p>The intent of the B-2 Community Business District is to provide areas for community-wide business establishments, serving several neighborhoods and offering a wider range of uses than is permitted in the B-1 District. The intent is to apply this district to areas conveniently accessible by vehicular and pedestrian modes and served by adequate public facilities. Typically, this district would be applied to lots along major streets and in centrally located areas in urban and urban fringe areas.</p>	<p>Since the Business District does not allow residential uses, this designation is generally unsupportive of the mix of uses that are typical of TOD.</p> <p>However, the B-2 zone is more supportive of TOD than B-1.</p>	West Loch, Waipahu Transit Center, Leeward Community College, Pearl Highlands, Pearlridge, Aloha Stadium, Lagoon Drive, Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Kaka'ako

Table 1: Summary of Existing Relevant Zoning Districts (continued)

Zoning District	Summary	Evaluation	Stations Affected
<p>Business Mixed Use BMX-3, BMX-4, Aloha Tower Project, and Kaka’ako Community Development District</p>	<p>The purpose of the Business Mixed Use District is to recognize that certain areas of the City have historically been mixtures of commercial and residential uses, occurring vertically and horizontally, and to encourage the continuance and strengthening of this pattern.</p> <p>The zoning code also establishes open space bonuses for BMX-3 and BMX-4 Districts. The intent of the BMX-3 Community Business Mixed Use District is to provide areas for both commercial and residential uses outside of, and at a lower intensity than, the Central Business Mixed Use District (BMX-4). Typically, this district would be applied to areas along major thoroughfares.</p> <p>The intent of the BMX-4 Central Business Mixed Use District is to set apart that portion of Honolulu that forms the City’s center for financial, office, and governmental activities and housing. It is intended for the downtown area and not intended for general application. It provides the highest land use intensity for commerce, business, and housing.</p> <p>Any development in the BMX-4 zone over a height of 350 feet shall comply with the following:</p> <ul style="list-style-type: none"> • Ground-level parking lots and structures should not front streets. Where this is not possible, canopy and vertical form trees, hedges, and other landscaping elements shall be provided to visually screen them. • Public Views. The additional tower height shall not significantly intrude on any adopted public views, including the view of the Central Business District from the Punchbowl lookout. • Pedestrian Orientation. Project design at the ground level shall reflect a strong pedestrian orientation, especially fronting streets. 	<p>The Business Mixed Use designations are supportive of transit and TOD since they can include a variety of land uses that can be connected by walking.</p> <p>BMX-3 zones are located within one-half mile of the following stations: Middle Street Transit Center, Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Kaka’ako, and Ala Moana Center.</p> <p>BMX-4 zones are located within one-half mile of the following stations: Iwilei, Chinatown, Downtown, and Civic Center.</p> <p>The Project will not be noticeable in views of the Central Business District from the Punchbowl lookout. The guideway will be makai of Downtown.</p>	<p>Middle Street Transit Center, Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Kaka’ako, Ala Moana Center</p>

Table 1: Summary of Existing Relevant Zoning Districts (continued)

Zoning District	Summary	Evaluation	Stations Affected
Industrial Districts I-1, I-2, I-3, IMX-1	<p>Industrial Districts allow a range of land-intensive uses. Limited business activities that directly support industrial uses or those employed by industries are permitted in these districts.</p> <p>The intent of the I-1 Limited Industrial District is to provide areas for the industrial employment and service needs of rural and suburban communities, including light manufacturing as well as "high technology industries" such as telecommunications, computer parts manufacturing, and research and development. Uses in this district are limited to those that have few environmental impacts and those that complement the development scale of communities they would serve.</p> <p>The goal of the I-2 Intensive Industrial District is to set aside areas for the full range of industrial uses necessary to support the City. It is intended for areas with necessary supporting public infrastructure, near major transportation systems, and with other locational characteristics necessary to support industrial centers. It shall be located in areas away from residential communities where certain heavy industrial uses would be allowed.</p> <p>The objective of the I-3 Waterfront Industrial District is to set apart and protect areas considered vital to the performance and operation of port functions. It is the intent to permit a full range of facilities necessary for successful and efficient performance of port functions while excluding uses that are not only inappropriate but that could be located elsewhere.</p>	<p>The Industrial-Commercial Mixed Use (IMX-1) District allows a mix of commercial and employment activities that are supportive of transit and TOD. The level of employment is a key determinant for the degree of transit support. The other Industrial Districts (I-1, I-2, and I-3) are generally not supportive of transit and TOD. However, many of these uses occur in areas with a strategic location to ports or other transportation facilities, such as Honolulu International Airport.</p>	<p>I-1 Waipahu Transit Center I-2 West Loch, Waipahu Transit Center, Leeward Community College, Pearl Highlands, Honolulu International Airport, Lagoon Drive, Middle Street Transit Center, Kalihi I-3 Kalihi, Kapālama, Iwilei, Chinatown, Downtown</p>
(continued)	<p>The purpose of the Industrial-Commercial Mixed Use District (IMX-1) is to allow mixing of some industrial uses with other uses. The intent of this district is to provide for areas of diversified businesses and employment opportunities by permitting a broad range of uses without exposing nonindustrial uses to unsafe and unhealthy environments. Residential uses are not allowed, but some complementary uses, such as day cares and banks, are possible. Table 21-3 in Chapter 21 of the Land Use Ordinance provides detailed information pertaining to the uses allowed within each zoning district.</p>		<p>IMX-1 Pearl Highlands, Pearlridge, Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive, Middle Street Transit Center, Kalihi, Kapālama, Iwilei, Chinatown, Downtown</p>

Table 1: Summary of Existing Relevant Zoning Districts (continued)

Zoning District	Summary	Evaluation	Stations Affected
<p>Preservation Districts, P-1, P-2, and F-1.</p>	<p>Preservation Districts allow a limited array of uses, and many are low-intensity activities, including crop production and game preserves. However, trade or convention centers are also possible with a Plan Review Use. This district allows the maximum height be increased from 15 to 25 feet if height setbacks are provided (an additional foot from each side of the boundary line for each 2 feet of additional height above 15 feet). Within the P-1 District (restricted preservation), all uses, structures, and development standards are governed by the appropriate state agency. The P-2 District (general preservation) is intended for visual relief or contrast to the city's built environment or serving as outdoor space for public use and enjoyment. The Military and Federal Preservation (F-1) designation applies to Federally owned properties; all military and Federal uses and structures are permitted.</p>	<p>The uses that occur within the P-1 and F-1 Districts are beyond the control of the City and County of Honolulu. F-1 Districts may be supportive of transit and TOD, depending upon the uses, density, and layout of the area. P-1 and P-2 uses are generally not transit and TOD supportive due to the low density and limited uses found within these zones.</p>	<p>P-1 West Loch, Waipahu Transit Center, Leeward Community College, Pearlridge, Pearl Harbor Naval Base, Lagoon Drive, Middle Street Transit Center P-2 East Kapolei, West Loch, Waipahu Transit Center, Leeward Community College, Pearl Highlands, Pearlridge, Aloha Stadium, Lagoon Drive, Middle Street Transit Center, Kalihi, Kapalama, Iwilei, Chinatown, Downtown, Civic Center, Kaka'ako, Ala Moana Center F-1 Leeward Community College, Pearl Highlands, Pearlridge, Aloha Stadium, Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive, Middle Street Transit Center</p>

1.1.2 Chapter 21, Article 4—General Development Standards

This article regulates building form and site design considerations, such as landscaping, lighting, and nonconforming situations, regardless of the zoning district in which the use is located. It supplements the basic development standards for building setbacks and heights defined in Article 3.

Section 21-4.30 establishes yard and street setbacks. According to this section, “no business, merchandising displays, uses, structures or umbrellas, shall be located or carried on within any required yard or street setback” with a few exceptions, such as fences, utility poles, or bicycle parking. Allowing bicycle parking within yards and street setbacks is supportive of both the Project and TOD.

Current development standards do not support TOD near the stations. For example, parking lots larger than five spaces and loading areas are required to be screened, which may improve aesthetics and the pedestrian experience, but this section does not contain any other standards that are relevant to station area development. The following development standards—broken down by site programming and site design in the list below—support TOD¹:

Site Programming

- Increased level of density compared to conventional development
- Emphasis on a mixed-use environment
- A mix of housing types and prices
- Reduced parking requirements, including lower parking ratios and shared parking

Site Design

- Pedestrian access that encourages pedestrian flow to nearby commercial districts and main streets
- Public spaces in the form of vibrant streets, squares, and parks that enhance residences and commercial businesses
- Sense of place
- Enhanced character and quality
- Architecture that mirrors the civic importance of transit, and uses materials and design the express quality, permanence, and community history and/or values
- Sustainability, including green building design

¹ Source: American Planning Association. *Planning and Urban Design Standards*. 2006.

1.1.3 Chapter 21, Article 5—Specific Use Development Standards

This article contains regulations for specific land use and development types, such as amusement and recreation facilities, bars, hotels, and zoos. Many of the special uses listed in this article do not support transit mainly because they are low-density uses and/or they are auto-oriented. Examples include agribusiness activities, cemeteries, composting, automobile service stations, car washing establishments, drive-through facilities, and golf courses. Transit depends upon pedestrian access and activity.

Several sections of Article 5 pertain to parking standards. For instance, Section 21-5.130 establishes a minimum 20-foot setback from all side and rear property lines for commercial parking lots in Apartment Mixed-use Districts when they adjoin Residential, Apartment or Apartment Mixed-use Districts. Section 21-5.390 establishes guidelines for joint use of parking facilities, and Section 21-5.480 establishes guidelines for off-site parking facilities. Both joint and off-site parking provide the opportunity for parking facilities that could accommodate parking needs for a district rather than each land use providing its own on-site parking. This approach to provision of parking for a district supports TOD.

1.1.4 Chapter 21, Article 6—Off-street Parking and Loading

This article regulates the amount of parking and the location and design of parking facilities required to support different land uses. This article may have a positive or negative impact on TOD, depending upon how location and design are handled. In particular, existing standards under this article may have a negative impact by encouraging an oversupply of parking and large surface lots that can create dead zones which detract from a human scale pedestrian-friendly character, which is common to all successful TODs.

Section 21-6.90 states that, “off-street parking spaces required for any use may be permitted off the premises as joint use of parking facilities or off-site parking facilities but shall be subject to compliance with the provisions of Articles 2 and 5, conditional uses.” This provision is supportive of TOD.

Existing parking standards are generally not supportive of TOD because of the following:

- On-street parking may not be used to satisfy code standards
- There are no maximum parking standards
- Bicycle parking standards are absent
- Surface parking may be located anywhere on a lot with landscape buffering
- There are no requirements for active ground-floor uses along parking garage street frontages
- There are no standards for pedestrian and bicycle circulation around and within parking lots
- There are no provisions to encourage spaces for car-sharing

1.1.5 Chapter 21, Article 9—Special District Regulations (LUO)

The Chinatown, Downtown, and Civic Center fixed guideway stations are located within special districts. Chinatown Station and Downtown Station are within the Chinatown Special District, while Downtown and Civic Center are located within the Hawai'i Capital Special District. Additionally, the TOD Special District applies to the above mentioned guideway stations; the requirements established by this Special District are in addition to the other Special District requirements. Special districts within the City Center portion of the project, including the Chinatown Special District, Hawai'i Capital Special District, plus districts that fall under State-jurisdiction (Aloha Tower Project and Kaka'ako Community Development District), regulate and contain detailed design requirements to retain and enhance the unique characteristics of these places.

Chapter 21, Article 9, Section 30: Hawai'i Capital Special District

This district was created not only to preserve and enhance the park-like setting of the district, including its view from the Punchbowl lookout, but also because many buildings in the area are on the State and National Registers of Historic Places (NRHP) and contribute significantly to the urban design of Honolulu. Objectives of this district include the preservation and enhancement of buildings and landmarks—mostly built between the 1820s and 1930s—within the Hawai'i Capital Special District. This section also establishes landscape and design guidelines and height regulations for areas within the district. The Downtown station lies within this Special District. Any future TOD within the Hawai'i Capital Special District, if any, should be compatible with the existing architectural and aesthetic character of the District, which consists of sweeping lawns and historic institutional buildings. Given the character and scale of the District (and the strict landscape regulations, height restrictions, and NRHP protections associated with it) the Hawai'i Capital Special District is not especially supportive of TOD. It is single use (principally state government), and a 9-to-5 environment with little nighttime or weekend activity. However, the high walkability and pleasant aesthetics of the District may have a positive spill-over effect by attracting TOD to adjacent areas, including Kaka'ako and portions of the Central Business District 'ewa of Richards Street.

Chapter 21, Article 9, Section 60: Chinatown Special District

According to this section, "Chinatown is the oldest section of [present-day] downtown Honolulu. In addition to its historic role in the growth of the city, and its architectural significance as reflected in its placement on the National Register of Historic Places, it reflects a dynamic ethnic population and business community." This section also acknowledges Chinatown's location near the Central Business District and the resulting pressure for higher density development in this area. As a result, this Special District seeks to preserve the historic significance and architectural characteristics of Chinatown and to promote its long-term economic viability as a unique community of retail, office, and residential uses while ensuring compatibility of

new development. This section also establishes design and streetscape guidelines. An objective of the Special District is the retention and enhancement of pedestrian-oriented commercial uses and building design, particularly at ground level. The Chinatown Station lies within this Special District. The Chinatown Special District is one of Honolulu's most walkable areas, and may support modestly sized infill TOD that is compatible with the existing scale and architectural character of the District.

Chapter 21, Article 9, Section 100: Transit-oriented Development (TOD) Special Districts

In March 2009, the City passed Ordinance 09-4 (TOD Ordinance). To maximize the benefit of the Project, the TOD ordinance was established “so that well-defined, meaningful, and appropriate regulatory and incentive programs can be adopted for each area around a transit station or type of station.”

Subsection 21-9.100 requires the formation of “special districts” around rail transit stations. This represents an essential first step in creating TOD to complement transit. Section 21-9.100 (c) states that a “TOD zone” is the collection of land parcels around a rapid transit station that is subject to development regulations. Generally the TOD zone shall include parcels of land where any portion of each parcel is within 2,000 feet of a transit station, provided that the entire parcel is within one mile of the station. This proviso is overly restrictive in that it excludes a number of large greenfield parcels within the West O’ahu station areas.² Section 21-9.100-1 describes the process for creating TOD Development Regulations.

While the City and County TOD Ordinance grasps the essence of the transit-oriented development concept and sets in motion the *possibility* for TOD around project stations, its minimum requirements as stated in Section 21-9.110-4 are somewhat vague. The minimum requirements of the City and County TOD Ordinance miss a number of TOD best practices, including:

- Minimum housing densities (i.e., minimum number of dwelling units per acre)
- Minimum affordable housing requirements
- Minimum floor area ratios (FARs) for commercial and industrial development
- Maximum off-street parking and/or minimum on-street parking requirements determined by per unit square footage
- Permitted principal uses

² The proviso that a parcel fall entirely within the one-mile station radius to be covered under the TOD ordinance excludes many of the large greenfield parcels associated with recently proposed TOD plans for UH West O’ahu, Ho’opili, and West Loch Stations.

- Prohibited uses (i.e., a ban within the zone on uses that are not transit supportive and detract from the pedestrian experience)
- Maximum setbacks (or “build-to” lines)
- Bulk limitations, including a minimum requirement for qualification as mixed-use (e.g., where the non-principal use is 20 percent of total floor area)
- Minimum public space requirements
- Public restroom and bicycle parking requirements
- Clear zone requirements along streets
- Sidewalk requirements, including street tree planting requirements
- Pedestrian circulation requirements, including the ability to substitute on-street pedestrian routes with routes that run through or between buildings
- Abandonment of the typical roadway classifications of arterial, collector, and street in favor of a system where most streets serve the same basic function
- Maximum street widths

Section 21-9.100-2 (5) of the TOD Ordinance states that gentrification of the community shall be avoided. Gentrification, whereby lower income residents are displaced by wealthier ones, is an often misunderstood term; it should not be conflated with architectural improvements or good community planning. It may be preferable to say that, in order to provide benefits to many income groups, a mix of local and national retail businesses, high-quality affordable housing, and new public spaces open to all should be encouraged in TOD zones.

Section 21-9.100-4 of the TOD Ordinance recommends incentives and accompanying procedures, which may include minimum standards and financial incentives, to encourage appropriate and necessary transit-oriented development. However, it does not state specific procedures and mechanisms for implementing TOD that may be supported by the City and County, including joint development, transfer of development rights (TDR), development agreements, tax increment financing (TIF), and assessment districts.³ It may be appropriate for the Ordinance to state which procedures and mechanisms for implementing TOD in TOD zones are supported by the City and County.

³ The use of TIF mechanisms in Hawaii is limited by low property taxes and a state law that disallows bonds to be backed by the State’s General Obligation Debt; in Hawaii, TIF bonds are revenue bonds.

1.2 City and County of Honolulu Development Plans (Chapter 24)

This chapter discusses land use categories, urban design principles, and amendment procedures as they relate to development plans. Development plans guide City land use approvals and permits and are adopted by City Council ordinance. Article 1 pertains to general Development Plan provisions and Articles 2 through 10 discuss Development Plans for each of O'ahu's planning areas.

Chapter 24, Article 1, Section 2 states that when there is a discrepancy between the land use map and the zoning ordinance, the zoning ordinance will continue to regulate the use of land, except if the Development Plan is more restrictive. In these instances, the zoning ordinance should be updated to reflect the land use map. Additionally, if public facilities are inadequate to service the types of land uses permitted under the zoning ordinance, then interim development controls should be established until service levels can be achieved.

Chapter 24, Article 1, Section 2 (d) could affect any redevelopment that occurs as part of TOD. This section states that an amendment to change land use classifications cannot be adopted unless the City Council finds that the amendment will be consistent with the common and special provisions of the Development Plans and objectives of the General Plan. Currently, the land use maps in Appendix A of the 'Ewa, Central O'ahu, and Primary Urban Center Development Plans show low-density residential uses near some transit stations. Accordingly, depending on the outcome of the TOD neighborhood plans, the applicable Development Plan may need to be updated to match the densities, parking minimums/maximums, land use mixes, and other design-related elements advocated by the TOD plan.

Chapter 24, Article 1, Section 2 (f) lists the factors that must be considered when determining whether proposed development is consistent with the Development Plan:

- (1) Whether the development is consistent with the land use map or with any applicable zoning provisions. The land use map is intended to suggest the overall character of the area depicted rather than precise zoning boundaries. In preparing proposed amendments to zoning district boundaries, the Department of Land Utilization shall take into account the designation shown on the land use map, the character of existing land uses and zoning, and the compatibility of neighboring land uses.

Keeping in character with existing land uses and zoning along the project corridor (in many instances, low-density and single-use) may be in conflict with the core principles of TOD (mixed land uses, higher densities, and often, limits on parking). Also, neighboring land uses, which may be industrial and/or suburban in character and scale, may be inconsistent with TOD. Flexibility in determining the character, type, and intensity of development around project stations should be allowed and encouraged.

(2) Whether the development is consistent with the general height controls set forth in a Development Plan. The general height controls are intended to establish a policy for the general character of the area by setting general height limits for the area. They are not intended to supplant specific zoning standards which may set lower height limits. Precise height limits shall be included by the Department of Land Utilization in proposed zoning ordinances. In preparing proposed zoning height limits, the Department of Land Utilization shall take into consideration all applicable urban design policies and controls and the nature of existing land uses.

Height controls could hinder TOD, especially if they limit building height to one or two stories (a common feature of auto-oriented suburban development). Multi-story buildings located at or close to the sidewalk edge can help create the sense of enclosure, intimacy, and place—especially on wide boulevards and multi-lane arterials—that is a hallmark of TOD.

Chapter 24, Article 1, Section 3 establishes land use categories for use in the Development Plans. Table 2 summarizes these categories and analyzes their degree of support for TOD. Appendix A in each Development Plan shows land uses. These Development Plans are available on the Department of Planning and Permitting website.

Table 2: Summary of Relevant Land Use Categories

Land Use Designation	Summary	Evaluation*
Residential including Low-Density, Medium-Density, and High-Density Apartment	<p>Residential: Typically single-family detached residences, duplexes, and other low-density cluster or common-wall housing apartments</p> <p>Low-Density Apartment: Low-rise, low-density multi-family residential structures</p> <p>Medium-Density Apartment: Mid-rise, medium-density multi-family residential structures</p> <p>High-Density Apartment: High-rise, high-density multi-family residential structures</p>	Residential and Low-Density Apartment uses are generally less suited for transit and TOD than Medium- and High-Density Apartment uses.
Commercial	For business or commercial activities, in contrast to other types of economic activities. Limited accessory uses directly related to the principal uses may also be permitted, but only on the same lot and not as a principal use.	This land use is less supportive of transit and TOD than the Commercial Emphasis Mixed Use (described below). Commercial Emphasis Mixed Use rather than single-use commercial should be encouraged near transit stations. Most commercial areas near transit stations are in mixed-use designations and thus are listed below.
Industrial	For processing, construction, manufacturing, transportation, wholesaling, storage, and similar economic activities. Accessory or supporting activities that directly enhance the viability of the principal activities may also be permitted.	Industrial land uses are generally less supportive of transit and TOD. Many of these uses occur in areas with a strategic location to ports or other transportation facilities, such as Honolulu International Airport.
Resort	Resort areas provide a full range of facilities and services for visitors. The term "visitor unit" as used in the special provisions includes hotel rooms and resort condominiums, as well as other accommodations that are located in resort designated areas and reserved for visitor use. The principal use in resort areas shall be hotels and apartments. Accessory or supporting uses that enhance the viability of the principal use may also be permitted.	There are no Resort land uses within one-half mile of a fixed guideway station.

Table 2: Summary of Relevant Land Use Categories (continued)

Land Use Designation	Summary	Evaluation*
Agricultural	Agricultural areas are those areas suitable for crop growing, grazing, and the raising of livestock, flower gardening, nurseries or orchards, aquaculture, or similar activities. This classification also includes areas surrounded by or contiguous to such lands but not well suited to agricultural or accessory activities due to topography, soils, or similar constraints, and areas otherwise identified by the City as implementing related General Plan objectives and policies. In such areas, uses complementary to agricultural uses may be permitted.	Agricultural land uses are not supportive of transit and TOD. The Land Use maps provided in Appendix A of the 'Ewa, Central O'ahu, and Primary Urban Center Development Plans do not show any agricultural land uses within one-half mile of any fixed guideway station. Existing agricultural lands in these areas are planned for future development. However, the State Agricultural District Boundary currently includes lands within one-half mile of UH West O'ahu and Ho'opili Stations. A State Land Use Boundary Amendment (District Boundary Amendment) is required to revise this boundary and include it in the urban district.
Public and Quasi-Public	Public and quasi-public areas include those areas designated for general governmental activities; schools, colleges, and universities; airports, harbors, bus yards, and other terminals; major health care facilities; major utility plants and substations; landfill sites, corporation yards, and maintenance yards of public agencies; religious, social, and social service institutions; and other public services.	This designation's level of transit and TOD support varies based on the specific use of the land. For example, schools, colleges, and airports could provide a larger ridership base than a landfill site. Currently colleges and a sports stadium are located around project stations in this category. As a result, these uses are transit supportive.
Parks and Recreation	Parks and recreation areas include all public parks and recreational facilities, including beach parks, playgrounds, playfields, district parks, botanical gardens, zoos, golf courses and pedestrian malls, as well as privately owned and/or operated park and recreational facilities that are provided as integral parts of developments.	Park land is unavailable for redevelopment. However, many parks are a destination for those using transit, and the Project will enhance access and provide options for reaching these facilities.

Table 2: Summary of Relevant Land Use Categories (continued)

Land Use Designation	Summary	Evaluation*
Preservation	Preservation areas include land necessary to protect watersheds; water resources; conservation; preservation of sites with scenic, historic, archaeological, or ecological significance; and providing and preserving park lands, wilderness and beach reserves, and natural ecosystems. Additionally, preservation areas apply to lands with topography, soils, climate, or other related environmental factors that may not be normally adaptable or presently needed for urban, rural, or agricultural use; lands with slopes of 20 percent or more; lands susceptible to floods and soil erosion; or lands for National, State, or City parks.	Preservation lands are generally not found near transit stations and would be unavailable for redevelopment related to TOD.
Military	All lands used for military and military support purposes.	Any development occurring on military land is outside the control of the City. Military land uses occur near the Aloha Stadium and Pearl Harbor Naval Base Stations.
Residential Emphasis Mixed Use	Housing shall be the predominant type of development. Commercial uses may be limited to those that generally serve residents in the surrounding community. Commercial uses may be located on the first two floors within structures and, where appropriate, shall be clustered to encourage convenient pedestrian shopping activities.	The Land Use maps in Appendix A of the Development Plans show various mixed-use areas, but do not distinguish between “Residential Emphasis,” “Commercial Emphasis,” or “Commercial-Industrial Emphasis.” All three are generally supportive of transit and TOD; however, Commercial-Industrial Emphasis would be slightly less supportive than the other two categories.
Commercial Emphasis Mixed Use	Commercial uses may be the predominant type of development. Where appropriate, the ground floor may be designed primarily for commercial uses that support establishing a new or maintaining an existing pedestrian-oriented environment. Housing may also be provided.	See discussion under “Residential Emphasis Mixed Use” (above)
Commercial-Industrial Emphasis Mixed use	Commercial and light industrial uses may be the predominant type of development. Where appropriate, the ground floor may be limited to commercial and/or light industrial uses. Housing may also be provided.	See discussion under “Residential Emphasis Mixed Use” (above)

Table 2: Summary of Relevant Land Use Categories (continued)

Land Use Designation	Summary	Evaluation*
Resort Mixed Use	Resort uses that provide a full range of facilities and services for visitors shall be the predominant type of development. The Resort Mixed Use designation shall be confined to the Waikīkī special area as defined in ROH 1990, Section 24-2.2(b)(2).	There are no Resort Mixed Use land uses within one-half mile of a fixed guideway station

*It should be noted the land use categories on the maps in Appendix A of the ‘Ewa, Central O’ahu, and Primary Urban Center Development Plans do not match the categories listed in the table above. For instance, Leeward Community College and Honolulu Community College both fall under the category of “Public or Quasi-Public” in this table but are shown as “Institutional” on the various land use maps. As a result of these discrepancies, and the small scale used for the maps in Appendix A, it is not possible to apply the land uses in the table to the specific station areas.

Chapter 24, Article 1, Section 4 discusses general urban design principles and controls. Section 4 (a) could impact the Project and TOD:

887 “Article 1, Section 4 (a): Public Views. Public views include views along streets and highways, mauka-makai view corridors, panoramic and significant landmark views from public places, views of natural features, heritage resources, and other landmarks, and view corridors between significant landmarks.

Such public views shall be protected by appropriate building heights, setbacks, design and siting controls established in the Land Use Ordinance. These controls shall be determined by the particular needs of each view and applied to public streets and to both public and private structures.

The design and siting of all structures shall reflect the need to maintain and enhance available views of significant landmarks. No development shall be permitted that will block important public views.”

Some protected views and vistas will change as a result of the Project, including public views along streets and highways, mauka-makai view corridors, panoramic and significant land mark views from public places, views of natural features, heritage resources and other landmarks, and view corridors between significant landmarks. The guideway and some stations will partially block mauka-makai public views from streets that intersect with the alignment.

Chapter 24, Article 1, Section 4 (c) provides support for integration of the Project and TOD with the surrounding community by recommending provisions for landscaping and pedestrian corridors. Further, this section supports landscape controls for ground-level parking. However, ground-level parking could reduce TOD potential by using land for parking that could otherwise support TOD:

“Article 1, Section 4 (c): Vehicular and Pedestrian Routes.

Landscaping shall be provided along major vehicular arterials and collector streets as a means to increase the general attractiveness of the community and the enjoyment of vehicular travel for visitors and residents. The following streetscape elements shall be considered in the design of the landscaping: plantings, street furniture, utility fixtures, sidewalk paving treatments, small parks, signs, and building setback and facades. Different themes appropriate to the particular character of different communities may be provided.

Pedestrian corridors shall be provided in heavy traffic areas, such as in resort, commercial, and apartment districts. Such elements as shade trees and other plantings, street furniture, attractive building frontages, and other pedestrian-oriented elements shall be part of the design of pedestrian corridors. Pedestrian corridors shall be designed to be safe, minimize conflicts between people and vehicular movements, and shall

be integrated with or provide access to open spaces. Provisions for bikeways shall also be made.

Major roadway intersections, particularly along arterial and collector roadways, that serve as key community orientation points shall be made easily identifiable through such means as distinctive landscaping, lighting, signing, and the siting of adjacent structures.

Landscaping controls shall be established for ground-level parking areas in order to provide pleasing environments and to help minimize the visual dominance of paved surfaces.”

Chapter 24, Article 1, Section 4 (d) relates to general height controls: “Maximum allowable heights for structures in each land use classification and for designated special areas are specified in the special provisions of each Development Plan. They are intended to establish a general policy for the maximum overall height in the area, rather than to set specific zoning standards. Lower zoning height limits may be established where the protection of important views or other design considerations indicate they would be appropriate. The determination of zoning height limits shall take into consideration all applicable urban design policies and controls and the nature of existing land uses in the area.”

Chapter 24, Article 1, Section 4 (f) could limit the potential for TOD. This article pertains to single family residential areas: “The areas designated for residential use consist of both existing built-up, single-family residential communities and areas that are considered appropriate for future residential development. New development in existing communities shall generally be limited to that which is compatible with or enhances the desired physical and social character and lifestyle. Changes affecting the present physical and social nature of these areas shall be made only when community needs or general public interests can be demonstrated.” As a result, TOD may be limited in some areas due to the existing residential nature of the community, unless “community needs or general public interests can be demonstrated.”

Additionally, Section 4 (f) states that “the architectural design of nonresidential structures shall be compatible in character with surrounding residential uses.” This could affect design of Project stations and potential TOD development in station areas.

Chapter 24, Article 1, Section 4 (g) discusses mixed-use areas. Mixed-use can be especially supportive of transit and TOD, depending on the density and type of uses (for instance, commercial uses are more supportive of TOD than industrial uses). The following are purposes of mixed-use areas, as established in Section 4(g)(1); parts a through e are especially supportive of the Project and TOD:

- a. Provide for mutually supportive combinations of residential and commercial and/or industrial uses that optimize the use of both land

in urban centers and of already available support facilities and services

- b. Encourage walking and bicycling activities, especially walking to and from jobs, thus reducing automobile dependency and demands upon the transportation system
- c. Promote development designs and land use arrangements that save energy
- d. Provide greater opportunities for variety in urban experiences for pedestrians
- e. Encourage greater social interaction within communities
- f. Permit the adaptive reuse of existing structures and the preservation of older buildings

Chapter 24, Article 1, Section 6 relates to identification of areas, sites, and structures of historic significance and states that, “adjacent development shall complement registered properties with appropriate building facades, setbacks, scale, heights and compatible uses.” Accordingly, new buildings near historic properties, including transit stations, will need to be designed to be consistent with the guidelines above. This will likely reduce the TOD potential in historic areas such as Chinatown. The January 2011 Programmatic Agreement (PA) states that TOD cannot preempt the application of state and federal historic preservation laws such as Hawai‘i Revised Statutes (HRS) Chapter 6E, *Historic Preservation*, and Section 106 of the NHPA. With regard to TOD, the PA also states that an architectural historian shall be provided by the City to ensure the consideration of historic preservation in TOD and other development projects along the corridor (Stipulation I.G).

Chapter 24, Article 1, Section 7 discusses identification of public thoroughfares, highways, and streets. This section states, “planned improvements include exclusive right-of-way for at-grade and grade-separated public transit. The descriptions of the planned facilities are not to be interpreted as precise descriptions or exact locations, and the nature and location of these facility systems are to be interpreted flexibly to the degree necessary to ensure reasonable implementation.” This shows support for the Project, and two Development Plans (‘Ewa and Central O‘ahu) show station locations with higher density, mixed land uses surrounding the station.

1.3 City and County of Honolulu Special Management Area (Chapter 25)

Special Management Area (SMA) guidelines are established statewide in §205A-26 of Hawai‘i Revised Statutes. However, SMA guidelines are independently implemented by each county according to their own ordinances and rules. Chapter 25 of the Revised Ordinances of Honolulu establishes guidelines for SMA development on the Island of O‘ahu. This chapter designates special controls on development within an area along the shoreline as a means of preventing permanent loss of valuable resources and

ensuring that adequate public access is provided to publically owned beaches, recreation areas, and natural reserves.

Section 25-1.3 provides a definition of the uses that are considered “development” (thus requiring special permits), including the following:

- Change in the density or intensity of use of land, including but not limited to the division or subdivision of land
- Construction, reconstruction, demolition, or alteration of the size of any structure.

The following uses are not considered “development” in the sense that construction would require an SMA permit:

- Construction of a single-family residence that is not part of a larger development
- Repair or maintenance of roads and highways within existing rights-of-way
- Zoning variances, except for height, density, parking, and shoreline setback

Section 25-3.2 establishes review guidelines to be used by the City Council or its designated agency for review of developments proposed within SMAs.

According to subsection (b), no development shall be approved unless the City Council has first determined the following:

- The development will not have any substantial, 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 substantial adverse effect and the elimination of planning options.
- 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 Project received an SMA permit in January 2011. Any developer undertaking TOD in applicable station areas will be required to prove that such development is consistent with the General and Development Plans and that any environmental effects have been minimized. Consistent with HRS Chapter 205A-25(3) the Project “shall seek to minimize where reasonable any development which would substantially interfere or detract from the line of sight toward the sea from the state highway nearest the coast.”

1.4 City and County of Honolulu 2005 Subdivision Rules and Regulations

The Subdivision Rules and Regulations, adopted in June 1973, standardize and control the subdivision and consolidation of land as a means of:

- Implementing the General Plan and Development Plan

- Promoting good civic planning and design to ensure an arrangement of lots, streets, utilities, and other features as to achieve an orderly layout and efficient use of land
- Coordinating street improvements with relation to existing and planned street and highway systems and ensuring adequate provisions for traffic control, traffic safety, water supply, sewage drainage, and electrical and other utility lines

1.4.1 Subdivision Street Standards

The Subdivision Rules and Regulations were updated on June 1, 2001, with revised subdivision street standards. These standards apply to subdivisions, roadway master plans, and extensions or expansions to existing roadways. They include requirements regarding right-of way widths and street and sidewalk design for arterial, collector, and local streets. The street standards, including additional detail provided in Appendix A (adopted December 2000), of the City and County of Honolulu's 2005 Subdivision Rules and Regulations, are partially supportive of transit and TOD. The positive features include the following:

- Requirements for sidewalks in virtually all cases
- Narrower lane widths (down to 10 feet) to encourage slower traffic speeds
- Bike lanes on arterials and some collector streets
- Planter strips for landscaping and street trees
- On-street parking for collector and local streets

The following aspects of the standards are not transit- or pedestrian-oriented:

- Current standards do not limit block lengths or perimeter distances, thereby inhibiting pedestrian circulation
- There are no walkway connection requirements to enhance pedestrian/ bike connectivity where long blocks are present
- The use of cul-de-sacs is not discouraged while the use of an interconnected street grid system is limited, resulting in increased local vehicular traffic and inadequate pedestrian and bicycle circulation

1.5 Hawai'i Revised Statutes Chapter 205A – Coastal Zone Management Part II Special Management Area

The objectives and policies of the Coastal Zone Management (CZM) program are defined in §205A-2 and include the following:

- Providing coastal recreational opportunities accessible to the public
- Protecting, preserving, and where desirable, restoring those natural and manmade historic and prehistoric resources in the CZM area that are significant in Hawaiian and American history and culture
- Protecting, preserving, and where desirable, restoring or improving the quality of coastal scenic and open space resources
- Improving the development review process, communication, and public participation in the management of coastal resources and hazards

- Stimulating public awareness, education, and participation in coastal management

SMA guidelines are established statewide in §205A-26. However, as stated previously, SMA guidelines are independently implemented by each county according to its own ordinances and rules. See Revised Ordinances of Honolulu, Chapter 25 (above) for a discussion of O'ahu's requirements.

A permit is required before any development in an SMA can begin. All development in the SMA is subject to reasonable terms and conditions in order to ensure that: (1) adequate access to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with conservation principles; and (2) adequate and properly located public recreation areas and wildlife preserves are reserved.

Additionally, no development shall be approved unless the authority has first determined the following:

- The development will not have any substantial adverse environmental or ecological effect, except as such adverse effect is minimized to the extent practicable and clearly outweighed by public health, safety, or compelling public interests. Such adverse effects 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 substantial adverse effect, and the elimination of planning options.
- The development is consistent with the objectives, policies, and SMA guidelines of this Chapter and any guidelines enacted by the legislature.
- The development is consistent with the County General Plan and zoning. Such a finding of consistency does not preclude concurrent processing where a General Plan or zoning amendment may also be required.

As stated previously, the Project received an SMA permit in January 2011. Future TOD in applicable station areas will require a separate SMA permit.

1.6 State of Hawai'i Kaka'ako Community Development District

The State of Hawai'i, Hawai'i Community Development Authority (HCDA), has jurisdiction over the Kaka'ako planning area, making it a unique regulatory situation along the study corridor. In 1976, the State Legislature created the HCDA to plan for and revitalize urban areas that were determined to be underused and deteriorating, but with the potential, once redeveloped, to address the needs of Hawai'i's people and provide economic opportunities for the State. Kaka'ako was the first Community Development District, recognized for its potential for increased growth and development and its economic importance to Honolulu as well as to the State. Lawmakers found that Kaka'ako was significantly underdeveloped and underutilized relative to its central location in urban Honolulu. The Legislature foresaw that the redevelopment of Kaka'ako would offer tremendous opportunities to address

the need for more housing, parks, and open areas, as well as new commercial and industrial space near Downtown Honolulu. The Mauka Area Rules and Plan were adopted in 1982 to guide redevelopment efforts within the area.

1.6.1 Hawai'i Administrative Rules §15-22 Mauka Area Rules (Unofficial Compilation June 2005)

The Legislature authorized the HCDA to create a community development plan for the Kaka'ako District. The "unofficial compilation" used for this review is based on amendments as of June 1, 2005, to the Mauka Area Rules. The rules recommend a mixed-use district where industrial, commercial, residential, and public uses may coexist compatibly in a vertical and horizontal mix within a single development lot. The Mauka Area Rules establish building heights, setbacks, and yard requirements.

Section 15-22-30 establishes three mixed-use land use zones within the mauka area, as shown in Table 3.

Section 15-22-67 establishes off-street parking requirements. According to Section 15-22-67 (c) (5), all planned developments shall provide parking areas located within a structure. The structure shall contain a roof and walls on at least three sides. According to (c) (6), base zone development may have open or uncovered parking at grade. According to (g), a conditional use permit for joint use or off-site parking facilities may be granted. Loading zones are to be provided off-street, either within the building or on the lot.

Section 15-22-71 states that public or private mid-block pedestrian or bicycle circulation paths may be required where appropriate in conjunction with development projects. This requirement is supportive of the Project and TOD by encouraging pedestrian activity.

Section 15-22-110 establishes guidelines for planned developments. According to part (d), "A further purpose of this subchapter is to provide a method whereby land in any of the three mixed-use zones may be designed and developed as an integrated, multi-decked structure for mixed-use purposes. This planned development permit method will provide more open space, light, air, pedestrian facilities, parking, and more efficient use of land for mixed-use purposes."

Table 3: Mauka Area Land Use Zones

Land Use Zone	Summary	Evaluation
Mixed-Use Zone: Commercial Emphasis	The primary emphasis of this area is to develop a predominantly commercial, multi-storied area while also supporting a wide variety of housing types with a mixture of age groups, incomes, and family groups. Industrial uses should be located within appropriate areas provided they meet reasonable performance standards. A variety of uses are allowed within this zone, including, but not limited to, multi-family dwellings, schools, day care, convenience and service uses, parking garages, and industrial and manufacturing uses.	This zone and many of the suggested land uses (i.e., multi-family dwellings and commercial uses) are supportive of the Project and TOD. Industrial and manufacturing uses and off-street parking are less supportive of TOD.
Mixed-Use Zone: Residential Emphasis	The primary emphasis within this zone shall be multi-family residential and multi-storied uses, which will support a variety of housing types with a mix of age groups, incomes, and family groups. Industrial uses should be located within appropriate areas provided they meet reasonable performance standards. A variety of uses are allowed within this zone, including, but not limited to, multi-family dwellings, schools, day care, convenience and service uses, parking garages, and industrial and manufacturing uses.	Similar to the Commercial Emphasis Zone, this zone and many of the suggested land uses are supportive of the Project and TOD. However, industrial and manufacturing uses and off-street parking is less supportive of TOD.
Mixed-Use Zone: Residential A Emphasis	The primary emphasis within this zone shall be multi-family residential and multi-storied uses, which will support a variety of housing types with a mix of age groups, incomes, and family groups. Unlike the other Residential Emphasis Zone, industrial uses are NOT allowed within this zone. Additionally, the amount of commercial uses is restricted.	While this zone is more supportive of TOD since it does not allow industrial uses, the restriction on commercial uses could reduce TOD potential.

1.6.2 Kaka’ako Mauka Area Plan

The Kaka’ako Mauka Area Plan (Unofficial Compilation, June 2005) contains the development plan for the Kaka’ako area, including recommendations for land uses, the transportation network, open space, and utilities. The “Unofficial Compilation” used for this review reflects amendments to the 1982 plan as of June 1, 2005. The sections of the plan that could affect the Project and TOD are summarized below.

Mix of Land Uses

There would be both a vertical and horizontal mix of uses within the Kaka’ako area. The typical vertical mix in the Mauka Area would have light and service industrial, commercial, and parking on the first floor of a building; commercial

and parking on the next two to four floors; and residential and office commercial on upper floors. Industrial uses would have the ground floor location they require, and several floors of parking and commercial uses would separate them from residential uses. However, industrial uses on the ground floor could reduce pedestrian activity, which could hinder integration of the Project and TOD by reducing convenient pedestrian connectivity to stations.

Presently, in some areas, the Mauka Area has an excessive amount of land allocated to streets in relation to developable land area as a result of a proliferation of small lots and blocks. Street closures and land consolidations are proposed in some areas with small lots and blocks, thus making them available to support larger and more cost-efficient developments. Where streets are closed, a “superblock” can be created, which is larger than the typical block in the area, is easier to develop, and lends itself to mixed-use development. Midblock pedestrian facilities would be incorporated into these developments. The degree to which these would be supportive of TOD depends on their layout and scale.

Transportation and Parking

All street and roadway improvements shall be guided by encouraging increased use of public transportation and pedestrian traffic while discouraging excessive automobile traffic throughout the Mauka Area. Additionally, existing and future streets and roadways shall be constructed and maintained to meet appropriate standards.

According to the Mauka Area Plan, parking will be conveniently located throughout the area, facilitating traffic movement and eliminating the inconveniences caused by haphazard and illegal parking. Parking for private vehicles shall be provided along designated streets, on-site in all areas, and within public parking garages.

The plan states that on-street parking shall be discouraged as much as possible, especially on all major streets, which shall be reserved for vehicle lanes, bus turnout lanes, and bikeways. On-street parking shall be permitted only on designated streets and until adequate off-street parking is available. Additionally, the plan states that all private development should provide on-site parking.

On-street parking is important to buffer pedestrians from roadway traffic. Additionally, requiring every private development to provide on-site (i.e. off-street) parking reduces land available for other uses and further reinforces an automobile-oriented lifestyle. There is no reference to shared use of parking within the Mauka Area Plan. These features reduce TOD potential and integration of the Project.

Transit

The plan states that the City bus system will provide the major form of public transportation for trips to and from the Mauka Area, although it also

references the “Honolulu Area Rapid Transit” project. The plan recommends improvements to the bus system, including, but not be limited to, increasing the level of service, relocating bus routes, and other modifications to meet increasing demands as development and roadway improvements occur in the Mauka Area. Shelters and benches shall be required at all bus stops. Additionally, the City bus system shall be augmented by an at-grade shuttle bus system designed primarily for internal Mauka Area trips. These recommendations are supportive of both the Project and TOD.

Pedestrian Facilities

According to the plan, improvements to the pedestrian circulation system shall consist of sidewalks along all improved public streets, pedestrian malls, "mid-block" pedestrian facilities, and elevated pedestrian facilities with above-grade crossings connecting superblock developments. The pedestrian circulation system will link residential areas, public transportation facilities, and public parking facilities, with destination areas, such as parks, shopping areas, and work areas within and outside the Mauka Area. Connections between grade-level and the upper-level pedestrian facilities shall also be provided in every block.

The plan states that sidewalks should be a minimum of 8 feet wide, although narrower sidewalks may be allowed if there is a provision of street trees, additional landscaping, seating, and other pedestrian amenities. However, sidewalk widths cannot be less than 6 feet. Wider sidewalks are recommended in areas with high pedestrian activity, such as near bus stops.

The pedestrian recommendations in this plan are supportive of the Project and TOD.

1.6.3 Mauka Area Plan Working Draft (May 2007)

In 2005, HCDA began revising the Mauka Area Plan and Rules. At the time this review was conducted, a working draft was available on the HCDA website. Project objectives for the revision of the plan include many features that are supportive of the Project and TOD, including the following:

- Develop the plan around key Smart Growth concepts, such as:
 - Pedestrian-friendly urban form, including structures built at human scale and defined public spaces
 - Neighborhoods defined by centers, edges, and a mix of uses
 - Streets designed to accommodate multiple modes of transportation and to balance the need for access, circulation and mobility
 - Street patterns that create a network and alternate travel routes throughout the District
- Promote mixed-use neighborhoods with a mix of housing opportunities
- Build on existing assets and planned investments, including the proposed high capacity transit line

The Mauka Plan principles discussed include features that support the Project and TOD, such as the following:

- Developing urban village neighborhoods where people can live, work, shop, and recreate. They will be self-sustainable and environmentally sensitive neighborhoods. They will contain a mix of land uses, densities, heights, and building types.
- Creating great places where people can congregate and recreate.
- Making connections via walking, bicycling, and transit. A variety of routes for vehicles, bicycles and pedestrians is proposed to distribute traffic and provide alternative ways to navigate through and around this district. Additionally, the report references the Project and the two stations located within the Mauka Area.

The working draft also states that while not every street needs to have wide sidewalks designed to attract large numbers of pedestrians, all streets should provide safe, pleasant, human-scaled walking conditions. Additionally, appropriate design of the pedestrian realm includes not just the sidewalks and crosswalks, but also the design of buildings along the street. The report recommends that low-rise building elements are sited next to the sidewalk to enclose the street space, with pedestrian entries, windows, and other openings at grade level to promote convenient access and visual interest and activity along the sidewalk. Sidewalks should be shaded by street trees at the curb line and/or building overhangs, canopies, and arcades. These recommendations are necessary to create a pedestrian-friendly environment, which supports both the Project and TOD.

Additionally, the following recommendations are included in the working draft:

- Supporting TOD. The report recommends concentrating residences and businesses around a transit station as a means of creating the potential for active urban spaces. It states that a reliable high capacity transit system, along with good pedestrian facilities, a range of housing choices, and retail uses and services will enable Kaka'ako residents to reduce dependence on the automobile. The working draft also references the City's TOD ordinance and states that the City standards for TODs "will be incorporated into the Mauka Area Plan as an added overlay upon completion of the City's TOD development process."
- Developing a fine-grained network of walkable streets and pathways and developing key streets as "pedestrian supportive" environments by widening the pedestrian realm; providing street trees and, where possible, on-street parking; and mandating active uses in street-front buildings.
- Connecting pedestrian paths across major thoroughfares. The working draft recommends modifying Ala Moana Boulevard and Ward Avenue to include a center landscaped median to provide refuge for pedestrians, wider sidewalks, and more favorable crosswalk design at key intersections.

- Reducing the frequency and width of driveway curb cuts. Each curb cut for a driveway eliminates at least one potential on-street parking or loading space.
- Providing on-street parking on pedestrian-oriented streets and loading on service streets. On-street parking is an asset to a pedestrian-oriented street. To optimize the benefits of on-street parking, driveways should be prohibited or strongly discouraged on pedestrian streets. Loading spaces, on the other hand, should be on designated service streets where driveways to parking garages and loading docks and service entries are also located.
- Providing public parking facilities in Central Kaka'ako. In this area, many service businesses generate a greater demand for parking and loading spaces than can be accommodated on the small lots on which they are located.
- Encouraging shared-use parking facilities. Mixed-use development increases the potential for shared use of parking.
- Counting parking in excess of off-street parking requirements as floor area. Many Kaka'ako development projects provide parking well in excess of minimum requirements for market reasons. In a pedestrian- and transit-oriented district such as Kaka'ako, the Mauka Plan shall discourage excessive parking supply by creating a market disincentive.
- Discouraging long-term use of land for large, surface parking lots. The working draft recognizes that a large vacant property is usually in a temporary holding pattern until market conditions are conducive to redevelopment. During this interim period, vacant property could be used for off-street parking because it provides the owner with an economic return while meeting a demand for parking generated by nearby uses. Nevertheless, if parking use remains over a period of years, the surface parking becomes a visual blight and creates an activity vacuum along the street-front, which tends to discourage investment in redeveloping neighboring properties. To prevent this from happening, permits for surface parking lots with a capacity or area above a certain threshold should be granted for only a limited amount of time (for example, a maximum of five years). After that period, the permit may be renewed only if additional landscaping and some active street-front uses are provided on the site.

Revision of the Mauka Area Rules will immediately follow the adoption of the revised Mauka Area Plan. The Mauka Area Rules will contain specific definitions and standards for uses and development (a form-based code), more detailed design guidelines for project review, and procedures for reviewing and approving projects. Key elements will be as follows:

- Definitions and standards for uses, build-to lines, building volumes and floor area, pedestrian and vehicular access, parking and loading, and accessory building components, such as signs, mechanical equipment, and service areas
- Design guidelines for the treatment of building facades

- Standards and design guidelines for the provision of ground-level open space and arcades

The Mauka Area Plan Working Draft is highly supportive of the Project and TOD. Although still in draft form, the Plan references the two rail transit stations that will be located within the Kaka'ako development area and supports TOD around those stations. It also seems to reverse many of the features of the existing Mauka Area Plan and Rules that were less supportive of the Project and TOD. Formal adoption of the revised Mauka Area Plan and Rules is expected in Summer 2011.

This section analyzes existing zoning, land uses, and planned development around each fixed guideway station. Using the best practices described below, development and special area plans were reviewed and ranked high, moderate, low, or unknown, according to their level of support for the best practices, the Project, and potential TOD. (For more information, see Appendix J of the *Honolulu High-Capacity Transit Corridor Project Final Environmental Impact Statement*, June 2010, which includes an evaluation of land use plans, policies, and controls and evaluates whether the Project is supportive, not supportive, or not applicable.)

2.1 Best Practices

Best practices of station interface planning are intended to help guide the design and implementation of the Project in a manner that helps maximize its effectiveness as an investment in the movement of people and community building. These best practices are consultant recommendations and have been used in other applications relating to rail transit development. The seven key best practices recommended for Honolulu are as follows:

1. **Establish station as the heart of the community**—Memorable transit stations can serve as local landmarks and provide a sense of civic identity.
2. **Connect neighborhoods with transit**—Unique, complimentary station districts should be linked to create a greater, more diverse transit-line community.
3. **Create a pedestrian environment**—Since all transit riders are pedestrians at some point in their trip, station areas must give them priority in terms of safety, experience, and convenience.
4. **Tame traffic**—Motor vehicles must “behave” in station areas; street and drop-off design should help achieve multiple urban design objectives as well as accommodate and give priority to other modes.
5. **Balance parking**—Parking facilities should not separate transit from the surrounding community and, if properly designed and located, can help support the success of station area development.
6. **Create partnerships**—In return for the public investment made in transit improvements, local partnerships help maintain success of the transit system and the communities it serves.
7. **Complement community objectives**—If properly planned, transit can help leverage and support the development vision and economic vitality of each station community.

These best practices serve as the basis for evaluating City ordinances for land use and development, community development plans, and relevant State ordinances for Special Management Areas and Kaka'ako.

2.2 East Kapolei Station

2.2.1 Existing Zoning and Land Uses

Current uses and densities surrounding this station are very low and not transit supportive. However, zoning around the station area has recently been changed to a more transit supportive Business Mixed Use (BMX-3) and Apartments (A-2) while some areas near the station remain in a Restricted Agricultural (AG-1) zone (Figure 1 and Figure 2). Additionally, Figure 2 shows an Abutilon Contingency Reserve Area near the East Kapolei Station. A Habitat Conservation Plan is already in place for this area, which includes mitigation measures related to the construction of developments in the area.

2.2.2 Future Conditions based on 'Ewa Development Plan

The land use map located within Appendix A of the 'Ewa Development Plan shows that the East Kapolei Station coincides with the location of a transit node. Under this plan, the area immediately surrounding the station will have high density residential and commercial development while outlying areas will contain lower and medium density residential. These land uses are highly supportive of the Project and TOD.

2.2.3 Evaluation based on Best Practices

Table 4 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

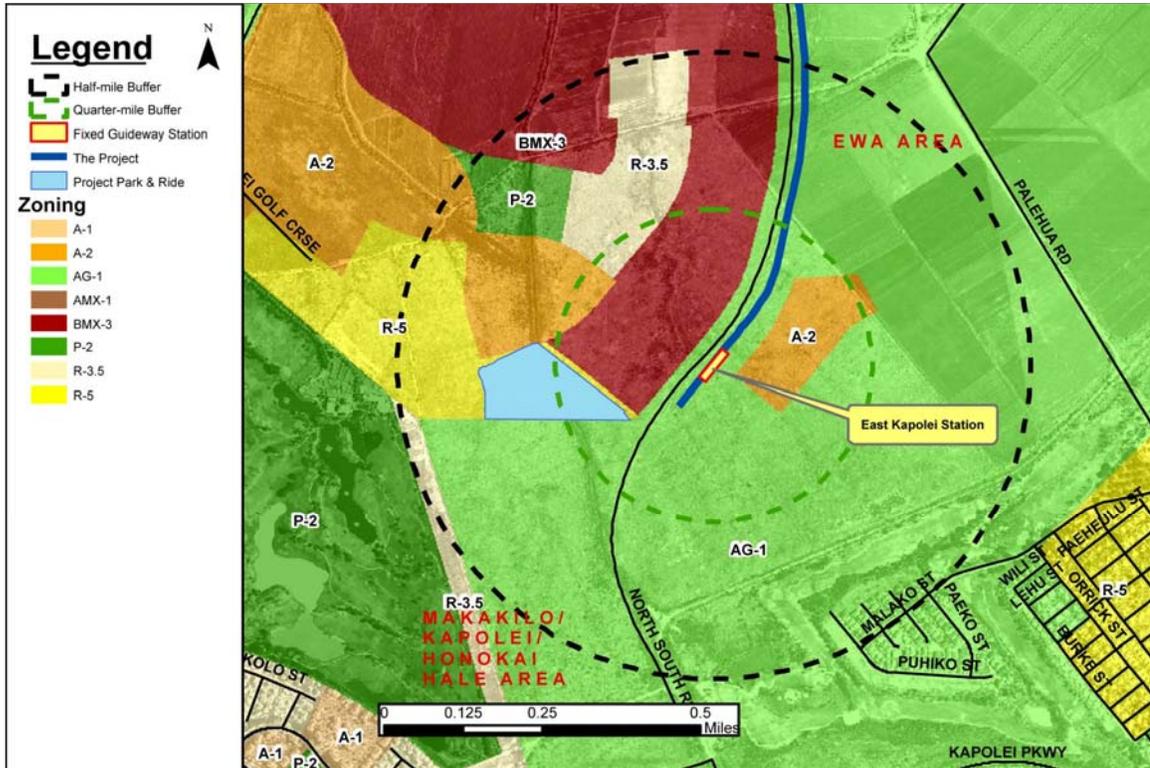


Figure 1: East Kapolei Station Zoning Map

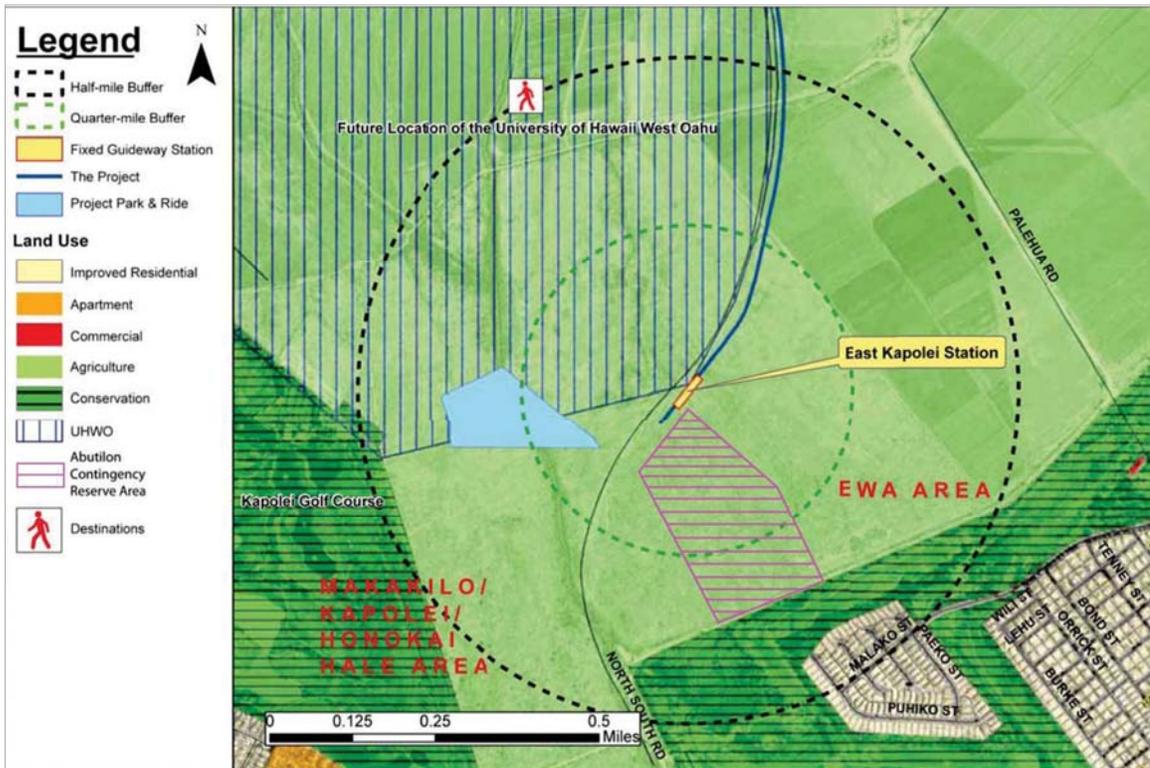


Figure 2: East Kapolei Station Land Use Map

Table 4: East Kapolei Station Evaluation based on Best Practices

Best Practice	Summary of Plan	Degree of Support for Transit and TOD
Station at the heart of the community	A mix of high density residential and commercial uses is planned to be centered at nodes along a transit corridor to support efficient use of buses and other forms of transit.	High
Connecting neighborhoods with transit	Master planned communities will be designed or redeveloped to support pedestrian and bicycle use within the community and transit use outside the community. In addition, the plan states that most residences should be within a five-minute (or one-quarter mile) walking distance of a proposed bus route, unless local topography makes such a requirement impractical.	High
Creating pedestrian environments	The plan states that communities will be designed to support pedestrian and bicycle use within the community. In addition, the public facilities map, included in Appendix A of this plan, shows a proposed bicycle path along North-South Road near the station. This path will connect the station to numerous residential developments along the length of this roadway and provide a safe environment for bicyclists.	High
Taming traffic	One objective of the plan is a reduction in automobile use. The plan proposes to do this through the use of more traditional “grid” patterns for streets in new developments and by providing facilities for pedestrians, bicycles, and transit. In addition, the plan recommends revising standards to support and improve pedestrian and bicycle travel.	Moderate; the plan does not identify what traffic calming measures would be used.
Balancing parking	The plan recommends visual screening of parking areas and states that standards for public streets within residential and commercial areas should be revised to support and improve on-street parking.	Moderate, it is unclear what revisions would be made to the standards. Additionally, shared-use parking is not mentioned.
Creating partnerships	The plan states that development will be phased and public-private infrastructure and project development will be encouraged.	High
Complementing community objectives	An urban growth boundary was established for the ‘Ewa Plain to focus development while preserving agricultural areas. The ‘Ewa Development Plan supports focused development and preservation of open space. In addition, the plan places emphasis on transit and transit-supportive development.	High

2.3 UH West O‘ahu Station

2.3.1 Existing Zoning and Land Uses

Current uses and densities are very low and not transit supportive. Until recently, the station and park-and-ride lot were located completely within the Restricted Agricultural (AG-1) zone (Figure 3 and Figure 4). However the zoning has recently changed to Business Mixed Use (BMX-3) in some areas near the station, while much of the area remains AG-1. In addition, land near the station is designated by the State Land Use Commission as Agricultural. A State-jurisdiction District Boundary Amendment (DBA) and City and County rezoning will be required to include these lands within the Urban District and proceed with planned development.

2.3.2 Future Conditions based on ‘Ewa Development Plan

A new University of Hawai‘i campus is planned one-quarter to one-half mile west of the station. The land use map in Appendix A of the ‘Ewa Development Plan shows that the UH West O‘ahu Station coincides with the location of a transit node. The area immediately surrounding the station will be high density residential development with a community commercial center while outlying areas will be low and medium density residential. These land uses, as well as the potential ridership from the UH West O‘ahu campus, are very supportive of the Project and TOD.

2.3.3 Evaluation based on Best Practices

Table 5 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

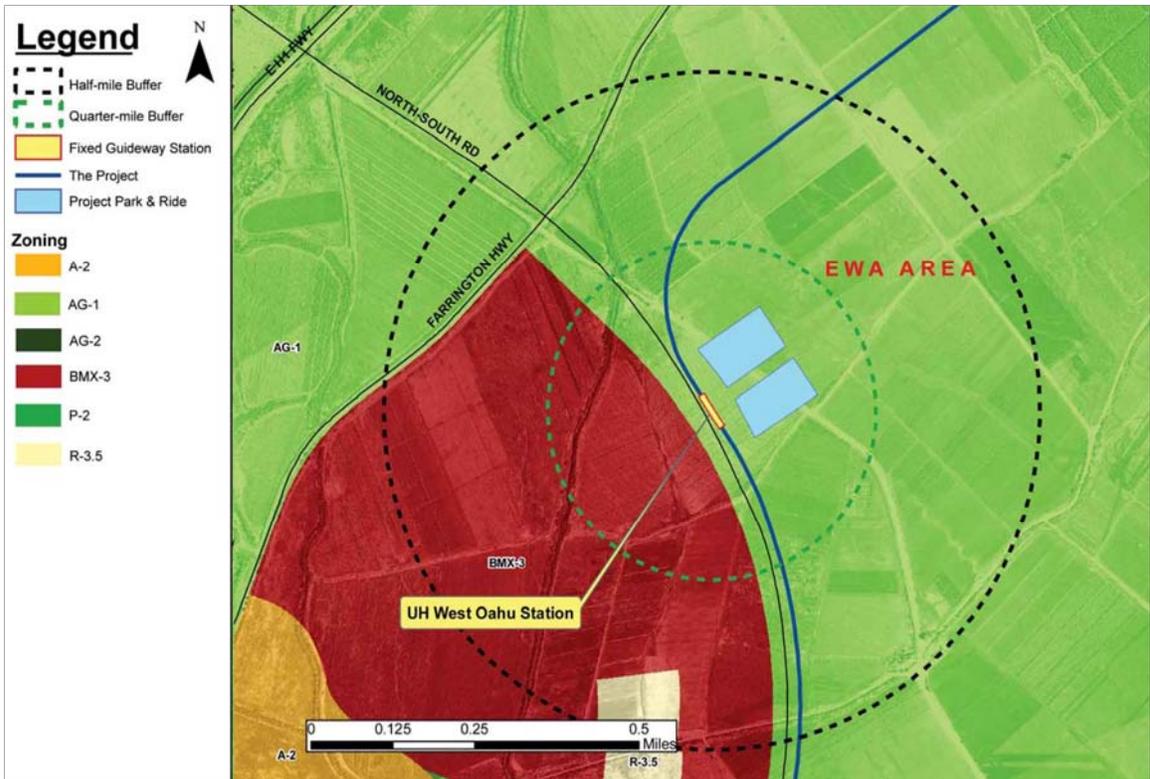


Figure 3: UH West O'ahu Station Zoning Map

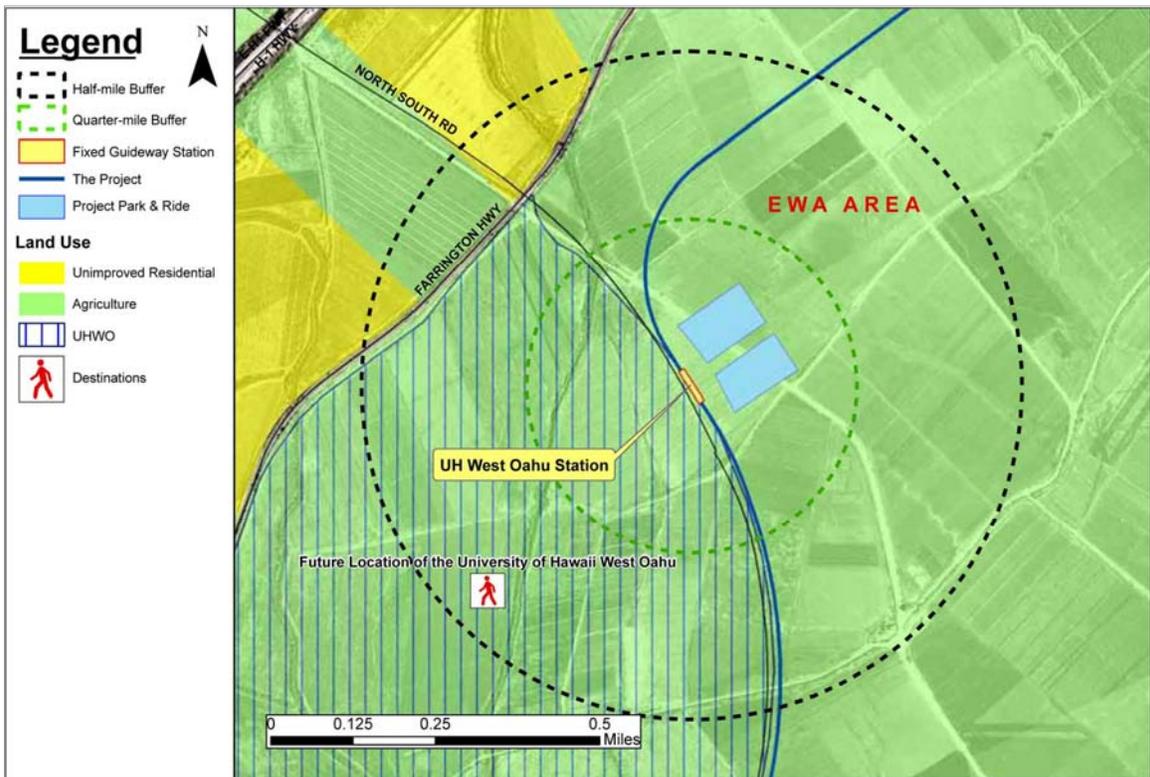


Figure 4: UH West O'ahu Station Land Use Map

Table 5: UH West O‘ahu Station Evaluation based on Best Practices

Best Practice	Summary of Plan	Degree of Support for Transit and TOD
Station at the heart of the community	According to the ‘Ewa Development Plan, high density residential and commercial uses will be centered at nodes along a transit corridor to support efficient use of buses and other forms of transit.	High
Connecting neighborhoods with transit	Master planned communities will be designed or redeveloped to support pedestrian and bicycle use within the community and transit use outside the community. In addition, the plan states that most residences should be within a five-minute (or one-quarter mile) walking distance of a proposed bus route, unless local topography makes such a requirement impractical.	High
Creating pedestrian environments	The plan states that communities will be designed to support pedestrian and bicycle use within the community. In addition, the public facilities map, included in Appendix A of this plan, shows a proposed bicycle path along North-South Road near the proposed station. This path will connect the station to numerous residential developments and the UH West O‘ahu campus along the length of this roadway and provide a safe environment for bicyclists.	High
Taming traffic	One objective of the plan is a reduction in automobile use. The plan proposes to do this through the use of more traditional “grid” patterns for streets in new developments and by providing facilities for pedestrians, bicycles, and transit. In addition, the plan recommends revising standards to support and improve pedestrian and bicycle travel.	Moderate; the plan does not identify what traffic calming measures would be used.
Balancing parking	The ‘Ewa Development Plan recommends visual screening of parking areas and states that standards for public streets within residential and commercial areas should be revised to support and improve on-street parking.	Moderate, it is unclear what revisions will be made to the standards. Additionally, shared-use parking is not mentioned.
Creating partnerships	The plan states that development will be phased and public-private infrastructure and project development will be encouraged.	High; with the presence of the UH West O‘ahu campus and development by D.R. Horton, coordination is important to support the Project and TOD.
Complementing community objectives	An urban growth boundary was established for the ‘Ewa Plain to focus development while preserving agricultural areas. The ‘Ewa Development Plan supports focused development and preservation of open space. In addition, the plan places emphasis on transit and transit-supportive development.	High

2.4 Ho‘opili Station

2.4.1 Existing Zoning and Land Uses

Current uses and densities are very low and not transit-supportive. The station is located within the Restricted Agricultural (AG-1) zone (Figure 5 and Figure 6). Land surrounding the station is designated by the State Land Use Commission as Agricultural. A District Boundary Amendment (DBA) with a subsequent rezoning to urbanize the area is anticipated and will be required to include these lands within the Urban District.

2.4.2 Future Conditions based on ‘Ewa Development Plan and Ho‘opili Master Plan

This station area does not coincide with any transit nodes shown on the land use map in Appendix A of the ‘Ewa Development Plan. According to that map, the area around the station will be low and medium density development; commercial areas are not planned near the station. However, this station is within the Ho‘opili Master Plan, which calls for a 1,600-acre TOD. When completed, the area is envisioned to include approximately 12,500 residences and 3.5 million square feet of retail and employment uses.

2.4.3 Ho‘opili Station: Evaluation based on Best Practices

Table 6 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

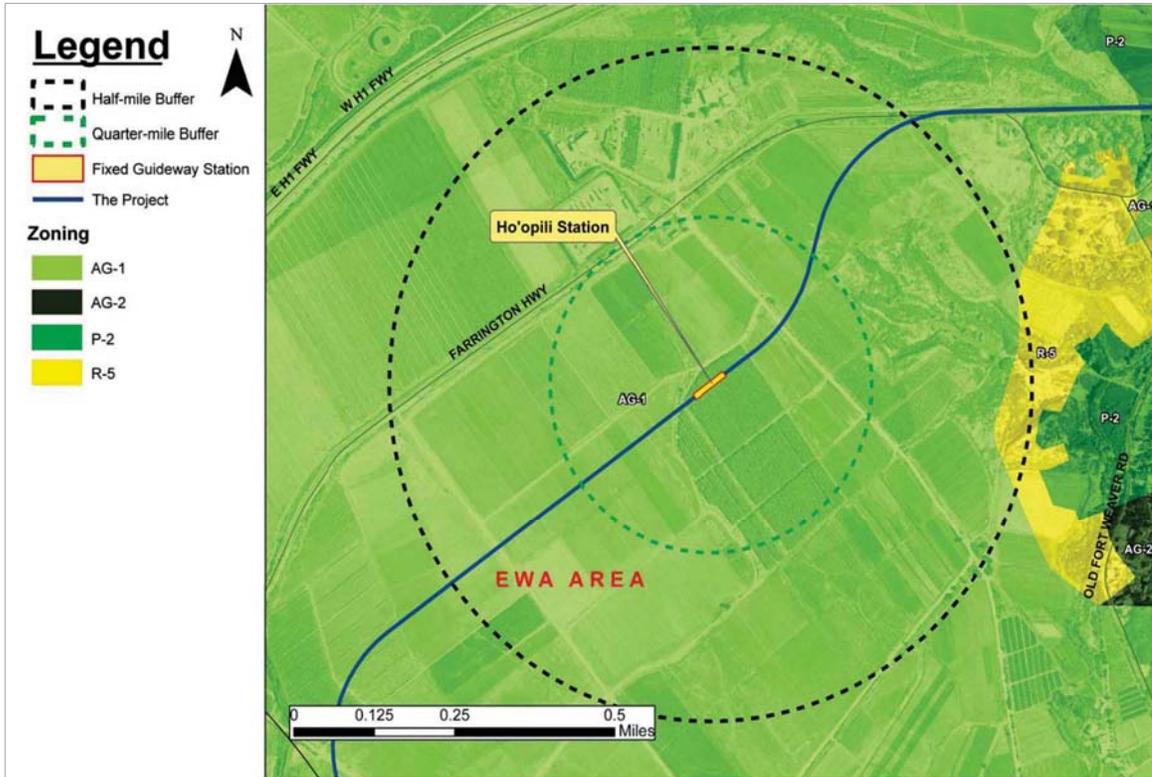


Figure 5: Ho'opili Station Zoning Map

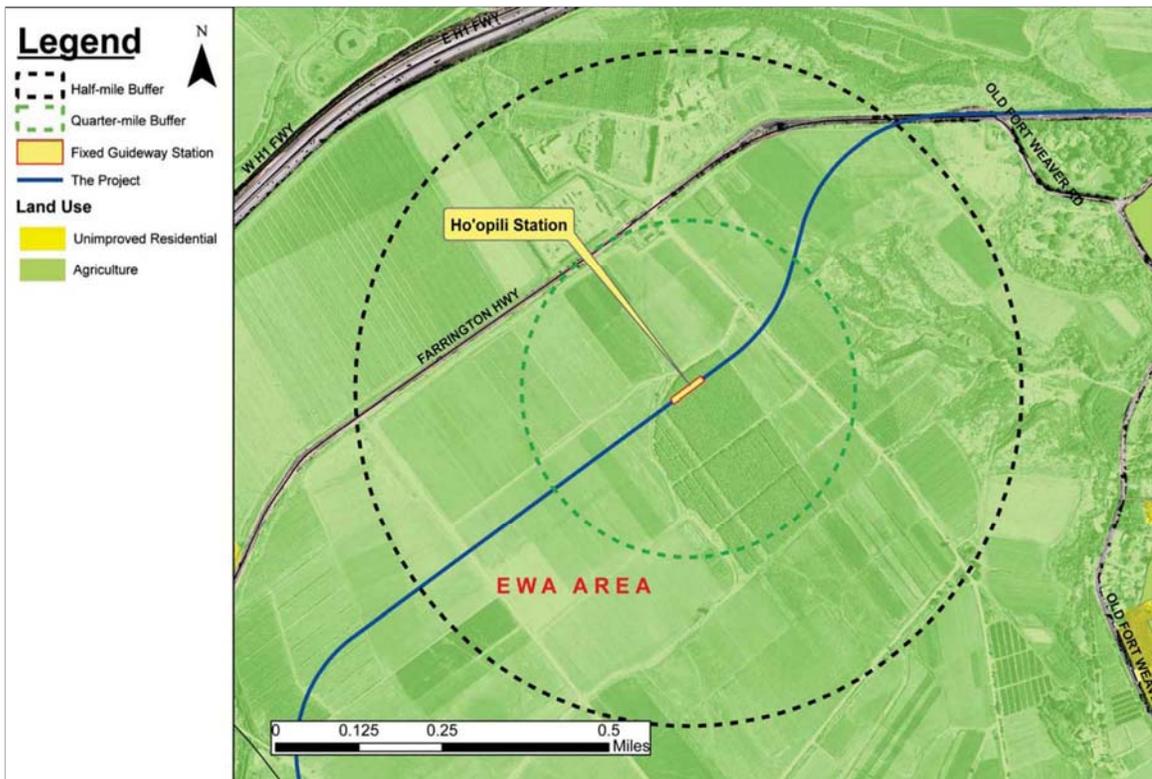


Figure 6: Ho'opili Station Land Use Map

Table 6: Ho‘opili Station Evaluation based on Best Practices

Best Practice	Summary of Plan	Degree of Support for Transit and TOD
Station at the heart of the community	The ‘Ewa Development Plan and Ho‘opili Master Plan are very supportive of public transit. However, the ‘Ewa Development Plan does not propose a transit node in this area. The Ho‘opili Master Plan acknowledges the possibility of a fixed guideway station within its development and states that an important element of transit will be “supportive and connecting bus service for the community.”	‘Ewa Development Plan: Moderate; low and medium density development is shown on the land use map for this area Ho‘opili Master Plan: High
Connecting neighborhoods with transit	According to the ‘Ewa Development Plan, master planned communities will be designed or redeveloped to support pedestrian and bicycle use within the community and transit use outside the community. As stated previously, the Ho‘opili Master Plan also acknowledges the importance of transit.	‘Ewa Development Plan: High Ho‘opili Master Plan: High
Creating pedestrian environments	The ‘Ewa Development Plan states that communities will be designed to support pedestrian and bicycle use within the community. However, the public facilities map, included in Appendix A of the ‘Ewa Development Plan, does not show any planned bicycle facilities along Farrington Highway. The Ho‘opili Master Plan states that the community is being designed to put pedestrians, not cars, first. The Master Plan also references the potential for a comprehensive network of bikeways that could connect to City and State facilities.	‘Ewa Development Plan: Moderate; specific locations for bicycle or pedestrian improvements should be shown Ho‘opili Master Plan: High
Taming traffic	One objective of both plans is a reduction in automobile use. The ‘Ewa Development Plan proposes to do this through the use of more traditional “grid” patterns for streets in new developments and by providing facilities for pedestrians, bicycles, and transit. In addition, the plan recommends revising standards to support and improve pedestrian and bicycle travel. It is unknown if or how the Ho‘opili Master Plan will tame traffic.	‘Ewa Development Plan: Moderate Ho‘opili Master Plan: Unknown Neither plan identifies what measures would be used to calm traffic.
Balancing parking	The ‘Ewa Development Plan recommends visual screening of parking areas and states that standards for public streets within residential and commercial areas should be revised to support and improve on-street parking. It is unknown what parking regulations might be imposed as part of the Ho‘opili development.	‘Ewa Development Plan: Moderate; it is unclear what revisions would be made to standards. Ho‘opili Master Plan: Unknown
Creating partnerships	The ‘Ewa Development Plan states that development will be phased and public-private infrastructure and project development will be encouraged. There is no reference to partnerships within the Ho‘opili Development Plan.	‘Ewa Development Plan: High Ho‘opili Master Plan: Unknown
Complementing community objectives	An urban growth boundary was established for the ‘Ewa Plain to focus development while preserving agricultural areas. The ‘Ewa Development Plan and Ho‘opili Master Plan support focused development and preservation of open space. In addition, both plans place emphasis on transit and transit-supportive development.	‘Ewa Development Plan: High Ho‘opili Master Plan: High

2.5 West Loch Station

2.5.1 Existing Zoning and Land Use

Commercial and industrial land uses currently surround the station area, and there are some residential areas farther from the station. The immediate station area is zoned Community Business (B-2) with some Preservation Zoning (P-2) and General Agricultural (A-2) zoning ('Ewa of Fort Weaver Road), and Intensive Industrial (I-2) zoning makai of the commercial area (Figures 7 and 8). The industrial zoning is inappropriate for TOD.

2.5.2 Future Conditions based on Central O'ahu Sustainable Communities Plan and Waipahu Neighborhood TOD Plan

This station location corresponds with a planned transit node, as shown in Appendix A of the Central O'ahu Sustainable Communities Plan. Land within one-quarter mile of the station will be medium density residential/ commercial mixed use. Farther from the station, land uses will be residential and low density apartment. Additionally, the City has created a Draft Waipahu Neighborhood TOD Plan, which shows the Farrington Highway and Leokū Street areas for future TOD.

2.5.3 Evaluation based on Best Practices

Table 7 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

Table 7: West Loch Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	Both plans include the creation of transit nodes around which moderate density residential and commercial uses will be centered. According to the Central O’ahu Plan: “A transit node does have a transit center at its core where passengers can park their cars, and wait in protective shelters...the node has shops, entertainment centers, restaurants, offices and residences within easy walking distance of the transit center.” According to the Waipahu Neighborhood TOD Plan, this area will have a transit plaza, infill mixed use, and retail development along Farrington Highway, and live/work buildings and affordable housing makai of Farrington Highway.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High Land is largely developed so the development of mixed uses may be limited.
Connecting neighborhoods with transit	According to the Central O’ahu Plan, communities in this area will also be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips outside the community. In addition, the plan states that street patterns and rights-of-way should be designed to accommodate bus service and make service convenient for as many households as possible. Master planned communities should have a circulation plan. As part of that plan, at least 85% of all proposed housing should be within one-quarter mile of a proposed transit stop. All commercial development with more than 1,000 square feet and all employment sites with more than 10 employees should be within one-eighth of a mile of a transit stop. Rights-of-way along transit routes should make provisions for bus shelters, pull-outs, and if applicable, park-and-ride facilities and/or future transit stations. The Waipahu TOD Plan states that express and local feeder buses will serve commuters from neighboring communities.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High
Creating pedestrian environments	Both plans also state that pedestrian and bicycle travel should be encouraged, particularly to reach neighborhood destinations. According to the Central O’ahu Plan, pedestrian pathways will be established between bus stops and the nearest commercial center. In addition, the plan states that major arterials should have separate bike paths, and major collectors should have bike lanes. Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle, and transit access. Providing a safe, convenient, and attractive pedestrian environment in the neighborhoods around the station areas is a major principle of the Waipahu TOD Plan.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Taming traffic	Traffic taming is included as part of the vision for the Central O'ahu area; however, specific traffic calming measures are not referenced. The Waipahu Neighborhood TOD Plan states that a transit boulevard will be created along Farrington Highway with through lanes, separated lanes for local traffic, wide sidewalks, and parking adjacent to the mixed-use buildings. The TOD Plan also states that traffic calming measures will be established throughout the area.	Central O'ahu Sustainable Communities Plan: Moderate; it is unknown what areas would have traffic calming or what those measures would entail. Waipahu Neighborhood TOD: High
Balancing parking	There are a few references to parking within the Central O'ahu Plan. Specifically, the plan states that parking areas should be screened and access should be from a collector street. According to the Waipahu Neighborhood TOD Plan, this area will have a consolidation of parking. Shared parking and parking districts are recommended. In addition, new and existing streets will be designed for on-street parking. The Waipahu TOD Plan also recommends a reduction in the required number of off-street parking spaces and establishment of parking maximums. Parking requirements are included in the plan.	Central O'ahu Sustainable Communities Plan: Low; no reference to regulating parking, on-street parking, or shared use of facilities. Additionally, the transit node definition includes provision of parking. Waipahu Neighborhood TOD: High
Creating partnerships	Partnerships are emphasized in the Central O'ahu Plan. For instance, the plan states that "public agencies will work with the community, including residents, businesses, developers, and landowners, to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population...Public-private mechanisms for financing infrastructure will be developed to support timely development of infrastructure..." The Waipahu TOD does not discuss the creation of partnerships.	Central O'ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: Low
Complementing community objectives	Both plans support transit and TOD. The Central O'ahu Plan established an urban community boundary to focus development and preserve agricultural lands and open space. The station is within this boundary. The plan states that Central O'ahu will be developed with a transportation system "which provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile." The Waipahu Neighborhood TOD Plan states that "the goal of Waipahu is to be a transit-oriented, connected community where residents can live, work, learn, shop and play."	Central O'ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High

2.6 Waipahu Transit Center Station

2.6.1 Existing Zoning and Land Use

The station is located in the Community Business (B-2) zone, with Intensive Industrial (I-2), Residential (R-5 and R-7.5), A-2 Apartment, and Preservation (P2) uses occurring around the commercial area (Figure 9 and Figure 10). According to the Waipahu Neighborhood TOD Plan, this area contains a mixture of uses (small retail centers, business service, single and multi-family residential, auto service, and civic uses) and a more fine-grained street and block network compared to the area near West Loch. A major bus transfer center exists one block mauka of the fixed guideway station. Business Mixed Use (BMX) zoning in the area may be more appropriate for transit and TOD.

2.6.2 Future Conditions based on Central O‘ahu Sustainable Communities Plan and Waipahu Neighborhood TOD Plan

This station will coincide with a planned transit node, as shown in Appendix A of the Central O‘ahu Sustainable Communities Plan. Land within one-quarter mile of the station will be medium density residential/commercial mixed use. Farther from the station, land uses will be residential and low density apartment. Additionally, the City has a Draft Waipahu Neighborhood TOD Plan, which shows the Farrington Highway and Mokuola Street area as a future TOD.

2.6.3 Evaluation based on Best Practices

Table 8 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

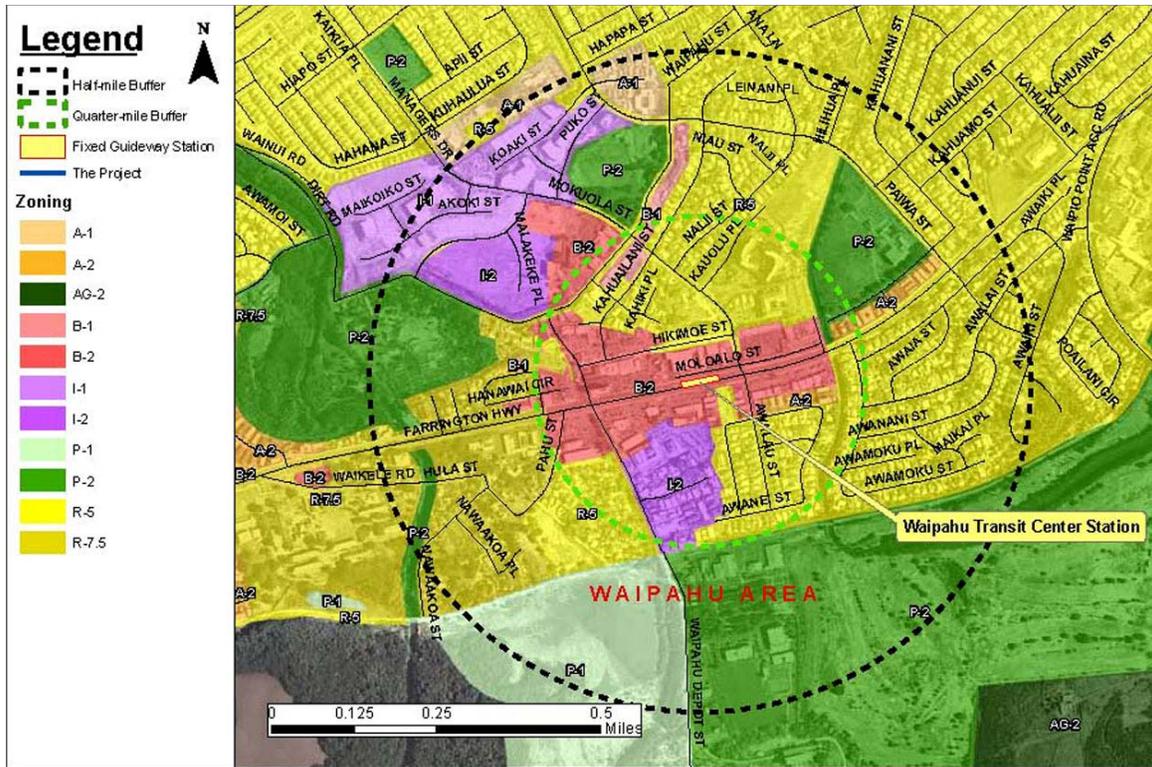


Figure 9: Waipahu Transit Center Station Zoning Map

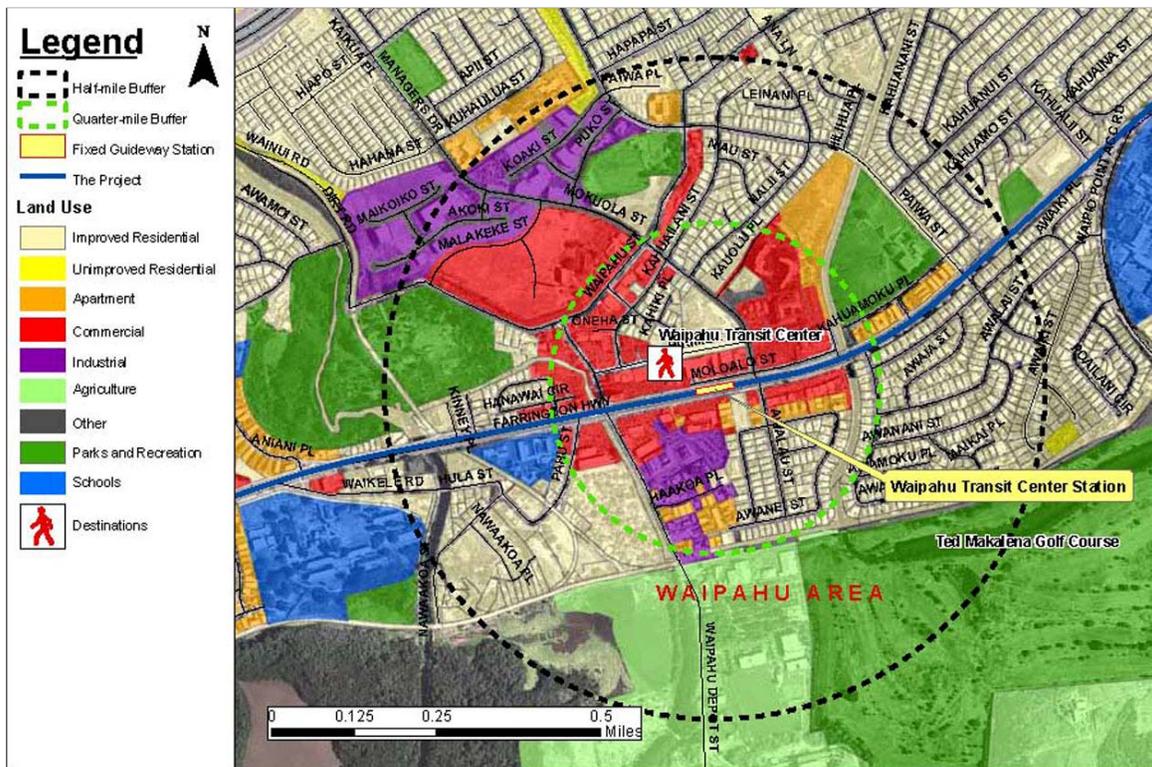


Figure 10: Waipahu Transit Center Station Land Use Map

Table 8: Waipahu Transit Center Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The Central O’ahu Plan recommends the creation of transit nodes around which moderate density residential and commercial uses will be centered. According to the Central O’ahu Plan: “A transit node does have a transit center at its core where passengers can park their cars, and wait in protective shelters...the node has shops, entertainment centers, restaurants, offices and residences within easy walking distance of the transit center.” According to the Waipahu Neighborhood TOD Plan, transit plazas are planned along Farrington Highway with infill multi-family housing and mixed use and retail.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High
Connecting neighborhoods with transit	The Central O’ahu Plan states that communities in this area will be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips outside the community. In addition, the plan states that street patterns and rights-of-way should be designed to accommodate bus service and make service convenient for as many households as possible. Master planned communities should have a circulation plan. As part of that plan, at least 85% of all proposed housing should be within one-quarter mile of a proposed transit stop. All commercial development with more than 1,000 square feet and all employment sites with more than 10 employees should be within one-eighth of a mile of a transit stop. Rights-of-way along transit routes should make provisions for bus shelters, pull-outs, and if applicable, park-and-ride facilities and/or future transit stations. The Waipahu TOD Plan states that express and local feeder buses will serve commuters from neighboring communities.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High
Creating pedestrian environments	Both plans also state that pedestrian and bicycle travel should be encouraged, particularly to reach neighborhood destinations. According to the Central O’ahu Plan, pedestrian pathways will be established between bus stops and the nearest commercial center. In addition, the plan states that major arterials should have separate bike paths, and major collectors should have bike lanes. Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle, and transit access. Providing a safe, convenient and attractive pedestrian environment in the neighborhoods around the station areas is a major principle of the Waipahu TOD Plan.	Central O’ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Taming traffic	Traffic taming is included as part of the vision for the Central O'ahu area; however, specific traffic calming measures are not referenced. The Waipahu Neighborhood TOD Plan suggests the creation of a short boulevard near the station to separate local traffic from through traffic while providing slower speeds and a safer pedestrian environment near the station.	Central O'ahu Sustainable Communities Plan: Moderate; it is unknown what areas would have traffic calming or what those measures will entail. Waipahu Neighborhood TOD: High
Balancing parking	There are a few references to parking within the Central O'ahu Plan. Specifically, the plan states that parking areas should be screened and access should be from a collector street. According to the Waipahu Neighborhood TOD Plan, this area will have a consolidation of parking. Shared parking and parking districts are recommended. In addition, new and existing streets will be designed for on-street parking. The Waipahu TOD Plan also recommends a reduction in the required number of off-street parking spaces and establishment of parking maximums. Parking requirements are included in the plan.	Central O'ahu Sustainable Communities Plan: Low; no reference to regulating parking, on-street parking, or shared use of facilities. Additionally, the transit node definition includes provision of parking. Waipahu Neighborhood TOD: High
Creating partnerships	Partnerships are emphasized in the Central O'ahu Plan. For instance, the plan states that "public agencies will work with the community, including residents, businesses, developers, and landowners, to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population...Public-private mechanisms for financing infrastructure will be developed to support timely development of infrastructure..." The Waipahu TOD does not discuss the creation of partnerships.	Central O'ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: Low
Complementing community objectives	Both plans support transit and TOD. The Central O'ahu Plan establishes an urban community boundary to focus development and preserve agricultural lands and open space. The station is within this boundary. The plan states that Central O'ahu will be developed with a transportation system "which provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile." The Waipahu Neighborhood TOD Plan states that "the goal of Waipahu is to be a transit-oriented, connected community where residents can live, work, learn, shop and play."	Central O'ahu Sustainable Communities Plan: High Waipahu Neighborhood TOD: High

2.7 Leeward Community College Station

2.7.1 Existing Zoning and Land Use

The station is located in the General Agriculture (AG-2) zone, although the land use map shows a school designation. Low density residential, commercial, and public zones lie on the fringe of the one-half mile station area. This station will be located on the Leeward Community College (LCC) campus (Figure 11 and Figure 12). The location for the fixed guideway maintenance and storage facility lies on the abutting property southwest of the station.

2.7.2 Future Conditions based on Central O‘ahu Sustainable Communities Plan

This station will coincide with a planned transit node (Appendix A of the Central O‘ahu Sustainable Communities Plan). Industrial, institutional, and agricultural uses are located near the station. This area is also included in the ‘Aiea Pearl City Livable Communities Plan; however, this plan does not include any land use or transportation improvements specific to LCC.

2.7.3 Evaluation based on Best Practices

Table 9 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

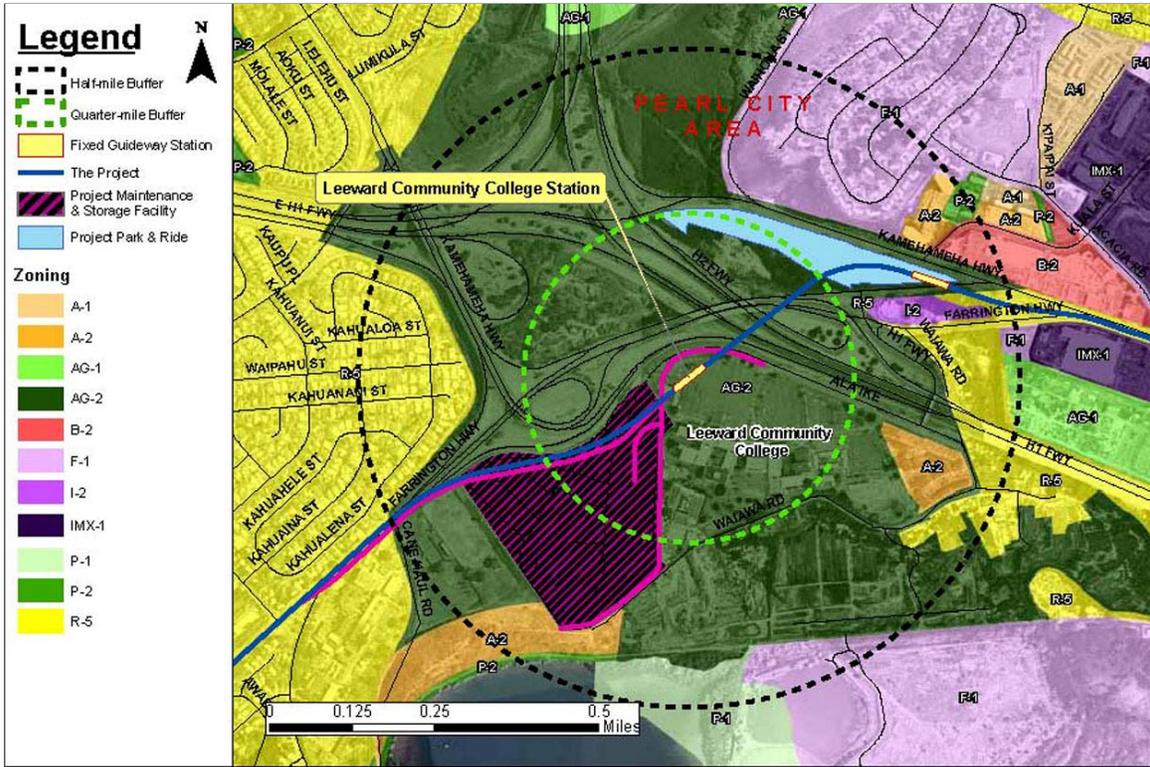


Figure 11: Leeward Community College Station Zoning Map

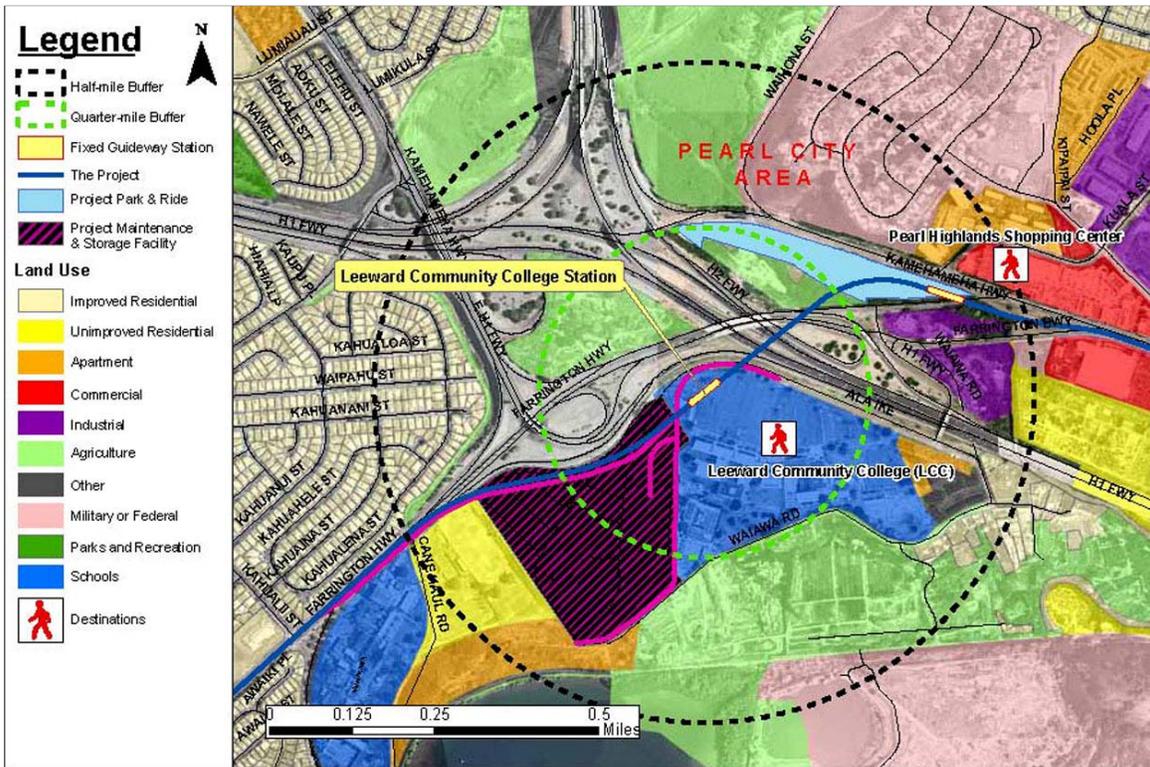


Figure 12: Leeward Community College Station Land Use Map

Table 9: Leeward Community College Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The Central O'ahu Plan recommends the creation of transit nodes around which moderate density residential and commercial uses will be centered. According to the Central O'ahu Plan: "A transit node does have a transit center at its core where passengers can park their cars, and wait in protective shelters...the node has shops, entertainment centers, restaurants, offices and residences within easy walking distance of the transit center."	Central O'ahu Sustainable Communities Plan: High; however, access and connectivity is fragmented due to the presence of major roadways in this area so the development of mixed uses may be limited around this fixed guideway station. There may be limited potential to implement recommendations in the Central O'ahu Plan or the recommendations may not be applicable to this station area.
Connecting neighborhoods with transit	The Central O'ahu Plan states that communities in this area will be designed or redeveloped to support pedestrian and bike use within the community and transit use for trips outside the community. In addition, the plan states that street patterns and rights-of-way should be designed to accommodate bus service and make service convenient for as many households as possible. Master planned communities should have a circulation plan. As part of that plan, at least 85% of all proposed housing should be within one-quarter mile of a proposed transit stop. All commercial development with more than 1,000 square feet and all employment sites with more than 10 employees should be within one-eighth of a mile of a transit stop. Rights-of-way along transit routes should make provisions for bus shelters, pull-outs, and if applicable, park-and-ride facilities and/or future transit stations.	Central O'ahu Sustainable Communities Plan: High; The H-1 Freeway separates the fixed guideway station from surrounding communities and, as a result, connecting the station to neighborhoods with local bus service will be vital in this area since walkability to the station is limited.
Creating pedestrian environments	The plan states that pedestrian and bicycle travel should be encouraged, particularly to reach neighborhood destinations. Pedestrian pathways will be established between bus stops and the nearest commercial center. In addition, the plan states that major arterials should have separate bike paths, and major collectors should have bike lanes. Commercial centers should incorporate site design and facilities to promote pedestrian, bicycle, and transit access.	Central O'ahu Sustainable Communities Plan: High; however, application of these recommendations may be limited in this area due to the presence of major roadways. Since the station is located in an LCC parking lot, pedestrian and bicycle facilities are important to provide safe movement from the station to LCC campus buildings and other nearby destinations.

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Taming traffic	Traffic taming is included as part of the vision for the Central O'ahu area; however, specific traffic calming measures are not referenced.	Central O'ahu Sustainable Communities Plan: Moderate; it is unknown what areas would have traffic calming or what those measures will entail.
Balancing parking	There are a few references to parking within the Central O'ahu Plan. Specifically, the plan states that parking areas should be screened and access should be from a collector street, neither of which is applicable to the Leeward Community College campus.	Central O'ahu Sustainable Communities Plan: Low; no reference to regulating parking, on-street parking, or shared use of facilities. Additionally, the transit node definition includes provision of parking.
Creating partnerships	Partnerships are emphasized in the Central O'ahu Plan. For instance, the plan states that "public agencies will work with the community, including residents, businesses, developers, and landowners, to address current deficiencies in roads, schools, and parks and to create adequate infrastructure to meet the needs of the residential and working population...Public-private mechanisms for financing infrastructure will be developed to support timely development of infrastructure..."	Central O'ahu Sustainable Communities Plan: High
Complementing community objectives	The Central O'ahu Plan establishes an urban community boundary to focus development and preserve agricultural lands and open space. The station is within this boundary. The plan states that Central O'ahu will be developed with a transportation system "which provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile."	Central O'ahu Sustainable Communities Plan: High

2.8 Pearl Highlands Station

2.8.1 Existing Zoning and Land Use

The station is located makai of a Commercial (B2) zone. General Agricultural (AG-1 and AG-2) and Federal (F-1) zones are located makai and mauka of the station. The majority of residential zones are mainly mauka of Kamehameha Highway. The Industrial-Commercial Mixed Use (IMX-1) zone, located northeast and east of the station, allows for a mix of employment and supporting commercial uses. Low-intensity uses are allowed makai of Kamehameha Highway (Figure 13 and Figure 14). Big-box retail, two tall apartment towers, and low and medium density residences are also near the station.

2.8.2 Future Conditions based on PUC Development Plan and 'Aiea Pearl City Livable Communities Plan

The PUC Development Plan indicates that district commercial uses will surround the Pearl Highlands Station. According to the Development Plan, district commercial uses may include major office buildings, shopping centers, and older commercial streets that serve district, regional, or islandwide population. Mixed uses, including medium to higher density residential uses, are encouraged along major travel corridors.

2.8.3 Evaluation based on Best Practices

Table 10 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

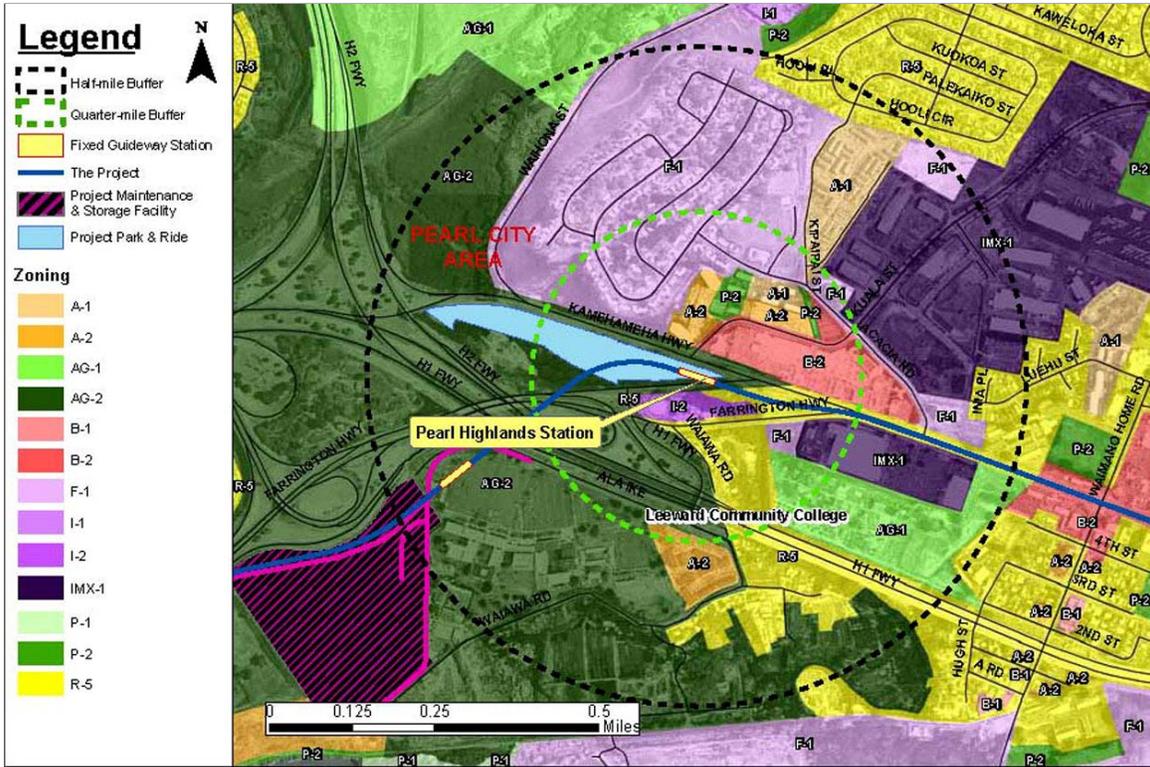


Figure 13: Pearl Highlands Station Zoning Map

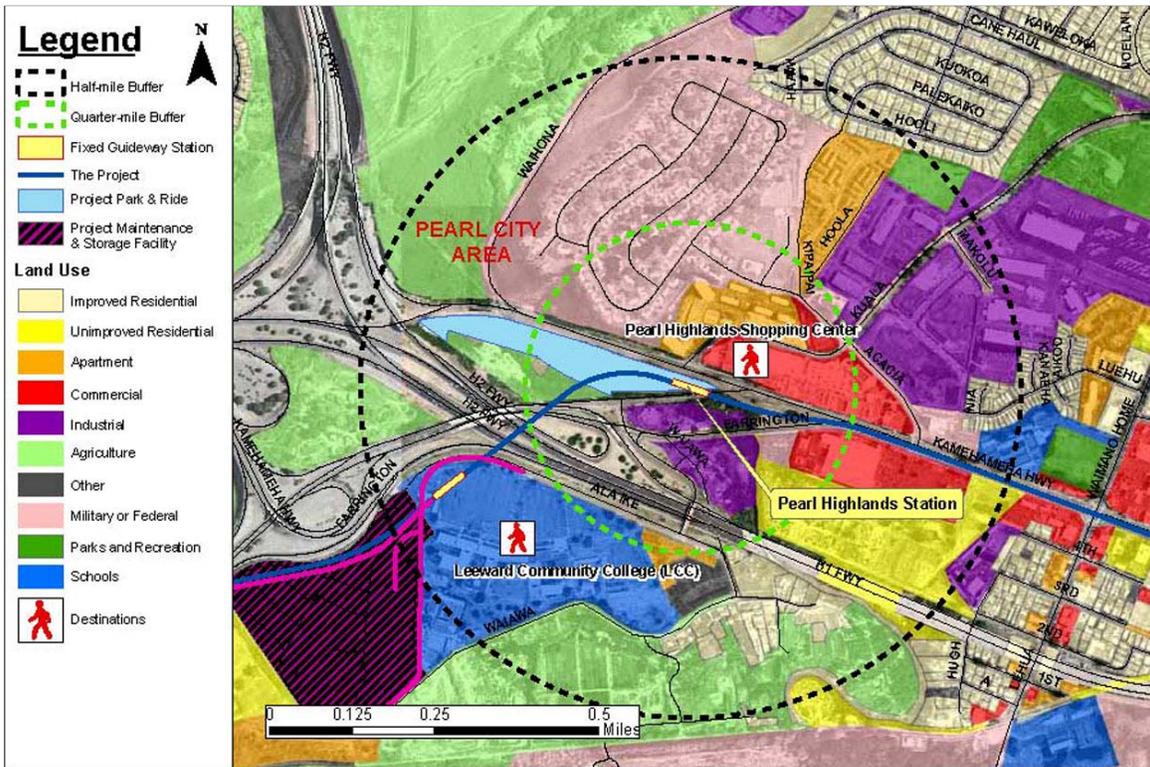


Figure 14: Pearl Highlands Station Land Use Map

Table 10: Pearl Highlands Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	Unlike the 'Ewa and Central O'ahu Development Plans, the PUC Development Plan does not discuss the creation of transit nodes. The 'Aiea Pearl City Livable Communities Plan shows a rapid transit transfer point proposed within the Pearl City Town Center, which contains a mix of neighborhood oriented and regional commercial uses, apartment buildings, a residential subdivision, and civic and community facilities.	PUC Development Plan: Low 'Aiea Pearl City Livable Communities Plan: High
Connecting neighborhoods with transit	The PUC Development Plan states that "improvements to the transit system should be targeted to accommodating trans-PUC travel and making neighborhood service more convenient. A rapid transit component is needed to serve the high-volume east-west corridor, connect activity centers, and provide transportation capacity in place of increased roadways." According to the Livable Communities Plan, a bus rapid transit (BRT) station at Aloha Stadium would be the primary connection for the 'Aiea-Pearl City area. There would also be a system of exclusive contra-flow bus lanes along Kamehameha Highway that would connect the area to the Aloha Stadium Station. The Pearl City 'Aiea working group recommended a bus transfer point near the University of Hawai'i's Pearl City Urban Garden, which is near the Pearl Highlands Station. This would provide transit connections between various neighborhoods.	PUC Development Plan: Moderate; it is unclear what specific improvements would be made to the transit system. 'Aiea Pearl City Livable Communities Plan: Moderate; some of the components of the proposed BRT system support the Project (specifically, the station at Aloha Stadium and transfer point near the Pearl Highlands Station)
Creating pedestrian environments	Both plans recommend improvements to the transportation network, with particular emphasis on pedestrian and bicycle improvements along Kamehameha Highway and improving mauka-makai pedestrian and bicycle circulation across this roadway. The Development Plan recommends that design standards for new development encourage pedestrian and transit travel. This plan also recommends making streets pedestrian-friendly by widening sidewalks, planting trees to buffer pedestrians from vehicular traffic, narrowing intersections to provide shorter and safer pedestrian crossings, and encouraging property owners to build to the sidewalk edge to stimulate pedestrian activity.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High
Taming traffic	The PUC Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and	PUC Development Plan: Moderate 'Aiea Pearl City Livable Communities Plan: Moderate

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
	improved sidewalks and crosswalks on neighborhood streets; however it does not specify specific measures for this area. According to the Livable Communities Plan, Pearl City residents supported additional traffic calming measures; however, there are no specific traffic calming measures proposed in this station area.	
Balancing parking	The Development Plan recommends the use of conveniently located municipal parking to support older commercial districts. The Livable Communities Plan recommends consolidating parking behind buildings thus creating a pedestrian-oriented environment.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Livable Communities Plan was created as part of a collaborative process.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: Moderate; the plan does not recommend partnerships as part of the development process.
Complementing community objectives	The Development Plan states that "livable neighborhoods include business and community services as well as residences. Key to livability is convenient access to work and to the many services and attractions found in an urban center. Rather than segregate residential from commercial uses, the goal is to integrate them in ways that provide greater convenience and bring activity to neighborhood streets." The Livable Communities Plan is "intended to improve traffic-congested roadways, provide a more pedestrian-friendly environment, and revitalize the livability and character of the neighborhoods." In addition, this plan seeks to strengthen the link between transit planning and community planning including policies and design that support the use of transit. The Vision Statement included in the Livable Communities Plan states: "the community will be easily accessible from all areas on O'ahu and travel within the community will be fast and efficient. Outdoor spaces will be pedestrian-friendly."	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High

2.9 Pearlridge Station

2.9.1 Existing Zoning and Land Use

Community Business (B-2), Low and Medium Density Apartment Residential (A-1 and A-2), Intensive Industrial (I-2), and General Agricultural (AG-1) zones are mauka of this station and Intensive Industrial and Industrial-Commercial Mixed Use (I-2 and IMX-1) zones occur makai of the station. Residential (R-5) is located within 1,000 feet and 'Ewa of the station (Figure 15 and Figure 16). The station is located 'Ewa-makai of the Pearlridge Shopping Center, a major regional mall. Also, a produce farm (Sumida Watercress Farm) is located approximately 850 feet Koko Head of the station. Natural features and physical barriers in the station area could hinder integration of the rail project with the larger community.

2.9.2 Future Conditions based on PUC Development Plan and 'Aiea Pearl City Livable Communities Plan

The land use map in Appendix A of the PUC Development Plan shows district commercial land use around the station. According to the Livable Communities Plan, a major component along the Kamehameha Highway Corridor is the Pearlridge area, which includes the Pearlridge Shopping Center and surrounding commercial and residential uses, designated as the Pearl Harbor Regional Town Center. The fixed guideway station will be located within this Pearl Harbor Regional Town Center, which encompasses moderately intensive retail and office commercial developments, high density apartment buildings, light industrial uses, a medical complex and various community facilities.

2.9.3 Evaluation based on Best Practices

Table 11 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

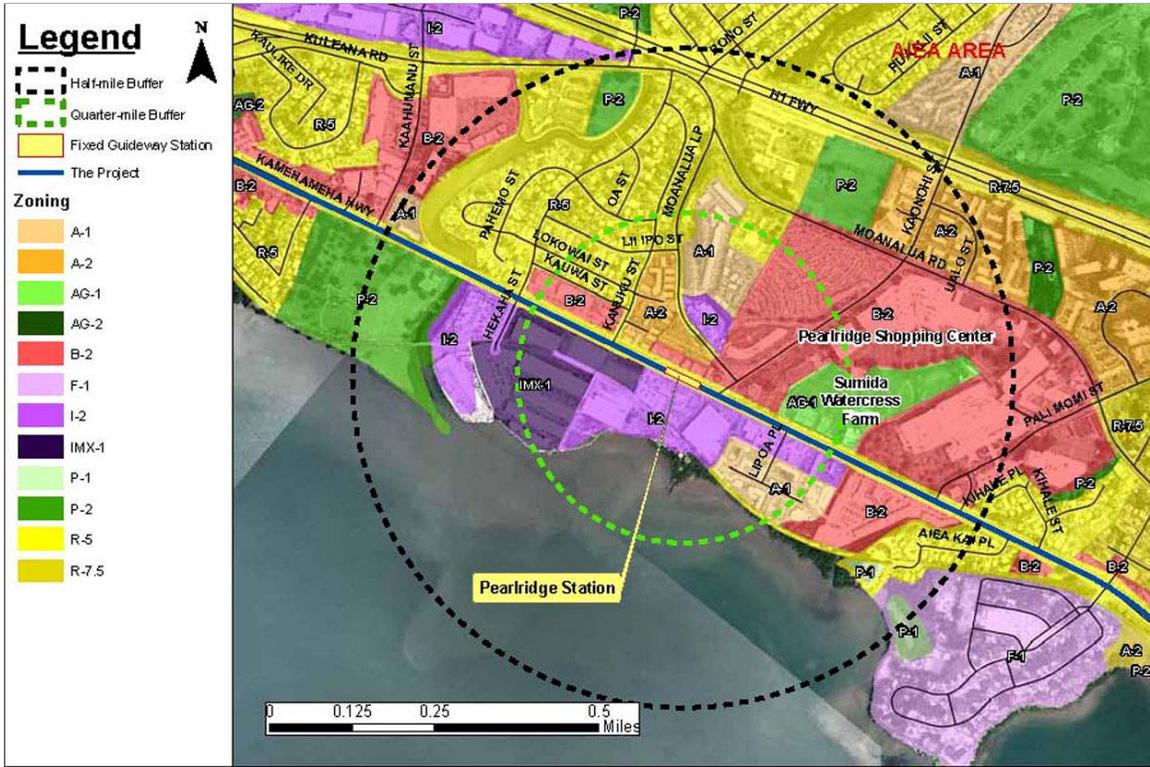


Figure 15: Pearlridge Station Zoning Map

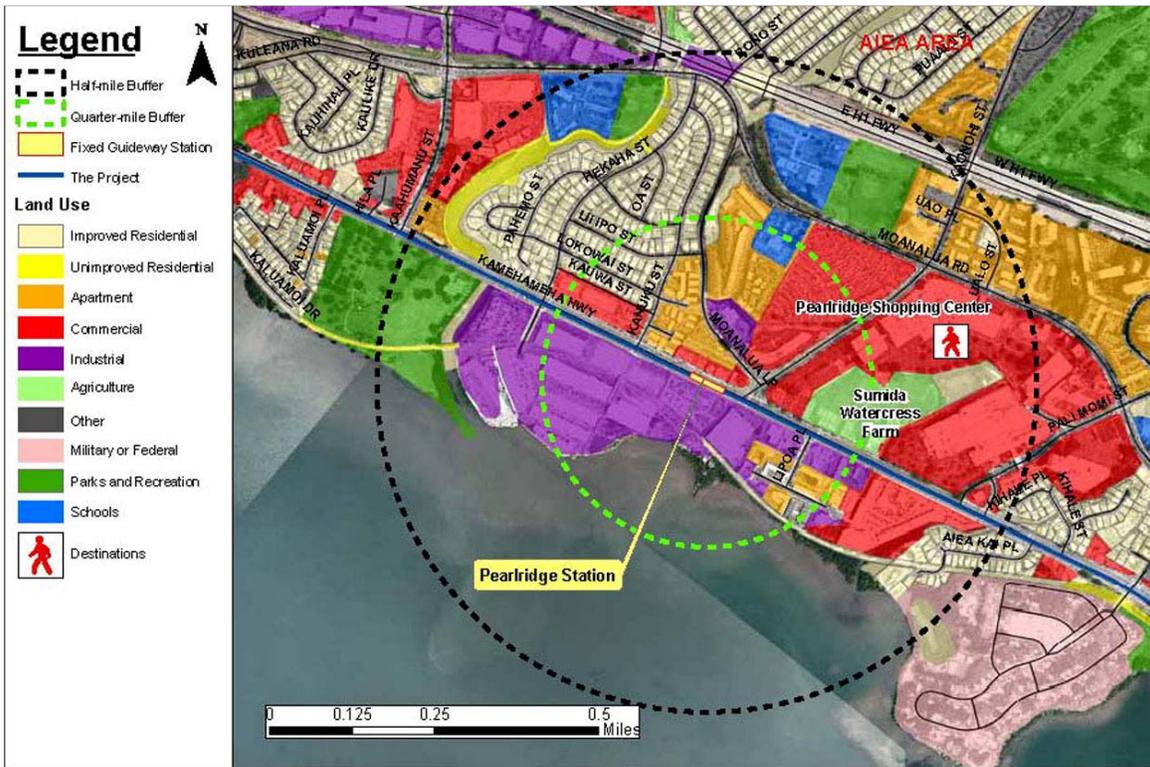


Figure 16: Pearlridge Station Land Use Map

Table 11: Pearlridge Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	Unlike the 'Ewa and Central O'ahu Development Plans, the PUC Development Plan does not discuss the creation of transit nodes. The 'Aiea Pearl City Livable Communities Plan shows a rapid transit transfer point proposed within the Pearl City Town Center, which contains a mix of neighborhood oriented and regional commercial uses, apartment buildings, a residential subdivision, and civic and community facilities.	PUC Development Plan: Low 'Aiea Pearl City Livable Communities Plan: High
Connecting neighborhoods with transit	The PUC Development Plan states that "improvements to the transit system should be targeted to accommodating trans-PUC travel and making neighborhood service more convenient. A rapid transit component is needed to serve the high-volume east-west corridor, connect activity centers, and provide transportation capacity in place of increased roadways." According to the Livable Communities Plan, a BRT station at Aloha Stadium would be the primary connection for the 'Aiea-Pearl City area and would have a planned park-and-ride facility. There would also be a system of exclusive contra-flow bus lanes along Kamehameha Highway that would connect the area to the Aloha Stadium Station. The plan does not specify if there would be a bus transfer point near the Pearlridge Shopping Center.	PUC Development Plan: Moderate; it is unclear what specific improvements would be made to the transit system. 'Aiea Pearl City Livable Communities Plan: Moderate
Creating pedestrian environments	The Development Plan recommends that design standards for new development encourage pedestrian and transit travel. The plan recommends restriping crosswalks near the Pearlridge Shopping Center and enhancing the intersection of Kamehameha Highway and Kaonohi Street through the use of landscaping and better defined pedestrian crossings. Bike facilities are proposed along Kaonohi Street. In addition, both plans recommend improvements to the transportation network, with particular emphasis on pedestrian and bicycle improvements along Kamehameha Highway and improving mauka-makai pedestrian and bicycle circulation across this roadway. The Development Plan also recommends making streets pedestrian-friendly by widening sidewalks, planting trees to buffer pedestrians from vehicular traffic, narrowing intersections to provide shorter and safer pedestrian crossings, and encouraging property owners to build to the sidewalk edge to stimulate pedestrian activity.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets; however it does not specify specific measures for this area. According to the Livable Communities Plan, traffic calming measures are recommended along Kaonohi Street mauka of Moanalua Road and along Kaahumanu Street between Moanalua Road and Waiiau District Park. Striped on-street parking, bike lanes, raised medians, and curb extensions are recommended for both roads.	PUC Development Plan: Moderate 'Aiea Pearl City Livable Communities Plan: High
Balancing parking	For shopping centers, the PUC Development Plan recommends requiring pedestrian connections within shopping center parking lots and the development of shared parking agreements. This plan also recommends shielding parking from view of the street and adjacent residences and potentially establishing maximum parking ratios in selected areas. The Livable Communities Plan recommends consolidating parking behind buildings, thus creating a pedestrian-oriented environment.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Livable Communities Plan was created as part of a collaborative process.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: Moderate
Complementing community objectives	The Development Plan recommends the integration of shopping centers into neighborhoods by removing physical barriers and developing agreements for shared parking. In addition, this plan recommends establishing town centers, which will support mixed land use to reduce dependence on the private automobile for local travel. The Vision Statement included in the Livable Communities Plan states: "the community will be easily accessible from all areas on O'ahu and travel within the community will be fast and efficient. Outdoor spaces will be pedestrian-friendly."	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High

2.10 Aloha Stadium Station

2.10.1 Existing Zoning and Land Use

The zoning districts surrounding the station allow for a modest mixture of employment and residential uses, but the densities are relatively low. The land area makai of the station is under Federal jurisdiction and most land in the area is federally owned or deed-restricted. Although zoned R-5 Residential, the predominant use is the 50,000 seat Aloha Stadium; besides sporting events, the facility hosts an “open market” and the annual 50th State Fair, as well as other similar activities. The dominance of Aloha Stadium and federal lands in the station area limits the potential for TOD (Figure 17 and Figure 18).

2.10.2 Future Conditions based on PUC Development Plan and ‘Aiea Pearl City Livable Communities Plan

According to the Livable Communities Plan, Hālawā Town Center contains several apartment complexes and two shopping centers, as well as Aloha Stadium, which is the focus of this town center. Appendix A of the PUC Development Plan shows institutional land uses at Aloha Stadium and low density residential uses surrounding Aloha Stadium. A park-and-ride facility will be built at this location as part of the Project.

2.10.3 Evaluation based on Best Practices

Table 12 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

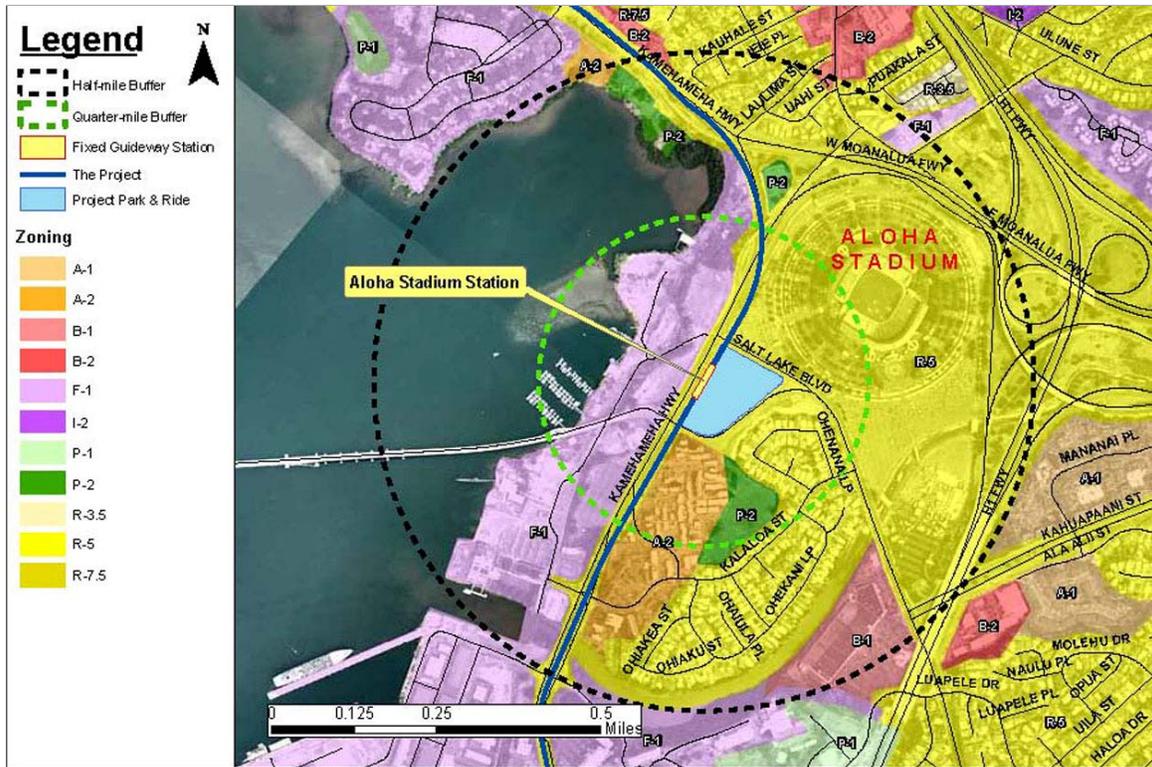


Figure 17: Aloha Stadium Station Zoning Map

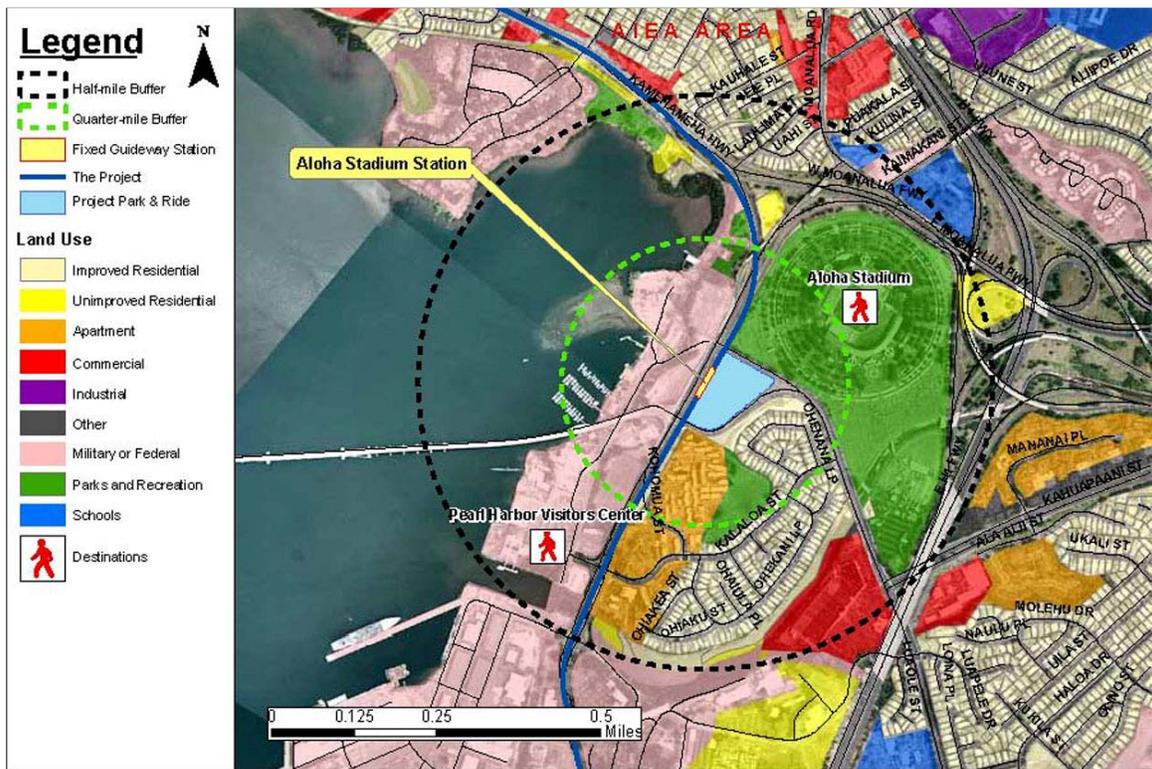


Figure 18: Aloha Stadium Station Land Use Map

Table 12: Aloha Stadium Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	Unlike the 'Ewa and Central O'ahu Development Plans, the PUC Development Plan does not discuss the creation of transit nodes. According to the 'Aiea Pearl City Livable Communities Plan, a BRT station at Aloha Stadium would be the primary connection for the 'Aiea-Pearl City area and would have a planned park-and-ride facility.	PUC Development Plan: Low 'Aiea Pearl City Livable Communities Plan: Moderate The large parking area at Aloha Stadium and the presence of major roadways could serve as barriers between this station and surrounding communities.
Connecting neighborhoods with transit	The PUC Development Plan states that "improvements to the transit system should be targeted to accommodating trans-PUC travel and making neighborhood service more convenient. A rapid transit component is needed to serve the high-volume east-west corridor, connect activity centers, and provide transportation capacity in place of increased roadways." In addition to the BRT station, the Livable Communities Plan references a system of exclusive contra-flow bus lanes along Kamehameha Highway that would connect 'Aiea and Pearl City to the Aloha Stadium Station.	PUC Development Plan: Moderate; it is unclear what specific improvements would be made to the transit system. 'Aiea Pearl City Livable Communities Plan: Moderate
Creating pedestrian environments	The Development Plan recommends that design standards for new development should encourage pedestrian and transit travel. The Livable Communities Plan does not specify any pedestrian improvements in this area.	PUC Development Plan: Low 'Aiea Pearl City Livable Communities Plan: Low The presence of large parking lots at Aloha Stadium and major roadways surrounding the station could serve as barriers to pedestrian and bicycle travel to the fixed guideway station. In addition, a safe pedestrian environment is needed between the fixed guideway station and Aloha Stadium entrances.
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets; however, it does not specify specific measures for this area. Likewise, the Livable Communities Plan does not specify traffic calming measures.	PUC Development Plan: Moderate 'Aiea Pearl City Livable Communities Plan: Low Traffic taming measures may be inappropriate in the immediate station area due to the high traffic volumes carried on the surrounding roadways.

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Balancing parking	The Development Plan recommends the use of conveniently located municipal parking to support older commercial districts. The Livable Communities Plan recommends consolidating parking behind buildings, thus creating a pedestrian-oriented environment. Neither plan references any specific parking measures in this area.	PUC Development Plan: Moderate 'Aiea Pearl City Livable Communities Plan: Moderate A park-and-ride facility will be built at Aloha Stadium. This shared use lot will be used by fixed guideway passengers during the week and by the Stadium during events. This supports recommendations in the PUC Development Plan for shared use parking.
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Livable Communities Plan was created as part of a collaborative process.	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: Moderate
Complementing community objectives	The PUC Development Plan recommends improvements to the transportation network, with particular emphasis on pedestrian, bicycle, and public transit modes along Kamehameha Highway; and commuter travel on the H-1 Freeway and in the Aloha Stadium vicinity. The Vision Statement included in the Livable Communities Plan states: "the community will be easily accessible from all areas on O'ahu and travel within the community will be fast and efficient. Outdoor spaces will be pedestrian-friendly."	PUC Development Plan: High 'Aiea Pearl City Livable Communities Plan: High

2.11 Pearl Harbor Naval Base Station

2.11.1 Existing Zoning and Land Use

The area surrounding the station is zoned Military and Federal Preservation (F-1). The military or Federal government controls development on lands zoned F-1. The Industrial-Commercial Mixed Use (IMX-1) zoning is separated from the station by a major roadway (Figure 19 and Figure 20). Land in this area is largely owned by the military, so TOD potential would depend on its development plans and would have to comply with historic regulations. The station area is single use and low-to-mid density. Indeed, infill TOD on open lawns and surface parking lots, particularly the Mall at Pearl Harbor, could be a boost to project ridership and quality of life in the area. The question of whether TOD and transit-supportive infrastructure such as connecting greenways and bike lanes are compatible with the needs of the military community in the Pearl Harbor Naval Base station area could be explored.

Pearl Harbor Naval Base, along with the Arizona Memorial, is a major employment center and tourist destination. A majority of the area is split by the H-1 Freeway with the Navy on the 'Ewa side and the general population Koko Head. Single-family residences constitute all of the residential development, but the closest housing development is farther from the rail station.

2.11.2 Future Conditions based on PUC Development Plan

Appendix A shows medium and higher density residential/mixed uses on the makai side of Kamehameha Highway and lower-density residential uses on the mauka side of the highway. According to the PUC Development Plan, the continuation of military uses should be supported. However, it also recommends that there should also be an effort to integrate the civilian and military communities through the use of connecting roadways, bikeways, walkways, landscape features, and/or architectural scale and character. Indeed, all of these techniques are central components of TOD. The PUC Development Plan should recommend mixed use TOD for underutilized lands in the Pearl Harbor Naval Base Station area, including the Bougainville industrial district. TOD with a mix of civilian and office-based military uses may help create a better sense of centeredness and integration in the Pearl Harbor Naval Base station area.

2.11.3 Evaluation based on Best Practices

Most land in this area is owned by the U.S. Navy and, as a result, the PUC Development Plan does not contain much information regarding development goals in this area. The plan does recommend improving mauka-makai pedestrian and bicycle circulation across Kamehameha Highway, especially in regard to access to the Pearl Harbor waterfront; however, the PUC Development Plan does not reference any specific transit or development goals for the Pearl Harbor Naval Base area.

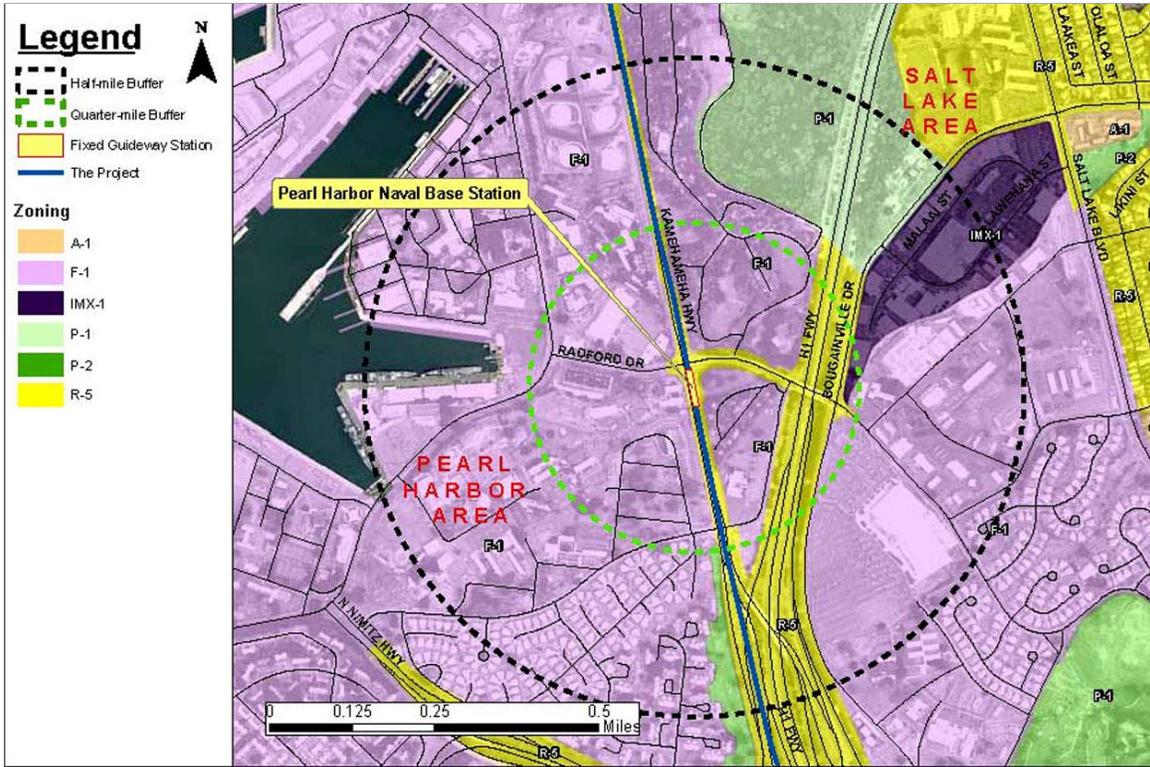


Figure 19: Pearl Harbor Naval Base Station Zoning Map

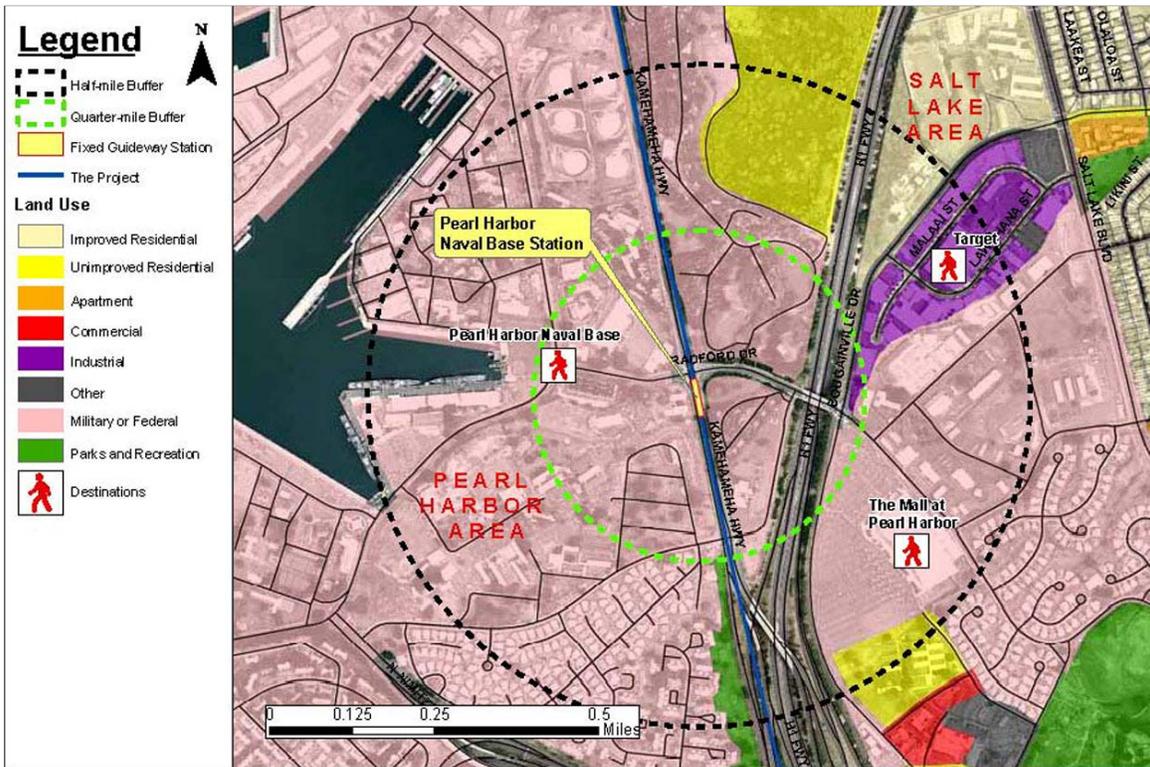


Figure 20: Pearl Harbor Naval Base Station Land Use Map

2.12 Honolulu International Airport Station

2.12.1 Existing Zoning and Land Use

This station area has Intensive Industrial (I-2) and Industrial-Commercial Mixed Use (IMX-1) zoning, which allows a wide range of employment uses with some commercial development. The Military and Federal Preservation (F-1) designation lies 'Ewa and mauka of the station (Figure 21 and Figure 22). A variety of uses currently exist near the airport, including hotel accommodations, services related to air travel and freight, and other industrial uses.

2.12.2 Future Conditions based on PUC Development Plan

Appendix A shows this area as industrial, with lower-density residential uses mauka of the H-1 Freeway. The PUC Development Plan calls for a broader mix of commercial uses in the Airport industrial district that includes office, hotel, and retail uses that are compatible with airport operations and existing light industrial uses. It is recommended that the Plan also call for a broader mix of commercial and light industrial uses that are compatible with rapid transit and move away from the existing drive-in/drive-out orientation of the area.

2.12.3 Evaluation based on Best Practices

Much of the land in this area is zoned industrial and owned and operated by the Hawai'i Department of Transportation. The Honolulu International Airport Master Plan guides development on airport property. As a result, the PUC Development Plan does not contain much information regarding development goals in this area, other than to recommend a mix of office, hotel, and retail uses compatible with airport operations.

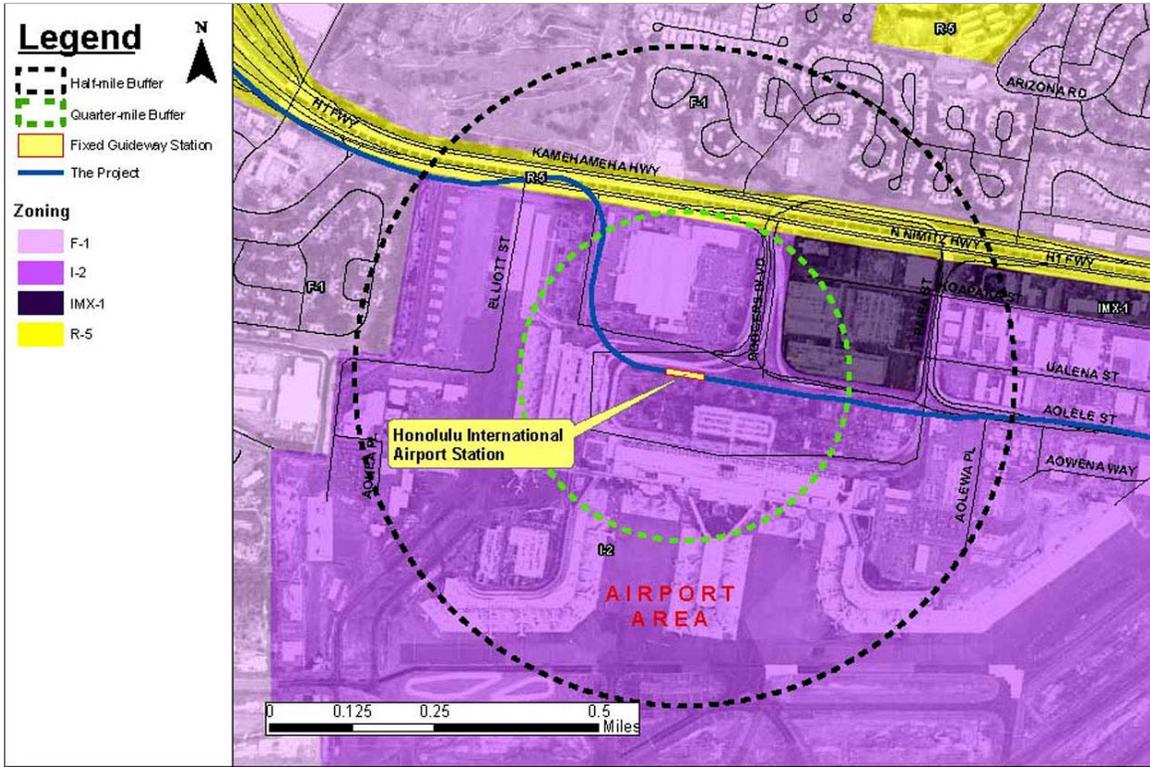


Figure 21: Honolulu International Airport Station Zoning Map

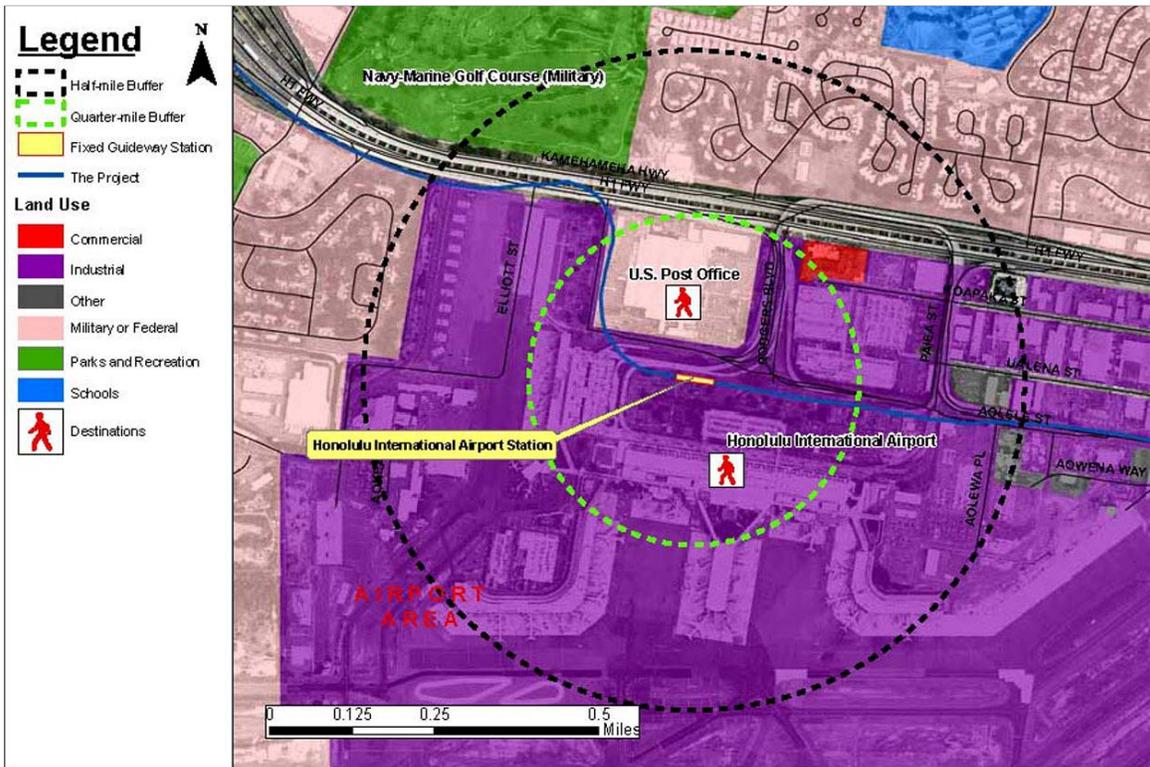


Figure 22: Honolulu International Airport Station Land Use Map

2.13 Lagoon Drive Station

2.13.1 Existing Zoning and Land Use

This station area is predominantly zoned Intensive Industrial (I-2) with some Industrial-Commercial Mixed Use (IMX-1) zoning, which allows a wide range of employment uses with some commercial. A large area of General Preservation (P-2) zoning lies Koko Head of the station (Ke'ehi Lagoon Beach Park) (Figure 23 and Figure 24). The area is predominantly surrounded by airport-related uses, including runways and a maintenance facility.

2.13.2 Future Conditions based on PUC Development Plan

Appendix A shows this area as industrial, with lower-density residential uses mauka of the H-1 Freeway.

2.13.3 Evaluation based on Best Practices

This station is to be built in a developed area where light industrial and warehousing land use dominates. Although it is a major employment destination, future potential for TOD may be limited. Additionally, some land within one-half mile of this station is owned by the Hawai'i Department of Transportation as part of Honolulu International Airport. Development on airport property is guided by the Honolulu International Airport Master Plan. The PUC Development Plan recommends a broader mix of commercial uses in the Airport and Bougainville industrial districts. The Airport district should include office, hotel, and retail uses that are compatible with airport operations, as well as existing light industrial uses. However, a number of development regulations are imposed on this area by the Federal Aviation Administration, and Ke'ehi Lagoon Beach Park further limits development. As a result, an evaluation of the PUC Plan based on Best Practices was not completed. The PUC Development should address the potential for enhanced modal integration between existing light industrial uses and the project. In addition, the potential for airport-related (but pedestrian-friendly and transit supportive) infill development on surface parking lots within the station area should be explored. The long-term plan for a consolidated rental car facility just mauka of the existing Overseas Terminal may free up some land for new development on existing off-site car rental properties.



Figure 23: Lagoon Drive Station Zoning Map

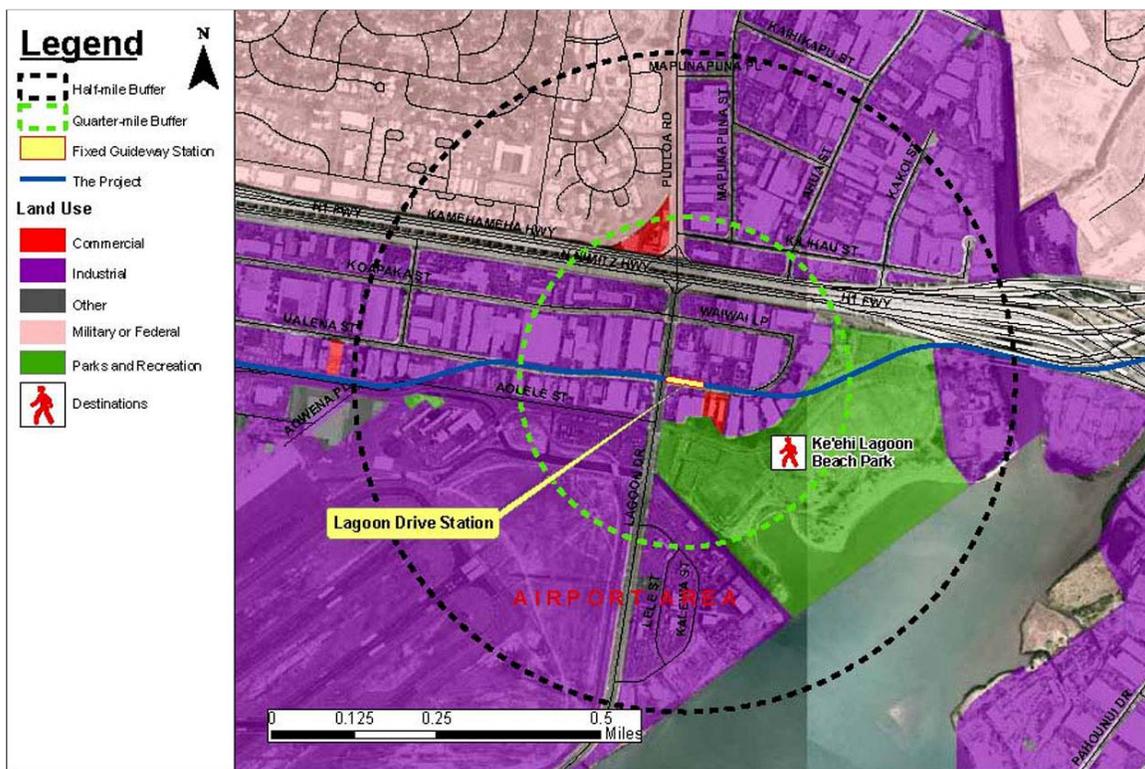


Figure 24: Lagoon Drive Station Land Use Map

2.14 Middle Street Transit Center Station

2.14.1 Existing Zoning and Land Use

Industrial zones (Intensive Industrial (I-2) and Industrial-Commercial Mixed Use (IMX-1)) surround the station, with Federal (F-1), Preservation (P-1 and P-2) and some low density residential (R-5) zones located on the fringe of the station area (Figure 25 and Figure 26). The area is primarily industrial with some commercial nearby and residential uses farther from the station area. The physical barriers caused by major roadways in the general station area hinder integration of the rail service with the larger community.

2.14.2 Future Conditions based on PUC Development Plan and Kalihi-Palama Action Plan

Appendix A of the PUC Development Plan shows industrial uses around this station. The Middle Street Transit Center Station is near the 'Ewa boundary of the Kalihi-Palama Action Plan. The Kalihi-Palama Action Plan states that this area should be maintained as a mixed-use zone with light industrial, manufacturing, office commercial, and retail commercial with an emphasis on "mom-and-pop" shops, single-family residential, and low-rise apartments.

2.14.3 Evaluation based on Best Practices

Table 13 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

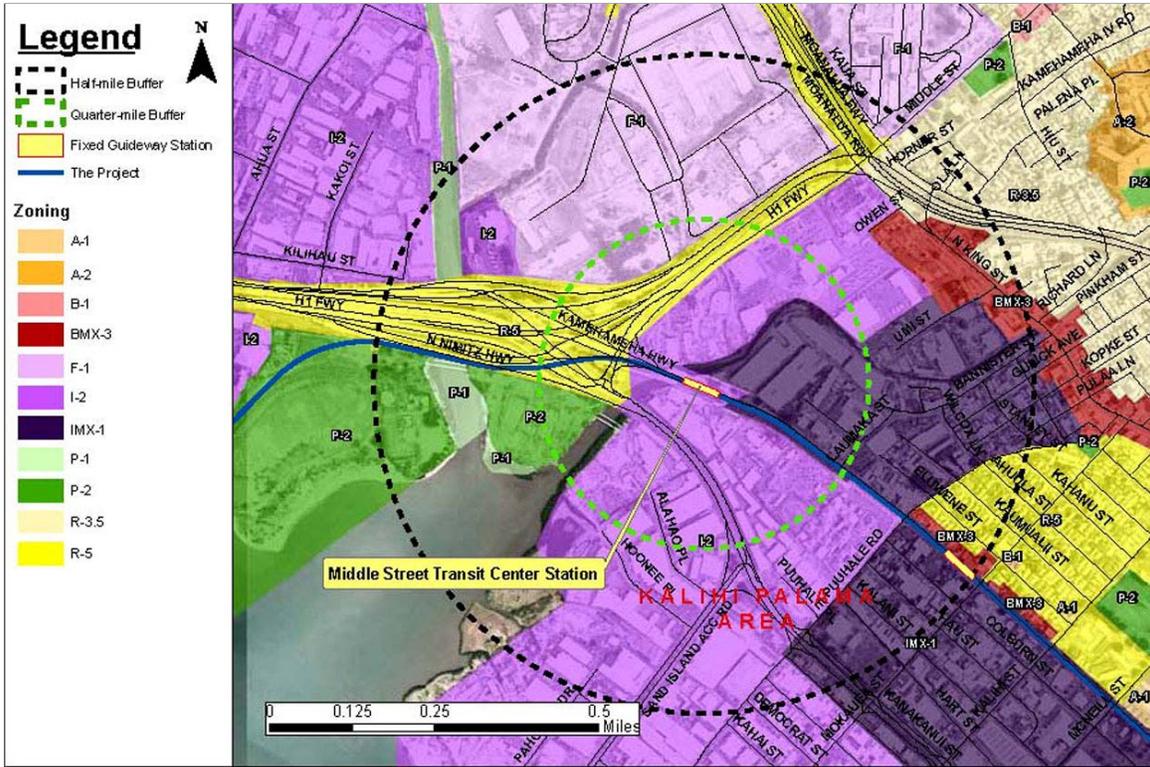


Figure 25: Middle Street Transit Center Station Zoning Map

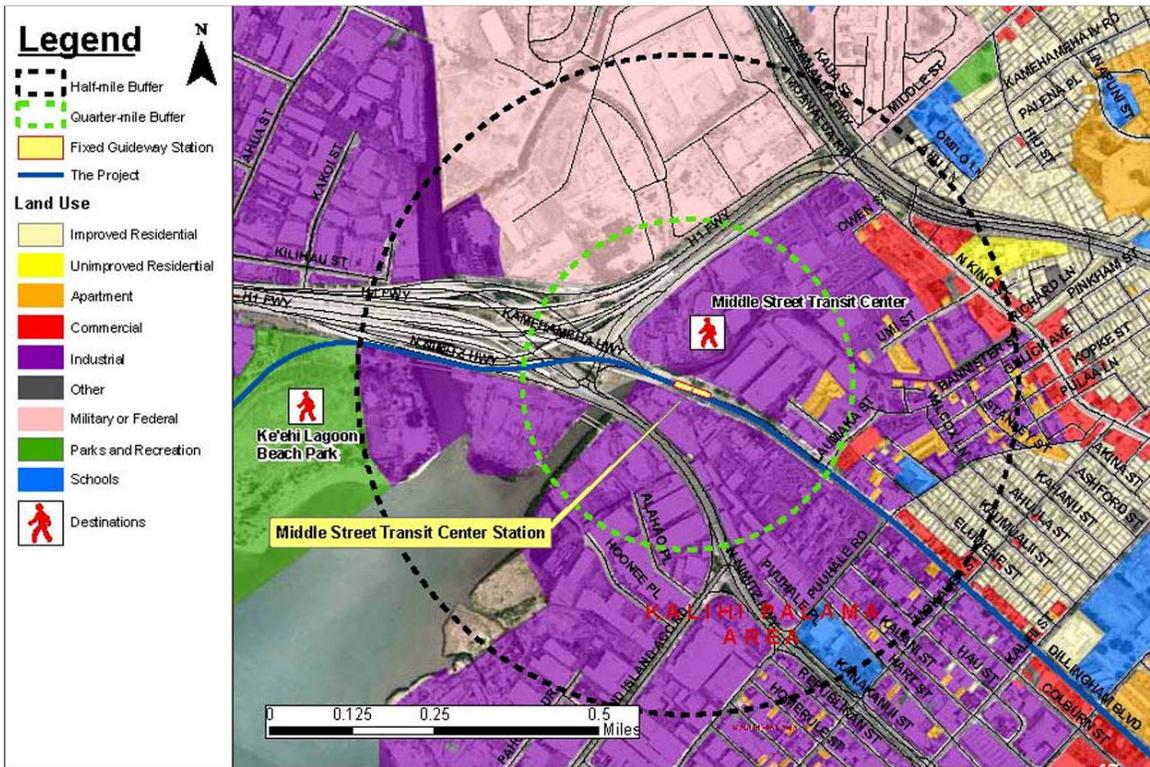


Figure 26: Middle Street Transit Center Station Land Use Map

Table 13: Middle Street Transit Center Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The PUC Development Plan indicates that this area will be part of a High Capacity Transit (HCT) corridor (indicated as BRT in the Plan) and recommends that “in-town neighborhoods” should be planned for higher-density residential and mixed uses around transit stations. The Kalihi-Palama Action Plan states that bus stops should be improved with shelters, benches, and safe setbacks from streets; however, the plan does not contain any further discussion on transit service or station locations.	PUC Development Plan: Moderate to High; the plan overall shows support for transit and TOD. Kalihi-Palama Action Plan: Low
Connecting neighborhoods with transit	The Middle Street Transit Center will be located near the station, which will provide transit connections to many parts of the island. In addition, the Development Plan indicates that HCT (indicated as BRT in the Plan) will connect this area to points Koko Head, including Downtown and Waikīkī. The Kalihi-Palama Action Plan supports bus stop improvements, but it does not contain any references to expanding transit service through either the bus or a fixed guideway system.	PUC Development Plan: Moderate to High Kalihi-Palama Action Plan: Low
Creating pedestrian environments	Both plans envision a network of bikeways and pedestrian paths that connect community activities. The Action Plan also recommends the following improvements along highly traveled streets, including Dillingham Boulevard and Middle Street: providing sidewalks and bike lanes; planting street trees; considering landscaped medians where appropriate; improving building facades fronting streets; and providing adequate signage for pedestrian crosswalks, bike lanes, etc. These recommendations coincide with those in the Development Plan.	PUC Development Plan: High Kalihi-Palama Action Plan: High
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. However, the Development Plan does not reference any specific traffic calming measures in this area. The Action Plan recommends consideration of a one-way circulation pattern to allow for safe vehicular movement, where appropriate. Additionally, the Action Plan recommends traffic calming techniques in residential neighborhoods but does not discuss the possibility of such measures in mixed use areas.	PUC Development Plan: Moderate Kalihi-Palama Action Plan: Moderate

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Balancing parking	The Development Plan does not reference any specific parking strategies for this area. The Action Plan states that vacant lots should be acquired for off-street parking for businesses or residents or developed into park space.	PUC Development Plan: Low Kalihi-Palama Action Plan: Low
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Action Plan does not specify partnerships.	PUC Development Plan: High Kalihi-Palama Action Plan: Low
Complementing community objectives	According to the PUC Development Plan, commercial uses in this area should be encouraged with a mixture of retail, service, and industrial businesses. According to the Action Plan, residents of the area seek a community that is more “livable and enjoyable.” The Action Plan states that the PUC land use policies and recommendations for mixed-use development should be applied where applicable. According to the Action Plan, mixed use integrates commercial uses on the ground floor with apartment units on the upper floors. Additionally, streets will be redesigned to attract “pedestrian-oriented” commercial activity, which is defined as development that is safer than “pedestrian-friendly.”	PUC Development Plan: High Kalihi-Palama Action Plan: High The fixed guideway station will support the planned intermodal transit facility and park-and-ride lot being constructed by the City.

2.15 Kalihi Station

2.15.1 Existing Zoning and Land Use

Industrial and commercial districts lie immediately adjacent to the station. Industrial zoning continues makai, 'Ewa, and Koko Head, while low-density and multifamily residential uses are concentrated mauka and Koko Head (Figure 27 and Figure 28). The area is heavily built out so any TOD potential would be based on redevelopment of existing properties.

2.15.2 Future Conditions based on PUC Development Plan and Kalihi-Palama Action Plan

The PUC Development Plan encourages commercial uses along major streets in this area, including Dillingham Boulevard. The Development Plan also states that in industrial districts where residential uses have existed for many years, such uses should be allowed to continue and should be rehabilitated and improved. The Kalihi-Palama Action Plan states that the area between Nimitz Highway and the H-1 Freeway should be maintained as a mixed-use zone with light industrial, manufacturing, office commercial, and retail commercial with an emphasis on “mom-and-pop” shops, single-family residential, and low-rise apartments. These goals are supportive of the Project and TOD.

2.15.3 Evaluation based on Best Practices

Table 14 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

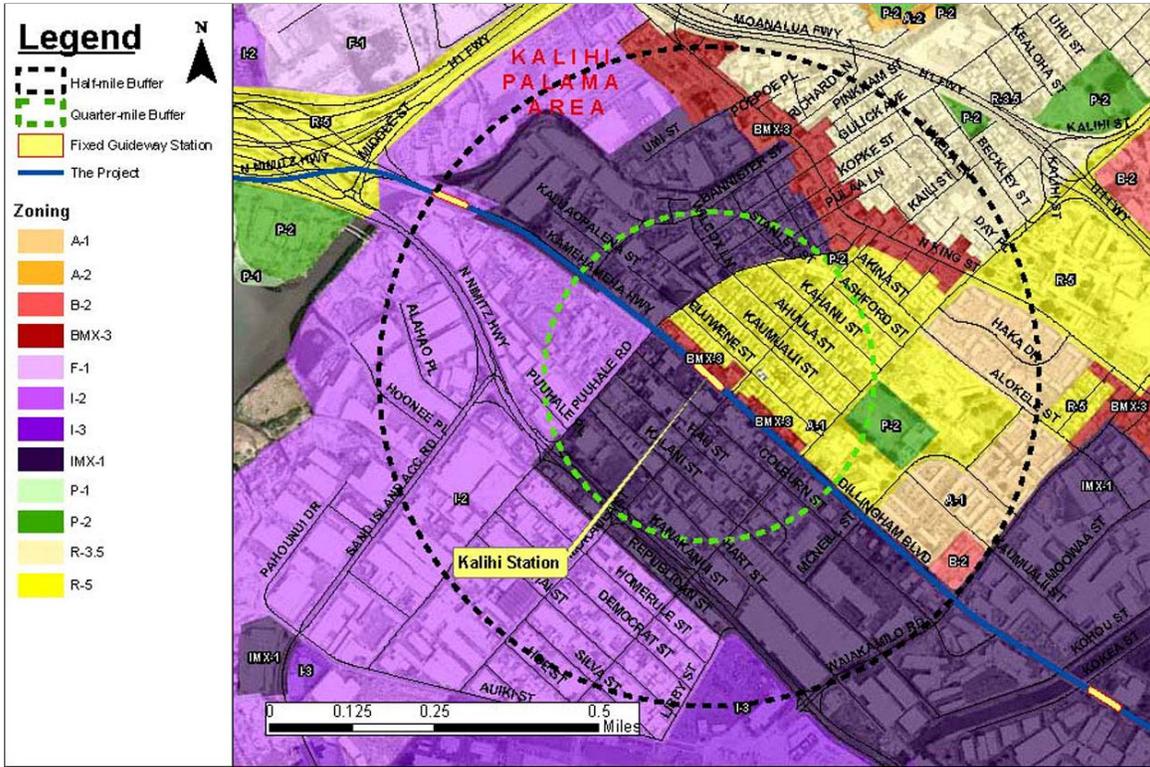


Figure 27: Kalihi Station Zoning Map

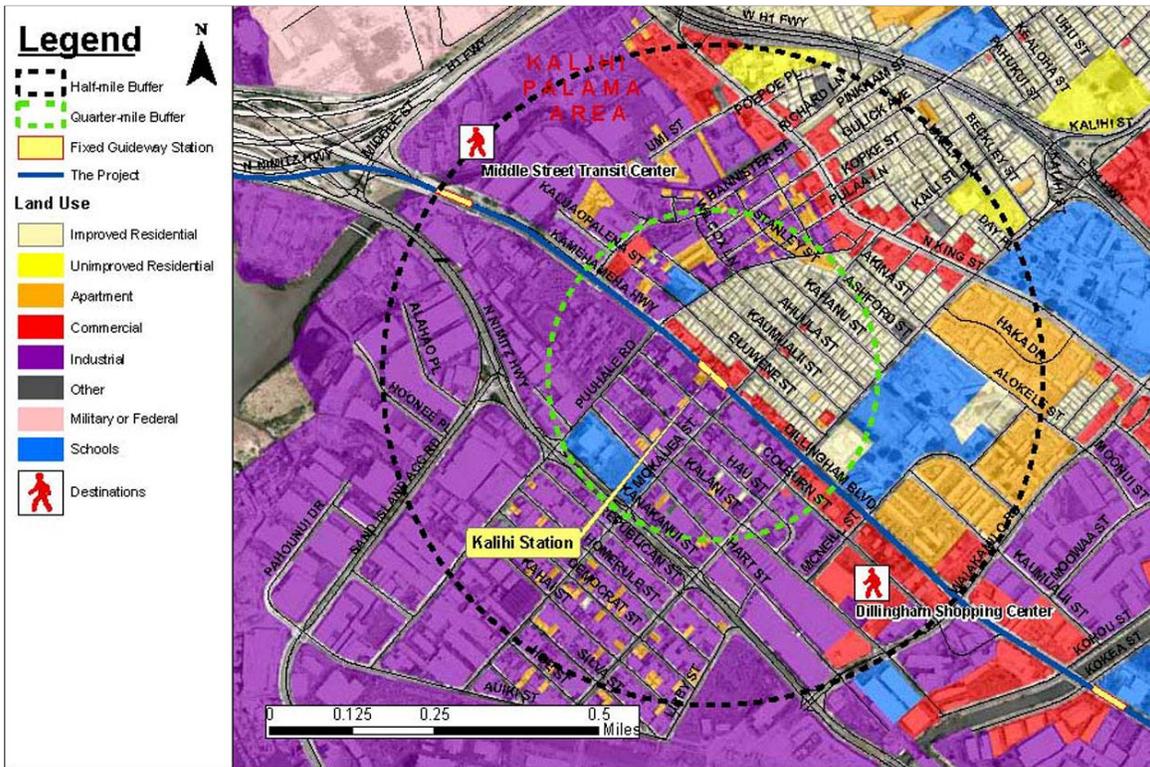


Figure 28: Kalihi Station Land Use Map

Table 14: Kalihi Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The PUC Development Plan indicates that the Kalihi area will be part of a HCT corridor and recommends that “in-town neighborhoods” should be planned for higher-density residential and mixed uses around transit stations. The Action Plan states that bus stops should be improved with shelters, benches, and safe setbacks from streets; however, the plan does not contain any further discussion on transit service or station locations.	PUC Development Plan: Moderate to High – the plan overall shows support for transit and TOD. Kalihi-Palama Action Plan: Low
Connecting neighborhoods with transit	The Development Plan indicates that HCT (indicated as BRT in the Plan) will connect Kalihi to points Koko Head, including Downtown and Waikīkī. The Kalihi-Palama Action Plan does not contain any references to expanding transit service through either the bus or a fixed guideway system.	PUC Development Plan: Moderate to High Kalihi-Palama Action Plan: Low
Creating pedestrian environments	Both plans envision a network of bikeways and pedestrian paths that connect community activities. The Action Plan also recommends the following improvements along highly traveled streets, including Dillingham Boulevard: providing sidewalks and bike lanes; planting street trees; considering landscaped medians where appropriate; improving building facades fronting streets; and providing adequate signage for pedestrian crosswalks, bike lanes, etc. These recommendations coincide with those in the Development Plan.	PUC Development Plan: High Kalihi-Palama Action Plan: High
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. However, the Development Plan does not reference any specific traffic calming measures in this area. The Action Plan recommends consideration of a one-way circulation pattern to allow for safe vehicular movement. The Action Plan also recommends traffic calming techniques in residential neighborhoods but does not discuss the possibility of such measures in mixed use areas.	PUC Development Plan: Moderate Kalihi-Palama Action Plan: Moderate
Balancing parking	The Development Plan does not reference any parking strategies for this area. The Action Plan states that vacant lots should be acquired for off-street parking for businesses or residents or developed into park space.	PUC Development Plan: Low Kalihi-Palama Action Plan: Low

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Creating partnerships	<p>The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Action Plan does not specify partnerships.</p>	<p>PUC Development Plan: High Kalihi-Palama Action Plan: Low</p>
Complementing community objectives	<p>According to the PUC Development Plan, commercial uses in this area should be encouraged with a mixture of retail, service, and industrial businesses. According to the Action Plan, residents of the area seek a community that is more “livable and enjoyable.” The Action Plan states that the PUC land use policies and recommendations for mixed-use development should be applied where applicable. According to the Action Plan, mixed use integrates commercial uses on the ground floor with apartment units on the upper floors. Additionally, streets will be redesigned to attract “pedestrian-oriented” commercial activity, which is defined as development that is safer than “pedestrian-friendly.”</p> <p>According to the Action Plan, the area near this station from Nimitz Highway to Dillingham Boulevard between Pu’uhale Road and Mokauea Street has been identified as the pilot project area for industrial revitalization. The pilot project recommends that internal streets in this area consider sidewalks and street trees. In addition, a one-way circulation system could be considered along these streets to preserve on-street parking. It is recommended that any industrial revitalization consider the location of the transit station and plan parking, land uses, and pedestrian facilities accordingly.</p>	<p>PUC Development Plan: High Kalihi-Palama Action Plan: High</p>

2.16 Kapālama Station

2.16.1 Existing Zoning and Land Use

Industrial-Commercial Mixed Use zoning (IMX-1), which allows complementary commercial uses, surrounds the station. Commercial and low-density residential districts lie on the northern and eastern fringes of the station area. This station is also adjacent to Honolulu Community College (HCC) (Figure 29 and Figure 30).

2.16.2 Future Conditions based on PUC Development Plan and Kalihi-Palama Action Plan

Appendix A of the PUC Development Plan shows University use mauka and District Commercial uses makai of the station. According to the Action Plan, the area around HCC should be developed into a “college town” to include apartments or dorms and commercial establishments catering to student needs. In addition, due to the high-tech and specialized trade focus of HCC, businesses related to these industries should be located near the campus.

2.16.3 Evaluation based on Best Practices

Table 15 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

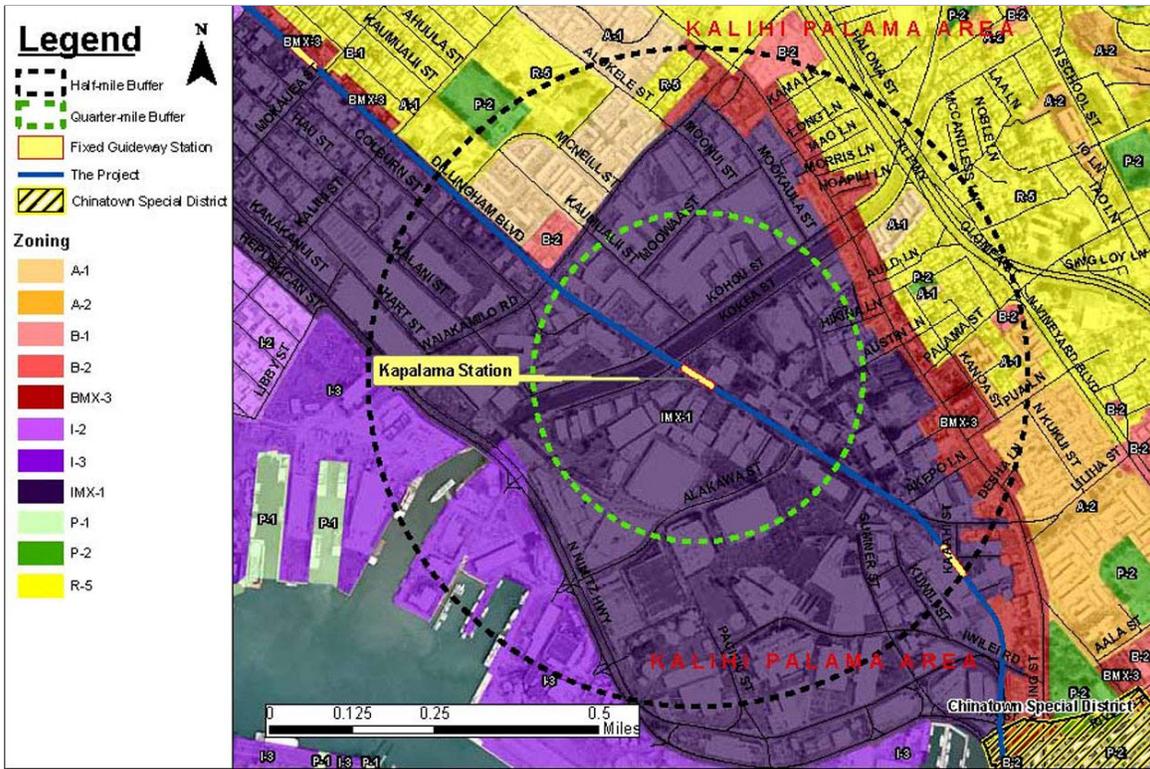


Figure 29: Kapālama Station Zoning Map

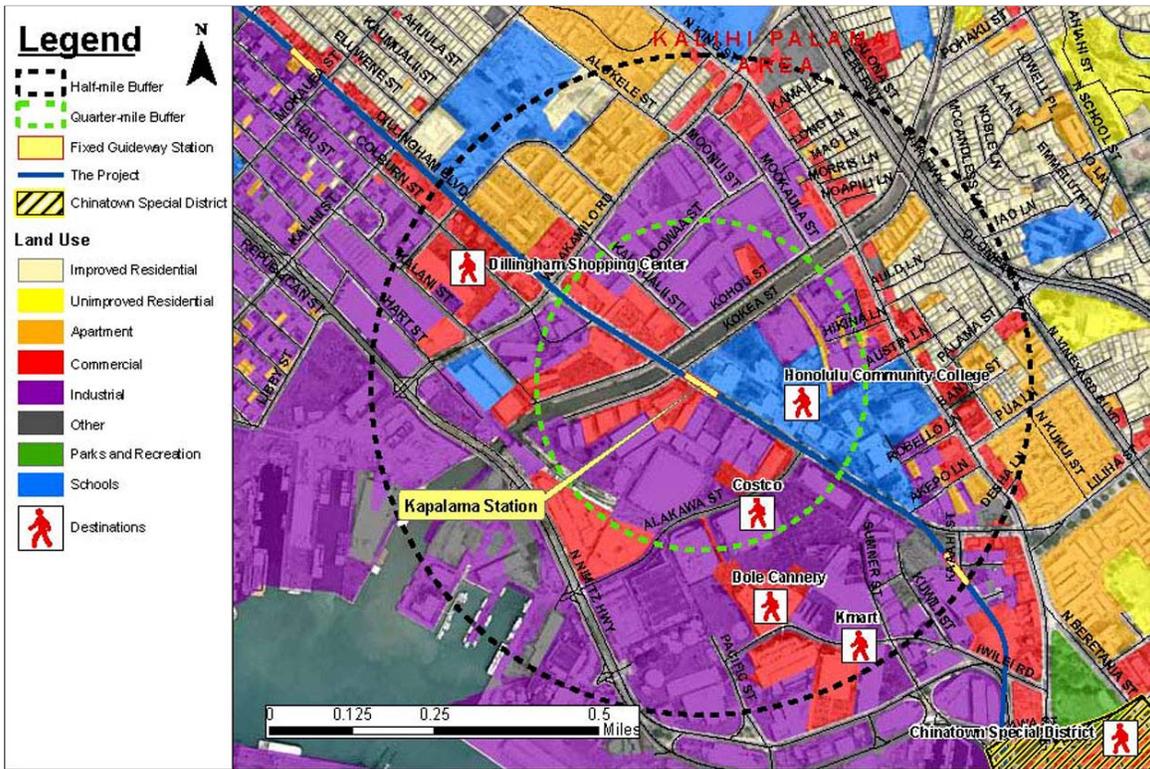


Figure 30: Kapālama Station Land Use Map

Table 15: Kapālama Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The PUC Development Plan indicates that the Kalihi area will be part of a HCT corridor and recommends that “in-town neighborhoods” should be planned for higher-density residential and mixed uses around transit stations. The Action Plan states that bus stops should be improved with shelters, benches, and safe setbacks from streets; however, the plan does not contain any further discussion on transit service or project station locations.	PUC Development Plan: Moderate to High; the plan overall shows support for transit and TOD. Kalihi-Palama Action Plan: Low
Connecting neighborhoods with transit	The Development Plan indicates that HCT will connect Kalihi to points Koko Head, including Downtown and Waikīkī. The Action Plan does not contain any references to expanding transit service through either the bus or a fixed guideway system.	PUC Development Plan: Moderate to High Kalihi-Palama Action Plan: Low
Creating pedestrian environments	Both plans envision a network of bikeways and pedestrian paths that connect community activities. The Action Plan also recommends the following improvements along highly traveled streets, including Dillingham Boulevard: providing sidewalks and bike lanes; planting street trees; considering landscaped medians where appropriate; improving building facades fronting streets; and providing adequate signage for pedestrian crosswalks, bike lanes, etc. These recommendations coincide with those in the Development Plan. For the HCC area, the Action Plan provides the following recommendations: improving pedestrian circulation on campus and to nearby businesses; providing pedestrian connections to King Street; and constructing a pedestrian bridge over Kapālama Canal near HCC.	PUC Development Plan: High Kalihi-Palama Action Plan: High
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. However, the Development Plan does not reference any specific traffic calming measures in this area. The Action Plan recommends consideration of a one-way circulation pattern to allow for safe vehicular movement. The Action Plan also recommends traffic calming techniques in residential neighborhoods but does not discuss the possibility of such measures in mixed use areas.	PUC Development Plan: Moderate Kalihi-Palama Action Plan: Moderate
Balancing parking	The Development Plan does not reference any parking strategies for this area. The Action Plan states that any vacant lots should be acquired for off-street parking for businesses or residents or developed into park space.	PUC Development Plan: Low Kalihi-Palama Action Plan: Low

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Action Plan does not specify partnerships.	PUC Development Plan: High Kalihi-Palama Action Plan: Low
Complementing community objectives	According to the PUC Development Plan, commercial uses in this area should be recognized and encouraged with a mixture of retail, service, and industrial businesses. According to the Action Plan, residents of the area seek a community that is more “livable and enjoyable.” The Action Plan states that the PUC land use policies and recommendations for mixed-use development should be applied where applicable. According to the Action Plan, mixed use integrates commercial uses on the ground floor with apartment units on the upper floors. Additionally, streets will be redesigned to attract “pedestrian-oriented” commercial activity, which is defined as development that is safer than “pedestrian-friendly.”	PUC Development Plan: High Kalihi-Palama Action Plan: High

2.17 Iwilei Station

2.17.1 Existing Zoning and Land Use

Industrial-Commercial Mixed Use zoning (IMX-1), which allows complementary commercial uses, surrounds the station. Commercial and low/medium density residential districts lie a short distance Koko Head of the station (Figure 31 and Figure 32).

2.17.2 Future Conditions based on PUC Development Plan and Kalihi-Palama Action Plan

Appendix A of the PUC Development Plan shows commercial district land uses mauka and industrial uses makai of this station. According to the PUC Development Plan, older industrial activities in Iwilei are being succeeded by new, large-scale retail and entertainment uses. The Development Plan states that revitalization of the waterfront will lend impetus to redevelopment in Iwilei. The Kalihi-Palama Action Plan states that the area between Nimitz Highway and the H-1 Freeway should be maintained as a mixed-use zone with light industrial, manufacturing, office commercial, and retail commercial with an emphasis on “mom-and-pop” shops, single-family residential, and low-rise apartments.

2.17.3 Evaluation based on Best Practices

Table 16 provides a summary of the plans based on best practices and indicates the degree of support for transit and TOD.

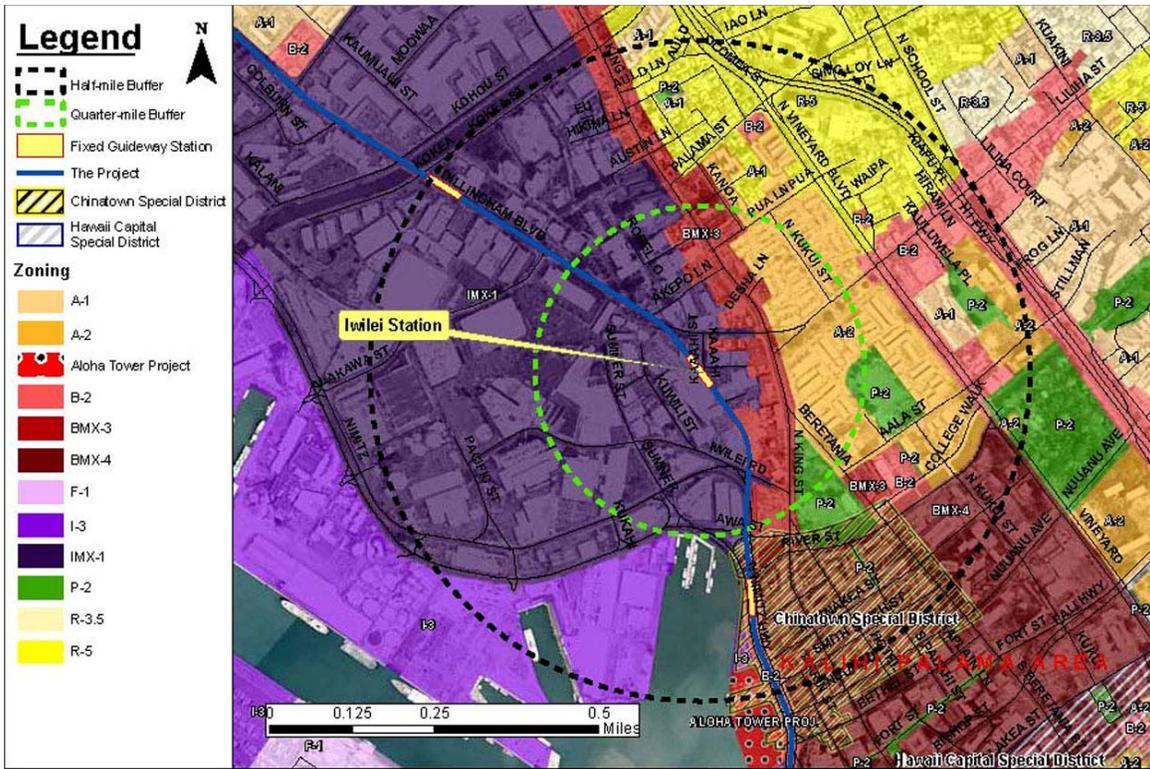


Figure 31: Iwilei Station Zoning Map

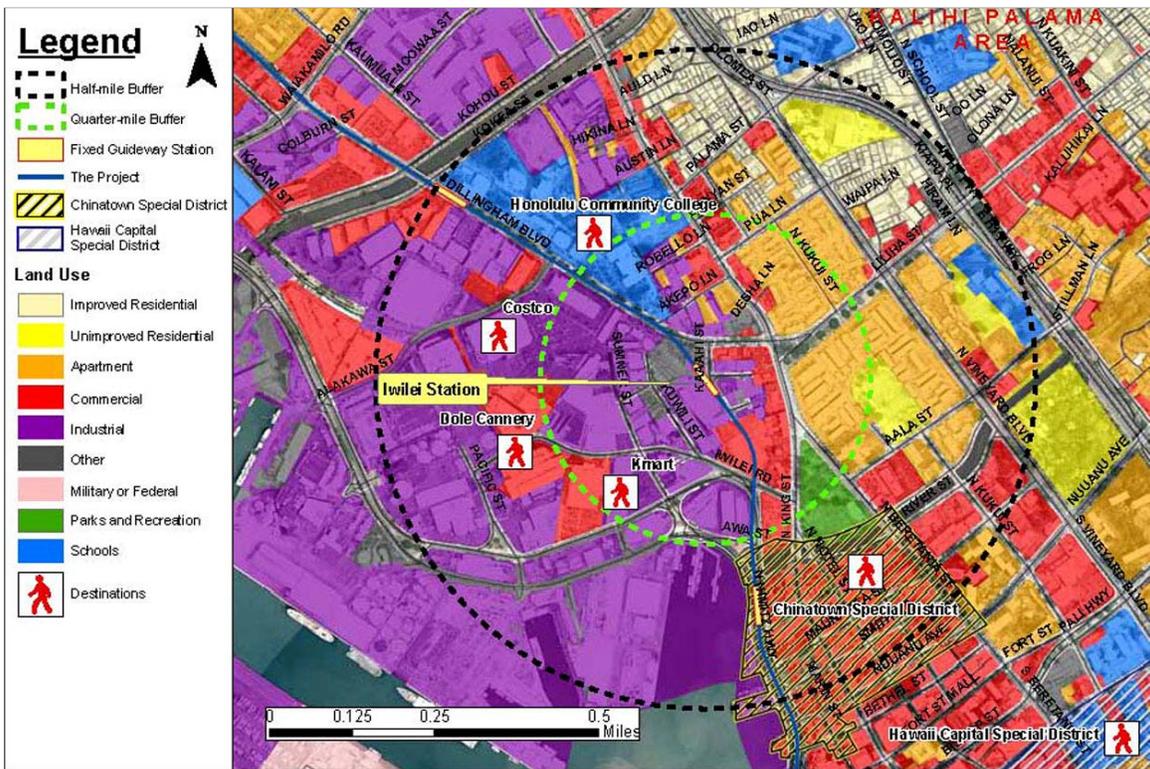


Figure 32: Iwilei Station Land Use Map

Table 16: Iwilei Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The PUC Development Plan indicates that the Kalihi area will be part of a HCT corridor and recommends that “in-town neighborhoods” should be planned for higher-density residential and mixed uses around transit stations. The Action Plan states that bus stops should be improved with shelters, benches, and safe setbacks from streets; however, the plan does not contain any further discussion on transit service or station locations.	PUC Development Plan: Moderate to High; the plan overall shows support for transit and TOD. Kalihi-Palama Action Plan: Low
Connecting neighborhoods with transit	The Development Plan indicates that HCT will connect Iwilei to points Koko Head, including Downtown and Waikīkī. As stated in the previous bullet, the Action Plan does not contain any references to expanding transit service through either the bus or a fixed guideway system.	PUC Development Plan: Moderate to High Kalihi-Palama Action Plan: Low
Creating pedestrian environments	Both plans envision a network of bikeways and pedestrian paths that connect community activities. The Action Plan also recommends the following improvements along highly traveled streets, including Dillingham Boulevard and Nimitz Highway: providing sidewalks and bike lanes; planting street trees; considering landscaped medians where appropriate; improving building facades fronting streets; and providing adequate signage for pedestrian crosswalks, bike lanes, etc. These recommendations coincide with those in the Development Plan.	PUC Development Plan: High Kalihi-Palama Action Plan: High
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. However, the Development Plan does not reference any specific traffic calming measures in this area. The Action Plan recommends consideration of a one-way circulation pattern to allow for safe vehicular movement. The Action Plan also recommends traffic calming techniques in residential neighborhoods but does not discuss the possibility of such measures in mixed use areas.	PUC Development Plan: Moderate Kalihi-Palama Action Plan: Moderate
Balancing parking	The Development Plan does not reference any parking strategies for this area. The Action Plan states that vacant lots should be acquired for off-street parking for businesses or residents or developed into park space.	PUC Development Plan: Low Kalihi-Palama Action Plan: Low

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Creating partnerships	The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. This plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. The Action Plan does not specify partnerships.	PUC Development Plan: High Kalihi-Palama Action Plan: Low
Complementing community objectives	According to the PUC Development Plan, commercial uses in this area should be recognized and encouraged with a mixture of retail, service, and industrial businesses. According to the Action Plan, residents of the area seek a community that is more “livable and enjoyable.” The Action Plan states that the PUC land use policies and recommendations for mixed-use development should be applied where applicable. According to the Action Plan, mixed use integrates commercial uses on the ground floor with apartment units on the upper floors. Additionally, streets will be redesigned to attract “pedestrian-oriented” commercial activity, which is defined as development that is safer than “pedestrian-friendly.”	PUC Development Plan: High Kalihi-Palama Action Plan: High

2.18 Chinatown Station

2.18.1 Existing Zoning and Land Use

Chinatown is a destination for many residents of O'ahu, as well as visitors. The mauka area is zoned Central Business Mixed use (BMX-4) while the makai area is zoned Waterfront Industrial (I-3) (Figure 33 and Figure 34). This station lies at the makai edge of the Chinatown Special District, and design elements within this district are controlled by the City and County of Honolulu Land Use Ordinance. Although the size of this station area is limited because of its location near the water, it allows for a greater density and mix of uses than most other station areas. The Chinatown Special District is also a Historic District (added to the National Register of Historic Places in 1973) bounded by Nu'uaniu Stream (50 feet beyond the 'Ewa side); a line 50 feet parallel to the mauka edge of Beretania Street; 50 feet southeast of the Nu'uaniu Street ROW; and the port areas extending from the Merchant Street area (the makai boundary includes piers 12–15). The National Register offers some protections to the Chinatown Historic District that may limit the potential for new TOD in the Chinatown Station area compared to other stations along the Project alignment.

2.18.2 Future Conditions based on PUC Development Plan and Chinatown Special District

Appendix A of the PUC Development Plan shows Commercial District land uses around the Chinatown Station. The plan states that waterfront access should be a component to revitalize Chinatown and reconnect the area with the waterfront. The area contains many small and large retail businesses accessible from the sidewalk.

2.18.3 Evaluation based on Best Practices

Table 17 provides a summary of the Development Plan and Chinatown Special District based on best practices and indicates the degree of support for transit and TOD.

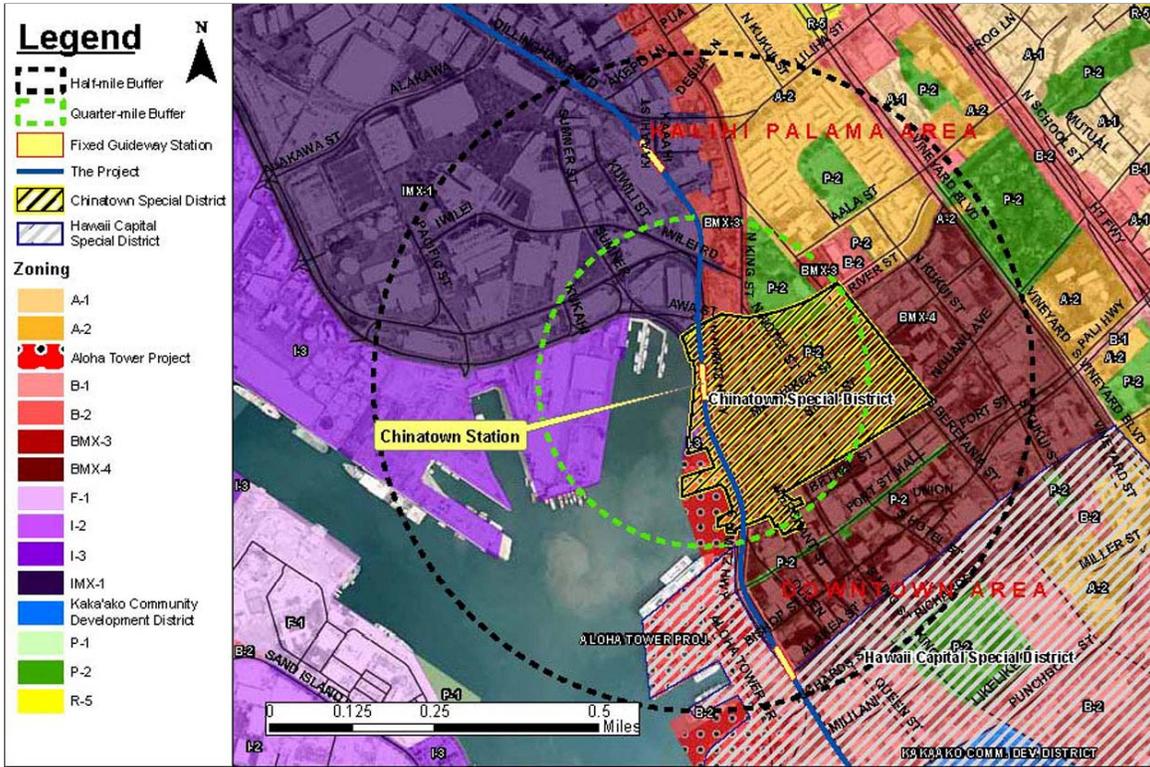


Figure 33: Chinatown Station Zoning Map

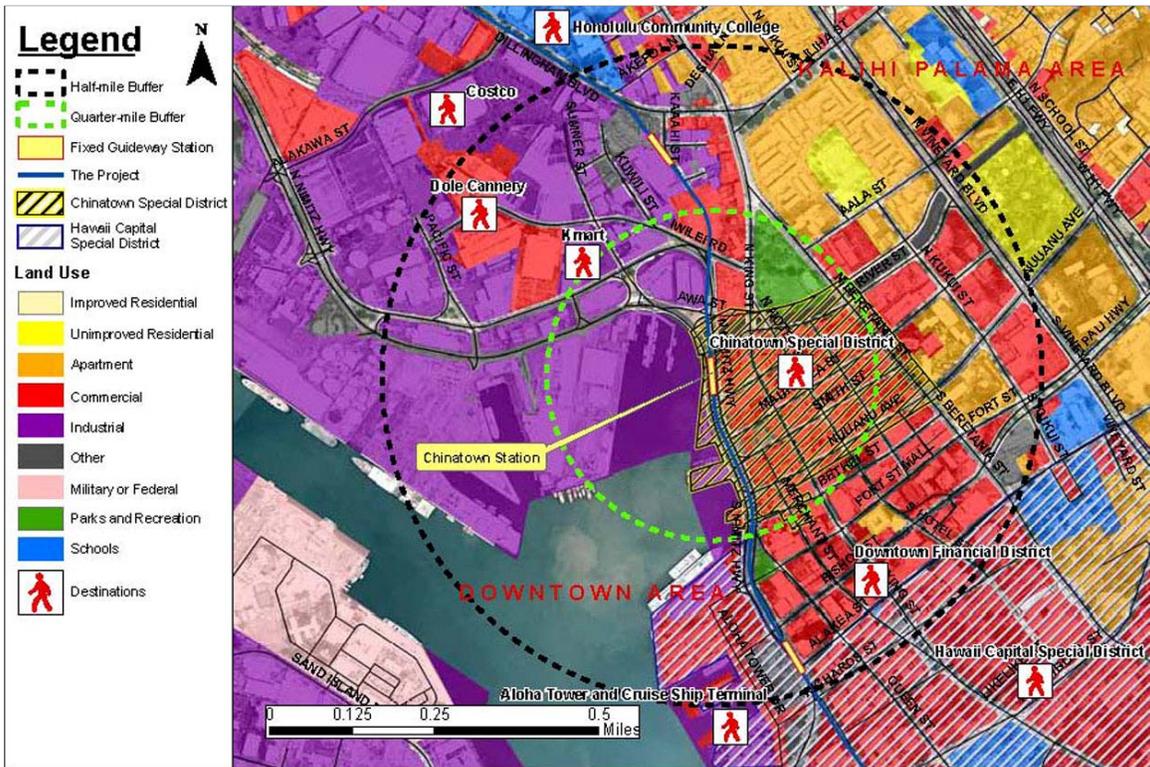


Figure 34: Chinatown Station Land Use Map

Table 17: Chinatown Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	For in-town neighborhoods (such as Downtown), the PUC Development Plan recommends providing high-density housing in mixed-use developments near transit stations. The plan also states that areas close to transit lines include reinforcing uses such as stores, dining establishments, professional and/or business services, and other activities. According to Section 21-9.60 (Special District Regulations) of the Land Use Ordinance, one of the overall objectives of the Chinatown Special District is promoting the long-term economic viability as a unique community of retail, office, and residential uses.	PUC Development Plan: High Chinatown Special District: High
Connecting neighborhoods with transit	The PUC Development Plan recommends providing a transit link along the Ala Moana-Kaka'ako-Downtown corridor to serve visitors and providing at-grade trolleys that could be publically or privately operated.	PUC Development Plan: High; the plan overall shows support for transit and TOD. Chinatown Special District: N/A; the Special District guidelines pertain to design and pedestrian access; transit connections are not a specific feature of this ordinance; however, any improvement in pedestrian access would enhance transit.
Creating pedestrian environments	The plan also recommends creating pedestrian districts in the Downtown area where walking is intended as the primary means of transportation. Improvements will include midblock pathways or arcades, sidewalk improvements, and landscaping. Section 21-9.60 of the Chinatown Special District states that the pedestrian-oriented commercial uses and building design should be retained and enhanced, especially on the ground level, and that outdoor lighting should be encouraged to contribute to a lively and safe urban environment. In addition, this section states that traffic circulation should be improved with emphasis on pedestrian linkages.	PUC Development Plan: High Chinatown Special District: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Taming traffic	<p>The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. However, the Development Plan does not reference any specific traffic calming measures in this area.</p> <p>The Special District Land Use Ordinance recommends that parking structures have vehicular entrances and exists on Nimitz Highway. This will help calm traffic on smaller side streets that have active pedestrian environments. The Land Use Ordinance does not state if other traffic calming measures are necessary as a result of the high levels of pedestrian activity and narrow sidewalks that currently exist in this area.</p>	<p>PUC Development Plan: Moderate</p> <p>Chinatown Special District: Moderate-High</p>
Balancing parking	<p>The PUC Development Plan recommends providing conveniently located municipal parking, parking improvement districts, or centralized parking.</p> <p>The Land Use Ordinance recommends that parking structures fronting Nimitz Highway have planter boxes along the facades of all floors. In addition, ground level spaces below the structures should be for uses that contribute to an active streetscape, such as retail, community centers, and light manufacturing. Lastly, as stated above, parking structures should have vehicular entrances and exits on Nimitz Highway.</p>	<p>PUC Development Plan: High</p> <p>Chinatown Special District: High</p>
Creating partnerships	<p>The Development Plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. The plan recommends encouraging residents and school organizations to improve pedestrian safety through planning and education.</p> <p>The Land Use Ordinance does not specify partnerships.</p>	<p>PUC Development Plan: High</p> <p>Chinatown Special District: Low</p>
Complementing community objectives	<p>The plan seeks to “implement land use strategies to achieve a balanced transportation system” and to “improve the public transit system, including development of a rapid transit component.” In addition, the plan recommends stimulating TOD on potential infill and redevelopment properties within the rapid transit corridor through tax incentives, development code amendments, and public infrastructure investments.</p> <p>The Special District designation seeks to preserve and restore buildings of a historic, cultural, and/or architectural significance. The station is located in the Makai Precinct within this special district. The Land Use Ordinance recommends expansion of housing and office development from the Central Business District compatible with the revitalization of Chinatown. This includes active retail-oriented ground levels.</p>	<p>PUC Development Plan: High</p> <p>Chinatown Special District: High</p>

2.19 Downtown Station

2.19.1 Existing Zoning and Land Use

Zoning in this area—Community Business (B-2) and Central Business Mixed Use (BMX-4)—offers high densities and a mix of commercial, entertainment, and residential uses. BMX-4 provides the highest land use intensity for commerce, business, and housing. This station area zoning is very transit-supportive. The station is located within the Hawai'i Capital Special District, and the Chinatown Special District is within one-quarter mile of the station. The area contains a mix of high density mixed use housing, office, and commercial retail activities (Figure 35 and Figure 36).

2.19.2 Future Conditions based on PUC Development Plan and Hawai'i Capital Special District

The land use map in Appendix A of the PUC Development Plan shows Commercial District land use in this station area. Section 21-9.30 of the Land Use Ordinance designates part of this area as the Hawai'i Capital Special District due to the presence of historic buildings and their contribution to the urban design of Honolulu. This section of the Land Use Ordinance identifies certain streets as important pedestrian and vehicular corridors. Section 21-9.30.4 establishes design guidelines for this district, including landscaping, building materials and colors, entry treatments, height, and orientation. More detail on this designation is provided in Part 1, Analysis of Ordinances, of this report. However, the guidelines contained within Section 21-9.30 do not affect Best Practices, and consequently, they are not included in the evaluation below.

2.19.3 Evaluation based on Best Practices

Table 18 provides a summary of the Development Plan based on best practices and indicates the degree of support for transit and TOD.

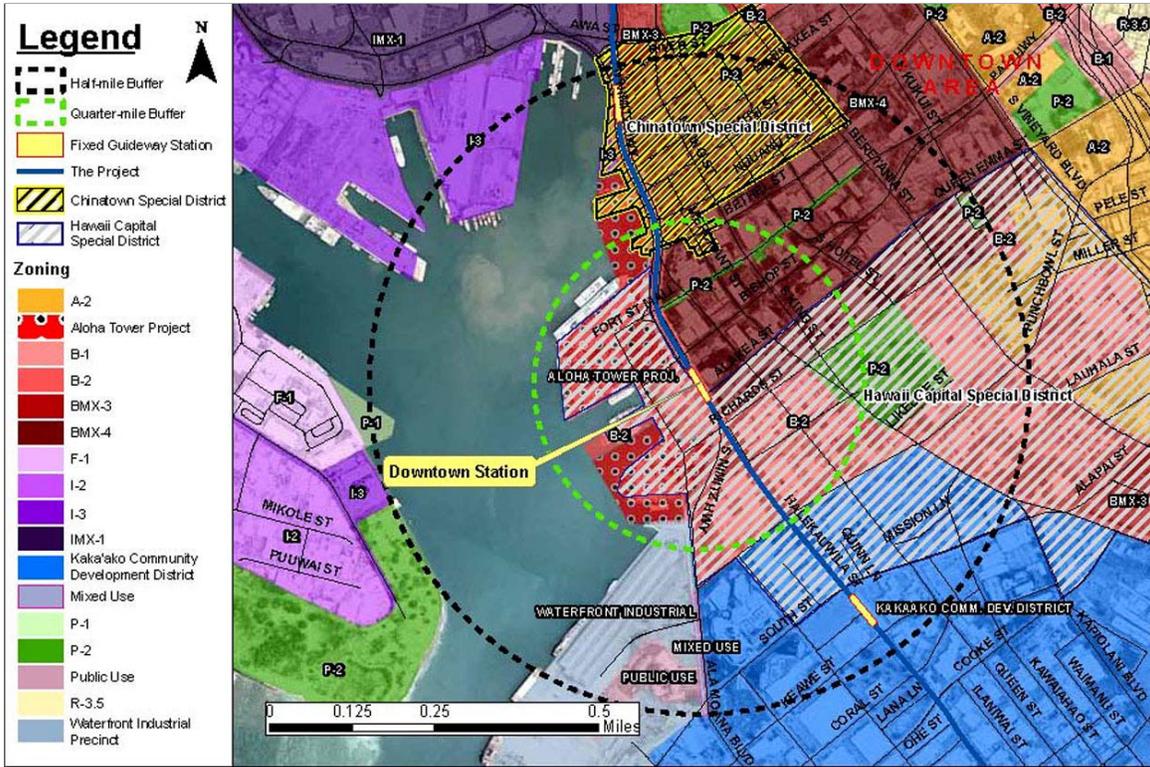


Figure 35: Downtown Station Zoning Map

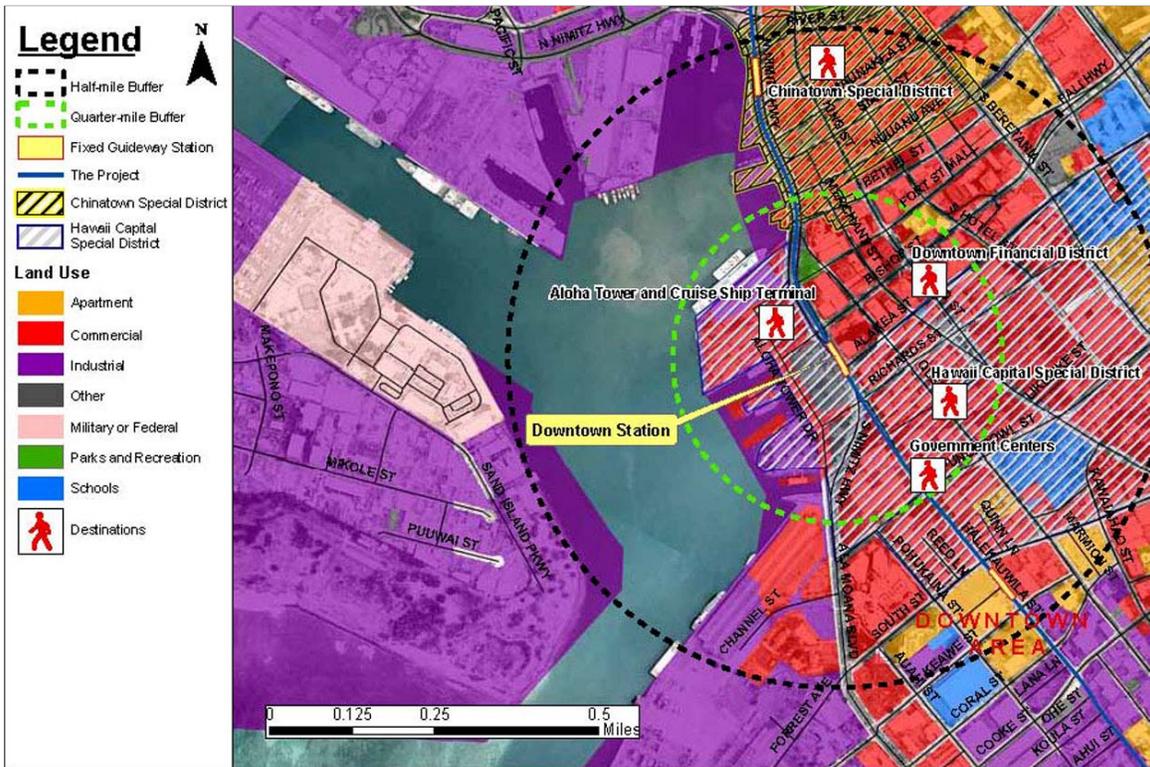


Figure 36: Downtown Station Land Use Map

Table 18: Downtown Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	For in-town neighborhoods (such as Downtown), the PUC Development Plan recommends providing high-density housing in mixed-use developments near transit stations. The plan also states that areas close to transit lines include reinforcing uses such as stores, dining establishments, professional and/or business services, and other activities. Many of these uses already exist near the Downtown Station.	PUC Development Plan: High
Connecting neighborhoods with transit	The PUC Development Plan recommends providing a transit link along the Ala Moana-Kaka'ako-Downtown corridor to serve visitors and providing at-grade trolleys that could be publically or privately operated.	PUC Development Plan: Moderate; the plan overall shows support for transit and TOD.
Creating pedestrian environments	The plan recommends creating pedestrian districts in the Downtown area where walking is intended as the primary means of transportation. Improvements will include midblock pathways or arcades, sidewalk improvements, and landscaping.	PUC Development Plan: High
Taming traffic	The Development Plan recommends working with residents and school organizations to improve pedestrian safety through traffic management plans and the construction of traffic calming devices and improved sidewalks and crosswalks on neighborhood streets. In addition, the plan recommends creation of a shoreline pedestrian promenade near Downtown by rerouting traffic to a Sand Island Parkway. This would reduce traffic on Nimitz Highway while creating a more pedestrian-friendly environment. No other traffic calming measures specific to Downtown are provided in this plan.	PUC Development Plan: Moderate
Balancing parking	The PUC Development Plan recommends providing conveniently located municipal parking, parking improvement districts, or centralized parking. According to the Land Use Ordinance, only one stall per multifamily dwelling is required in this area.	PUC Development Plan: High
Creating partnerships	The plan states that neighborhood planning is a collaborative process involving residents, business and property owners, government agencies, and others with a stake in the area. The plan recommends encouraging residents and school organizations to improve pedestrian safety through planning and education.	PUC Development Plan: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Complementing community objectives	The plan seeks to “implement land use strategies to achieve a balanced transportation system” and to “improve the public transit system, including development of a rapid transit component.” In addition, the plan recommends stimulating TOD on potential infill and redevelopment properties within the rapid transit corridor through tax incentives, development code amendments, and public infrastructure investments.	PUC Development Plan: High

2.20 Civic Center Station

2.20.1 Existing Zoning and Land Use

The station lies within the Kaka'ako Community Development District, which is controlled by the State. The station area is transitioning from underutilized commercial and industrial uses to high-density condominium and office uses Koko Head of South Street. Government offices are also located near the station. TOD already exists in this area, and vacant and underutilized lots provide ample opportunity for further TOD development (Figure 37 and Figure 38).

2.20.2 Future Conditions based on (Kaka'ako) Mauka Area Plan (and Rules) Working Draft

The Kaka'ako Mauka Area Plan Working Draft outlines land uses and planning for this station area. The plan envisions a pedestrian-friendly district featuring higher density and mixed-use development. According to the Mauka Area Plan, land around the transit station will primarily be zoned mixed-use. Revisions to the plan are underway.

2.20.3 Evaluation based on Best Practices

Table 19 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

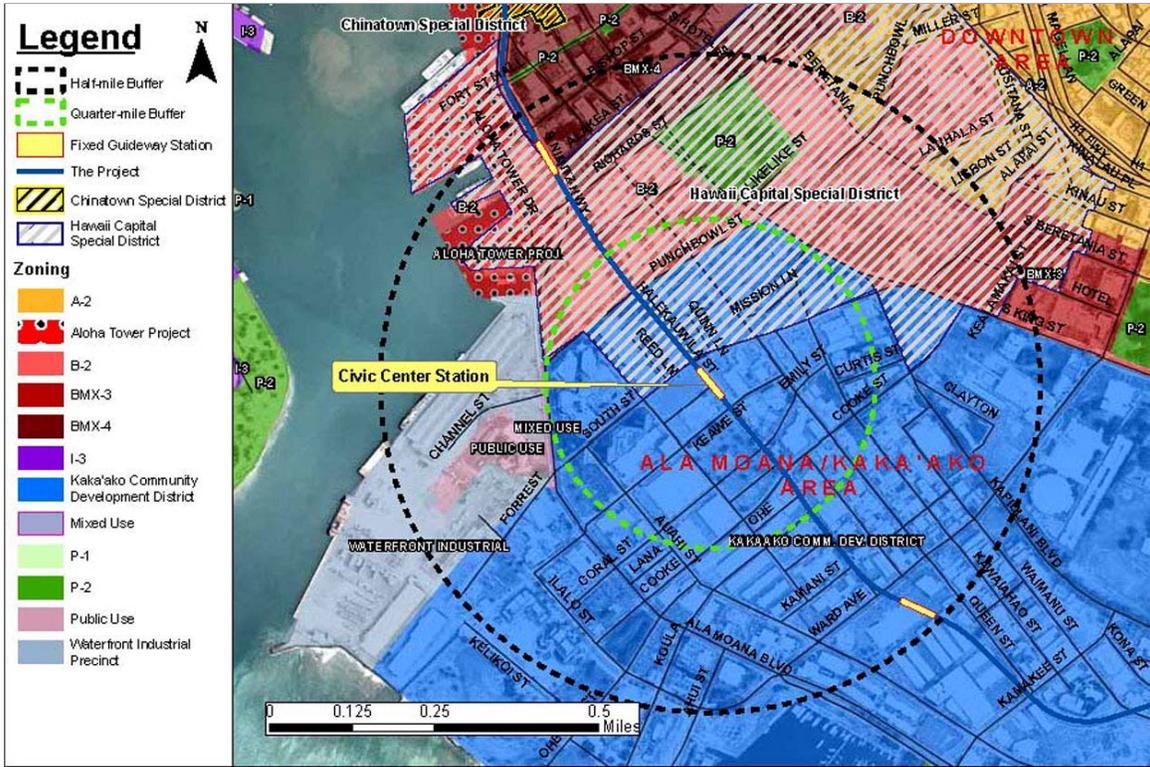


Figure 37: Civic Center Station Zoning Map

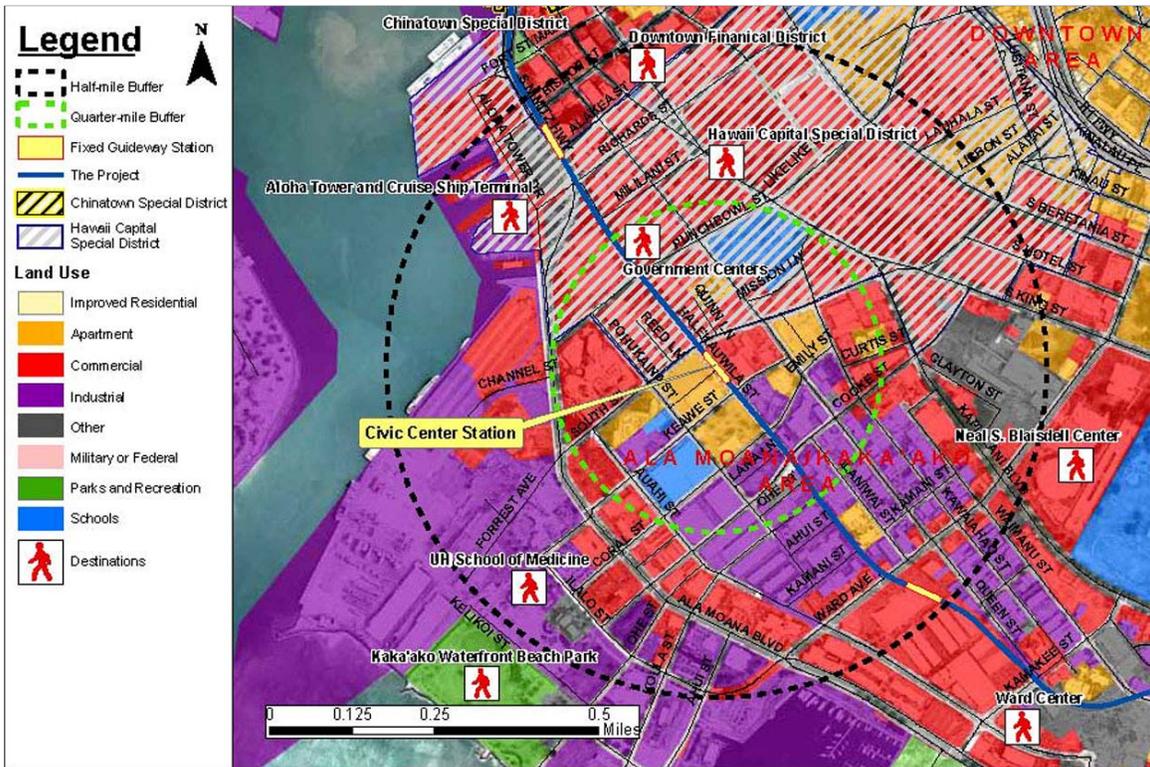


Figure 38: Civic Center Station Land Use Map

Table 19: Civic Center Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	According to the working draft of the Mauka Area Plan, residences and businesses will be concentrated around transit stations to create active urban spaces.	The Mauka Area Plan Working Draft: High
Connecting neighborhoods with transit	The former and now outdated Mauka Area Plan recommended improvements to the bus system, including increasing level of service and relocating bus routes to meet increasing demand as development progresses. The plan stated that shelters and benches should be required at all bus stops. The working draft states that currently the transportation system is designed to support vehicular traffic and recommends restoring a balance of transportation options to foster the development of an urban village. Additional detailed information about improvements to the bus network is not included in the working draft.	The Mauka Area Plan Working Draft: Moderate
Creating pedestrian environments	The working draft states that a network of “pedestrian tolerant or supportive” streets and pathways should be established in the area. The draft also states that while every street does not need wide sidewalks, all streets should provide safe, pleasant, human-scaled walking conditions. Pedestrians will be buffered from traffic through the use of planters/street furniture and on-street parking. Active street front uses will also be emphasized while minimizing or eliminating driveways. The design of buildings along streets, including windows and building height, will also support a pedestrian friendly environment.	The Mauka Area Plan Working Draft: High
Taming traffic	The draft update does not provide any specific references to traffic calming measures.	The Mauka Area Plan Working Draft: Unknown
Balancing parking	The working draft recommends the provision of on-street parking on pedestrian-oriented streets. The working draft also establishes building form guidelines, including a “street-front element” required along all street-fronts, which allows parking structure use above the ground floor. The working draft acknowledges that many Kaka’ako developments provide excess parking and recommends that the Mauka Area Plan discourage excessive parking by creating market disincentives (such as counting excess spaces as floor area) and encouraging shared use parking. Lastly, the working draft recommends granting permits for surface parking lots with a capacity or area above a certain threshold for only a limited amount of time (for example, a maximum of five years). After that period, the permit may be renewed only if additional landscaping and some active street-front use are provided on the site.	The Mauka Area Plan Working Draft: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Creating partnerships	The working draft states that HCDA will collaborate with landowners and community stakeholders to undertake planning for, and development of, specific projects. In addition, HCDA will review proposed projects for compliance with the Mauka Area Rules. As a result, partnerships supporting TOD are likely.	The Mauka Area Plan Working Draft: High
Complementing community objectives	The working draft states that “a reliable high capacity transit system, along with good pedestrian facilities, a range of housing choices, and retail uses and services will enable Kaka’ako residents to reduce dependence on the automobile.” In addition, the working draft states that the City’s TOD provisions will likely be incorporated into the Mauka Area Plan as an added overlay upon completion of the City’s TOD development process.	The Mauka Area Plan Working Draft: High

2.21 Kaka‘ako Station

2.21.1 Existing Zoning and Land Use

The station is located within the Kaka‘ako Community Development District, which is controlled by the State. Currently, commercial and industrial land uses surround the station area (Figure 39 and Figure 40).

2.21.2 Future Conditions based on (Kaka‘ako) Mauka Area Plan (and Rules) Working Draft

The Mauka Area Plan Working Draft outlines land uses and planning for this station area. The station area is in transition from low-density commercial uses with surface parking to new high-density office and residential uses with garage parking. According to the working draft, land around the transit station will primarily be zoned mixed-use. Revisions to the plan are underway. TOD is possible due to redevelopment plans by HCDA, General Growth, and Kamehameha Schools.

2.21.3 Evaluation based on Best Practices

Table 20 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

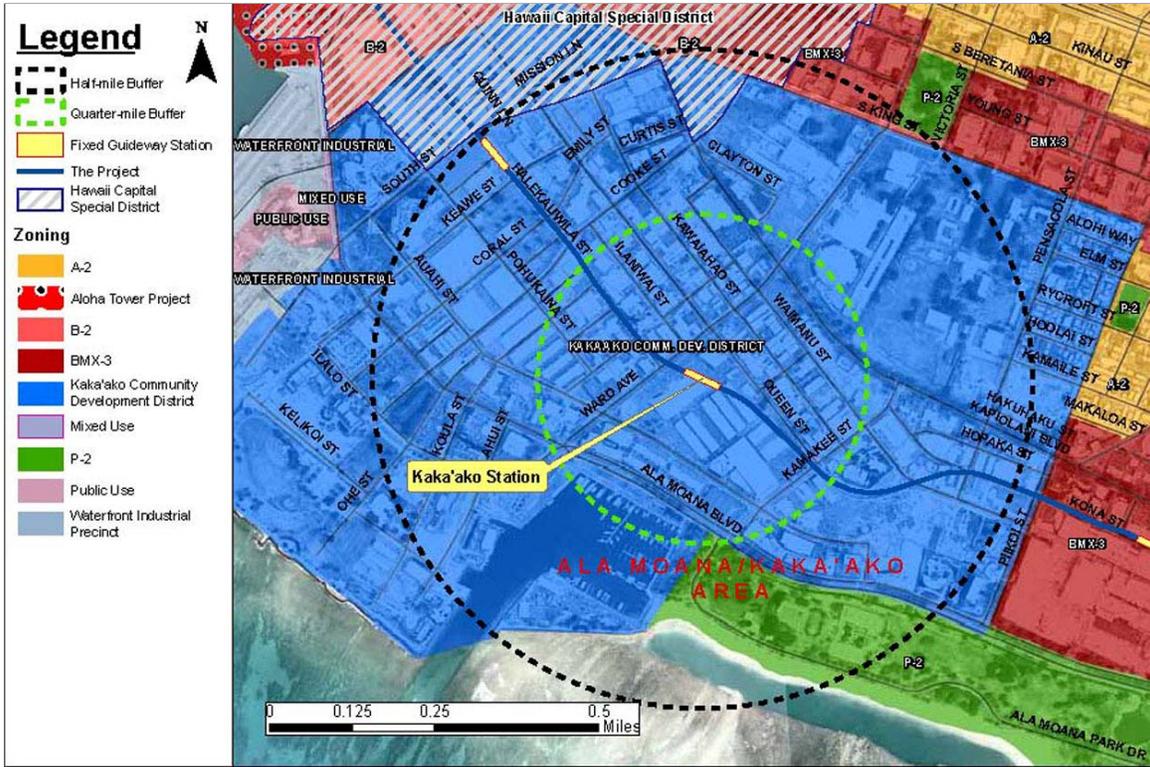


Figure 39: Kaka'ako Station Zoning Map

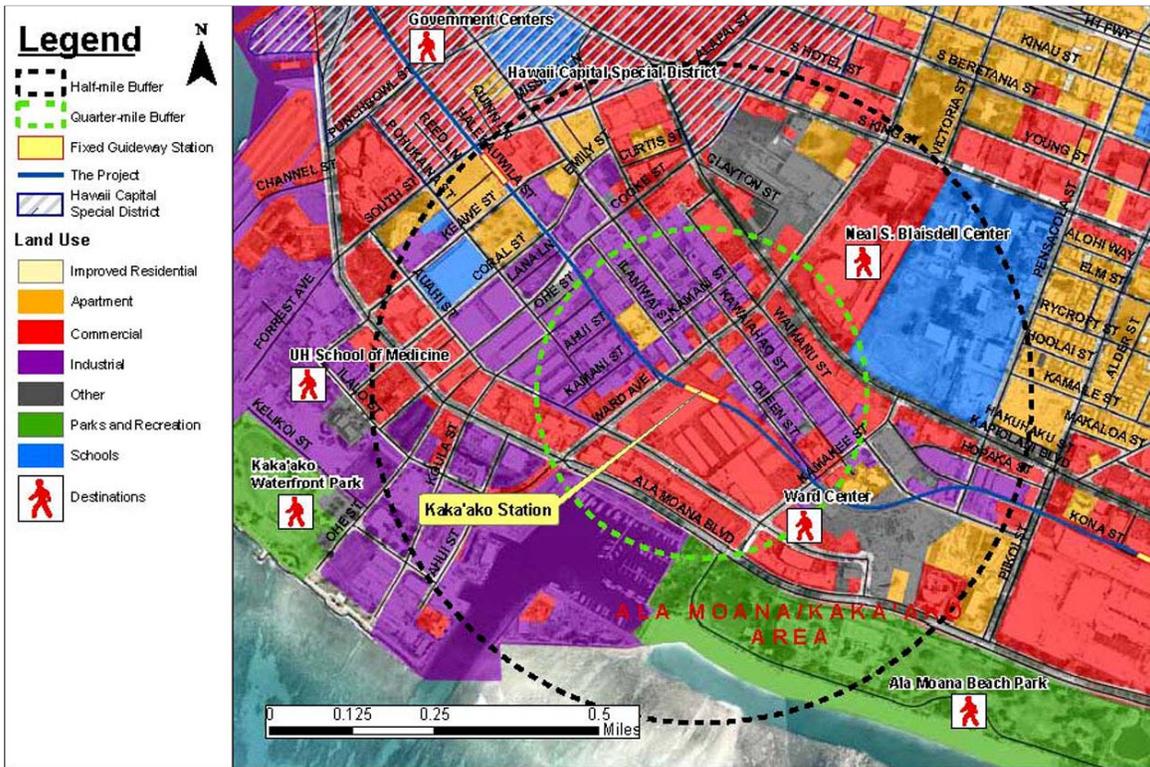


Figure 40: Kaka'ako Station Land Use Map

Table 20: Kaka’ako Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	According to the working draft of the Mauka Area Plan, residences and businesses will be concentrated around transit stations to create active urban spaces. Additionally, the working draft states that the Kaka’ako station provides potential for redevelopment of the Auahi neighborhood into a mixed use urban village.	The Mauka Area Plan Working Draft: High
Connecting neighborhoods with transit	The former Mauka Area Plan recommended improvements to the bus system including increasing level of service and relocating bus routes to meet increasing demand as development progresses. The plan stated that shelters and benches should be required at all bus stops. The working draft states that currently the transportation system is designed to support vehicular traffic and recommends restoring a balance of transportation options to foster the development of an urban village. Additional detailed information about improvements to the bus network is not included in the working draft.	The Mauka Area Plan Working Draft: Moderate
Creating pedestrian environments	Creating pedestrian environments: The working draft seeks to develop a network of “pedestrian tolerant or supportive” streets and pathways. While every street does not need wide sidewalks, all streets should provide safe, pleasant, human-scaled walking conditions. Pedestrians will be buffered from traffic through the use of planters/street furniture and on-street parking. Active street front uses will also be emphasized while minimizing or eliminating driveways. The design of buildings along streets, including windows and building height, will also support a pedestrian friendly environment. In addition, the working draft acknowledges that Ward Avenue will remain an active thoroughfare and as such acts as a barrier to pedestrian movement. The working draft recommends modifying Ward Avenue to include a center landscaped median, wider sidewalks, and more favorable crosswalk design at key intersections.	The Mauka Area Plan Working Draft: High
Taming traffic	The draft update does not provide any specific information regarding traffic calming measures.	The Mauka Area Plan Working Draft: Unknown

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Balancing parking	The working draft recommends the provision of on-street parking on pedestrian-oriented streets. The working draft also establishes building form guidelines, including a “street-front element” that will be required along all street-fronts. This element allows parking structure use above the ground floor. The working draft acknowledges that many Kaka’ako developments provide excess parking and recommends that the Mauka Area Plan discourage excessive parking by creating market disincentives (such as counting excess spaces as floor area) and encouraging shared use parking. Lastly, the working draft recommends granting permits for surface parking lots with a capacity or area above a certain threshold for only a limited amount of time (for example, a maximum of five years). After that period, the permit may be renewed only if additional landscaping and some active street-front use are provided on the site.	The Mauka Area Plan Working Draft: High
Creating partnerships	The working draft states that HCDA will collaborate with landowners and community stakeholders to undertake planning for, and development of, specific projects. In addition, HCDA will review proposed projects for compliance with the Mauka Area Rules. As a result, partnerships supporting TOD and station integration are likely.	The Mauka Area Plan Working Draft: High
Complementing community objectives	The working draft states that “a reliable high capacity transit system, along with good pedestrian facilities, a range of housing choices, and retail uses and services will enable Kaka’ako residents to reduce dependence on the automobile.” In addition, the working draft states that the City’s TOD provisions will likely be incorporated into the Mauka Area Plan as an added overlay upon completion of the City’s TOD development process.	The Mauka Area Plan Working Draft: High

2.22 Ala Moana Center Station

2.22.1 Existing Zoning and Land Use

The station is surrounded by Community Business Mixed Use (BMX-3) and medium-density residential zoning, which allows a mix of commercial and residential uses. The station will be located adjacent to the Ala Moana Shopping Center. Medium and high density housing is located mauka of the station while Ala Moana Park is makai of the station (Figure 41 and Figure 42). Many TOD characteristics already exist in this area.

2.22.2 Future Conditions based on PUC Development Plan

The land use map in Appendix A of this plan shows district commercial land uses in the immediate station area. Medium and high density residential/mixed use land uses are shown farther mauka of the station and park/open space is shown makai of the shopping center.

2.22.3 Evaluation based on Best Practices

Table 21 provides a summary of the plan based on best practices and indicates the degree of support for transit and TOD.

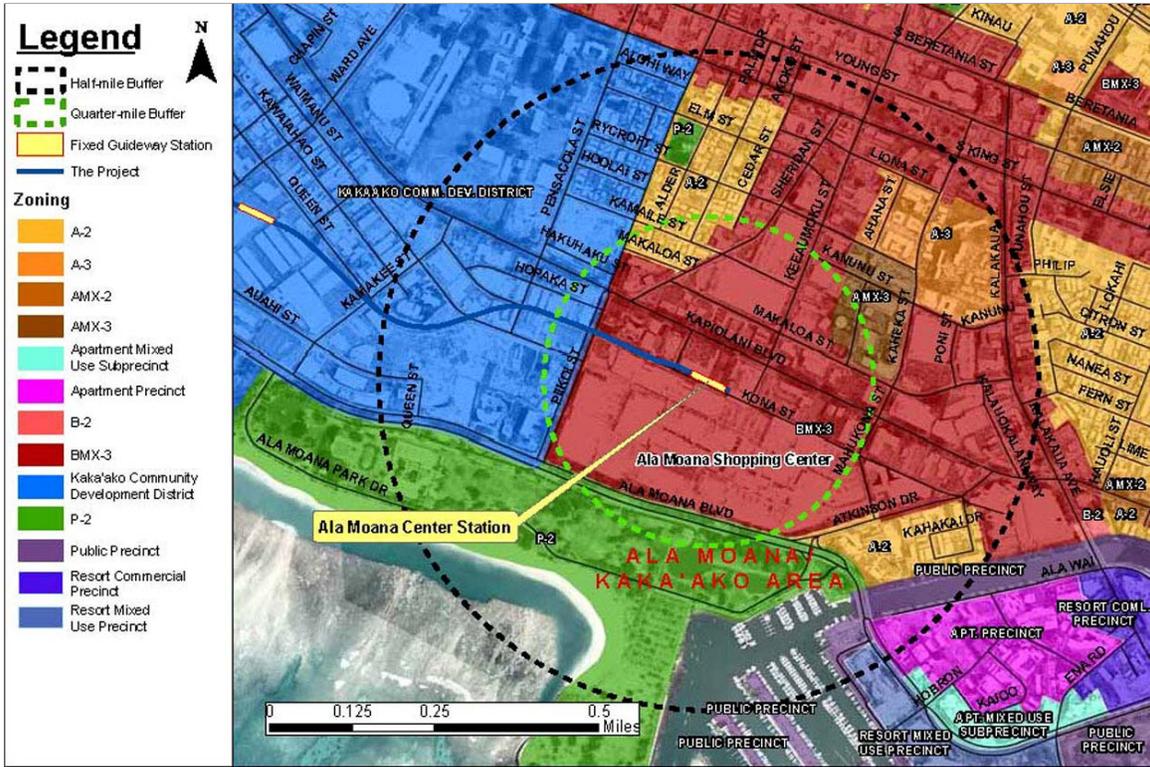


Figure 41: Ala Moana Center Station Zoning Map

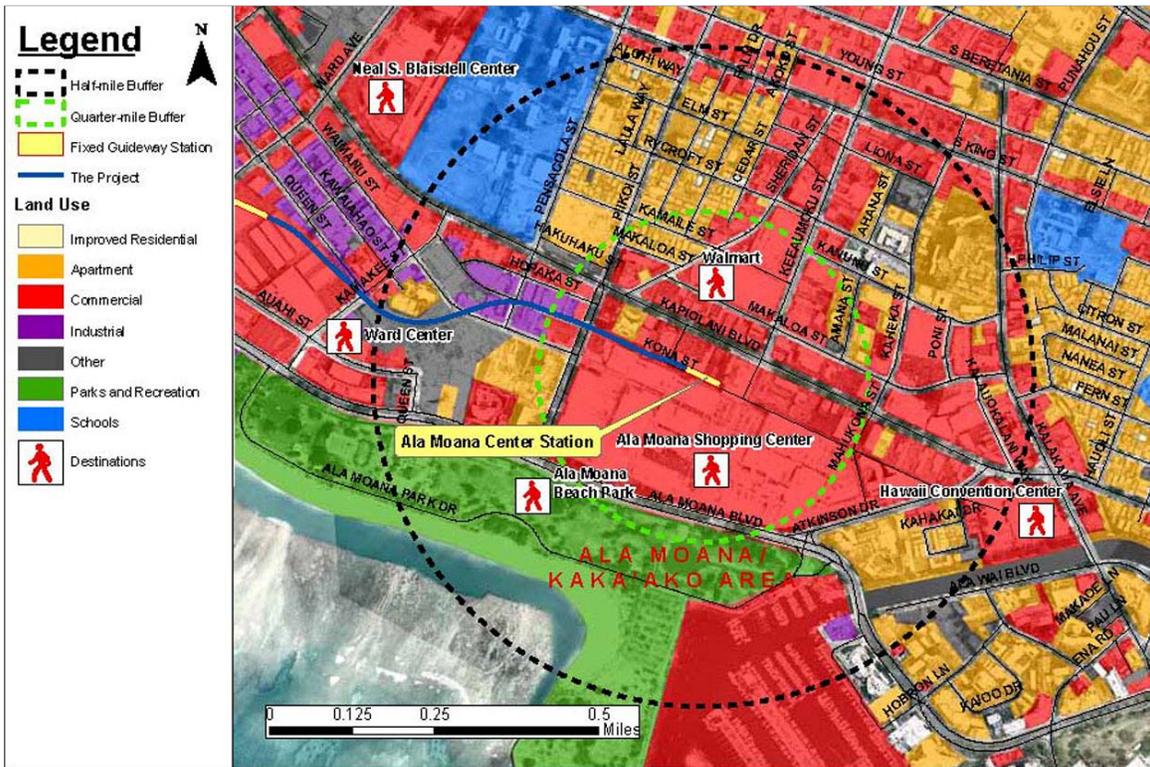


Figure 42: Ala Moana Center Station Land Use Map

Table 21: Ala Moana Center Station Evaluation based on Best Practices

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Station at the heart of the community	The PUC Development Plan states that shopping centers should be integrated with adjacent neighborhoods and have safe, pleasant, pedestrian connections between the shopping center and the surrounding neighborhood. In addition, the Development Plan recommends cultivating “neighborhood centers” where people can gather for shopping, entertainment, and/or recreation.	PUC Development Plan: High
Connecting neighborhoods with transit	The PUC Development Plan recommends providing a transit link along the Ala Moana-Kaka‘ako-Downtown corridor to serve visitors and providing at-grade trolleys that could be publically or privately operated.	PUC Development Plan: Moderate
Creating pedestrian environments	The land use map in Appendix A identifies Ala Moana Boulevard as a pedestrian network. The plan indicates that pedestrian networks should be given high priority for pedestrian improvements, which includes avoiding “superblock” developments, creating midblock pathways, and providing wider sidewalks along key streets.	PUC Development Plan: High
Taming traffic	The PUC Development Plan recommends that shopping centers have (1) clearly defined pedestrian walkways between the sidewalk and building entrances; (2) placement of stores along a portion of the street frontage; (3) convenient access to transit; and (4) mitigation of vehicular traffic impacts.	PUC Development Plan: High
Balancing parking	The PUC Development Plan recommends providing municipal parking lots or additional on-street parking instead of requiring parking on each lot. As a result, some redevelopment of existing parking structures could occur to consolidate parking in this area. For shopping centers, the plan recommends requiring pedestrian connections within shopping center parking lots and to develop shared parking agreements. The plan also recommends shielding parking from view of the street and adjacent residences and potentially establishing maximum parking ratios in selected areas. Spillover parking may occur in this area from those accessing the fixed guideway system. The City and surrounding landowners may need to consider changes to existing parking in this area, including parking time restrictions or charging for parking.	PUC Development Plan: High

Best Practice	Summary of Plans	Degree of Support for Transit and TOD
Creating partnerships	The PUC Development Plan states that “neighborhood planning is a collaborative enterprise involving residents, business and property owners, government agencies, and others who have a stake in the neighborhood.” Currently the Ala Moana area is heavily developed. The City should partner with private landowners in the area to encourage TOD through redevelopment. In addition, the plan recommends working with residents and school organizations to improve pedestrian safety.	PUC Development Plan: High
Complementing community objectives	The plan seeks to “implement land use strategies to achieve a balanced transportation system” and to “improve the public transit system, including development of a rapid transit component. The PUC Development Plan is supportive of transit and TOD.	PUC Development Plan: High

Appendix A: Zoning Designations

Designation	Title
Preservation	
F-1	Military and Federal
P-1	Restricted
P-2	General
Agricultural	
AG-1	Restricted
AG-2	General
Country	
C	Country
Residential	
R-3.5	
R-5	
R-7.5	
R-10	
R-20	
Apartment	
A-1	Low-Density
A-2	Medium-Density
A-3	High-Density
Apartment Mixed Use	
AMX-1	Low-Density
AMX-2	Medium-Density
AMX-3	High-Density
RESORT	
RESORT	Resort
Business	
B-1	Neighborhood
B-2	Community
Business Mixed Use	
BMX-3	Community
BMX-4	Central
Industrial	
I-1	Limited
I-2	Intensive
I-3	Waterfront
IMX-1	Industrial-Commercial Mixed Use

Source: City and County of Honolulu Zoning, Sec 21-3.10