

**Station Area Development Potential Report
Honolulu High-Capacity Transit Corridor Project
Final**

August 2011

Prepared for:
City and County of Honolulu

Table of Contents

1	Executive Summary	1
2	Introduction	3
2.1	Excess Parcels from Project Construction.....	3
2.2	Underutilized Parcels within Project Station Areas	6
2.3	Underutilization in the West O’ahu Station Areas	7
3	Station-by-Station Analysis	12
3.1	East Kapolei Station Area.....	12
3.2	UH West O’ahu Station Area	14
3.3	Ho’opili Station Area	16
3.4	West Loch Station Area	17
3.5	Waipahu Transit Center Station Area	20
3.6	Leeward Community College Station Area	24
3.7	Pearl Highlands Station Area	26
3.8	Pearlridge Station Area	30
3.9	Aloha Stadium Station Area	34
3.10	Pearl Harbor Naval Base Station Area	37
3.11	Honolulu International Airport Station Area	39
3.12	Lagoon Drive Station Area	41
3.13	Middle Street Transit Center Station Area	45
3.14	Kalihi Station Area	51
3.15	Kapālama Station Area.....	56
3.16	Iwilei Station Area.....	59
3.17	Chinatown Station Area.....	61
3.18	Downtown Station Area	64
3.19	Civic Center Station Area	67
3.20	Kaka’ako Station Area	74
3.21	Ala Moana Center Station Area	81
	References	88

Tables

Table 1: Acquired Parcels with Excess Land that have Station Area Development Potential	4
Table 2: Underutilized Parcels 1 Acre or Larger within One-quarter Mile of Project Stations	8
Table 3: Lagoon Drive Station Area Excess Parcels	43
Table 4: Middle Street Transit Center Station Area Excess Parcels.....	47
Table 5: Kalihi Station Area Excess Parcels.....	52
Table 6: Kaka'ako Station Area Excess Parcels.....	75
Table 7: Ala Moana Center Station Area Excess Parcels.....	83

Figures

Figure 3.1-1: East Kapolei Station Area Acquisition Parcels	12
Figure 3.2-1: UH West O'ahu Station Area Acquisition Parcels.....	15
Figure 3.3-1: Ho'opili Station Area Acquisition Parcels.....	16
Figure 3.4-1: West Loch Station Area Acquisition Parcels	18
Figure 3.4-2: West Loch Station Area Underutilized Parcels.....	19
Figure 3.5-1: Waipahu Transit Center Station Area Acquisition Parcels.....	20
Figure 3.5-2: Waipahu Transit Center Station Area Underutilized Parcels	22
Figure 3.5-3: Underutilized Parcel WC-22 (no street-level photo available)	23
Figure 3.6-1: Leeward Community College Station Area Acquisition Parcels	24
Figure 3.6-2: Leeward Community College Station Area Development Constraints	25
Figure 3.7-1: Pearl Highlands Station Area Acquisition Parcels	27
Figure 3.7-2: Pearl Highlands Station Area Underutilized Parcels.....	28
Figure 3.7-3: Underutilized Parcel PH-1	29
Figure 3.7-4: Underutilized Parcel PH-2	29
Figure 3.8-1: Pearlridge Station Area Acquisition Parcels	30
Figure 3.8-2: Pearlridge Station Area Underutilized Parcels	32
Figure 3.8-3: Underutilized Parcel PR-2 (front partial view only)	32
Figure 3.8-4: Underutilized Parcel PR-10 (parking lot only).....	33
Figure 3.8-5: Underutilized Parcel PR-8	33
Figure 3.9-1: Aloha Stadium Station Area	35
Figure 3.9-2: Aloha Stadium Station Area Development Constraints	36
Figure 3.10-1: Pearl Harbor Naval Base Station Area	37
Figure 3.10-2: Pearl Harbor Naval Base Station Area Underutilized Parcels	38

Figure 3.11-1: Honolulu International Airport Station Area	40
Figure 3.12-1: Lagoon Drive Station Area	41
Figure 3.12-2: Lagoon Drive Station Area Excess Parcels Aerial View	42
Figure 3.12-3: Lagoon Drive Station Area Excess Parcels 1 and 2 Street View	42
Figure 3.12-4: Lagoon Drive Station Area Underutilized Parcels	44
Figure 3.13-1: Middle Street Transit Center Station Area.....	45
Figure 3.13-2: Middle Street Transit Center Station Area Excess Parcel Aerial View	46
Figure 3.13-3: Middle Street Transit Center Station Area Excess Parcel 3 Street View	47
Figure 3.13-4: Middle Street Transit Center Underutilized Parcels	48
Figure 3.13-5: Underutilized Parcel MS-14	48
Figure 3.13-6: Underutilized Parcel MS-4	49
Figure 3.13-7: Underutilized Parcel MS-9 (in background).....	50
Figure 3.13-8: Underutilized Parcel MS-13	50
Figure 3.14-1: Kalihi Station Area	52
Figure 3.14-2: Kalihi Station Area Excess Parcel Aerial View	53
Figure 3.14-3: Kalihi Station Area Excess Parcel 4 Street View.....	54
Figure 3.14-4: Kalihi Station Area Excess Parcels 5 and 6 Street View	54
Figure 3.14-5: Kalihi Station Area Underutilized Parcels.....	55
Figure 3.15-1: Kapālama Station Area	56
Figure 3.15-2: Kapālama Station Area Underutilized Parcels	57
Figure 3.15-3: Underutilized Parcel KL-6	58
Figure 3.16-1: Iwilei Station Area	59
Figure 3.16-2: Iwilei Station Area Redevelopment Parcels	60
Figure 3.17-1: Chinatown Station Area	62
Figure 3.17-2: Chinatown Station Area Underutilized Parcels.....	63
Figure 3.18-1: Downtown Station Area.....	65
Figure 3.18-2: Downtown Station Area Underutilized Parcels.....	66
Figure 3.19-1: Civic Center Station Area.....	68
Figure 3.19-2: Civic Center Station Area Underutilized Parcels	69
Figure 3.19-3: Underutilized Parcel CC-1.....	70
Figure 3.19-4: Underutilized Parcel CC-10.....	70
Figure 3.19-5: Underutilized Parcel CC-13.....	71
Figure 3.19-6: Underutilized Parcel CC-23.....	71
Figure 3.19-7: Underutilized Parcel CC-24.....	72
Figure 3.19-8: Underutilized Parcel CC-30.....	72
Figure 3.19-9: Underutilized Parcel CC-31.....	73
Figure 3.20-1: Kaka'ako Station Area.....	75

Figure 3.20-2: Kaka'ako Station Area Excess Parcel Aerial View	76
Figure 3.20-3: Kaka'ako Station Area Excess Parcel 7 Street View	77
Figure 3.20-4: Kaka'ako Station Area Excess Parcel 8 Street View	77
Figure 3.20-5: Kaka'ako Station Area Excess Parcel 9 Street View	78
Figure 3.20-6: Kaka'ako Station Area Underutilized Parcels	79
Figure 3.20-7: Underutilized Parcel KK-25	80
Figure 3.20-8: Underutilized Parcel KK-26	80
Figure 3.21-1: Ala Moana Center Station Area	82
Figure 3.21-2: Ala Moana Center Station Area Excess Parcel Aerial View	84
Figure 3.21-3: Waimanu Street Excess Parcels 10, 11, and 12 Street View	84
Figure 3.21-4: Kona Street Excess Parcel 13 Street View	85
Figure 3.21-5: Kona/Pensacola Streets Excess Parcel 14 Street View	85
Figure 3.21-6: Ala Moana Center Station Area Underutilized Parcels	87

This report provides an examination of the 21 station areas of the Honolulu High-Capacity Transit Corridor Project (the Project) with regard to the potential redevelopment of excess and underutilized parcels within one-quarter mile of each station. The report focuses on properties to be purchased as part of the Project and determines which properties have excess land that could be developed or redeveloped to complement the transit system. Excess parcels are remainders; they are pieces of land—often small slivers—left over in cases where a whole property has been purchased for the Project but is not needed in its entirety for Project stations, guideway, traction power substations, et cetera. Fourteen parcels with developable excess land have been identified in these areas of project construction. This report also identifies potential opportunities for infill and transit-oriented development (TOD) further beyond the guideway and station footprints on parcels that have been determined to be possibly underutilized. In these cases, 224 parcels totaling 138 acres have been flagged as possibly underutilized; many of these parcels, particularly the 20 that are 1 acre or larger in size, are possible candidates for TOD projects that could generate ridership at the stations and help establish more livable communities around it.

The main purpose of this report is to assess the basic development potential of excess and underutilized parcels in each of the Project station areas. This report provides a station-by-station look at the parcels to be purchased in order to build the project stations, as well as those parcels within the quarter-mile radius of each station that have been identified as underutilized. On the whole, development potential is greatest around the three West O‘ahu stations of East Kapolei, the University of Hawai‘i (UH) West O‘ahu, and Ho‘opili (where substantial TOD plans have already been proposed) and Civic Center Station, with more modest opportunities at the Pearlridge, Middle Street Transit Center, Chinatown, and Kaka‘ako Stations. Joint development built above Project guideway utilizing air rights, on or above Project park and ride facilities (lots are planned at East Kapolei, UH West O‘ahu, and Aloha Stadium; and a garage is planned at Pearl Highlands), and on or above other right-of-way purchased for the Project is encouraged, although not expressly addressed in this report.

This is one of several reports issued by the City and County of Honolulu Department of Transportation Services Rapid Transit Division (RTD) that examine the issue of land use around stations. Other reports are as follows:

Station Access and Modal Interface Report

Urban Design Guidelines Report

Review of Current City and State Ordinances

Sustainable Community Impact Report

In addition, several reports released by the City and County Department of Planning and Permitting identify through community based planning the framework of what TOD zoning should entail by creating TOD zoning regulations that would codify the plan recommendations. The reports include the following:

‘Aiea – Pearl City Neighborhood TOD Plan

East Kapolei Neighborhood TOD Plan

Waipahu Neighborhood TOD Plan

TOD Economic and Financial Study/Value Capture Opportunity Analysis

Finally, the Hawai'i Community Development Authority, a State agency that regulates land use in the areas surrounding the Civic Center and Kaka'ako Stations, has recently released the *Draft Kaka'ako Mauka Area Plan and Rules*, which presents a community-based vision for urban, mixed use development. Many of the reports mentioned above are referenced in this report.

This report explores the development potential around future rail stations by examining two types of parcels: 1) excess parcels from the construction of project stations and the elevated fixed guideway; and 2) parcels within a quarter-mile radius of each station that may be underutilized based on very low improvement-to-land-value ratios.

2.1 Excess Parcels from Project Construction

As part of the Project, the City and County of Honolulu (City) will purchase or lease all or part of approximately 200 properties. In most cases, the City will purchase or lease exactly the amount of land needed for the stations, the guideway, the maintenance and storage facility, park-and-ride facilities, and other supporting components. In most situations, the existing owner of these properties will be able to stay on the remaining portions of the property and maintain existing uses. However, in a few cases it will be necessary to purchase an entire parcel even if the Project only needs a portion of that parcel. Examples of these situations include instances where access to the excess parcel will be affected or eliminated; where a building or a substantial amount of parking will be removed; or where the owner just wants to sell the entire property. In these instances, the Project will purchase the entire property, including the land that could be left over (excess) after the Project has been constructed. This report examines these excess parcels for their redevelopment potential and provides basic information, such as size, location, zoning, and land use.

Fourteen parcels with potentially developable excess land have been identified: two parcels on Waiwai Loop near Lagoon Drive Station; one parcel near the Middle Street Transit Center Station; three parcels along Dillingham Boulevard near Kalihi Station; three parcels near Kaka'ako Station; and five parcels between the Kaka'ako and Ala Moana Center Stations near the intersection of Pensacola and Kona Streets. Altogether, the 14 parcels include about 194,000 square feet (4.46 acres) of potentially developable land.

Table 1 provides information for each of the 14 to-be-acquired parcels with excess land. The table includes Tax Map Key (TMK) numbers, street addresses, land use and zoning information, the number of displacements (if any), the parcel size, and the size of the excess parcel in square feet, as well as any comments pertaining to the parcel. Chapter 3 of this report provides a station-by-station analysis that includes a map of each station area that shows land parcels affected by the Project and a description of the area.

Joint development opportunities arising solely from excess land purchased for the Project are modest. In terms of size, joint development opportunities (whereby development can be built directly alongside or in conjunction with the station on Project-owned land) are greatest at Middle Street Transit Center and Kaka'ako, which have 49,716 square feet (1.14 acres) and 76,208 square feet (1.75 acres) of excess land available, respectively. However, joint development of excess parcels at these stations is somewhat constrained. Excess land at Middle Street Transit Center must accommodate a traction power substation (TPSS), while excess land at Kaka'ako is physically narrow and dispersed.

Table 1: Acquired Parcels with Excess Land that have Station Area Development Potential

#	Nearest Station	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use	Zoning*	Displacements	Total Lot Size in square feet (sf)**	Lot Size Used by Project in square feet (sf)	Excess Parcel Size in square feet (sf)	Comments
1	Lagoon Drive	11016005	Full	2676	Waiwai Loop	Industrial	I-2	(-)	24,738	3,338	21,400	Guideway and columns through middle of parcel will limit development potential
2	Lagoon Drive	11016006	Full	2668	Waiwai Loop	Industrial	I-2	1 Business	23,225	8,512	14,713	Guideway, columns and traction power substation (TPSS) will limit access and development potential; moving TPSS to rear of parcel would improve potential
3	Middle Street Transit Center	12013021	Full	2323	Kamehameha Highway	Commercial	B-2	(-)	59,371	9,655	49,716	TPSS should be located such that development potential is retained
4	Kalihi	12009016	Full	1965	Dillingham Boulevard	Residential	I-2	(-)	4,650	520	4,130	Small empty lot that could be consolidated with adjacent private parcels to improve development potential
5	Kalihi	12003016	Full	1819	Dillingham Boulevard	Commercial	B-2	2 Businesses	4,650	770	3,880	Parcel could be consolidated with Parcel 6 to improve development potential
6	Kalihi	12003082	Full	1825	Dillingham Boulevard	Commercial	B-2	3 Businesses/ 1 Residential Unit	4,650	770	3,880	Parcel could be consolidated with Parcel 5 to improve development potential
7	Kaka'ako	21050062	Full	404	Ward Avenue	Commercial	B-2	3 Businesses	9,644	1,427	8,217	Corner lot with frontage on Ward Avenue provides excellent potential for redevelopment
8	Kaka'ako	23002059	Partial	333, 953, 953A, 953B, 953C, 953D, 953E, 953F	Queen Street	Commercial	B-2	1 Business	234,343	40,636	36,351	Opportunity to incorporate station into new development

Table 1: Acquired Parcels with Excess Land that have Station Area Development Potential (continued)

#	Nearest Station	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use	Zoning*	Displacements	Total Lot Size in square feet (sf)**	Lot Size Used by Project in square feet (sf)	Excess Parcel Size in square feet (sf)	Comments
9	Kaka'ako	23002001	Partial	310, 330, 340	Kamake'e Street	Commercial/Industrial	B-2	7 Businesses	477,582	44,358	31,640	Narrow parcel with little street frontage
		23002001	Partial	1020, 1030, 1044, 1060	Auahi Street	Commercial/Industrial	B-2					
10	Ala Moana Center	23004048	Full	1156, 1158, 1160, 1162, 1164, 1166	Waimanu Street	Commercial	B-2	1 Business	7,027	80	6,947	Column placement could limit street frontage
11	Ala Moana Center	23004069	Full	1168, 1170	Waimanu Street	Commercial	B-2	3 Businesses	8,190	3,975	4,215	Guideway columns and future track could limit access and development potential
12	Ala Moana Center	23007036	Full	1174	Waimanu Street	Commercial	B-2	1 Business	4,600	2,569	2,031	Guideway columns and future track could limit access and development potential
13	Ala Moana Center	23007039	Full	1163	Kona Street	Commercial	B-2	1 Business	5,001	353	4,648	Only small portion of site affected, leaving potential for redevelopment
14	Ala Moana Center	23007044	Full	1201	Kona Street	Commercial	B-2	1 Business	3,778	1,351	2,427	Remaining parcel will have frontage on Pensacola Street, increasing redevelopment potential

* B-2 = Community Business I-2 = Intensive Industrial

**Total lot size includes the entire TMK parcel irrespective of project needs. Partial parcel acquisitions only use a portion of the entire TMK.

2.2 Underutilized Parcels within Project Station Areas

An objective measure of the economic utilization of property known as the improvement value-to-land value ratio (ILR) has been used to identify those parcels within Project station areas that are possibly underutilized. The ILR is the quotient of assessed improvement value (e.g., buildings, garages, and other structures on a property) divided by assessed land value (i.e., the value of the land alone without any structures).

$$\text{ILR} = \text{Assessed Value of Improvements} / \text{Assessed Value of Land}$$

An ILR of 1 (or 1:1) means that the value of improvements is equivalent to the value of the land on which the improvements are situated. An ILR of less than 1 indicates that land value is greater than improvement value (low-density suburban development tends to have an ILR much less than 1). For the purposes of this screening, parcels with an ILR *in the bottom 10 percent of all parcels corridor-wide* are considered to be underutilized. This includes both parcels that are marginally utilized as compared to the rest of the corridor (i.e., with an ILR of less than 0.065) and parcels that are vacant or surface parking lots with no assessed improvements (e.g., no buildings, garages, canopies, etc.), and therefore having an ILR of zero.

Parcels within one-quarter mile of each station (i.e., the quarter-mile station area, “buffer,” or radius) that are currently underutilized have been identified in this report. These parcels may have potential for TOD, infill development on smaller parcels, and other kinds of redevelopment such as “pocket parks” that may achieve higher and better uses for underutilized lands within walking distance of stations. Private residences, religious gathering places, U.S. Government property, and critical port facilities have been excluded from this screening.

Table 2 provides a detailed summary of underutilized parcels with a gross land area of 1 acre or more that have been identified in this screening. The table includes information regarding City and County TMK numbers, tax rate, current land use, height restrictions, utilization, environmental constraints, and current zoning (a more exhaustive evaluation of station area zoning and its implications for TOD is provided in the August 2011 *Review of Current City and State Ordinances*). Underutilized parcels of 1 acre or more tend to be an appropriate size for larger-scale mixed-use TOD, while smaller lots are more ideal for infill development and sometimes “pocket parks” in areas where open space might be under-supplied. Ground-level photographs of these parcels from Google Streetview are provided in Chapter 3, Station-by-Station Analysis.

Both within the Project station areas and throughout the corridor, the improved assessed value of parcels is typically less than the actual assessed value of the land (i.e., with ILRs of less than 1). The median ILR for all parcels within one-quarter mile of each of the 21 Project stations is 0.235, and the mean is 0.751. By comparison, the median ILR for the entire corridor, which includes all parcels within 4 miles of the Project guideway, is 0.319, and the mean corridor-wide ILR is 0.552. This discrepancy suggests that the *typical* utilization property in the Project station areas is lower than the corridor as a whole, but that *average* utilization, because of the very high value of buildings concentrated in Downtown and Ala Moana, is higher in the Project station areas. Within one-quarter mile of station areas, vacant uses are most often surface parking lots, with some unimproved “greenfields” or potentially contaminated sites that had former industrial and/or commercial uses.

2.3 Underutilization in the West O‘ahu Station Areas

This analysis indicated that the three West O‘ahu station areas (East Kapolei, UH West O‘ahu, and Ho‘opili) currently have 1,976 acres of underutilized parcels combined. These parcels are principally greenfields currently used for agricultural purposes (with some potentially contaminated areas makai of East Kapolei Station) but are slated to transition to more intensive land uses. The three West O‘ahu station area parcels planned for redevelopment by D.R. Horton Schuler, UH, and the State Department of Hawaiian Homelands (DHHL) were initially included in the overall analysis of underutilized parcels but are not addressed specifically in Chapter 3, Station-by-Station Analysis.¹ This is because current redevelopment plans are fairly advanced and call for mixed-use development immediately around the stations, with a tapering down to lower, mostly residential densities outside the quarter-mile station area buffers, and possible agricultural uses such as community gardens as well.

¹ The D.R. Horton Schuler property will become developable pending designation as “urban” land by the State of Hawai‘i Land Use Commission.

Table 2: Underutilized Parcels 1 Acre or Larger within One-quarter Mile of Project Stations

#	Nearest Station	TMK	Street Name	Tax Rate	Current Zoning	Current Development Status	Current Height Restriction (ft)	Special District	Total Lot Size in acres	Distance from station (ft)	Improvement Value to Land Value Ratio	Flood Hazard	Known Hazmat Site	Wetlands	Special Management Area
WC-22	Waipahu Transit Center	94015014	Waipahu Depot Street	Industrial	I-2 Intensive Industrial District	Surface Parking Lot (in use)	60	None	2.5	321	0	Yes	No	No	No
PH-1	Pearl Highlands	97024036	Kuala Street	Commercial	P-2 General Preservation District	Vacant Greenfield	60	None	1.7	990	0	No	No	No	No
PH-2	Pearl Highlands	97024044	Kuala Street	Commercial	A-2 Medium-density Apartment District	Surface Parking Lot (not in use)	150	None	2.1	602	0	No	No	No	No
PR-2	Pearlridge	98009005	Kamehameha Highway	Industrial	I-2 Intensive Industrial District	Car Dealership (in use)	60	None	2	144	.030	No	No	No	Yes
PR-8	Pearlridge	98013013	Ka'ono'hi Street	Commercial	B-2 Community Business District	Surface Parking Lot (not in use)	60	None	14	634	.012	No	No	No	No
PR-10	Pearlridge	98022081	Kamehameha Highway	Commercial	B-2 Community Business District	Surface Parking Lot (in use)	60	None	1.9	680	0	No	No	No	No
MS-3	Middle Street Transit Center	12021036	Alahao Place	Industrial	I-2 Intensive Industrial District	Surface Parking Lot (in use)	60	None	1.1	515	0	Yes	No	No	Yes
MS-8	Middle Street Transit Center	12021041	Alahao Place	Industrial	I-2 Intensive Industrial District	Surface Parking Lot (in use)	60	None	2.1	701	0	Yes	No	No	Yes

Table 2: Underutilized Parcels 1 Acre or Larger within One-quarter Mile of Project Stations (continued)

#	Nearest Station	TMK	Street Name	Tax Rate	Current Zoning	Current Development Status	Current Height Restriction (ft)	Special District	Total Lot Size in acres	Distance from station (ft)	Improvement Value to Land Value Ratio	Flood Hazard	Known Hazmat Site	Wetlands	Special Management Area
MS-12	Middle Street Transit Center	12021045	Ho one'e Place	Industrial	I-2 Intensive Industrial District	Surface Parking Lot (not in use)	60	None	5.7	1,118	0	Yes	No	No	Yes
MS-13	Middle Street Transit Center	11003003	Nimitz Highway	Industrial	P-2 General Preservation District	Paintball Park	N/A	None	13.1	566	0	Yes	No	Yes	Yes
KL-6	Kapālama	15018002	Kōkea Street	Industrial	IMX-1 Industrial Mixed Use District	Surface Parking Lot (in use)	150	None	2.9	635	0	No	No	No	No
CC-1	Civic Center	21030001	Pohukaina Street	Apartment	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Surface Parking Lot (in use)	N/A	Kaka'ako CDD	4.1	35	0	No	No	No	No
CC-10	Civic Center	21031030	Halekauwila Street	Commercial	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Surface Parking Lot /Large Auto Repair Shop (in use)	N/A	Kaka'ako CDD	1.7	32	.026	No	No	No	No
CC-13	Civic Center	21047003	Kawaiaho Street	Commercial	C – Mixed Use Zone Commercial State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Printing Press	N/A	Kaka'ako CDD	1.7	949	.044	No	No	No	No

Table 2: Underutilized Parcels 1 Acre or Larger within One-quarter Mile of Project Stations (continued)

#	Nearest Station	TMK	Street Name	Tax Rate	Current Zoning	Current Development Status	Current Height Restriction (ft)	Special District	Total Lot Size in acres (ac)	Distance from station (ft)	Improvement Value to Land Value Ratio	Flood Hazard	Known Hazmat Site	Wetlands	Special Management Area
CC-23	Civic Center	21054001	Cooke Street	Industrial	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Warehouses	N/A	Kaka'ako CDD	3.7	854	.039	No	No	No	No
CC-24	Civic Center	21054021	Keawe Street	Industrial	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Warehouse	N/A	Kaka'ako CDD	4.3	581	.038	Yes	No	No	No
CC-30	Civic Center	20153005	Cooke Street	Industrial	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Warehouses	N/A	Kaka'ako CDD	2.8	1,154	.063	Yes	No	No	No
CC-31	Civic Center	20151009	Coral Street	Apartment	PUBLIC – Public Use Areas State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Surface parking Lot/Civic Organization Office (in use)	N/A	Kaka'ako CDD	3.5	272	.063	No	No	No	No
KK-25	Kaka'ako	21053001	Pohukaina Street	Industrial	R – Mixed Use Zone Residential State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Warehouses	N/A	Kaka'ako CDD	3	935	.045	Yes	No	No	No

Table 2: Underutilized Parcels 1 Acre or Larger within One-quarter Mile of Project Stations (continued)

#	Nearest Station	TMK	Street Name	Tax Rate	Current Zoning	Current Development Status	Current Height Restriction (ft)	Special District	Total Lot Size in acres (ac)	Distance from station (ft)	Improvement Value to Land Value Ratio	Flood Hazard	Known Hazmat Site	Wetlands	Special Management Area
KK-26	Kaka'ako	23001001	Ala Moana Boulevard	Commercial	C – Mixed Use Zone Commercial State Jurisdiction: Kaka'ako Community Development District (Admin. by HCDA)	Surface Parking Lot (in use)	N/A	Kaka'ako CDD	1.7	887	0	Yes	No	No	No

3

Station-by-Station Analysis

3.1 East Kapolei Station Area

3.1.1 Station Area Overview

East Kapolei Station will be located at the intersection of Kualaka'i Parkway (North-South Road) and East-West Road. The Salvation Army Kroc Community Center is currently under construction near the station. In addition, DHHL, which is the primary land owner in the area, is building several housing developments 'Ewa and mauka of the station. The East Kapolei Station area is among the least developed in the project corridor. It is surrounded by open lands that present a significant opportunity for the development of a completely new neighborhood that could be transit-oriented and Smart Growth-focused. The April 2010 *East Kapolei Neighborhood TOD Plan* prepared by Van Meter Williams Pollack for the Department of Planning and Permitting recommends medium mixed-use development west of Kualaka'i Parkway. Higher density developments in the station area would reinforce and complement any future efforts that promote the livability of the 'Ewa Plain.

3.1.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.1-1 shows how existing land parcels will be affected by the Project. No excess parcels have been identified for the East Kapolei Station.

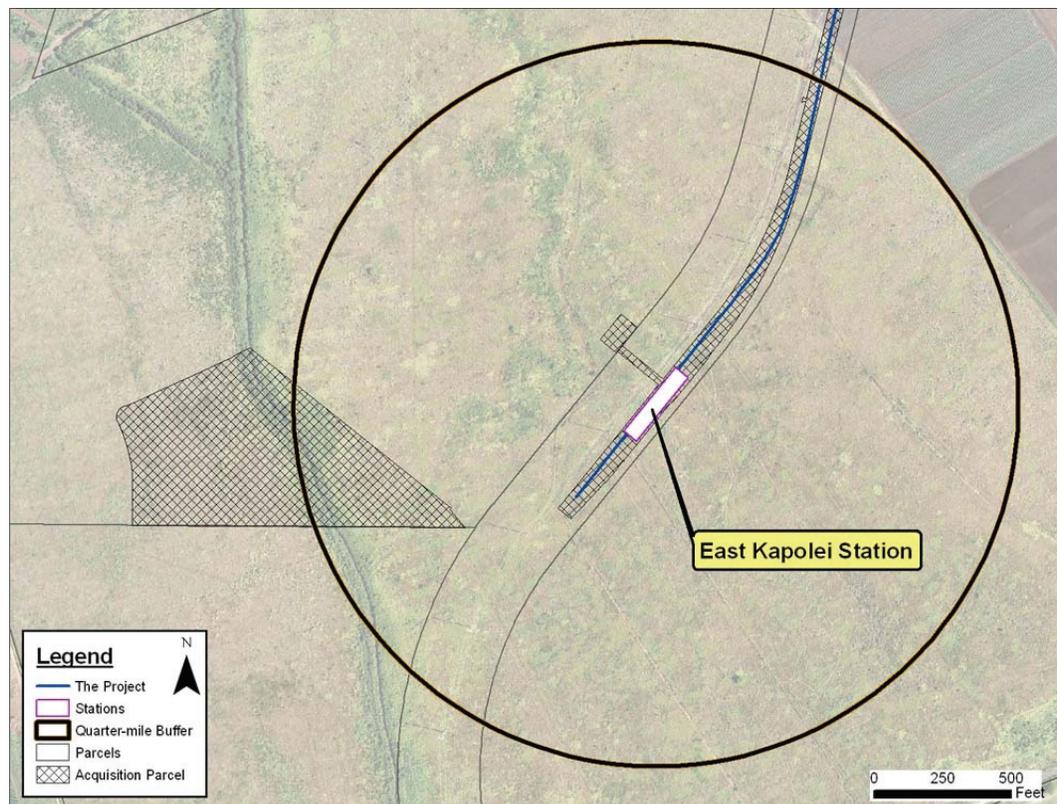


Figure 3.1-1: East Kapolei Station Area Acquisition Parcels

3.1.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

No underutilized parcels have been identified for the East Kapolei Station area.

3.2 UH West O'ahu Station Area

3.2.1 Station Area Overview

The UH West O'ahu Station will be located at the intersection of Kualaka'i Parkway (North-South Road) and the future Campus Access Road near the UH West O'ahu campus. There is currently no development in the station area, although UH began construction of its West O'ahu campus in 2010; the new campus is slated for completion in 2012, and should ease current parking issues. Other than the UH West O'ahu campus, the station area is dominated by greenfields that present a significant opportunity for establishing a completely new neighborhood that could be transit-oriented and Smart Growth-focused. Ownership of these greenfields is held by the State of Hawai'i, DHHL, and D.R. Horton Schuler.

The April 2010 *East Kapolei Neighborhood TOD Plan* prepared by Van Meter Williams Pollack for the Department of Planning and Permitting recommends medium mixed-use development surrounding UH West O'ahu Station and the promotion of an active Main Street. The vast majority of land in the UH West O'ahu station area is owned by UH and national homebuilder D.R. Horton Schuler, which is working on a master planned community. This community may be a compact mixed use TOD with pedestrian-friendly retail near the station site, or more conservatively, a traditional suburban development consisting mostly of single-family residences. Up to 15,000 housing units have been proposed, which is medium-to-high-density. More recently, D.R. Horton Schuler has altered its development focus of the site towards a mixed-use agricultural community with land reserved for farming, community gardens, and individual household gardens.

The September 2010 *TOD Economic Study Value Capture Opportunity Analysis* performed by Jones Lang LaSalle for the Department of Planning and Permitting concluded that a lower density development pattern with fewer multi-family residential units and less structured parking is the most feasible scenario because of lower construction costs and higher returns on investment to the developer. However, such development may not follow TOD best practices, despite being more profitable in the short run at this particular location.

3.2.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.2-1 shows how existing land parcels will be affected by the Project. No excess parcels have been identified for the UH West O'ahu Station.

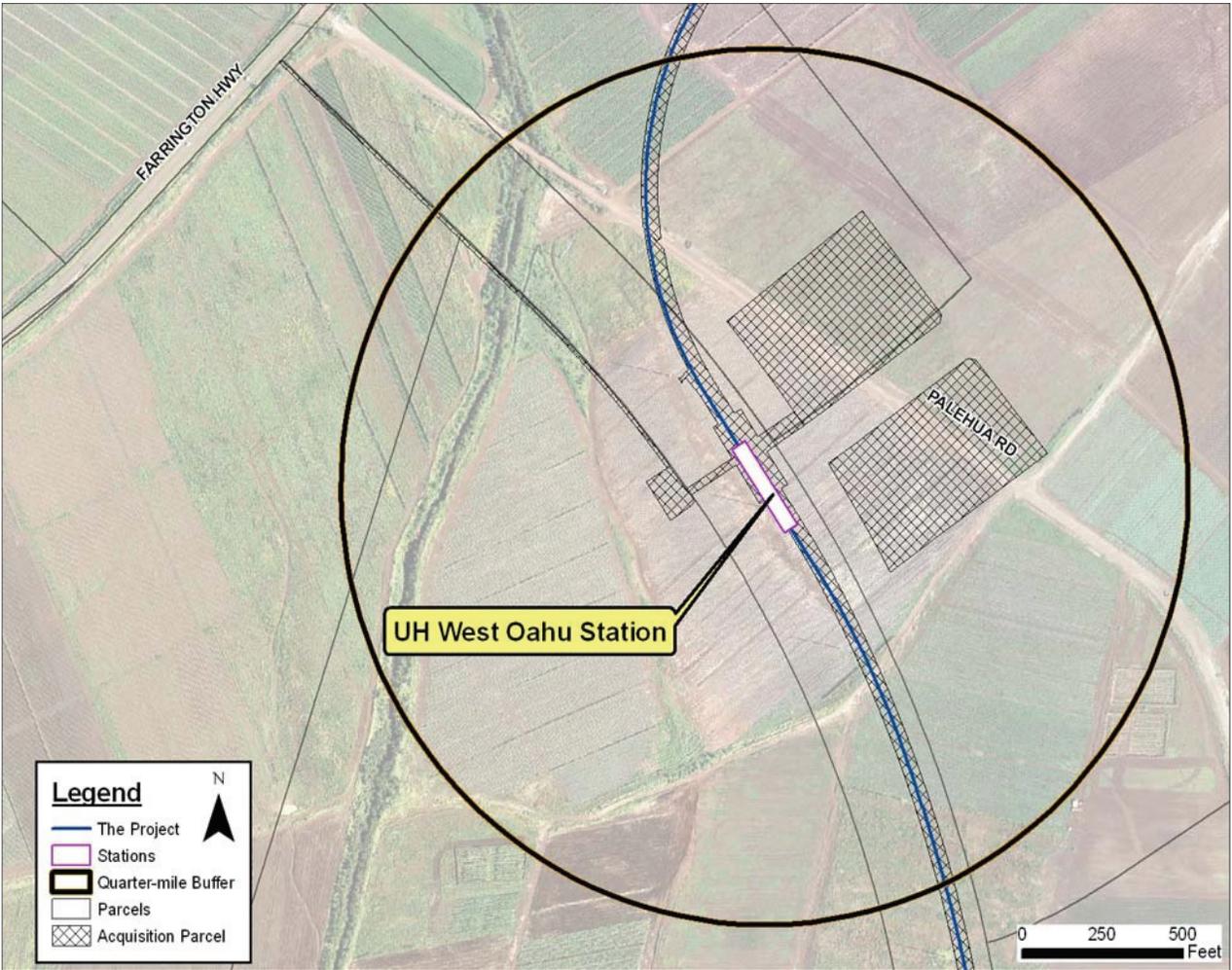


Figure 3.2-1: UH West O’ahu Station Area Acquisition Parcels

3.2.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

No underutilized parcels have been identified for the UH West O’ahu Station area.

3.3 Ho'opili Station Area

3.3.1 Station Area Overview

Ho'opili Station will be located in a currently undeveloped area makai of Farrington Highway. The area is identified as a future TOD with mixed-use projects, including residential, commercial, and retail uses. The Ho'opili station area is currently among the least developed in the project corridor; however, a private developer D.R. Horton Schuler has plans for a TOD community in this area.

3.3.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.3-1 shows how existing land parcels will be affected by the Project. No excess parcels have been identified for Ho'opili Station.

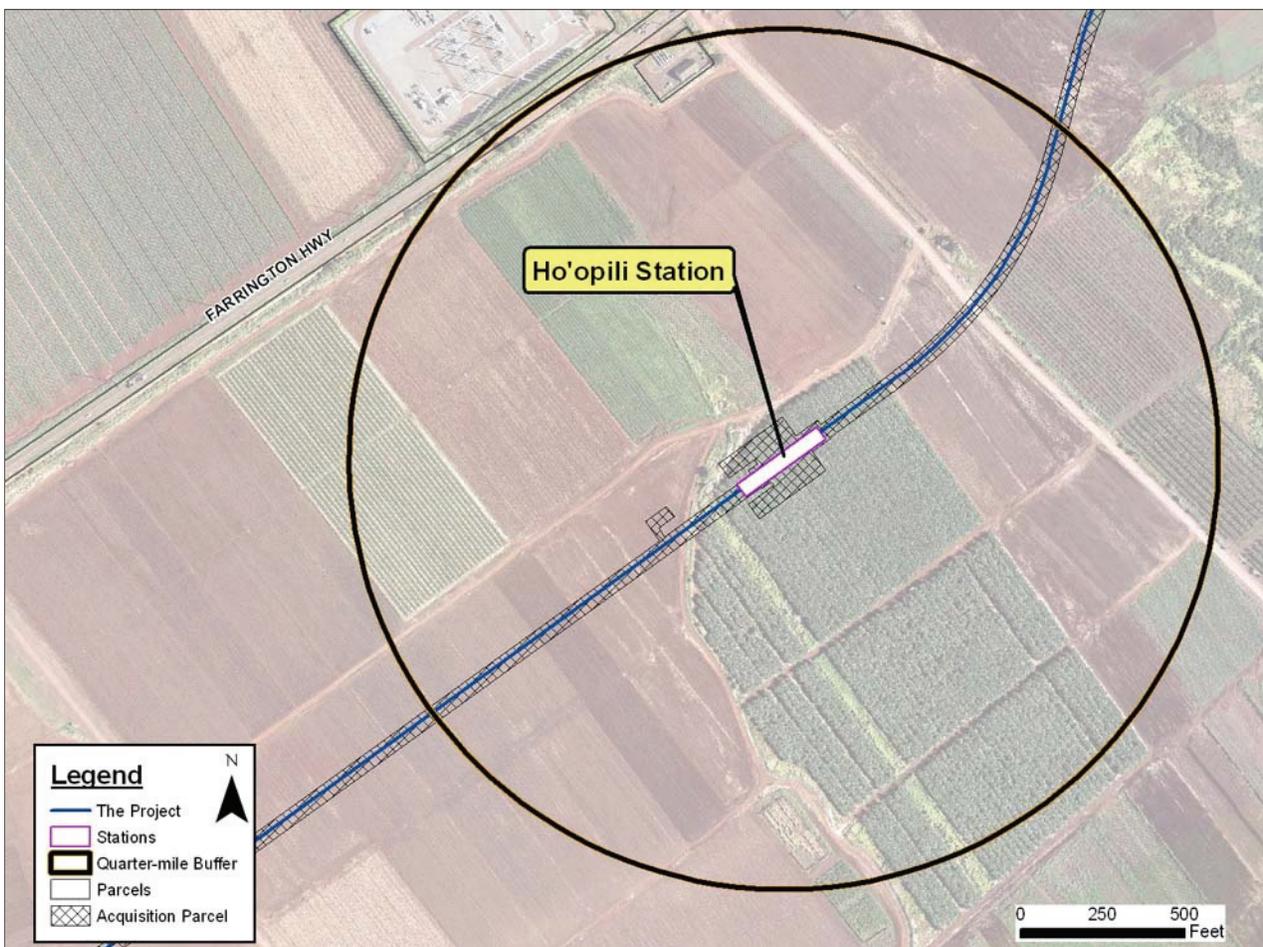


Figure 3.3-1: Ho'opili Station Area Acquisition Parcels

3.3.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

No underutilized parcels have been identified for the Ho'opili Station area.

3.4 West Loch Station Area

3.4.1 Station Area Overview

West Loch Station will be located at the intersection of Farrington Highway and Leokū Street in Waipahu. This is a mature neighborhood with fragmented land ownership; existing development includes a mix of older suburban industrial and strip commercial land uses, with some segregated mid-density residential uses located in the mauka portion of the quarter-mile station area. Current housing density in the station area is roughly 10 to 17 dwelling units per acre, which is medium-density and generally supportive of frequent rapid transit service that will be provided by the Project. As shown in Figure 3.4-1, surface parking lots make up a sizable share of the overall station area. Surface parking lots tend not to be an ideal use of property in the vicinity of fixed-route transit stations. Although not technically underutilized using the ILR metric, the surface parking lots of commercial properties within the West Loch station area (especially those along Farrington Highway) could, in the longer term, be retrofitted with types of development that are more transit-supportive and help create a better sense of place around the station.

3.4.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.4-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for West Loch Station.

3.4.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.4-2 shows that while the West Loch station area is mostly developed, it may yield a few opportunities for infill development on underutilized parcels (WL-1 through WL-5) in the medium term, and possible opportunities for the redevelopment of various surface parking lots along Farrington Highway adjacent to the Project over the longer term. Surface parking lots, which comprise at least 25 percent of the West Loch quarter-mile station area, may not be the most ideal and efficient use of the station area as the Project matures. The *Waipahu Neighborhood TOD Plan*, a conceptual community-based vision from October 2008, envisages mixed-use commercial and residential redevelopment projects for nearly all frontage along Farrington Highway within the station area.

Underutilized parcels total 1.95 acres, which is less than 2 percent of the quarter-mile station area. These parcels generally lie in the predominantly industrial area makai of the project guideway. No underutilized parcel located in the West Loch station area is larger than 1 acre. Therefore, the nature of future development on those parcels, if any, is likely to be smaller scale infill. Although technically not underutilized currently because of their association with active commercial businesses, surface parking lots attached to older strip malls and car dealerships along Farrington Highway may become ripe for larger scale infill development as the Project matures (the 2010 *Value Capture Analysis* suggests that the strip mall buildings also could redevelop over the longer term). Redevelopment of new car dealership lots can be challenging in that dealerships have prescribed locations and must seek permission from the manufacturer to relocate beyond the area and to alter how the location looks and operates.

Development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design that is more space-efficient and aesthetically interesting than classic suburban development should be promoted within the station area. The *Waipahu Neighborhood TOD Plan* completed by Van Meter Williams Pollack for the Department of Planning and Permitting recommends a higher intensity of commercial development around the station, as well as redevelopment of the industrial area makai of the station as a high-intensity live/work residential neighborhood. The 2010 *Value Capture Opportunity Analysis* indicates that the TOD best practices put forth by Van Meter Williams Pollack (which include a significant high-density residential component) may not be supported by the marketplace. The *Value Capture Opportunity Analysis* concludes that only lower density scenarios that contemplate less residential development are likely to be profitable enough (i.e., having an internal rate of return of 15 percent or greater) to attract private developers.²

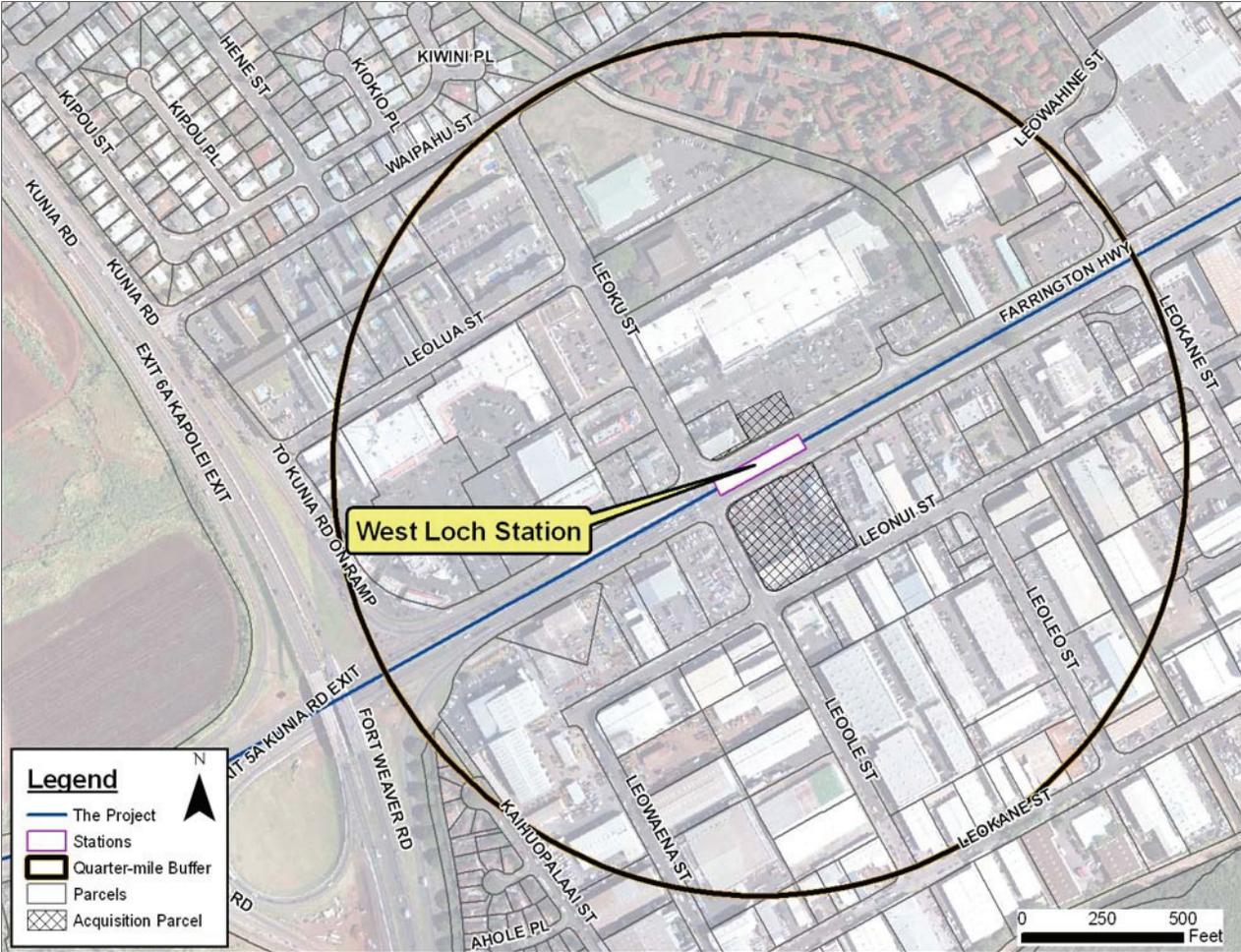


Figure 3.4-1: West Loch Station Area Acquisition Parcels

² Jones Lang LaSalle, p. 66



Figure 3.4-2: West Loch Station Area Underutilized Parcels

3.5 Waipahu Transit Center Station Area

3.5.1 Station Area Overview

The Waipahu Transit Center Station will be located near the intersection of Farrington Highway and Mokuola Street in Waipahu. Existing development is more residential than the West Loch station area, and includes a mix of low-to-mid-density detached residential, light-industrial, and commercial land uses that are segregated and have an older suburban visual character. Land ownership in the station area is highly fragmented. Existing housing density is roughly four to seven dwelling units per acre, a low density for an area served by high-frequency rapid transit. Mixed-use commercial/residential redevelopment and parks/open space have been proposed for a majority of parcels fronting Farrington Highway and the Project in the October 2008 *Waipahu Neighborhood TOD Plan*. New mixed and high-density residential uses have also been proposed on parcels mauka and makai of Farrington Highway. Although such development has uncertain economic feasibility in the short-to-medium term, it would likely help create a better sense of place and enclosure around the station and promote a quality of life that relies less on the private automobile for everyday transportation needs. The majority of the quarter-mile station area is situated in a 100-year flood zone (of Kapakahi and Makalena Streams), which may limit future development potential.

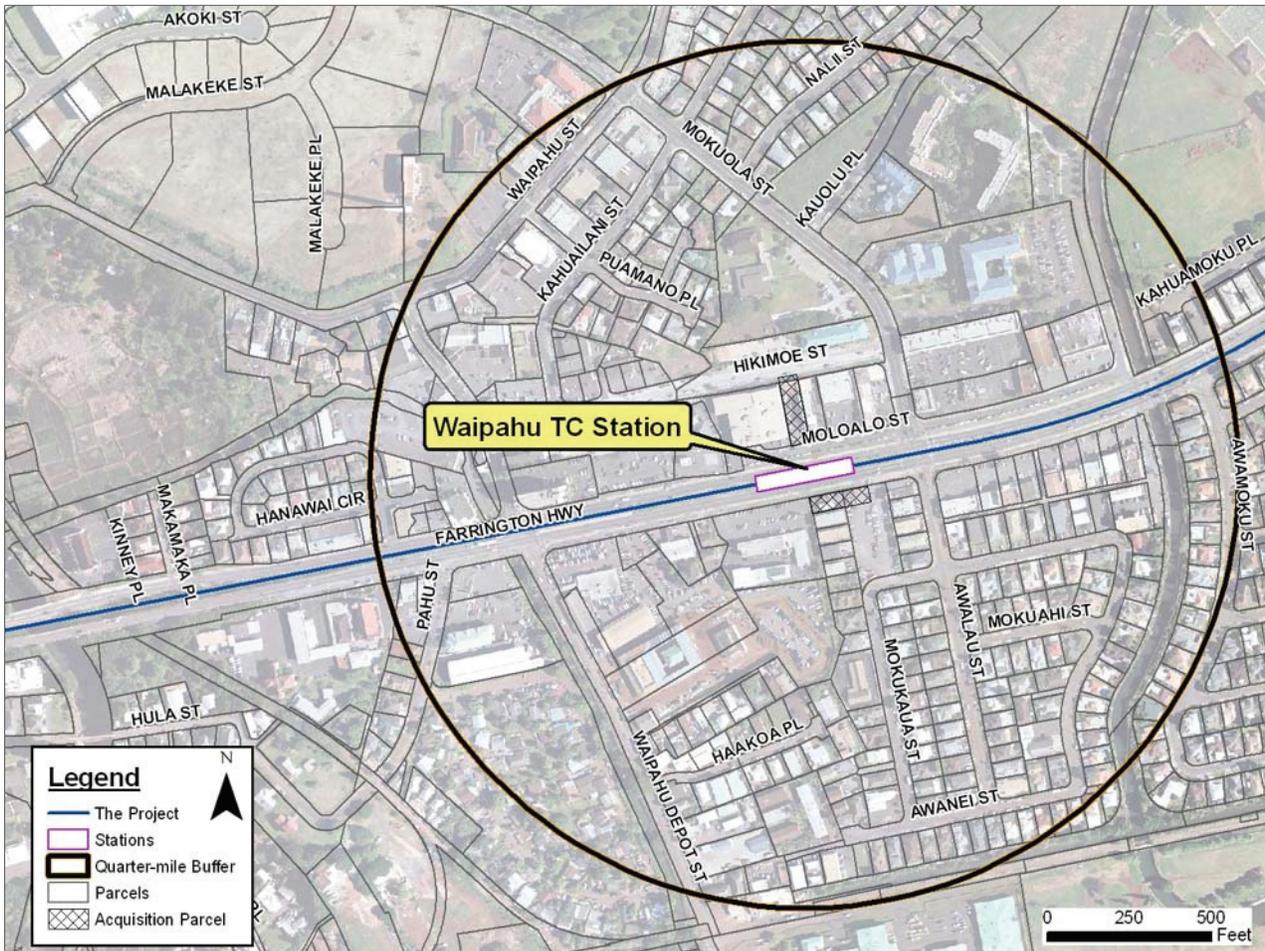


Figure 3.5-1: Waipahu Transit Center Station Area Acquisition Parcels

3.5.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.5-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Waipahu Transit Center Station.

3.5.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.5-2, numerous parcels—most smaller than 1 acre—are underutilized or vacant in the Waipahu Transit Center quarter-mile station area, despite the area being mostly developed. In total, 11.7 acres are underutilized; this includes some parcels that do not fall entirely within the quarter-mile station area, including vacant greenfields located mauka of the station and surface parking lots associated with commercial and industrial uses. In all, nearly 10 percent of the Waipahu Transit Center quarter-mile station area is underutilized. Parcel WC-22, a surface parking lot, is larger than 1 acre and may present an opportunity for the kind of larger-scale mixed-use development proposed in the *Waipahu Neighborhood TOD Plan* (aerial photo shown in Figure 3.5-3). However, the development potential of this lot could be affected by a 100-year flood zone that encompasses the majority of the Waipahu Transit Center station area, as well as the floodways immediately surrounding Kapakahi Stream and Makalena Stream (zero-rise requirements for development in flood zones tends to increase construction costs). Other underutilized parcels in the station area may be better suited for smaller scale infill development. Two of these parcels, including WC-1 and WC-2, fall within a Special Management Area in which special controls are placed to ensure that adequate public access is provided to beaches, recreational resources, and natural reserves.

Development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design that is more space-efficient and aesthetically interesting than classic suburban development should be promoted within the station area. In addition, surface parking lots associated with older strip commercial development along Farrington Highway, although technically not underutilized now, may be appropriate in the long term for development that better supports the Project and promotes Smart Growth principles.

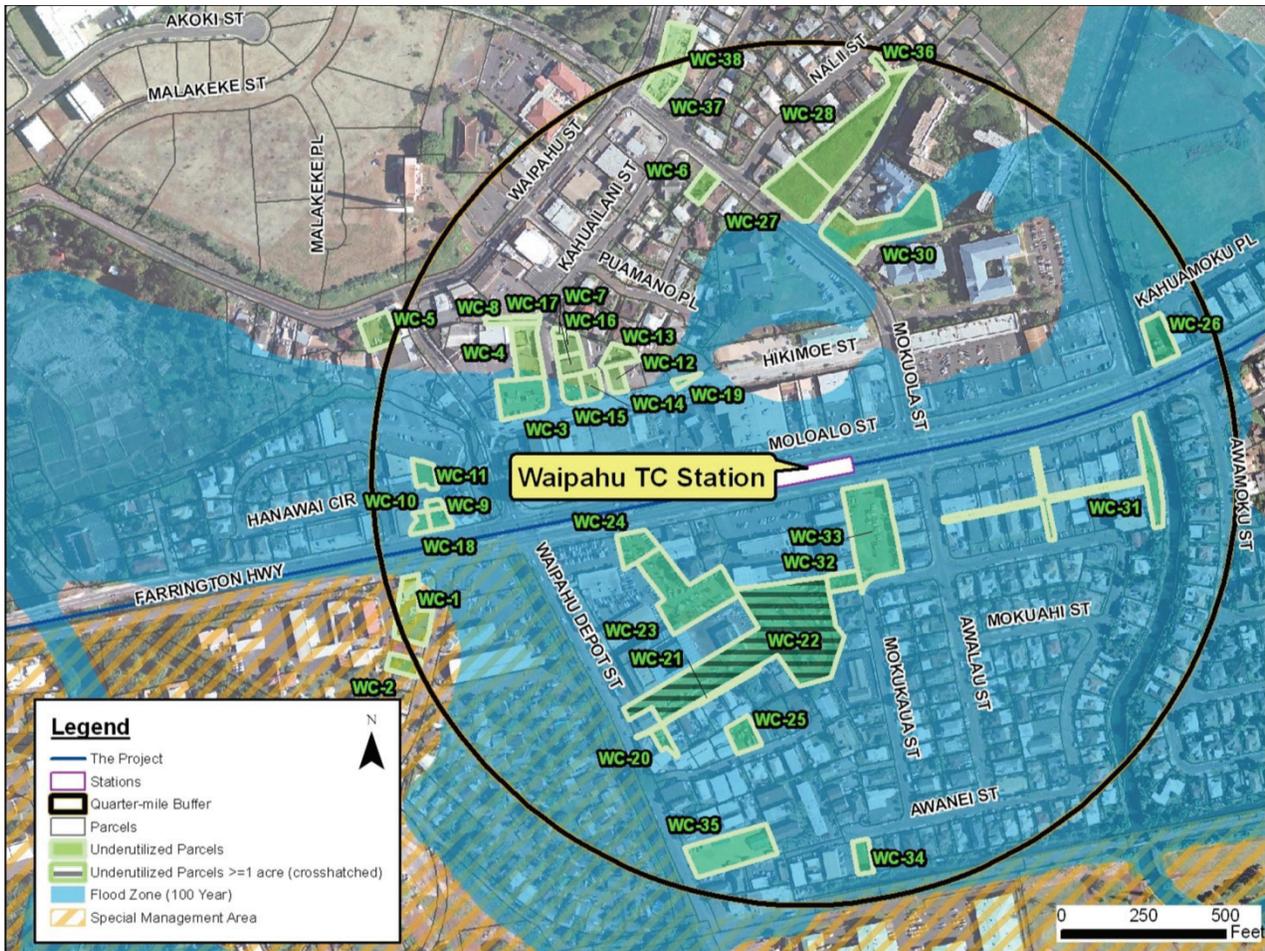


Figure 3.5-2: Waipahu Transit Center Station Area Underutilized Parcels



Figure 3.5-3: Underutilized Parcel WC-22 (no street-level photo available)

3.6 Leeward Community College Station Area

3.6.1 Station Area Overview

Leeward Community College (LCC) Station will be located on the LCC campus at the 'Ewa end of the parking lot. The quarter-mile station area is low density and comprised of the LCC campus, LCC surface parking lot, Hawai'i Department of Transportation freeway infrastructure, and residential/agricultural uses. The station will primarily serve the LCC campus, which is planning to add a new building in 2012. A significant portion of the quarter-mile radius makai of Farrington and Kamehameha Highways will be taken up by the Project's maintenance and storage facility. Overall development potential in the LCC station area is fairly limited.

3.6.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.6-1 shows how existing parcels will be affected by the Project. The large parcel in the lower left corner of the map will be the site of the maintenance and storage facility. No excess parcels have been identified for the LCC Station.

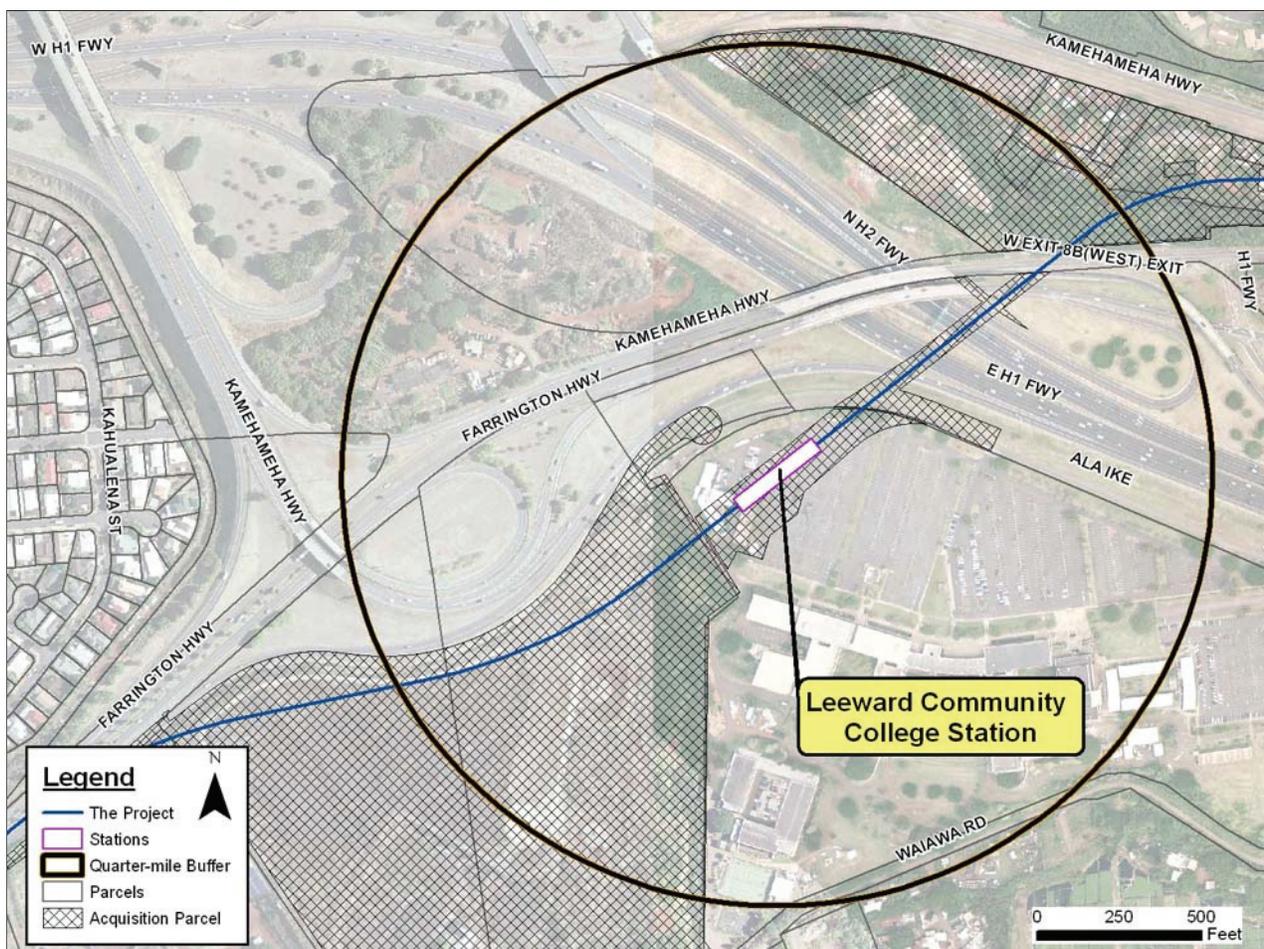


Figure 3.6-1: Leeward Community College Station Area Acquisition Parcels

3.6.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

No underutilized parcels have been identified within the LCC quarter-mile station area. However, the LCC parking lot located between the future station platform and existing college buildings may present an opportunity for redevelopment—either as an expansion of the LCC campus or as TOD—over the longer term. LCC’s mauka parking lot is currently over 12 acres. Although often not technically underutilized, surface parking lots present possible development opportunities that could better realize the economic potential of land adjacent to project stations. The November 2010 *‘Aiea—Pearl City Neighborhood TOD Plan* prepared by Van Meter Williams Pollack for the Department of Planning and Permitting recommends mixed-use residential with structured parking, as well as a “central green” and lower density attached housing on the surface parking lots mauka and Koko Head of the college buildings. Possible development constraints, including 100-year flood zones and the Special Management Area, are shown in Figure 3.6-2.

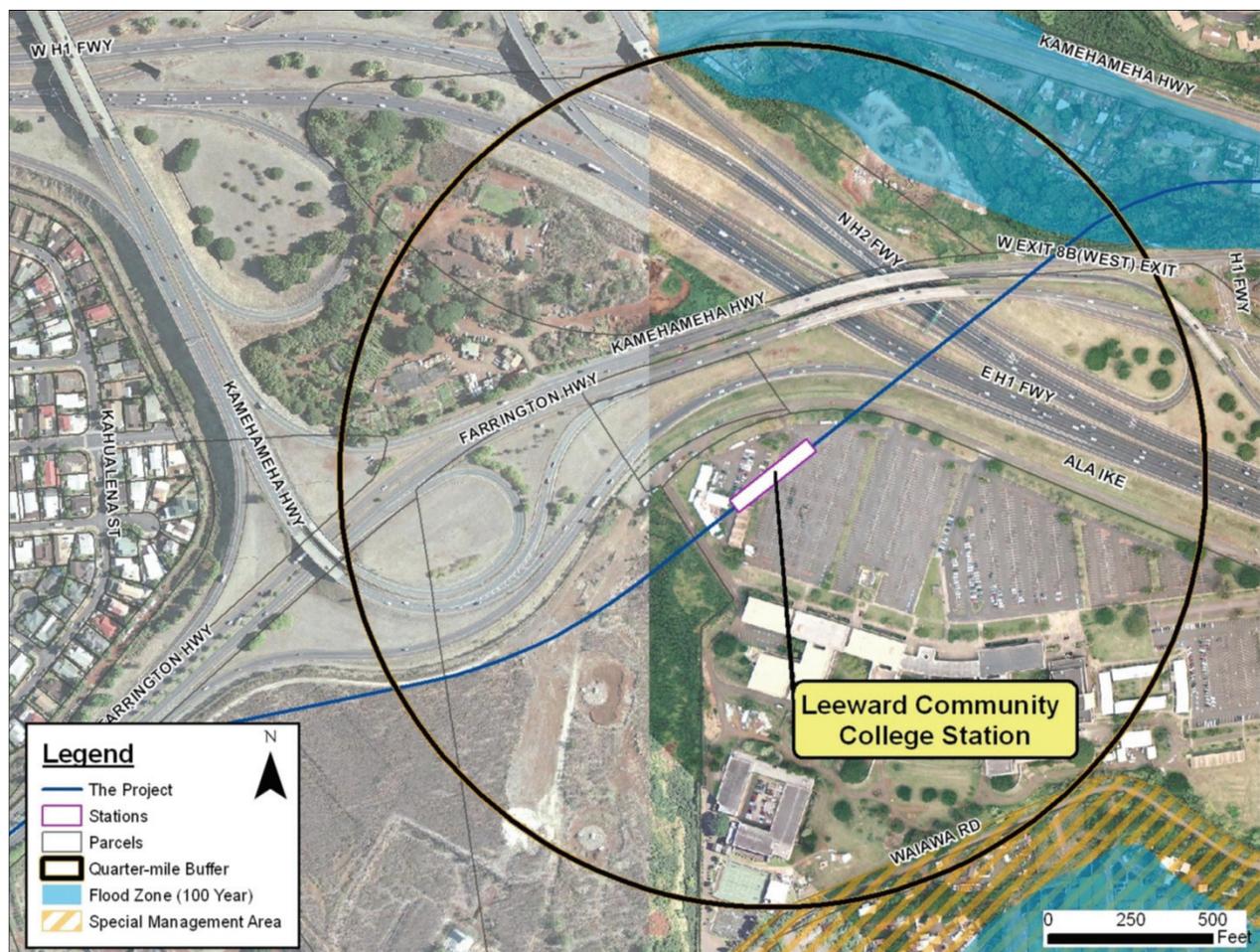


Figure 3.6-2: Leeward Community College Station Area Development Constraints

3.7 Pearl Highlands Station Area

3.7.1 Station Area Overview

Pearl Highlands Station will be located near the H-1/H-2 Freeway interchange and will serve commuters from Central O‘ahu via the H-2 Freeway as well as the adjacent Pearl City neighborhood. Existing development within the quarter-mile station area includes high-density residential that is separated from national big-box retail uses (including Pearl Highlands Center shopping mall, the recently built Pearl City Shopping Center, Wal-Mart, Sam’s Club, and Home Depot). Lower density residential/agricultural lands (associated with LCC) also occur along with freeway infrastructure. Existing housing density in the station area is roughly four to seven dwelling units per acre, a low-density for an area that will be served by high-frequency transit. Although the station area is mostly developed, several “greenfield” opportunities for medium-to-large scale development are located mauka of the station. In addition, as proposed in the November 2010 *‘Aiea—Pearl City Neighborhood Plan* prepared by Van Meter Williams Pollack for the Department of Planning and Permitting, the surface parking lots of recently built big-box retail stores could be retrofitted with infill mixed-use development over the longer term.

3.7.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.7-1 shows how existing parcels will be affected by the Project. A significant portion of the quarter-mile station area (crosshatched in the map below) will be taken up by a multi-level park-and-ride facility and transit center. No excess parcels have been identified for the Pearl Highlands Station.

3.7.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.7-2, two underutilized parcels, PH-1 and PH-2, lie within the quarter-mile Pearl Highlands station area. Together, these two parcels, which are vacant and connected, measure approximately 3.8 acres and make up about 3 percent of the quarter-mile station area. They represent a significant development opportunity given their size and proximity to the Project, major freeways, and regional shopping. Parcel PH-1 has been proposed for reuse as a triangle park in the *‘Aiea—Pearl City Neighborhood Plan*. Parcel PH-2 could serve as a “catalyst site” in the initial redevelopment phase. Ground-level photos of Parcels PH-1 and PH-2 are shown as Figure 3.7-3 and Figure 3.7-4, respectively. Redevelopment of these parcels and others in the Pearl Highlands station area may be constrained by known traffic congestion and circulation issues within Pearl City.

Recent development has clearly focused on auto-oriented big-box retail, which is unwelcoming to bicycles and pedestrians, and generally not compatible with transit-based activities. Development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design that is more space-efficient and aesthetically interesting than classic suburban development should be encouraged in the station area, including both greenfield TOD and infill mixed-use on existing big-box parking lots. In addition, bicycle and pedestrian integration between any new development and existing development, particularly adjacent shopping centers (e.g., Pearl Highlands

Center and Wal-Mart), should be encouraged. Over the longer term, the surface parking lots of shopping plazas and big-box stores along Kuala Street and Kamehameha Highway may become ripe for infill development that better supports transit use and Smart Growth principles. Future development on agricultural land immediately surrounding the station platform and along Waiawa Stream is constrained by a 100-year flood zone.

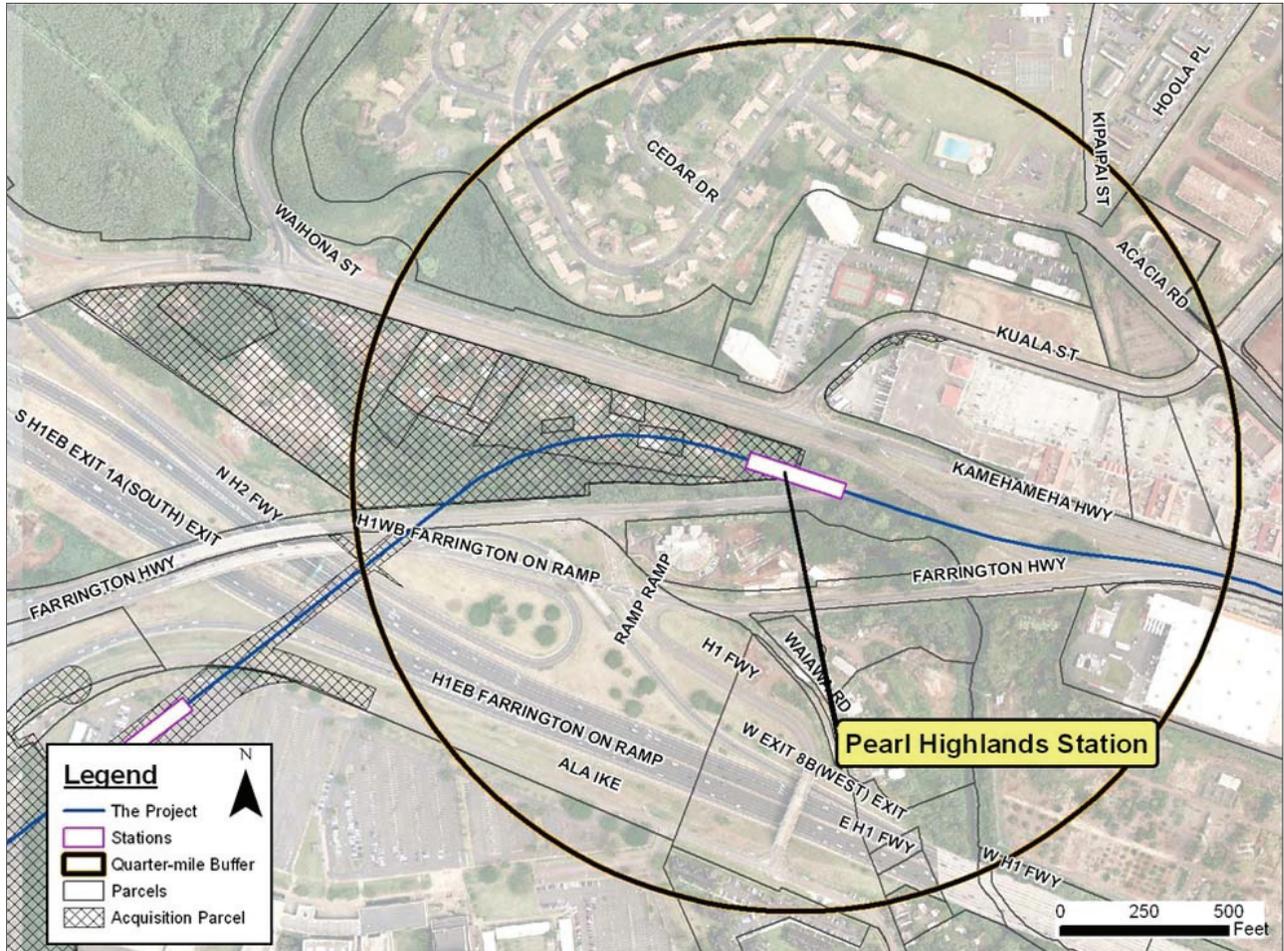


Figure 3.7-1: Pearl Highlands Station Area Acquisition Parcels

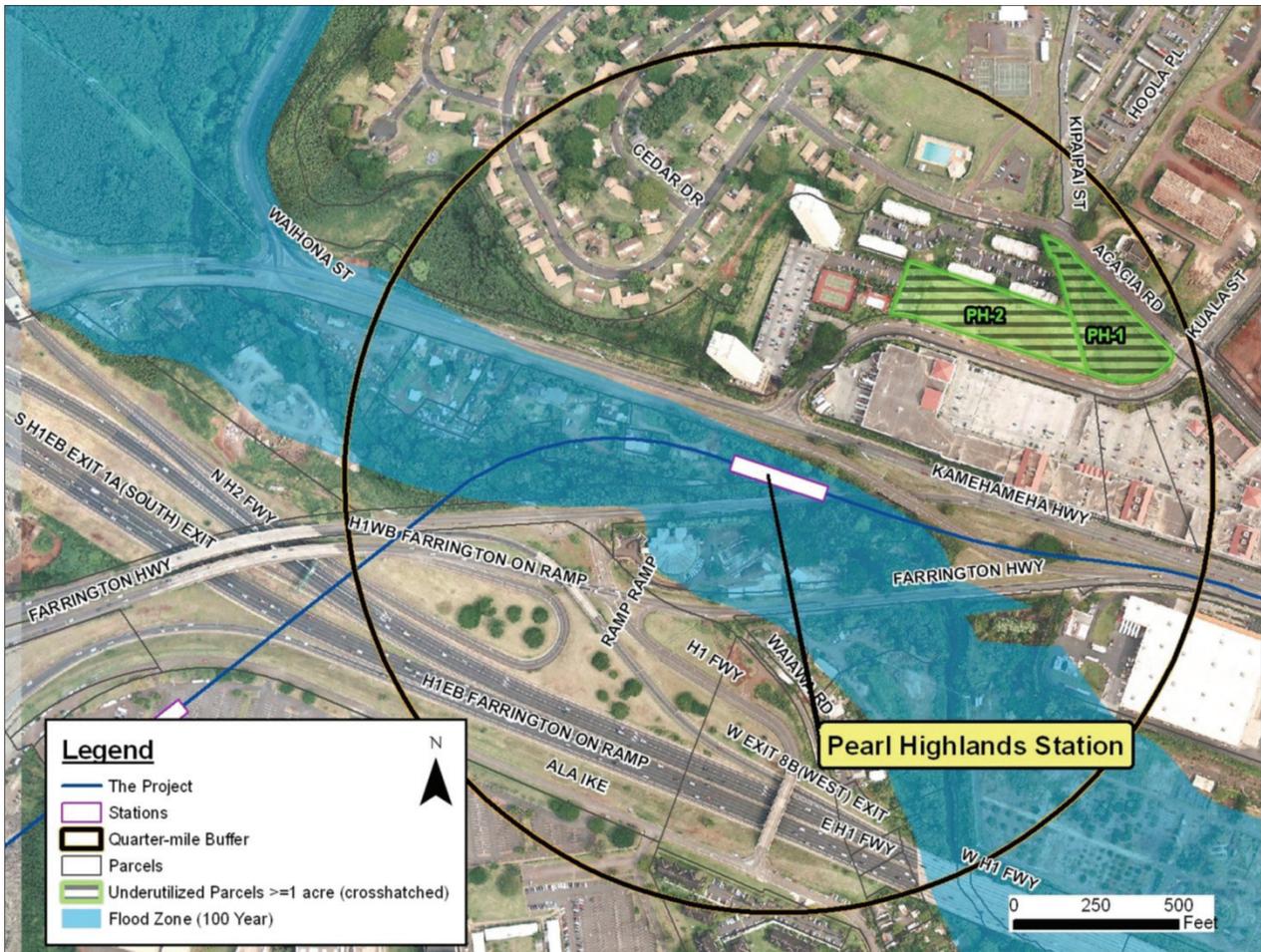


Figure 3.7-2: Pearl Highlands Station Area Underutilized Parcels



Figure 3.7-3: Underutilized Parcel PH-1

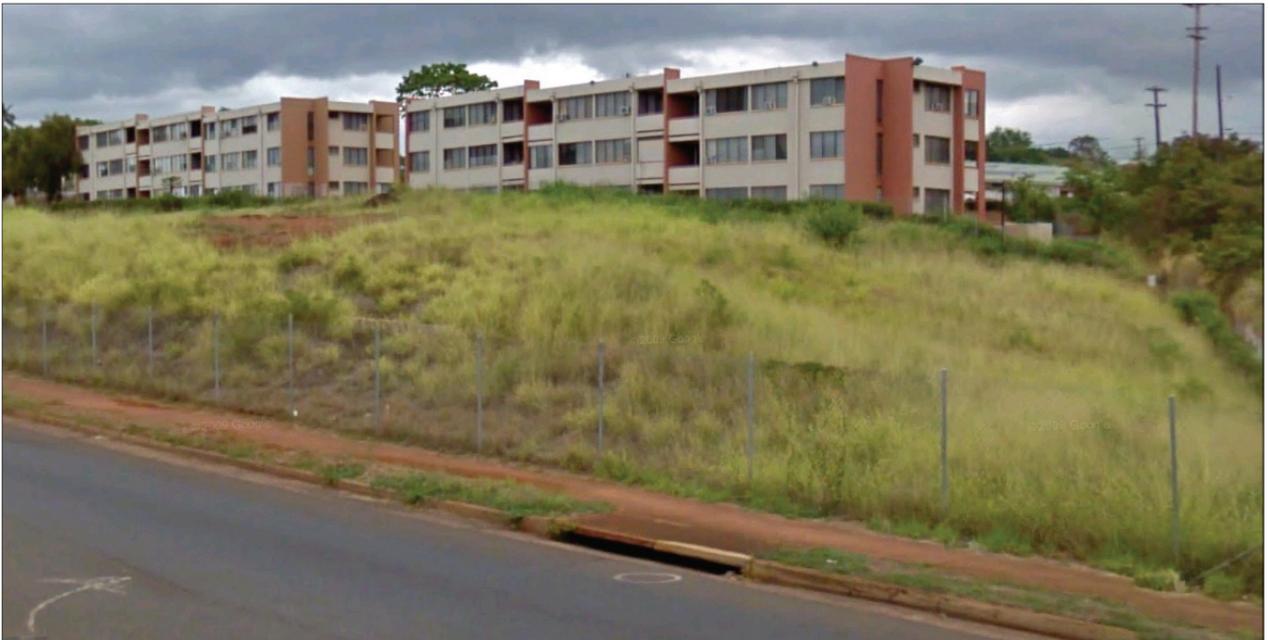


Figure 3.7-4: Underutilized Parcel PH-2

3.8 Pearlridge Station Area

3.8.1 Station Area Overview

Pearlridge Station will be located near the intersection of Kamehameha Highway and Ka'ōnohi Street. Existing development includes a mix of low-to-mid-density suburban residential, industrial, and commercial retail land uses, including national big-box retailers such as Best Buy, as well as Pearlridge Shopping Center and strip malls with local retailers. Existing residential density is roughly four to seven dwelling units per acre, a fairly low-density for an area with planned high-frequency rapid transit. A sizable portion of the quarter-mile station area is comprised of water (East Loch Pearl Harbor), which somewhat limits development potential, although it provides an attractive (albeit underutilized) natural amenity that may appeal to new residents of the area. Numerous parcels within the station area (105 acres total discounting water features) are underutilized and potentially ripe for redevelopment over the longer term. Much of the station area is owned by Robertson Properties Group and Kamehameha Schools.

3.8.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.8-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Pearlridge Station area.

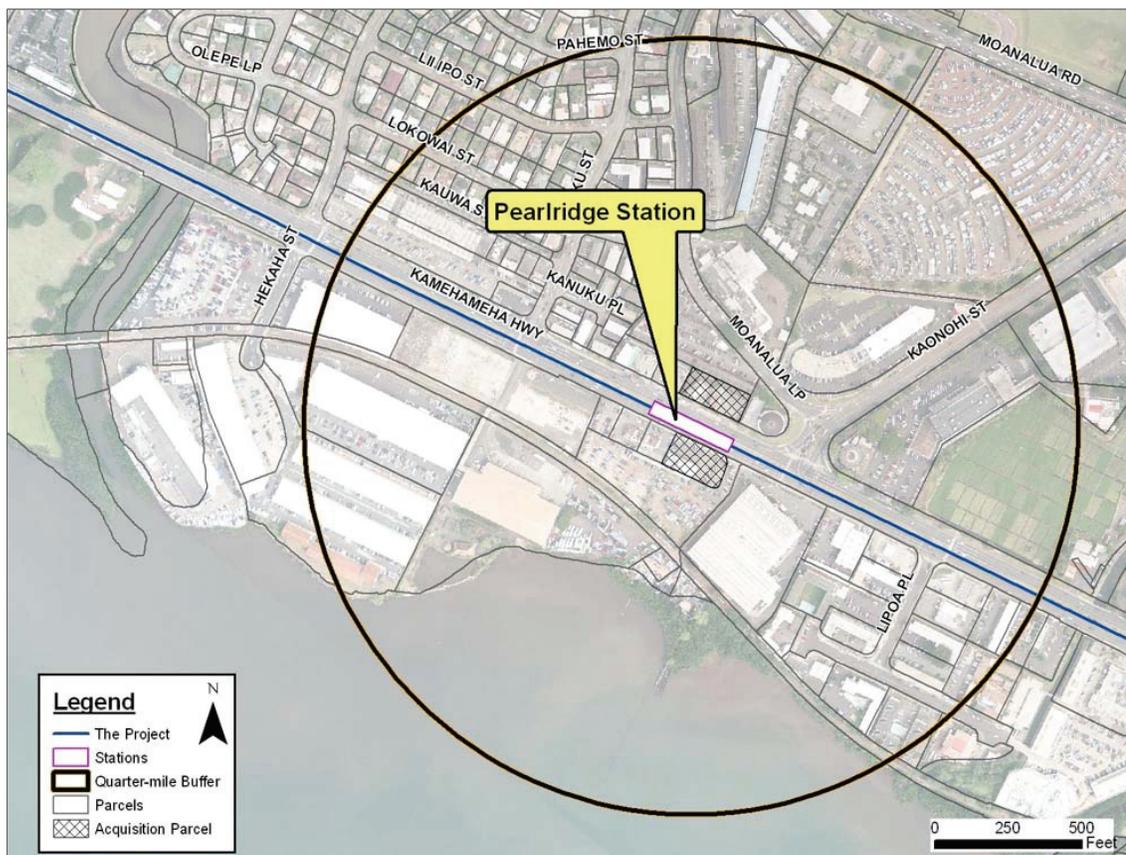


Figure 3.8-1: Pearlridge Station Area Acquisition Parcels

3.8.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.8-2, 10 underutilized parcels are located within the quarter-mile Pearlridge station area. Three parcels are larger than 1 acre (PR-2 makai of the Project and PR-8 and PR-10 mauka), and represent significant development opportunities that could allow the station area to become more transit-oriented in the future. In all, approximately 19.5 acres, or 19 percent of the quarter-mile station area, is underutilized.

Parcels PR-2, PR-5, and PR-6—which are currently part of a used car dealership that adjoins an acquisition parcel—are immediately makai of the future station. Together, they make up 2.5 acres that may be appropriate in the longer term for high-density mixed-use development that could be fully integrated with the Project (a ground-level photo of PR-2 is provided in Figure 3.8-3).

Parcels PR-1, PR-3, and PR-4, which are located makai of the former OR&L railway, together make up a half an acre, although their development potential could be hampered by a lack of direct roadway access. On Farrington Highway (WB), PR-9 and PR-10, which together make up the 2.2-acre surface parking lot of an older strip-commercial shopping center with office uses on the second floor, are underutilized and may be redeveloped over the longer term (see Figure 3.8-4 for aerial photo). PR-7, a vacant lot with parked cars located mauka of the Project at the corner of Moanalua Loop and Lokowai Place, may be appropriate for smaller scale infill development.

PR-8, a 14-acre flea market (formerly known as the Kamehameha Drive-In Site, and now owned by Robertson Properties Group) located across the street from the Pearlridge Shopping Center, represents a major development opportunity that may be appropriate for large scale mixed-use residential TOD (see Figure 3.8-5 for ground-level photo). Robertson Properties Group has proposed mixed-use retail and residential development anchored by a grocer and hotel for the site. In May 2011, Robertson announced plans to submit an Environmental Impact Statement for the project. Somewhat lower density TOD with less structured parking than proposed in the *Aiea—Pearl City Neighborhood Plan* is feasible and would be worthwhile to developers (i.e., having an internal rate of return of 15 percent or greater).³ Any development on Parcel PR-8 should be integrated with the Pearlridge Shopping Center and have robust bike/pedestrian connections with the Pearlridge Station.⁴

³ Jones Lang LaSalle, p. 66

⁴ Such connections, including streetscape enhancements that create a more inviting environment for bicycling and walking, could be paid for with value capture mechanisms that leverage future property taxes from the surrounding area (tax increment financing, or TIF) or use revenues from self-imposed special assessment districts in which property owners vote to pay a special tax. In Hawai'i, the use of TIF to leverage infrastructure and other community investments associated with TOD is hampered by very low property taxes compared to the rest of the United States and the illegality of using the State's General Obligation Debt to back bonds. This makes it difficult to use TIF to pay for large, up-front infrastructure investments.

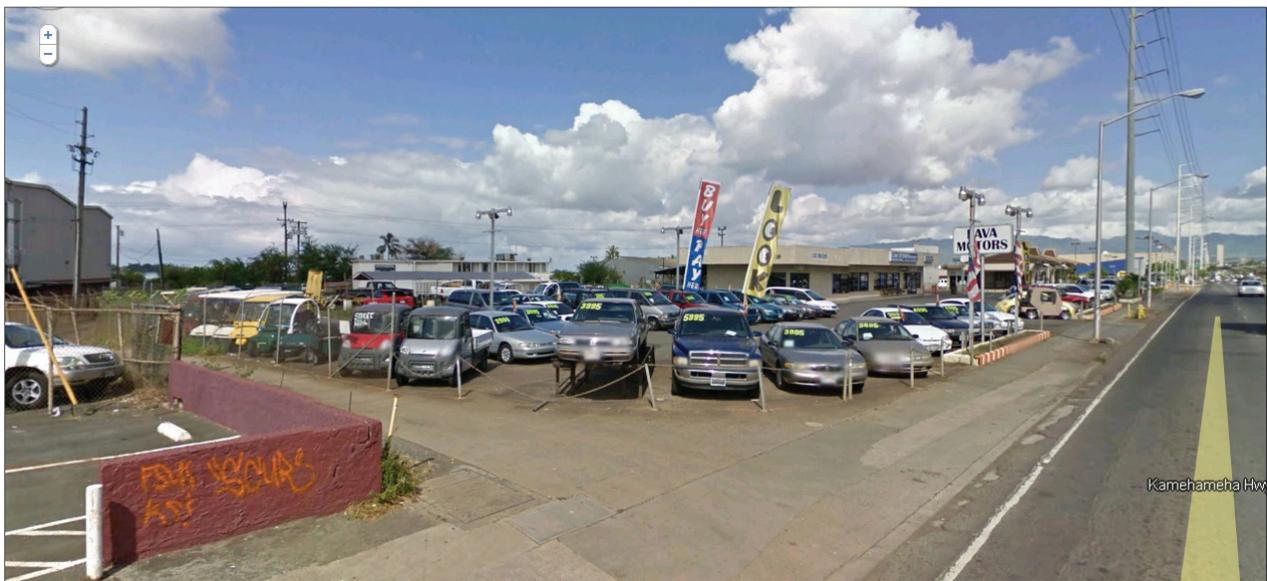
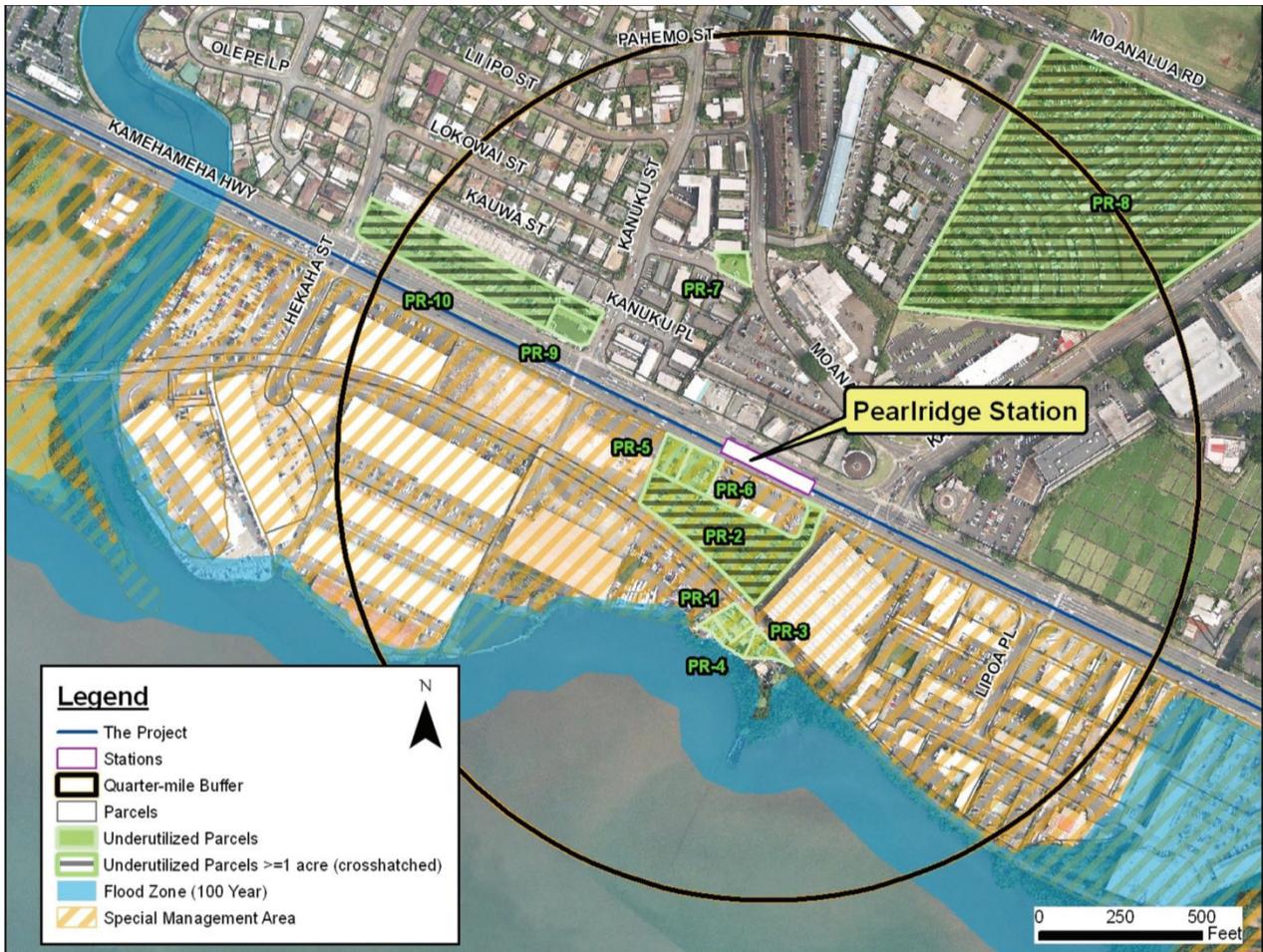




Figure 3.8-4: Underutilized Parcel PR-10 (parking lot only)



Figure 3.8-5: Underutilized Parcel PR-8

3.9 Aloha Stadium Station Area

3.9.1 Station Area Overview

Aloha Stadium Station will be located in one of the Aloha Stadium parking lots and will be a short walk from the stadium, adjacent to Kamehameha Highway. In addition to the stadium, which is owned by the State of Hawai'i and under the jurisdiction of the Department of Accounting and General Services, nearby land uses include low-density military installations and housing, commercial retail, and open space. Makalapa Park is 'Ewa of the station. Since much of the project area consists of U.S. Government property and State-owned land associated with Aloha Stadium, opportunities for new development linked with the Project station may be limited. A sizable portion of the quarter-mile station area consists of water (17 acres), which could be seen as an amenity by new residents of the area.

3.9.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.9-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Aloha Stadium Station. However, as the Project matures, the 7-acre park-and-ride lot adjacent to the station may itself become a possible development opportunity (for example, a parking structure or underground garage with attached TOD).

3.9.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.9-2 shows that there are no underutilized parcels within the quarter-mile station area. U.S. Government property used for military recreational purposes located 'Ewa of the Project has been excluded from this analysis of underutilized parcels within the quarter-mile radius of the Aloha Stadium Station. Development on the Aloha Stadium site is restricted by its current designation as a Section 4(f) public park and recreation property. The Quitclaim Deed, which transferred ownership from the U.S. Department of the Interior to the City in 1967, contains use conditions and covenants that require the land to be used and maintained for public recreational purposes.⁵ It further states that any breach of the aforementioned use conditions and covenants would result in ownership reverting back to the U.S. Department of the Interior. In 1970, the property was transferred to the State (currently, the Department of Accounting and General Services, or DAGS, is the agency with jurisdiction over the stadium) with similar provisions as the Quitclaim Deed. The long term possibility of stadium-related joint development integrated with bus transit and structured and/or underground parking on the site of the surface shared-use park and ride lot and bus transit center adjacent to the station is not addressed in the Final Environmental Impact Statement. However, such development could become possible with a new agreement between the Department of the Interior and DAGS.⁶

⁵ FEIS. p. 4-36

⁶ The long-term future of Aloha Stadium is not certain because of maintenance and usage issues with the facility.

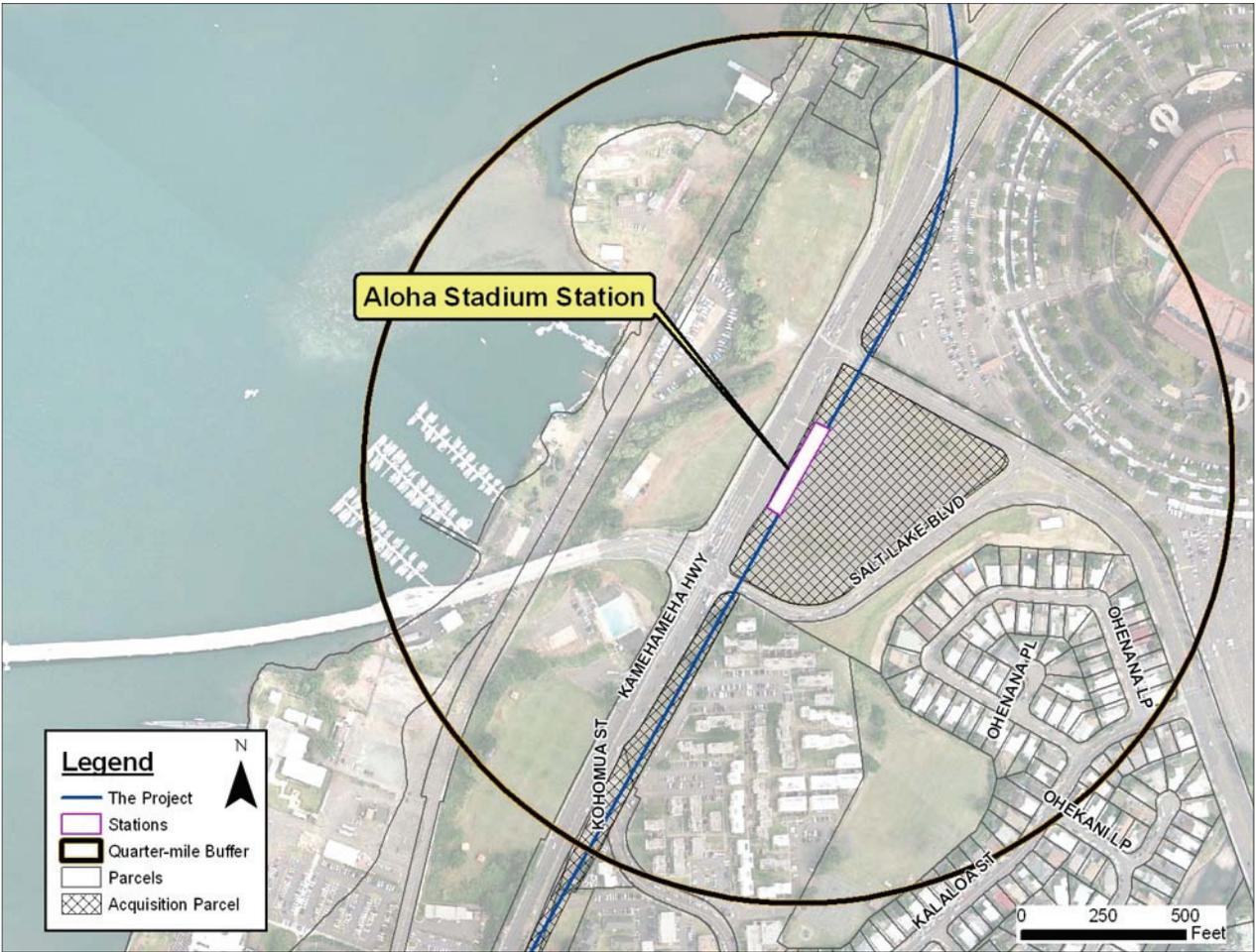


Figure 3.9-1: Aloha Stadium Station Area

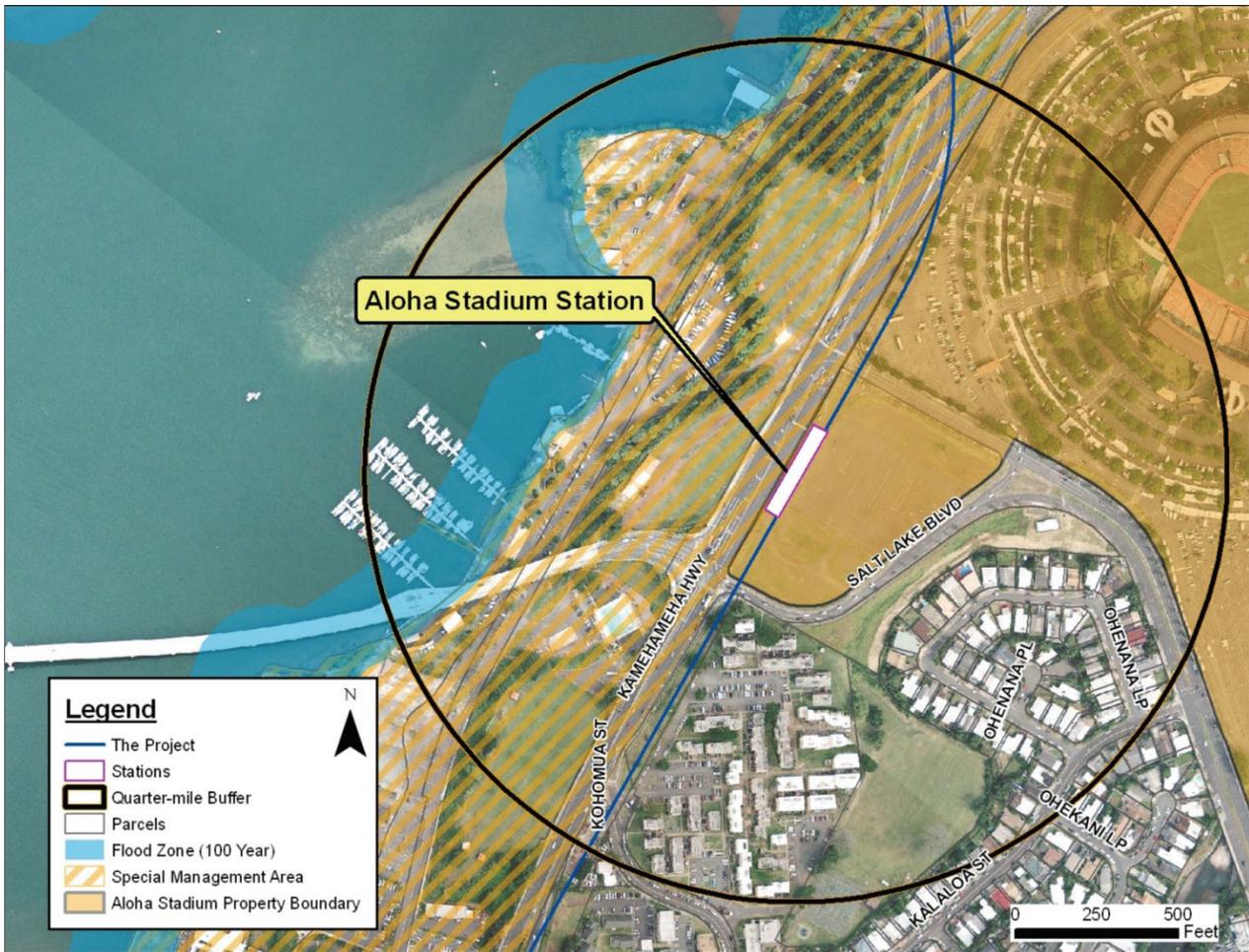


Figure 3.9-2: Aloha Stadium Station Area Development Constraints

3.10 Pearl Harbor Naval Base Station Area

3.10.1 Station Area Overview

Pearl Harbor Naval Base Station will be located at the intersection of Kamehameha Highway and Radford Drive. The station is surrounded by military land uses with some suburban commercial retail, including the Mall at Pearl Harbor, and low-to-mid-density housing catering to military personnel. Existing residential density is roughly zero to two dwelling units per acre, which is expected for a military base with many other uses. Since the majority of the quarter-mile station area consists of U.S. Government property, opportunities for future development are limited mainly to the small area Koko Head of the H-1 Freeway located within and/or adjacent to the Mall at Pearl Harbor.

3.10.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.10-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Pearl Harbor Naval Base Station.

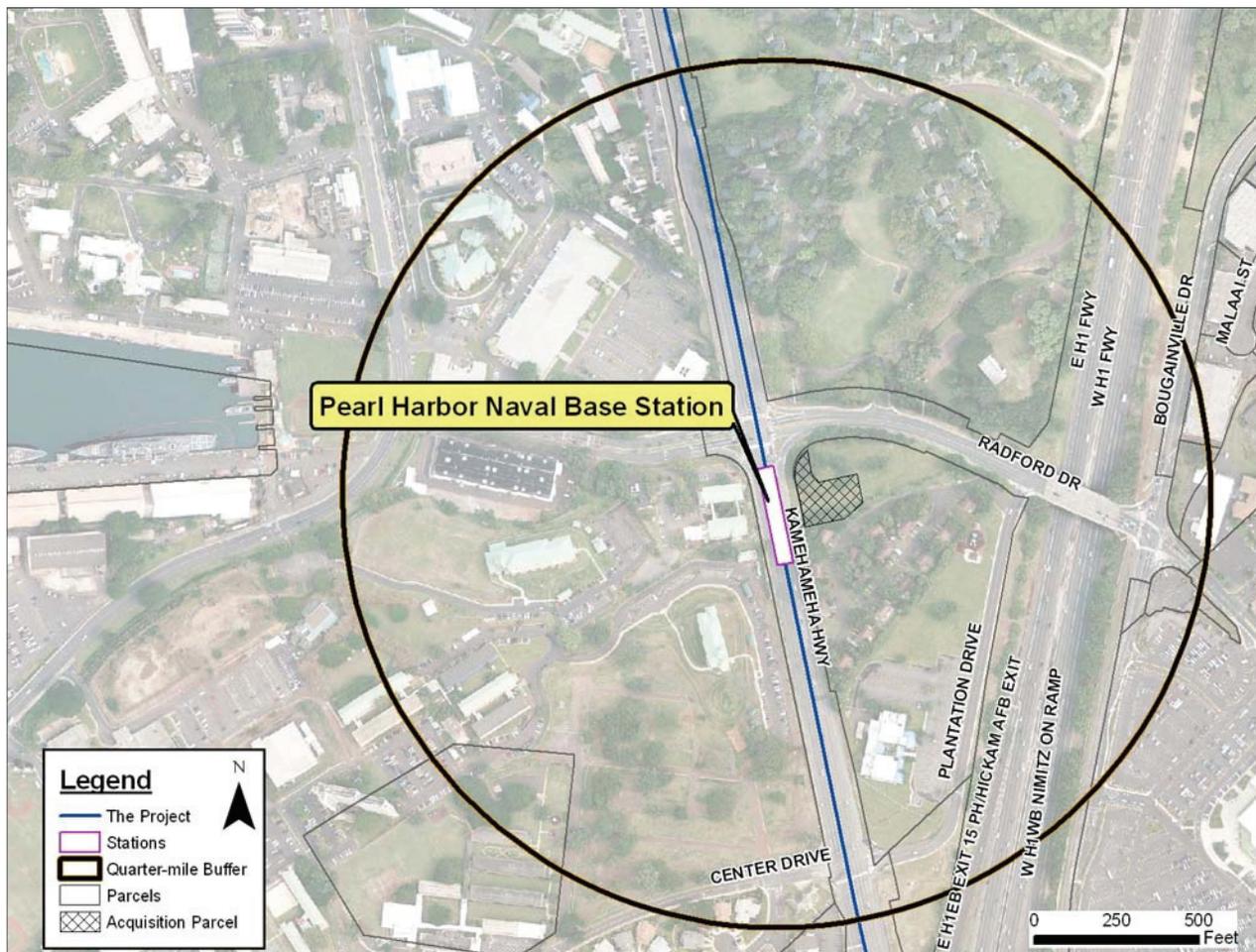


Figure 3.10-1: Pearl Harbor Naval Base Station Area

3.10.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.10-2, Parcel PN-1, a half-acre surface parking lot with no improvement value, may be underutilized. It serves as extra parking for the Mall at Pearl Harbor. This, as well as other portions of the mall parking area, may be appropriate for redevelopment as the Project matures. Any new development on underutilized surface parking should have robust bicycle/pedestrian connections with the Mall at Pearl Harbor and the Pearl Harbor Naval Base Station. Development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design that is more space efficient and aesthetically interesting than classic suburban development should be encouraged.

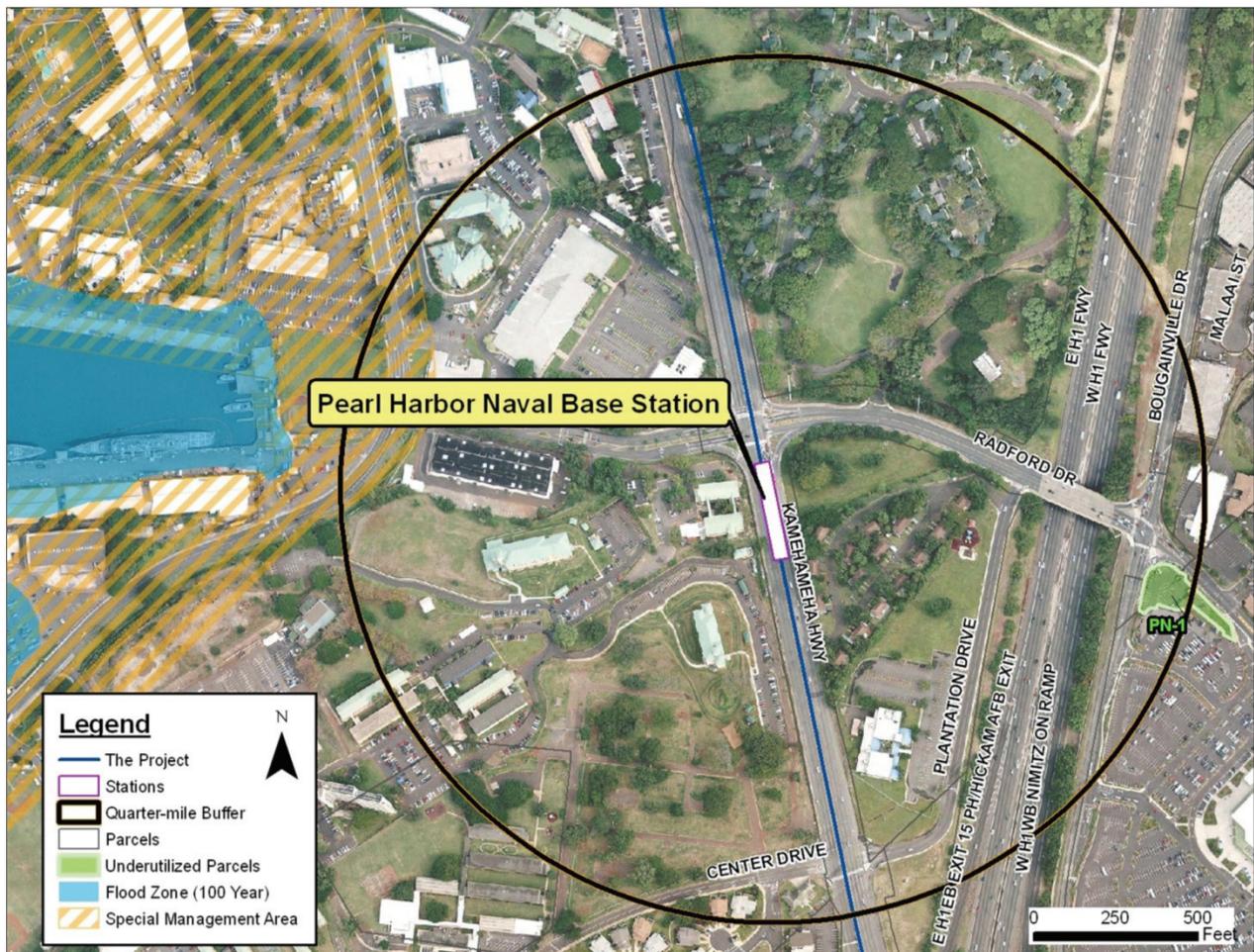


Figure 3.10-2: Pearl Harbor Naval Base Station Area Underutilized Parcels

3.11 Honolulu International Airport Station Area

3.11.1 Station Area Overview

Honolulu International Airport Station will be located on Aolele Street on airport property near the existing lei stands in what is now an economy parking lot. Existing nearby development includes the airport, a U.S. Post Office, and other airport-related and light-industrial land uses. All land surrounding the station is owned by the State of Hawai'i.

3.11.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.11-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Honolulu International Airport Station area.

3.11.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

No underutilized parcels are located within the quarter-mile station area of Honolulu International Airport. Development opportunities are likely limited to the conversion of surface parking lots and rental-car facilities to garages and other more built-up uses associated with the airport (airline terminals, hotels, etc.). Such redevelopment may not support the Project directly but may be a more efficient use of land in and around the airport over the longer term.

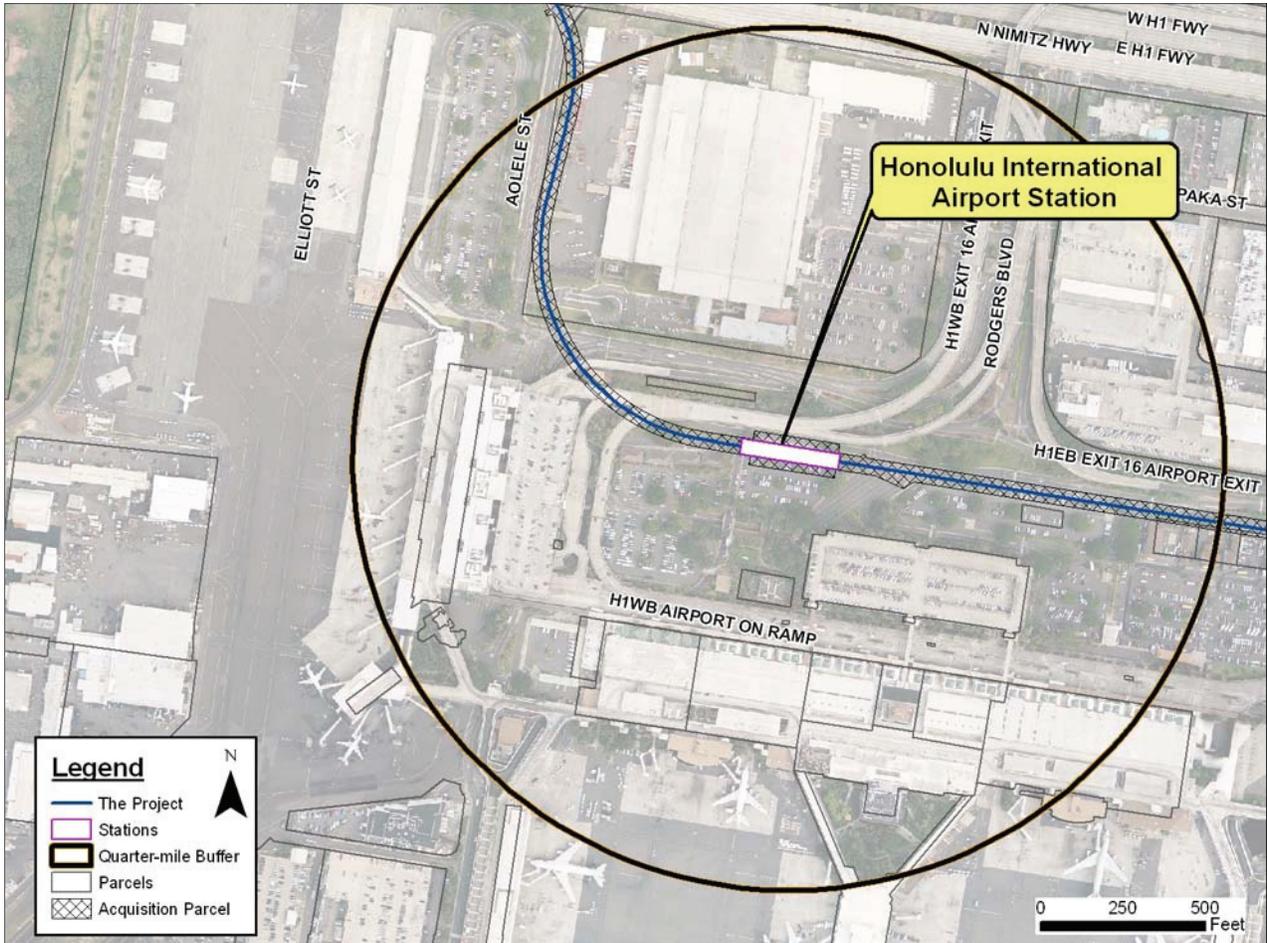


Figure 3.11-1: Honolulu International Airport Station Area

3.12 Lagoon Drive Station Area

3.12.1 Station Area Overview

Lagoon Drive Station will be located at the intersection of Lagoon Drive and Ualena Street/Waiwai Loop. Existing development is primarily light industrial with some commercial land uses and a park (Ke'ehi Lagoon Park) nearby. Although the quarter-mile station area has some development potential from excess and underutilized parcels, such development is not likely to be in the form of TOD due to the predominantly light industrial character of the area. Instead, it is likely to be infill and probably related to airport activity.

3.12.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.12-1 shows how existing parcels will be affected by the Project. Two adjacent parcels on Waiwai Loop purchased for the Project will have excess land consisting of just over 1 acre total that could be redeveloped. Figure 3.12-2 and Figure 3.12-3 show aerial and street views, respectively, of the parcels. Table 3 provides additional information on these two parcels.

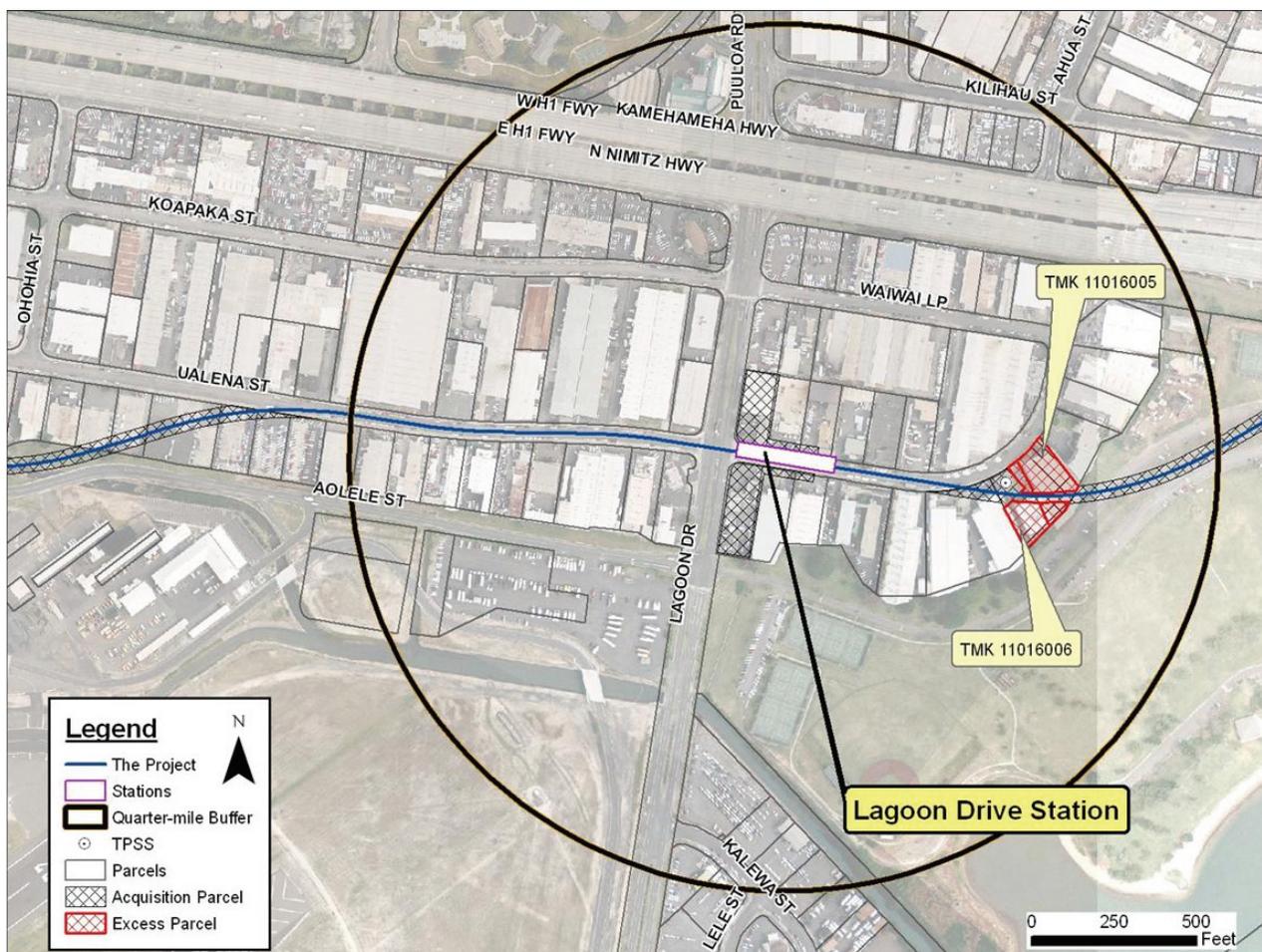


Figure 3.12-1: Lagoon Drive Station Area



Figure 3.12-2: Lagoon Drive Station Area Excess Parcels Aerial View



Figure 3.12-3: Lagoon Drive Station Area Excess Parcels 1 and 2 Street View

Table 3: Lagoon Drive Station Area Excess Parcels

#	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use*	Zoning	Displacements	Total Lot Size (sf)	Lot Size Used by Project (sf)	Excess Parcel Size (sf)	Comments
1	11016005	Full	2676	Waiwai Loop	Ind	I-2	-	24,738	3,338	21,400	Guideway and columns through middle of parcel limit development potential
2	11016006	Full	2668	Waiwai Loop	Ind	I-2	1 Business	23,225	8,512	14,713	Guideway, columns, and TPSS will limit access and development potential. Moving TPSS to rear of parcel would improve potential.

* Ind= Industrial

Redevelopment of the two excess parcels on Waiwai Loop will need to consider the placement of 6-foot-diameter guideway support columns (exact location to be determined) and the 30-foot-wide overhead guideway that will run through the middle of each property (the bottom of which will be approximately 20 feet above the ground). Access to the sides and underside of the guideway will need to be retained for maintenance purposes. As a result, portions of both leftover parcels (on the park side of the guideway) will likely be inaccessible from Waiwai Loop. In addition, a lack of direct roadway access could greatly limit the development potential of these parcels.

The parcels are currently zoned I-2, which limits the property to industrial uses (although a possible TOD overlay zone could allow for greater flexibility in land uses). In addition, the proximity of Honolulu International Airport presents a variety of challenges, including noise and height restrictions. As part of the neighborhood TOD planning process, it is possible that this area could be rezoned in the future to provide more flexibility and allow a wider range of land use types. Uses in the station area are not limited to industrial; there are other uses nearby, including a motel. Initially, the parcels could be converted into a parking lot.

A TPSS that provides the Project with power will likely be located somewhere on the station site. Consolidating the two abutting parcels may improve their redevelopment potential. Locating the TPSS at the rear of the site, between the guideway and the park, would also improve the development potential of the area nearest to Waiwai Loop. Long-term development opportunities will depend on many factors.

3.12.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.12-4, seven underutilized parcels are located in the quarter-mile Lagoon Drive station area. All are smaller than 1 acre and consist of surface parking lots. In total, these lots measure approximately 3.3 acres, which is less than 3 percent of the station area. These parcels may be appropriate for infill development that is airport related industrial and/or commercial. TOD is not a likely form of redevelopment because of Federal Aviation Administration height restrictions and aircraft noise.

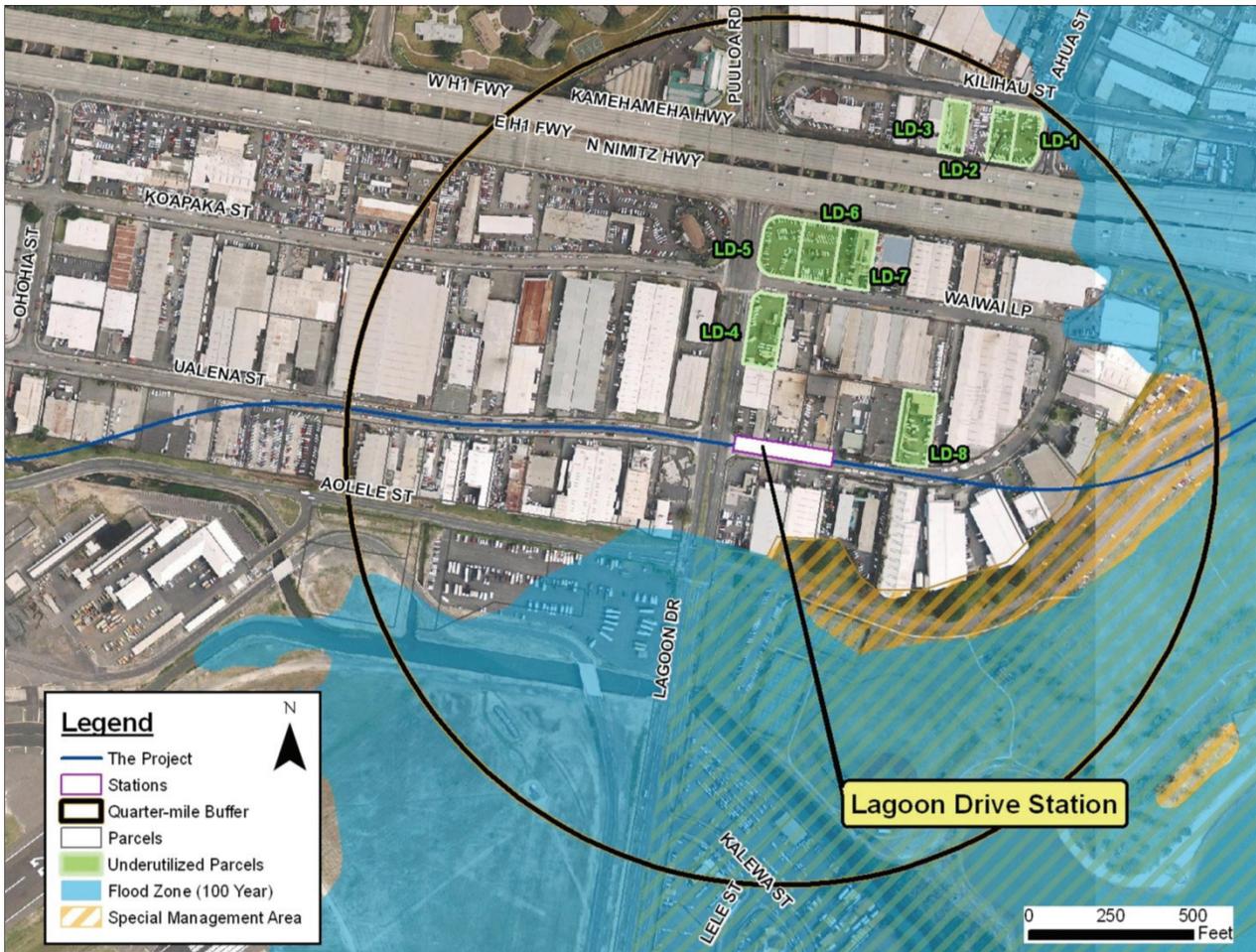


Figure 3.12-4: Lagoon Drive Station Area Underutilized Parcels

3.13 Middle Street Transit Center Station Area

3.13.1 Station Area Overview

The Middle Street Transit Center Station will be located on Kamehameha Highway at Middle Street near the H-1 Freeway access ramps. Existing development includes a mix of potentially contaminated sites, industrial and commercial land uses, and surface parking lots. Much of the quarter-mile station area is occupied by freeway infrastructure, including the H-1/Nimitz Highway interchange. The Middle Street Transit Center station area has numerous underutilized parcels, particularly makai of the Project alignment and Nimitz Highway. While a number of underutilized parcels are larger than 1 acre, their development potential could be affected by 100-year flood zones, possible contamination, and airport noise.

3.13.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.13-1 shows how existing parcels will be affected by the Project. One parcel on the makai side of Kamehameha Highway purchased for the Project will have excess land that could be redeveloped. This parcel has access to Kamehameha Highway, and development could be designed to have direct access to a future makai station entrance.

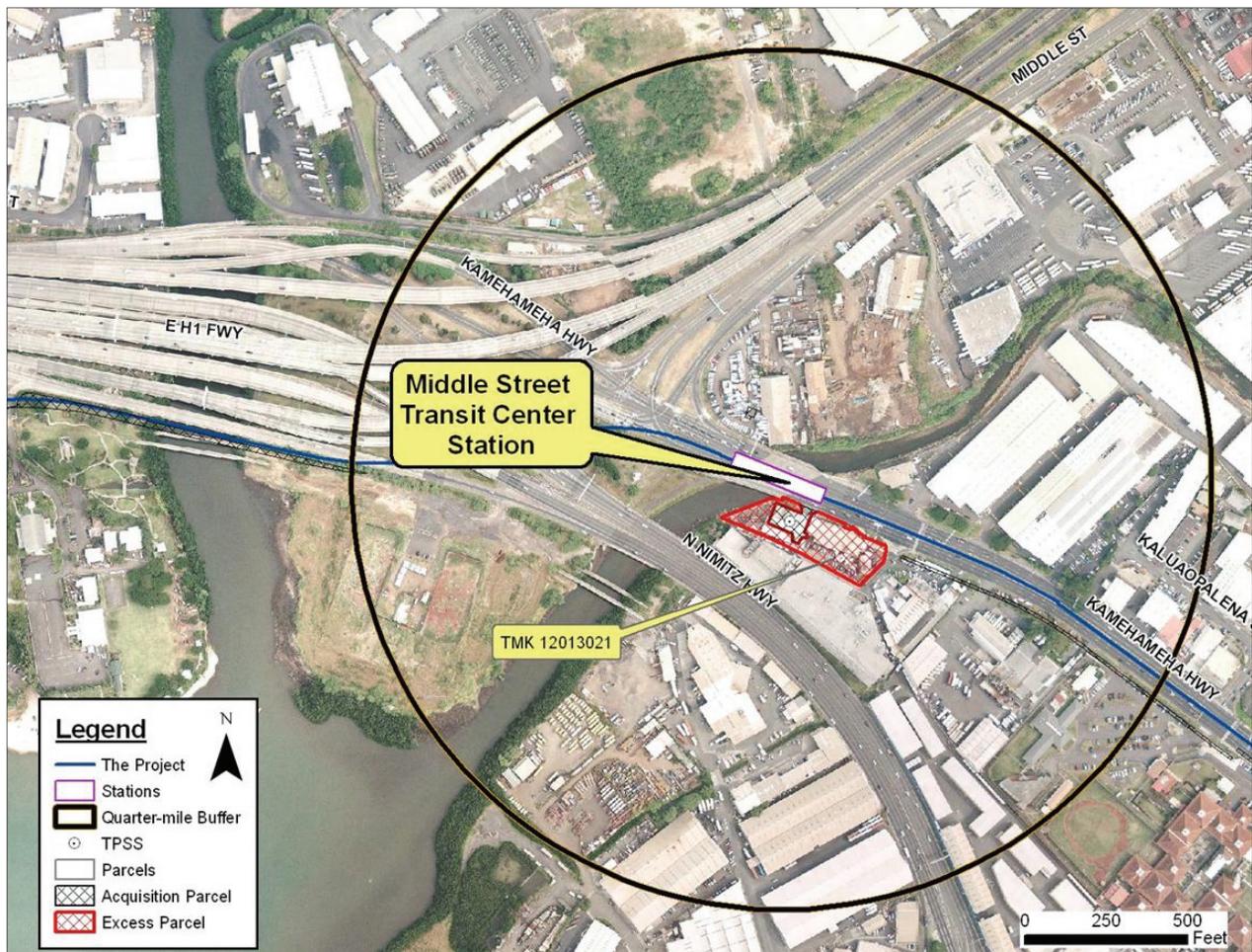


Figure 3.13-1: Middle Street Transit Center Station Area

Redevelopment of the excess parcel will need to consider the placement of a TPSS that will be located near the Middle Street Transit Center Station. Access to the TPSS from Kamehameha Highway will need to be retained, but otherwise the TPSS could be integrated into a future development. The City should design and locate the TPSS in such a way to maximize the development potential of the remaining site.

The excess parcel's adjacency to the Middle Street Transit Center Station will create an excellent opportunity to redevelop the property into a use that takes advantage of the access provided by rail transit. The land is currently zoned B-2 (business community), which allows general commercial and office use. As part of the station area TOD planning process, it is possible this parcel could be rezoned in the future to provide more flexibility by allowing a wider range of land use types that are transit-supportive. Rezoning the land from B-2 to BMX (business mixed use) would provide an opportunity to build a mixed-use development that could connect directly to the concourse level of the rail station.

Figure 3.13-2 and Figure 3.13-3 provide aerial and street views, respectively, showing the existing condition of this parcel. Table 4 provides additional information on the excess parcel.

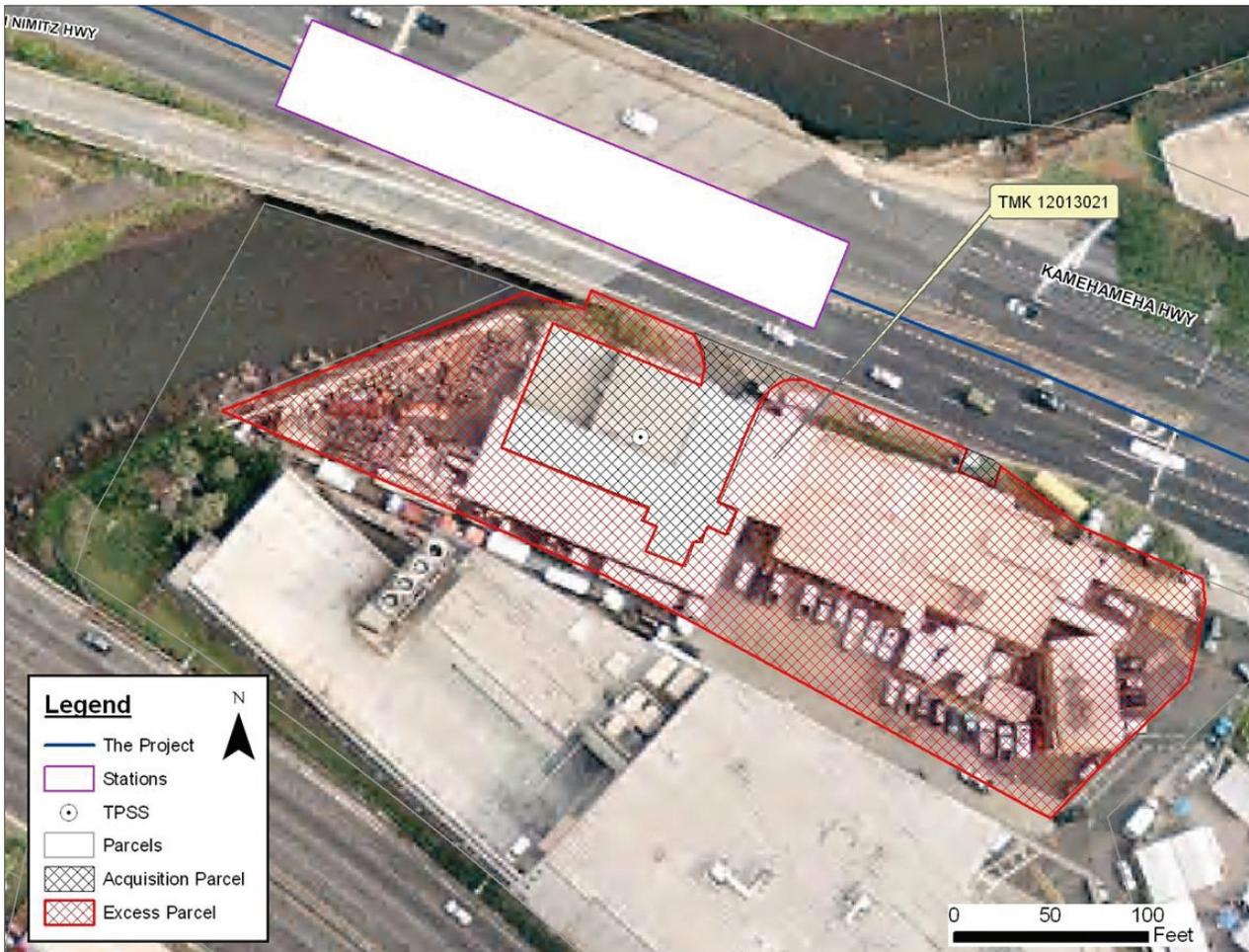


Figure 3.13-2: Middle Street Transit Center Station Area Excess Parcel Aerial View



Figure 3.13-3: Middle Street Transit Center Station Area Excess Parcel 3 Street View

Table 4: Middle Street Transit Center Station Area Excess Parcels

#	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use*	Zoning	Displacements	Total Lot Size (sf)	Lot Size Used by Project (sf)	Excess Parcel Size (sf)	Comments
3	12013021	Full	2323	Kamehameha Highway	Com	B-2	-	59,371	9,655	49,716	TPSS should be located such that development potential is retained.

*Com = Commercial

3.13.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.13-4, there are 13 underutilized parcels within the quarter-mile radius of the Middle Street Transit Center Station. Four parcels are larger than 1 acre. The largest underutilized parcel, MS-13, is a 13-acre former industrial site owned by the State of Hawai'i Airports Division that is zoned for preservation (P-2) and currently used as a paintball park. Although not improved, this site may be undevelopable because of its proximity to the airport; a ground-level photo is provided in Figure 3.13-5.

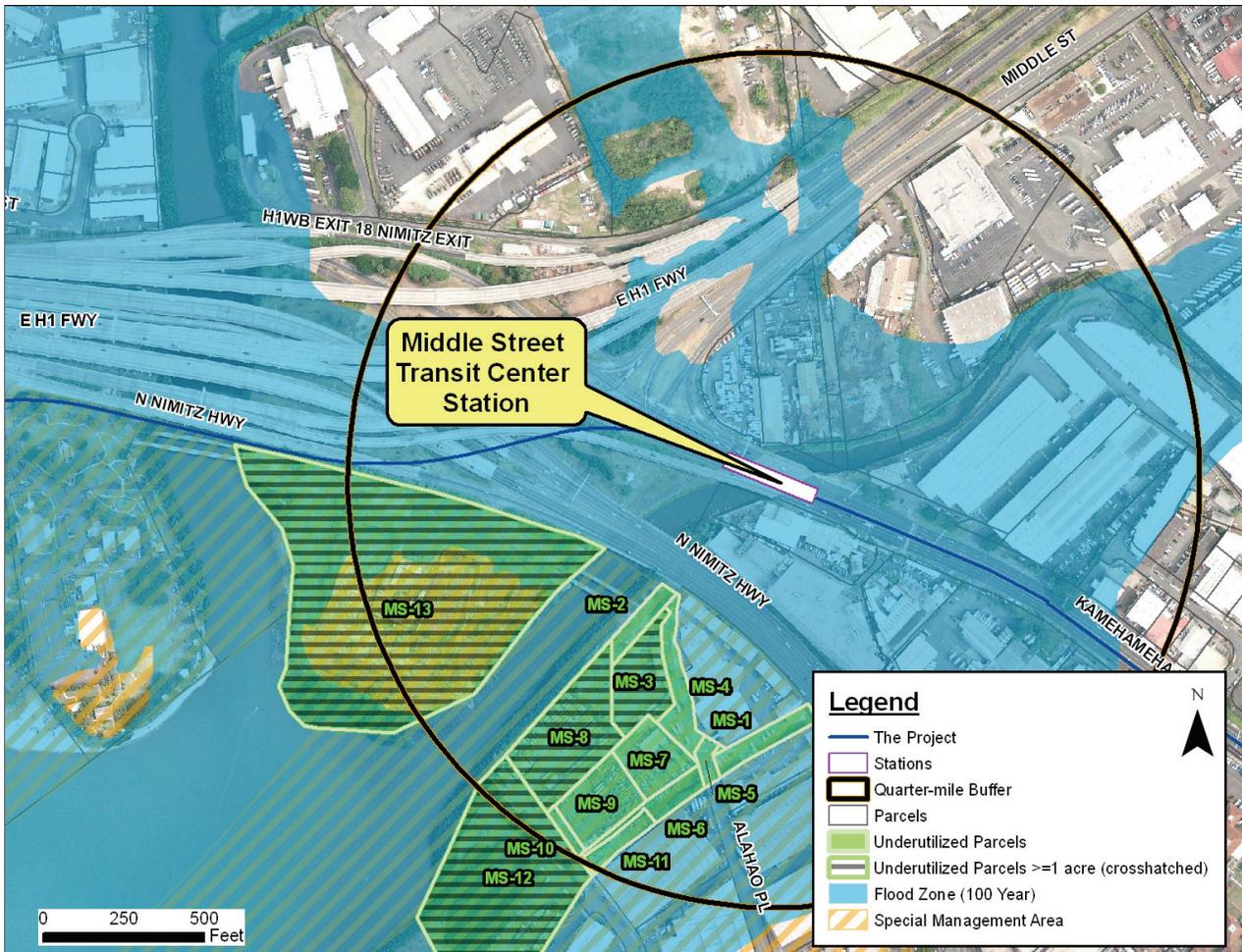


Figure 3.13-4: Middle Street Transit Center Underutilized Parcels



Figure 3.13-5: Underutilized Parcel MS-13

In all, approximately 26.2 acres of underutilized parcels fall within or intersect the quarter-mile station area. The two largest clusters of underutilization—parcels MS-1 through MS-12 (mostly used as parking for trailers and other large vehicles, with MS-12 being the largest and least used parcel) and parcel MS-13—sit directly opposite each other on Ke‘ehi Lagoon/Kalihi Stream within the Special Management Area and within the 100-year flood zone, which could constrain future development.

The dominance of highway infrastructure may also hinder efforts to promote TOD in the area. The above-mentioned parcels are separated from the actual station by Nimitz Highway, a busy six-lane arterial which—at this particular location—is an uncrossable pedestrian barrier. This physical separation could limit the development potential of parcels MS-1 through MS-13 without attempts to improve bicycle/pedestrian connections between the station and the makai side of Nimitz Highway (e.g., adding a pedestrian bridge).

The location of most of the development parcels in a 100-year flood zone and special management area could impact potential development. Additionally, portions of Parcels MS-9 and MS-14 sit in wetlands, which also limit development potential. The relatively short distance across Kalihi Stream between MS-13 and MS-1 through MS-12 could allow both clusters to be reconceived as a unified TOD with a natural water feature running through the center. Ground-level photos of underutilized parcels in the Middle Street Transit Center Station area larger than 1 acre include MS-13, MS-3, MS-8, and MS-12, which are shown in Figure 3.13-5 through Figure 3.13-8, respectively. These underutilized clusters should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design that is more space efficient and aesthetically interesting than classic suburban development.



Figure 3.13-6. Underutilized Parcel MS-3



Figure 3.13-7: Underutilized Parcel MS-8 (in background)



Figure 3.13-8: Underutilized Parcel MS-12

3.14 Kalihi Station Area

3.14.1 Station Area Overview

Kalihi Station will be located on Dillingham Boulevard at Mokauea Street. Existing development includes a mix of industrial, commercial, and mid-density, mostly single-family detached residential land uses. Land ownership in the station area is very fragmented. Current housing density is roughly 12 to 15 dwelling units per acre, which is supportive of high-frequency rapid transit. The quarter-mile station area is heavily developed already, and redevelopment opportunities, although numerous, mostly consist of small lots—mostly vacant or surface parking, and less than a quarter of an acre—that would be more appropriate for infill. Kamehameha Schools is the largest landowner in the station area.

3.14.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.14-1 shows how existing parcels will be affected by the Project. Three small parcels on the makai side of Dillingham Boulevard purchased for the Project will have excess land that could be redeveloped. Table 5 provides more information on the excess parcels. All three parcels will have street frontage on Dillingham Boulevard, providing opportunity for access. In addition, two of the parcels are adjacent and could be redeveloped jointly.

The parcel at 1965 Dillingham Boulevard is currently zoned I-2 (intensive industrial), which is not a transit-supportive zone and is a less-than-ideal use for a parcel near a neighborhood rail station. As part of any future station area neighborhood TOD planning process, this parcel will likely be rezoned to provide more flexibility in future development. Although the parcel is small, it has street frontage on Dillingham Boulevard and is close to the rail station.

The two abutting parcels, 1819 and 1825 Dillingham Boulevard, are currently zoned B-2 (community business). The small parking areas in front of both buildings will be needed for the street right-of-way expansion that is required to accommodate the Project guideway. Since parking for each business will be eliminated completely, both parcels will need to be purchased in their entirety for the Project. As part of the station area neighborhood TOD planning process, these parcels may be rezoned to provide more flexibility in future development. Consolidating the two abutting parcels may improve their redevelopment potential. Figure 3.14-2 shows an aerial view of the existing conditions of the three parcels, and Figure 3.14-3 and Figure 3.14-4 provide street views showing the existing conditions of these parcels.

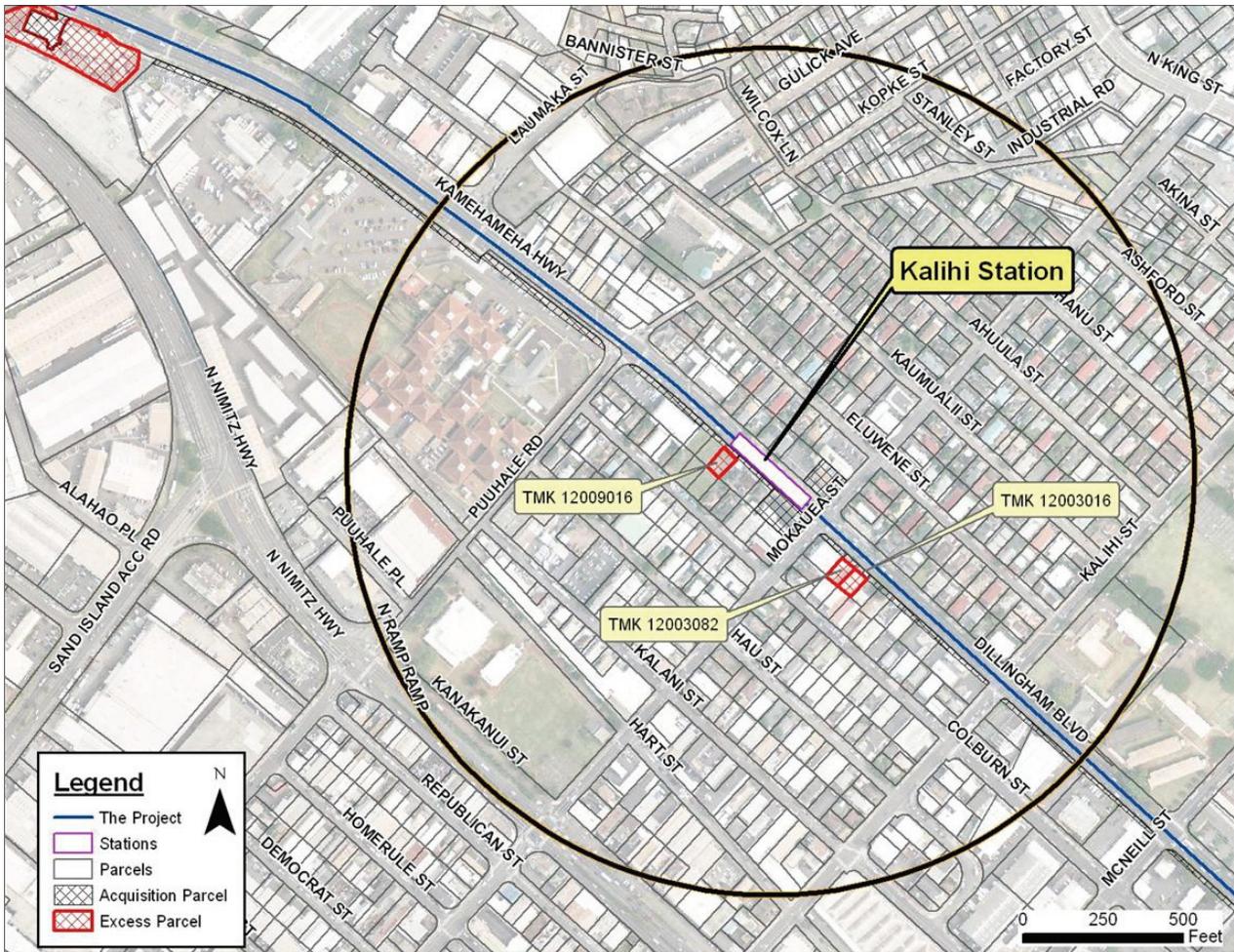


Figure 3.14-1: Kalihi Station Area

Table 5: Kalihi Station Area Excess Parcels

#	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use*	Zoning	Displacements	Total Lot Size (sf)	Lot Size Used by Project (sf)	Excess Parcel Size (sf)	Comments
4	12009016	Full	1965	Dillingham Boulevard	Res	I-2	(-)	4,650	520	4,130	Small empty lot that could be consolidated with adjacent private parcels to improve development potential
5	12003016	Full	1819	Dillingham Boulevard	Com	B-2	2 Businesses	4,650	770	3,880	Parcel could be consolidated with Parcel 6 to improve development potential
6	12003082	Full	1825	Dillingham Boulevard	Com	B-2	3 Businesses/ 1 Residential Unit	4,650	770	3,880	Parcel could be consolidated with Parcel 5 to improve development potential

*Com = Commercial Res = Residential

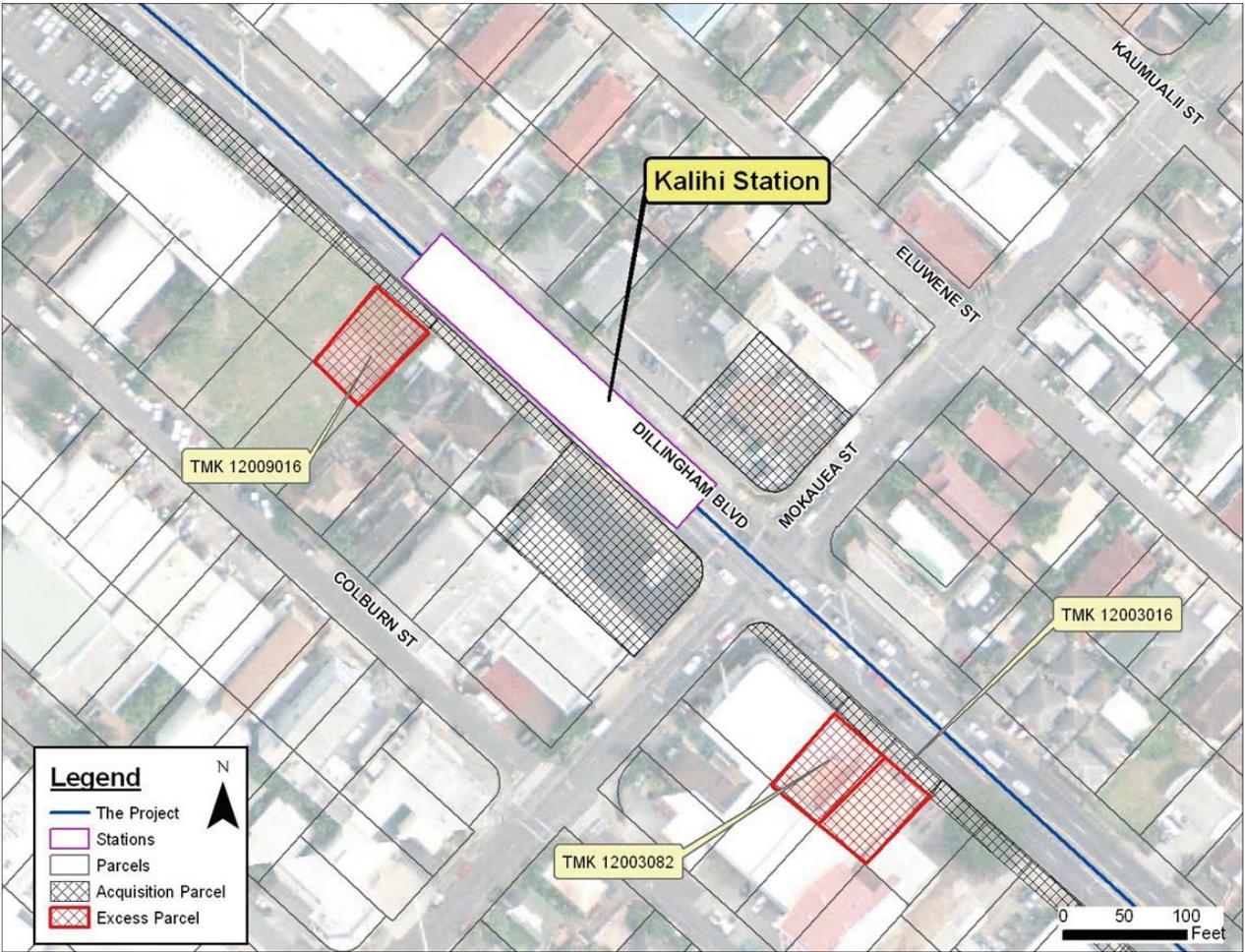


Figure 3.14-2: Kalihi Station Area Excess Parcel Aerial View



Figure 3.14-3: Kalihi Station Area Excess Parcel 4 Street View



Figure 3.14-4: Kalihi Station Area Excess Parcels 5 and 6 Street View

3.14.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.14-5 shows that while there are many underutilized and/or vacant parcels in the quarter-mile radius of Kalihi Station—the most of any Project station—they consist of smaller parcels smaller than 1 acre whose development potential is likely limited to infill. In all, 4.8 acres, or less than 4 percent of the quarter-mile station area, is underutilized. Better opportunities for development can be found on Dillingham Boulevard, including the combination of Parcels KH-4, KH-5, KH-6, and KH-16 located 350 feet southeast of the station platform (0.43 acre combined) and KH-25 (0.22 acre), an existing service station at the corner of Pu‘uhale Road about 300 feet northwest of the station platform. The combination of KH-22 and KH-23 (0.71 acre) in an existing industrial area south of Dillingham Boulevard also represents a minor development opportunity. Future infill on underutilized parcels in the quarter-mile station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive buildings with street frontage (i.e., little or no setback).

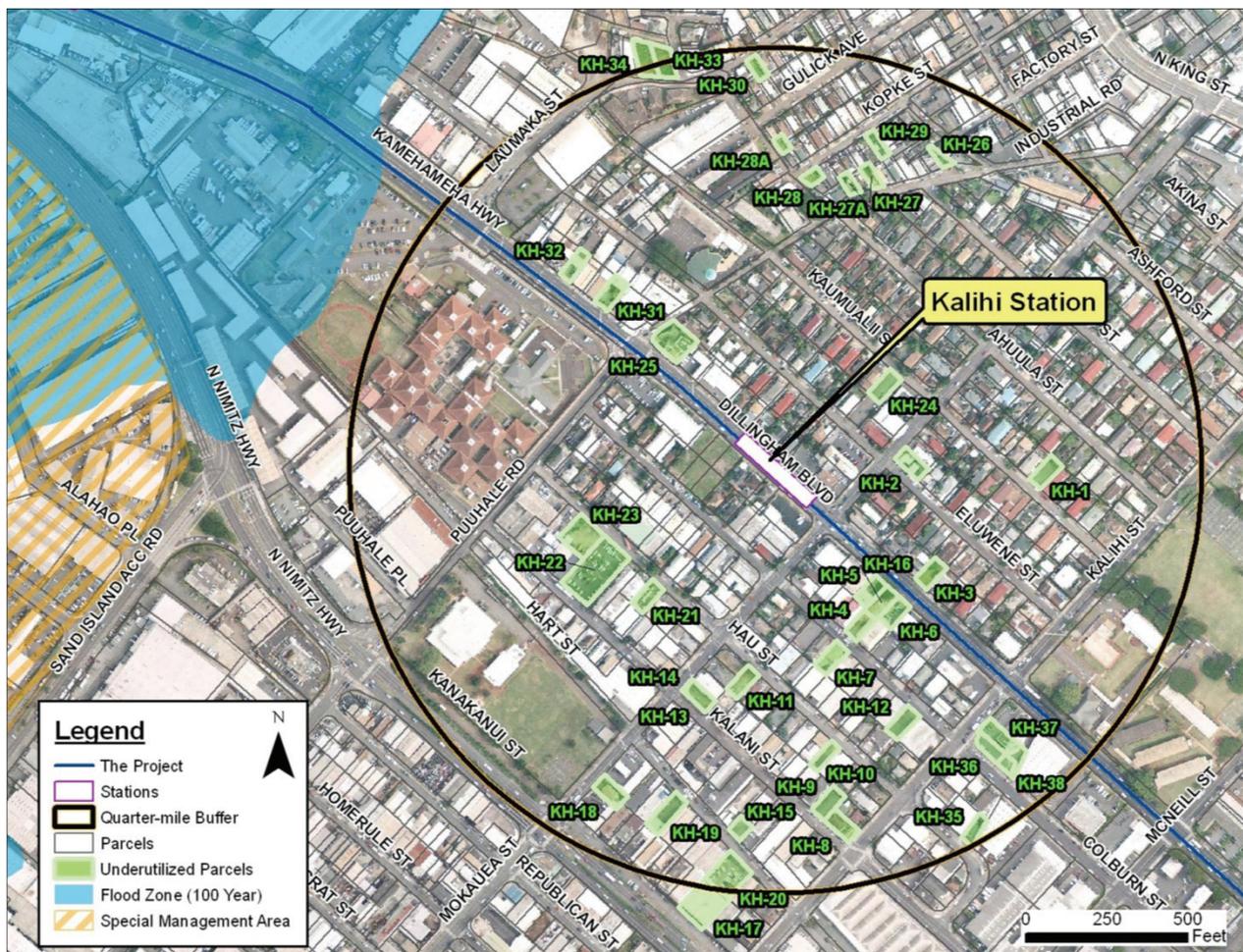


Figure 3.14-5: Kalihi Station Area Underutilized Parcels

3.15 Kapālama Station Area

3.15.1 Station Area Overview

Kapālama Station will be located on Dillingham Boulevard in Kalihi near Honolulu Community College (HCC). Existing nearby development includes HCC, light industrial, suburban-style big-box retail with surface parking lots, and multi-family housing located mauka of the Project. Castle and Cook, which owns and manages the nearby Dole Cannery complex on Alakawa Street, and the State of Hawai'i, which owns HCC, are the largest land owners in the station area. HCC is currently in the process of developing a new master plan that includes a technology center. The recent redevelopment of the Dole Cannery has brought new freestanding big-box retail, including Best Buy, Costco, and Home Depot. While popular regional shopping destinations, these establishments are, for the most part, auto-oriented and do not support TOD goals.

3.15.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.15-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Kapālama Station area.

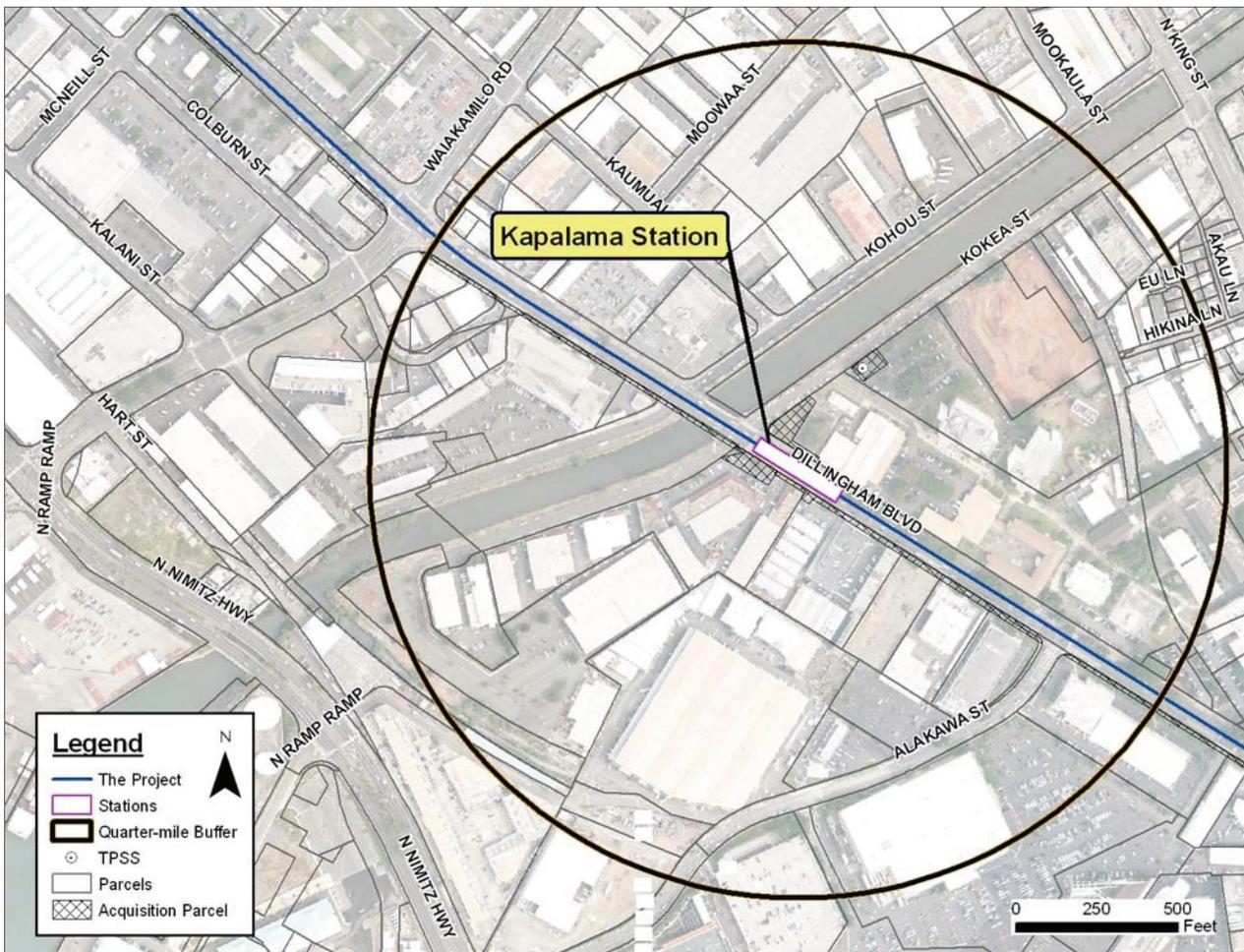


Figure 3.15-1: Kapālama Station Area

3.15.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.15-2 shows several underutilized parcels in the quarter-mile Kapālama station area. In all, 5.2 acres, or 4.1 percent of the quarter-mile station area, is underutilized. Parcels KL-6 and KL-7, which are currently vacant, measure 2.9 acres combined, and together represent a significant development opportunity given their combined size and proximity to Kapālama Station (a 700-foot walk along Kōkea Street). A ground-level photo of Parcel KL-6 is shown in Figure 3.15-3.

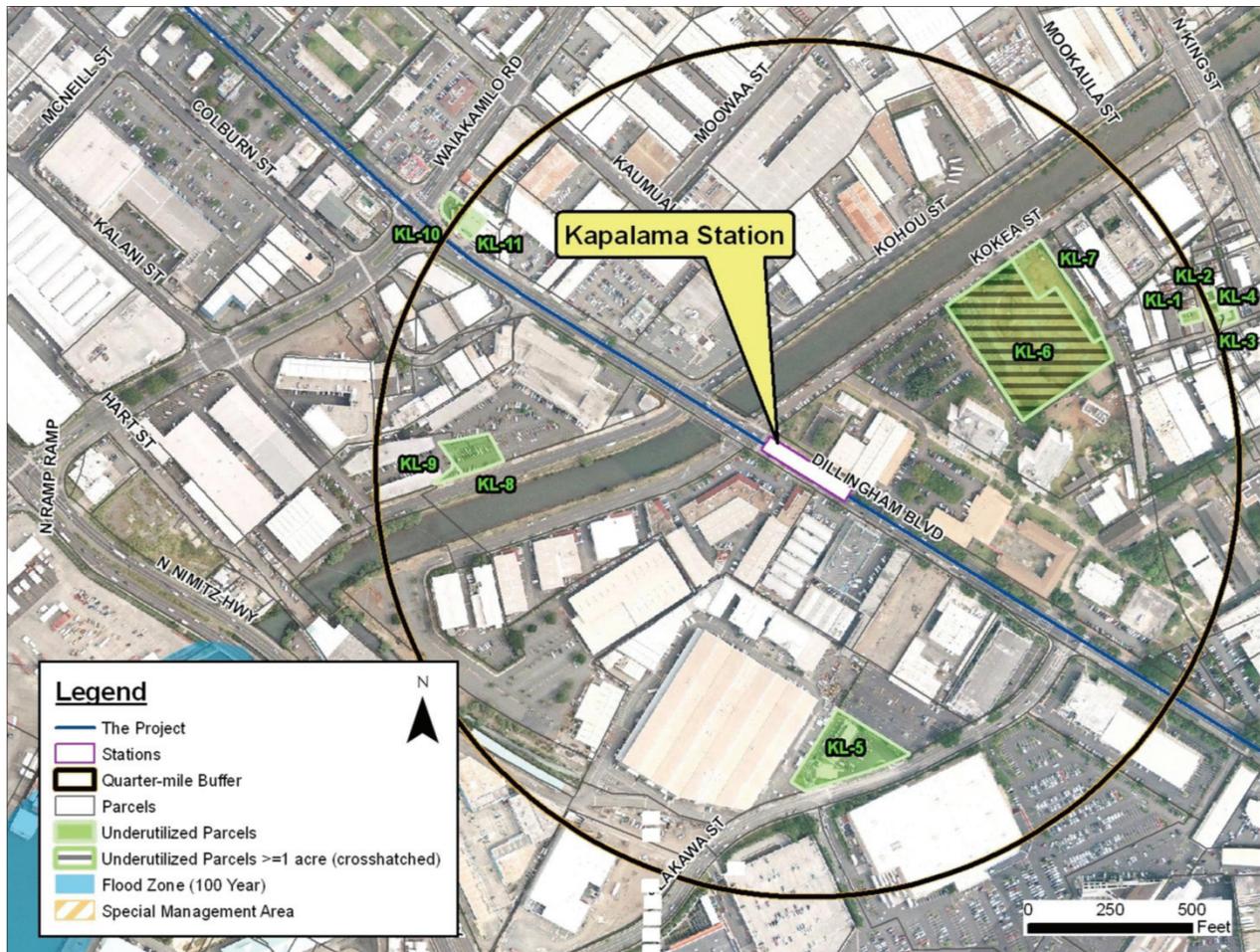


Figure 3.15-2: Kapālama Station Area Underutilized Parcels



Figure 3.15-3: Underutilized Parcel KL-6

Surface parking lots in the area, although not currently underutilized, may be redeveloped as greenways linking the station with surrounding area or as mixed-use TOD. Although Parcel KL-5 is technically underutilized, its current use as a heavily frequented gas station (Costco) may limit its redevelopment potential.

Future development—whether infill or larger-scale TOD—on underutilized parcels in the quarter-mile station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design. Public access along Kapālama Stream, a focal point, should be well integrated with future development wherever possible. According to the *Value Capture Opportunity Analysis*, a high-density development scenario without public benefits (e.g., parks or infrastructure) would be feasible in the Kapālama station area.⁷ However, future high-density development in the Kapālama station area may be constrained by at-capacity water and sewer systems.

⁷ Jones Lang LaSalle, p. 68

3.16 Iwilei Station Area

3.16.1 Station Area Overview

Iwilei Station will be located at the intersection of Dillingham Boulevard and Ka'a'ahi Street. Existing nearby development includes light-industrial, a Costco and Cineplex on the Dole Cannery site, and medium-density residential land uses. About 20 percent of the quarter-mile station area consists of multi-family housing (Kukui Gardens and Mayor Wright Homes) located mauka of the Project, while the rest consists principally of retail-commercial and light industrial uses. Development opportunities are limited to infill.

3.16.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.16-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Iwilei Station area.

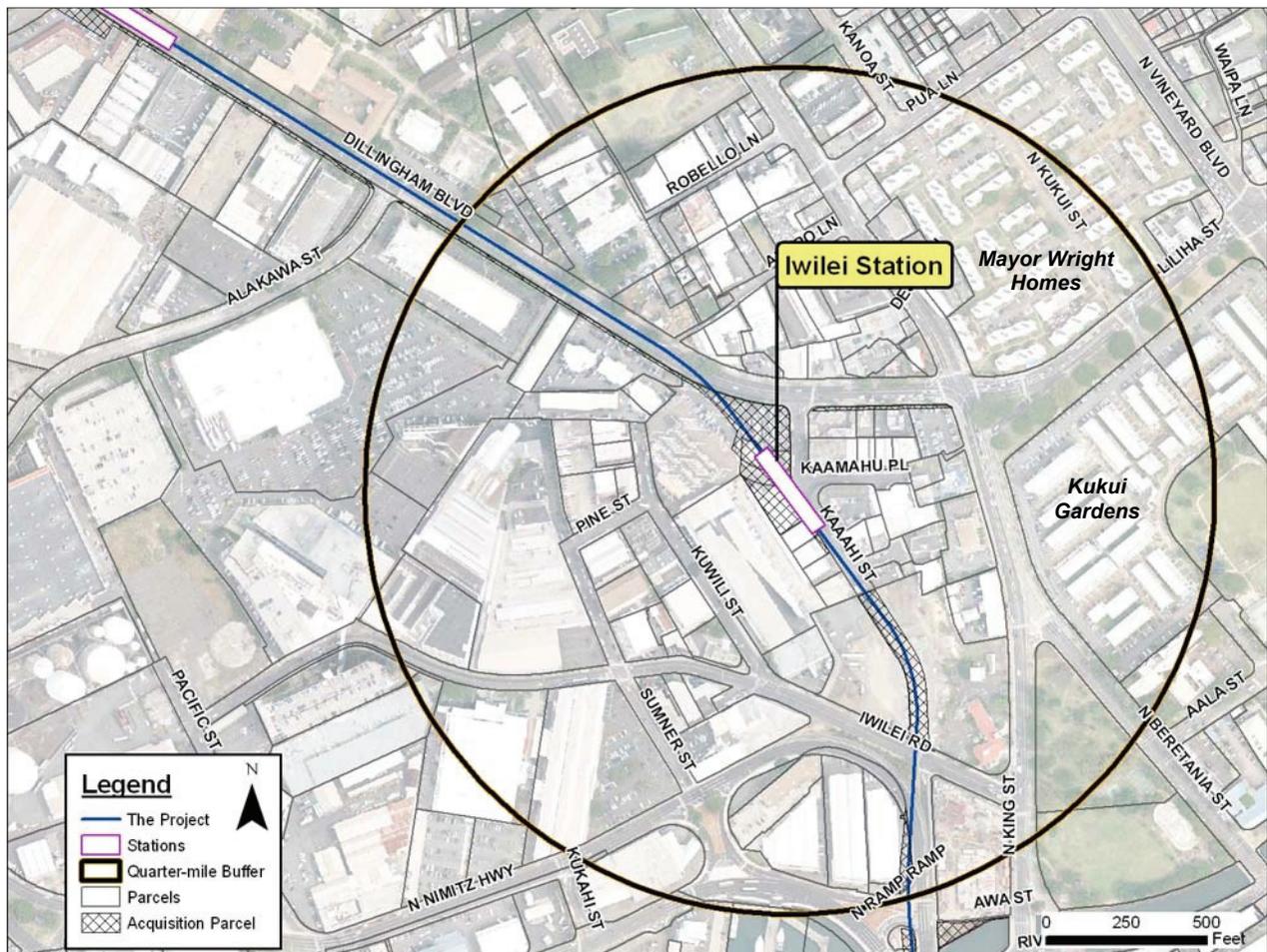


Figure 3.16-1: Iwilei Station Area

3.16.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

While the quarter-mile Iwilei station area is already heavily developed, there are several opportunities of infill development on underutilized surface parking lots, as shown in Figure 3.16-2. One opportunity, Parcel IL-4, is a used car lot on a strategic corner at Dillingham Boulevard and North King Street. It measures about half an acre, is located 500 feet from the station platform, and has an improvement value-to-land ratio of zero (unimproved), indicating underutilization. In all, 1.9 acres (1.5 percent) of the quarter-mile station area is underutilized. Future infill on underutilized parcels in the quarter-mile station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile, and contextually sensitive design with street frontage (i.e., little or no setback).

As suggested in the September 2010 *Value Capture Opportunity Analysis* prepared by Jones Lang LaSalle for the Department of Planning and Permitting, the surface parking lots of big-box retailers and the planned redevelopment of 11 acres at Kukui Gardens provide compelling opportunities to create a vibrant urban neighborhood around Iwilei Station over the longer term, especially given the proximity to Downtown and Dole Cannery. However, such opportunities may be constrained by at-capacity water and sewer systems, as well as a perceived lack of safety in the area.

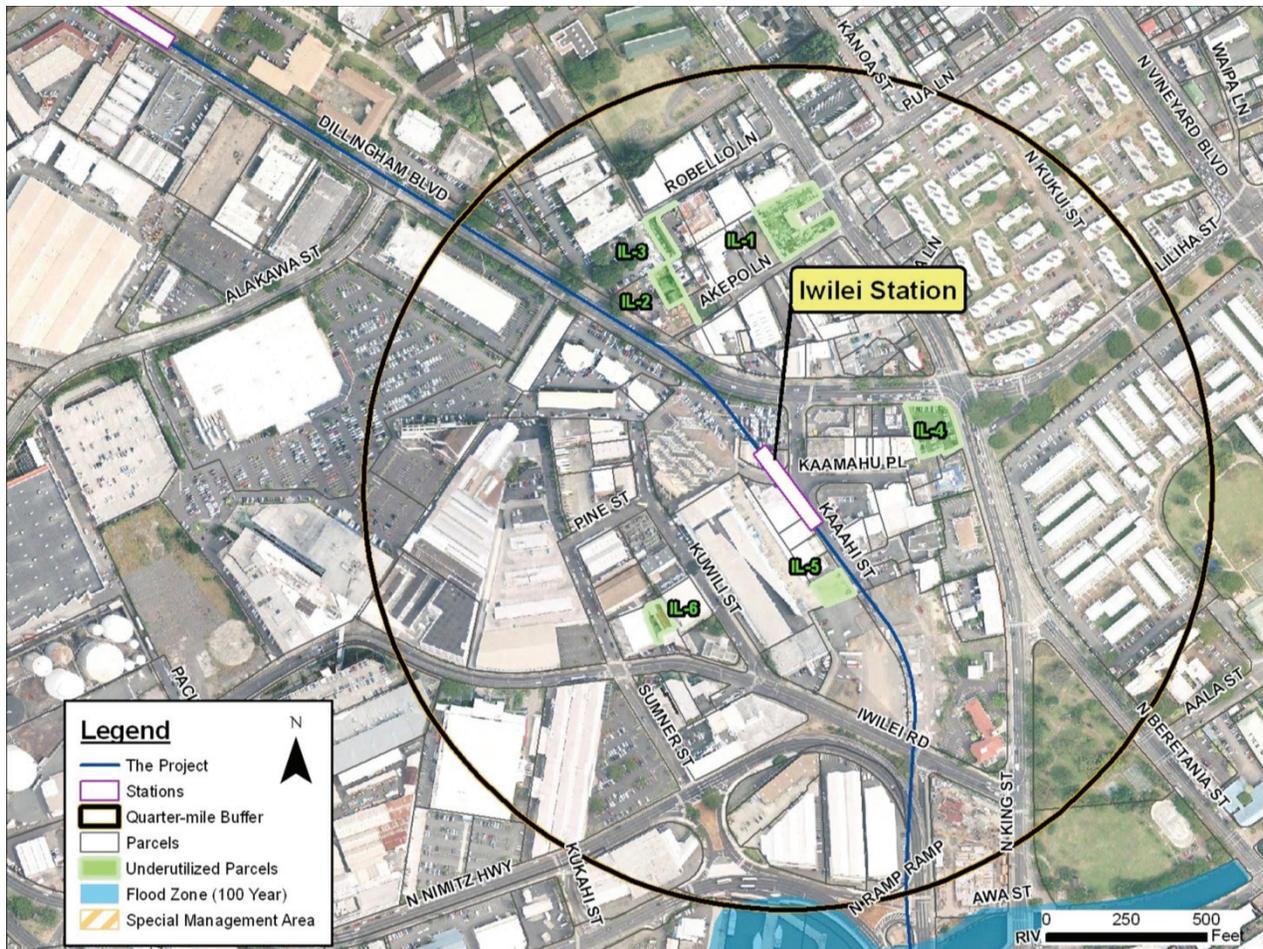


Figure 3.16-2: Iwilei Station Area Redevelopment Parcels

3.17 Chinatown Station Area

3.17.1 Station Area Overview

Chinatown Station will be at the intersection of Kekaulike Street and Nimitz Highway on what is now a parking lot. Existing nearby development includes a mix of retail, office, and high-density residential land uses. Current housing density in the station area is between 10 and 33 dwelling units per acre, which is supportive of high-frequency rapid transit. Industrial uses predominate in the area 'Ewa of Nu'uaniu Stream, which divides the quarter-mile station area.

The quarter-mile station area consists of three zones: 1) the Chinatown Special District, a high-intensity ethnic commercial center and federally listed historic district Koko Head of Nu'uaniu Stream/River Street; 2) a mostly industrial area 'Ewa of Nu'uaniu Stream/River Street that overlaps with the Iwilei station area and includes 'A'ala Park and the historic OR&L Terminal; and 3) a port area makai of the guideway that consists mainly of Honolulu Harbor and active wharfs. Despite good overall utilization, the Chinatown station area has a number of development opportunities in the form of surface parking lots and vacant parcels that may be appropriate for infill and larger-scale development. Land ownership in the station area is diverse.

3.17.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.17-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Chinatown Station area.

3.17.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.17-2 shows several notable development opportunities adjacent to the Project guideway within the Chinatown Station quarter-mile radius and a number of more modest opportunities for low-rise infill farther mauka of Nimitz Highway. Future development in the Chinatown station area should be consistent with the rules and regulations of the Chinatown Special District as specified in the Land Use Ordinance of the *Revised Ordinances of Honolulu*.

In all, 2.6 acres (2.6 percent) of the quarter-mile Chinatown station area (excluding Honolulu Harbor) is underutilized and potentially developable. With the exception of Parcel CH-1, which has a 250-foot height maximum, all parcels are regulated by height restrictions of 40 to 80 feet.

Parcels CH-1 through CH-4 (surface parking lots) provide a potentially significant opportunity to establish a continuous street façade along the mauka side of Nimitz Highway between Nu'uaniu Avenue and River Street, a four-block stretch. Collectively, these parcels measure 1.6 acres. Parcel CH-10, a 0.37-acre wharf that is part of the State-controlled Aloha Tower Project and currently used as surface parking, has limited development potential because of its size and proximity to the water, although it could be redeveloped as a park, memorial, or other public gathering place.

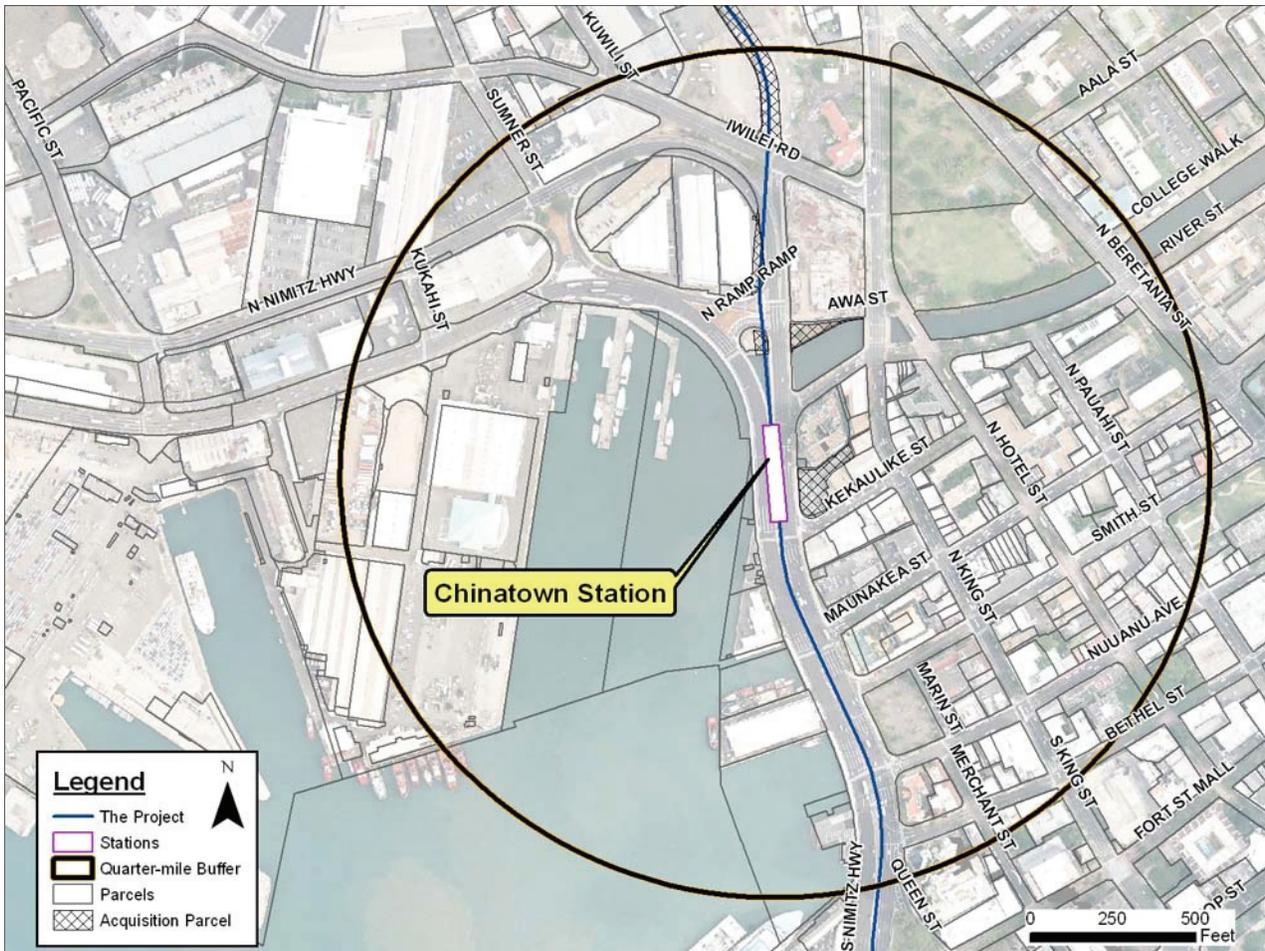


Figure 3.17-1: Chinatown Station Area

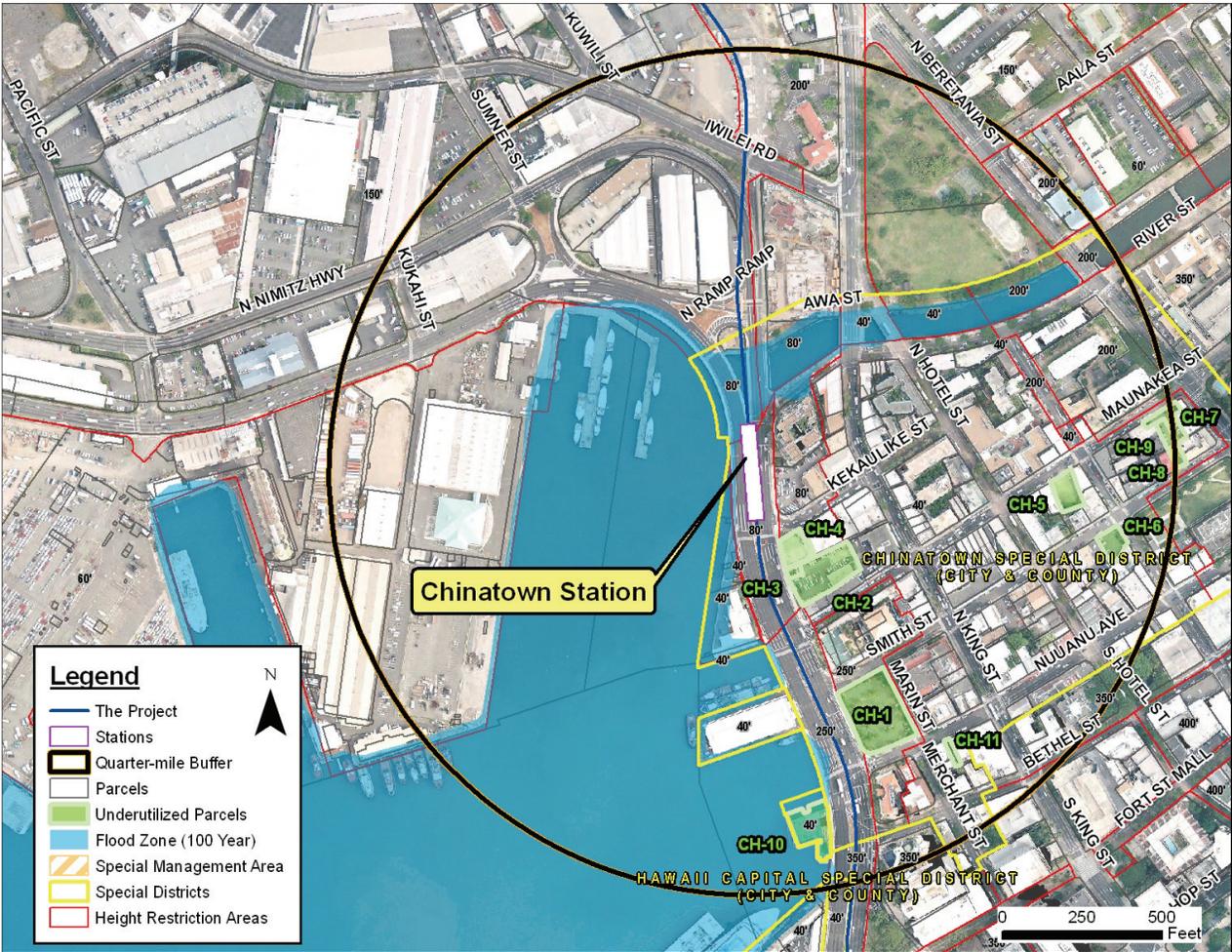


Figure 3.17-2: Chinatown Station Area Underutilized Parcels

Various infill sites—either vacant or surface parking lots with marginal improvements—located mauka of Hotel Street in the Chinatown Special District comprise 0.6 acre altogether. Potential development on these parcels would close gaps in the street facades of Smith and Maunakea Streets, and potentially attract low-rise buildings (40 feet or less) that respect the architectural and historic character of the District.

Any future development—whether infill or larger-scale TOD—on underutilized parcels in the quarter-mile Chinatown station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile (for example, lower parking space to square footage ratios and very limited off-street surface parking), and contextually sensitive design. Upgrades to water and sewer systems may be required to meet the needs of newly built development. In addition, Nimitz Highway at this location is an unwelcoming pedestrian barrier with limited crossing opportunities that curtail access to the waterfront, an amenity that private developers and new residents/tenants often value.

3.18 Downtown Station Area

3.18.1 Station Area Overview

Downtown Station will be located near the intersection of Bishop Street and Nimitz Highway. Existing nearby development includes high-intensity, high-rise commercial office and residential towers with ground-floor retail land uses and government/institutional uses. Downtown Station is the primary station serving Honolulu's central business district. The quarter-mile station area includes the majority of Downtown's major office buildings, including First Hawaiian Center, Bishop Square, and Pacific Guardian Center. Land uses are fairly well mixed.

The Downtown station area is very well utilized at present, and opportunities for new development are minimal. One infill opportunity has been identified. About 75 percent of the quarter-mile Downtown station area falls within special districts with distinct design rules, including the Chinatown Special District, Aloha Tower District, the Hawai'i Capital Special District, and a small portion of the Kaka'ako Community Development District.

3.18.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.18-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Downtown station area.

3.18.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.18-2 shows that opportunities for potential new development on underutilized parcels within the quarter-mile radius of the Downtown Station are small. Two underutilized parcels, DT-1 and DT-2, total 0.9 acre and comprise less than 1 percent of the quarter-mile station area, which excludes water features. The redevelopment potential of Parcel DT-1, a planted area along Nimitz Highway under the jurisdiction of the State-controlled Aloha Tower Development Corporation, largely depends on the longer term vision for Nimitz Highway and Aloha Tower Marketplace. Preservation of this 0.84-acre open space may fit into a plan that includes the redevelopment of the adjacent surface parking lot on Pier 5/6, or a possible change to the profile and scale of Nimitz Highway at this location. Aloha Tower is listed on the National Register of Historic Places (NRHP). Therefore, adjacent redevelopment, if any, should be appropriately scaled and harmonious with the Tower.

Nimitz Highway in the station area is an uninviting pedestrian barrier with limited crossing opportunities that sharply curtail access to the waterfront, an amenity that private developers and new residents and tenants often value. Parcel DT-2, although small and limited to infill, occupies a strategic corner at King and Alakea Streets and is potentially ripe for a building that better utilizes the space.

Any future development on underutilized parcels in the quarter-mile Downtown station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile (for example, lower parking space to square footage ratios, very limited off-street surface parking), and contextually sensitive design.

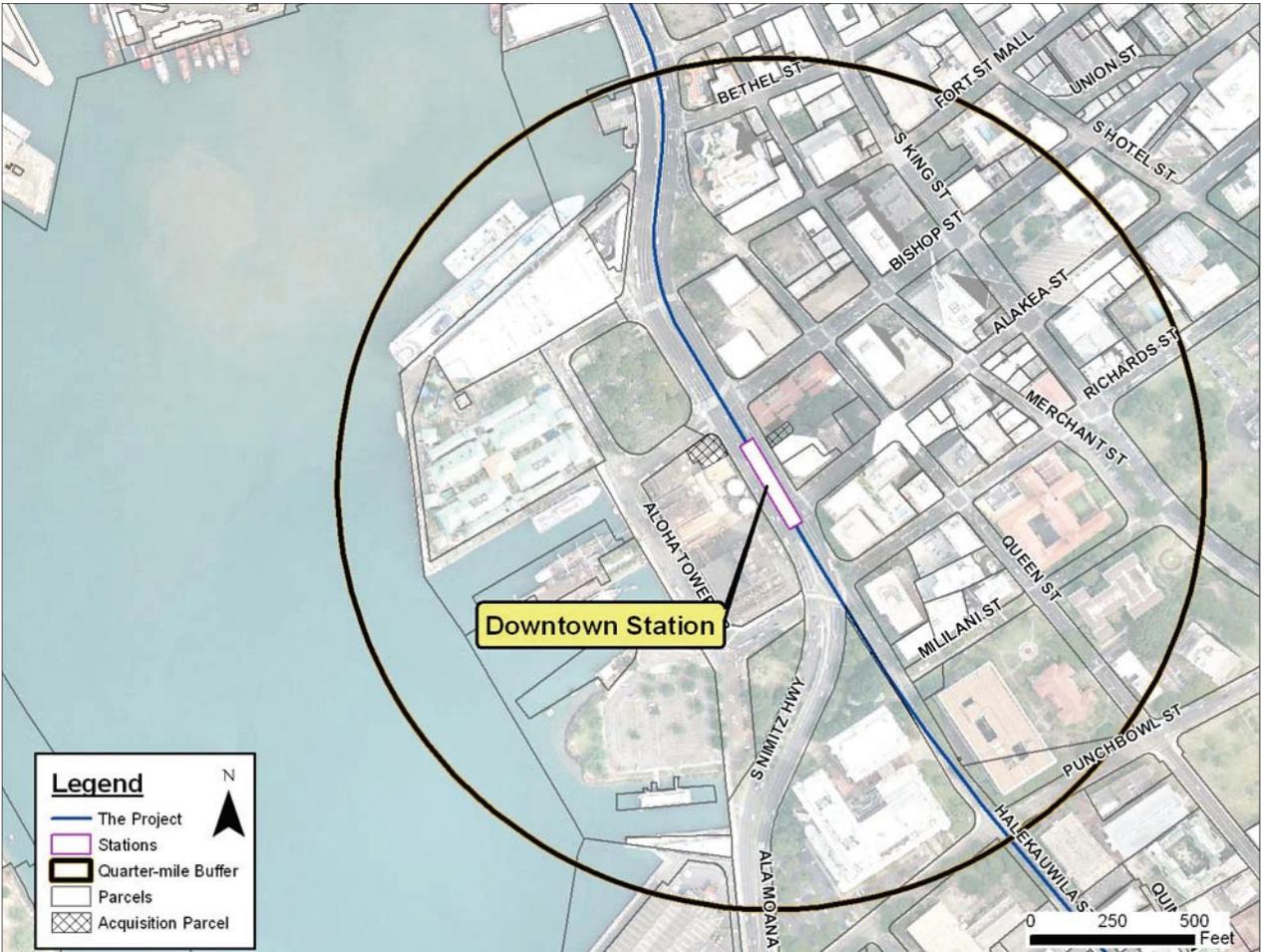


Figure 3.18-1: Downtown Station Area

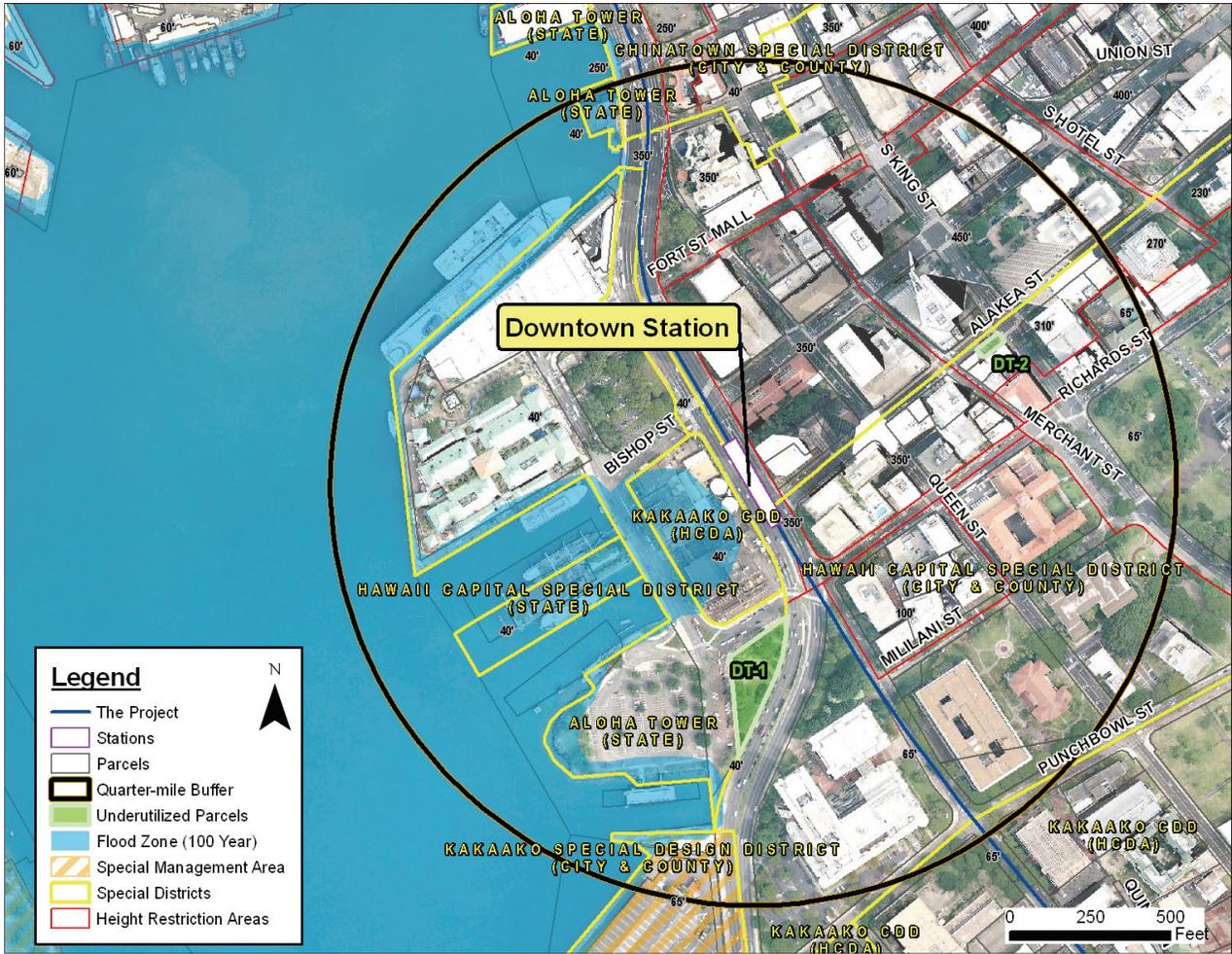


Figure 3.18-2: Downtown Station Area Underutilized Parcels

3.19 Civic Center Station Area

3.19.1 Station Area Overview

Civic Center Station will be located at the intersection of Halekauwila Street and South Street. Existing nearby development includes commercial and government offices, light industrial, and high-density residential land uses. Current housing density in the station area ranges between 10 and 33 dwelling units per acre, which is supportive of frequent rapid transit. The majority of the quarter-mile Civic Center station area falls within the Kaka‘ako Community Development District, which is under the jurisdiction of the Hawai‘i Community Development Authority (HCDA), a State entity exempt from City and County land use ordinances. In addition, a small portion of the quarter-mile area located north of Punchbowl Street falls within the Hawai‘i Capital Special District.

The quarter-mile station area has witnessed some redevelopment in the form of high-end residential towers and office buildings, although a significant portion of the area still consists of underutilized surface parking lots and warehouses whose assessed value is far less than the properties on which they sit. Land uses in the Civic Center station area are fairly segregated, and, in general, density across the area is inconsistent.

The Kaka‘ako Community Development District development plans and rules are designed to guide the redevelopment of much of the quarter-mile station area into a vibrant mixed-used urban community. The *Mauka Area Plan*, which includes fairly specific urban design guidelines for the District, is tentatively scheduled for adoption in mid-2011.

3.19.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.19-1 shows how existing parcels will be affected by the Project. No excess parcels have been identified for the Civic Center Station area.

3.19.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Figure 3.19-2 shows that the quarter-mile Civic Center station area has very significant development potential (perhaps the greatest potential of any station along the Project alignment excluding the West O‘ahu stations, which already have fairly advanced TOD plans). Approximately 26.9 acres, or 21.3 percent of the quarter-mile station area, are underutilized with improvement-to-land-value ratios in the bottom 10 percent. Seven underutilized parcels—CC-1, CC-10, CC-13, CC-23, CC-24, CC-30, and CC-31—are larger than one acre and represent significant opportunities for the kind of transit-oriented mixed-use development described in the HCDA *Mauka Area Plan*. Ground-level photographs of these seven parcels are shown in Figure 3.19-3 through Figure 3.19-9

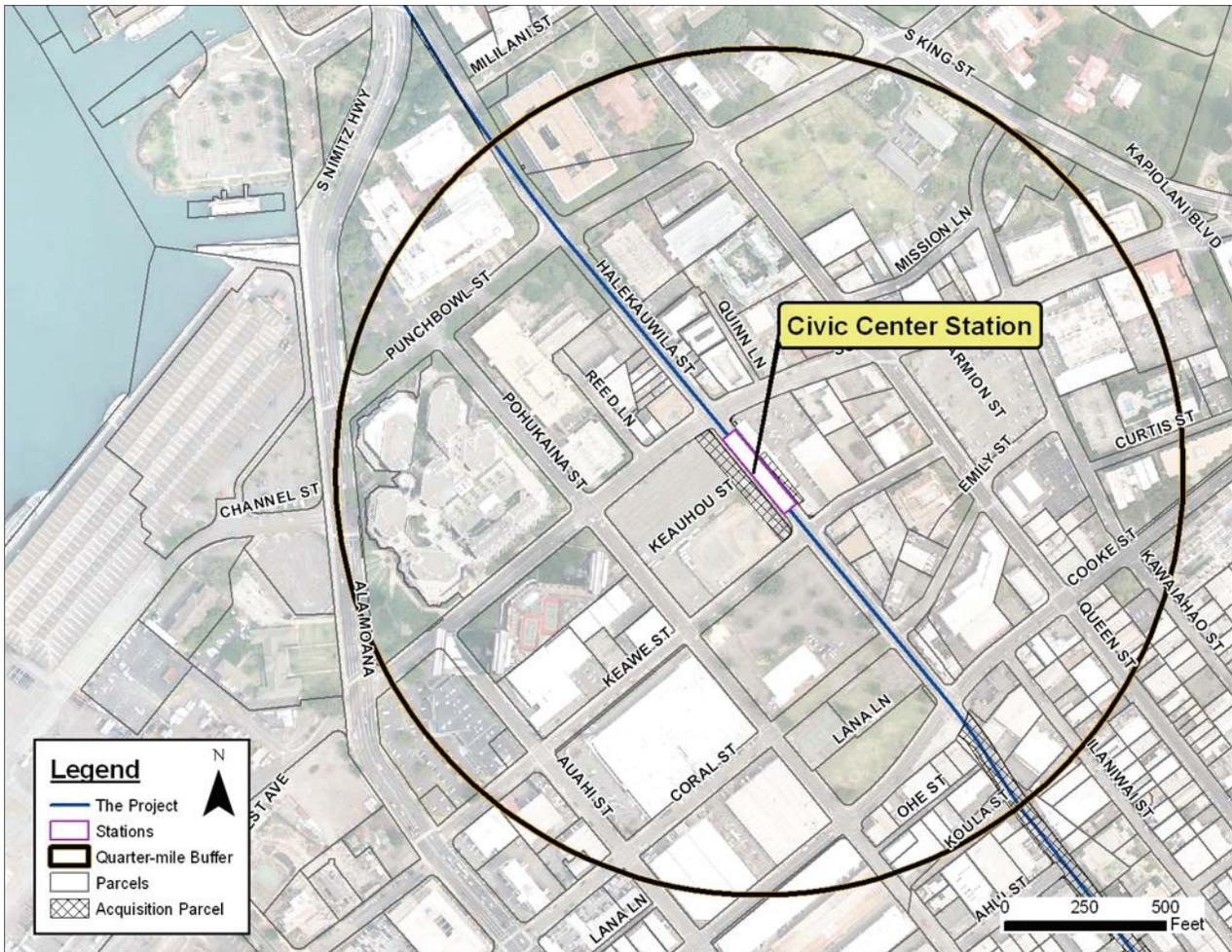


Figure 3.19-1: Civic Center Station Area

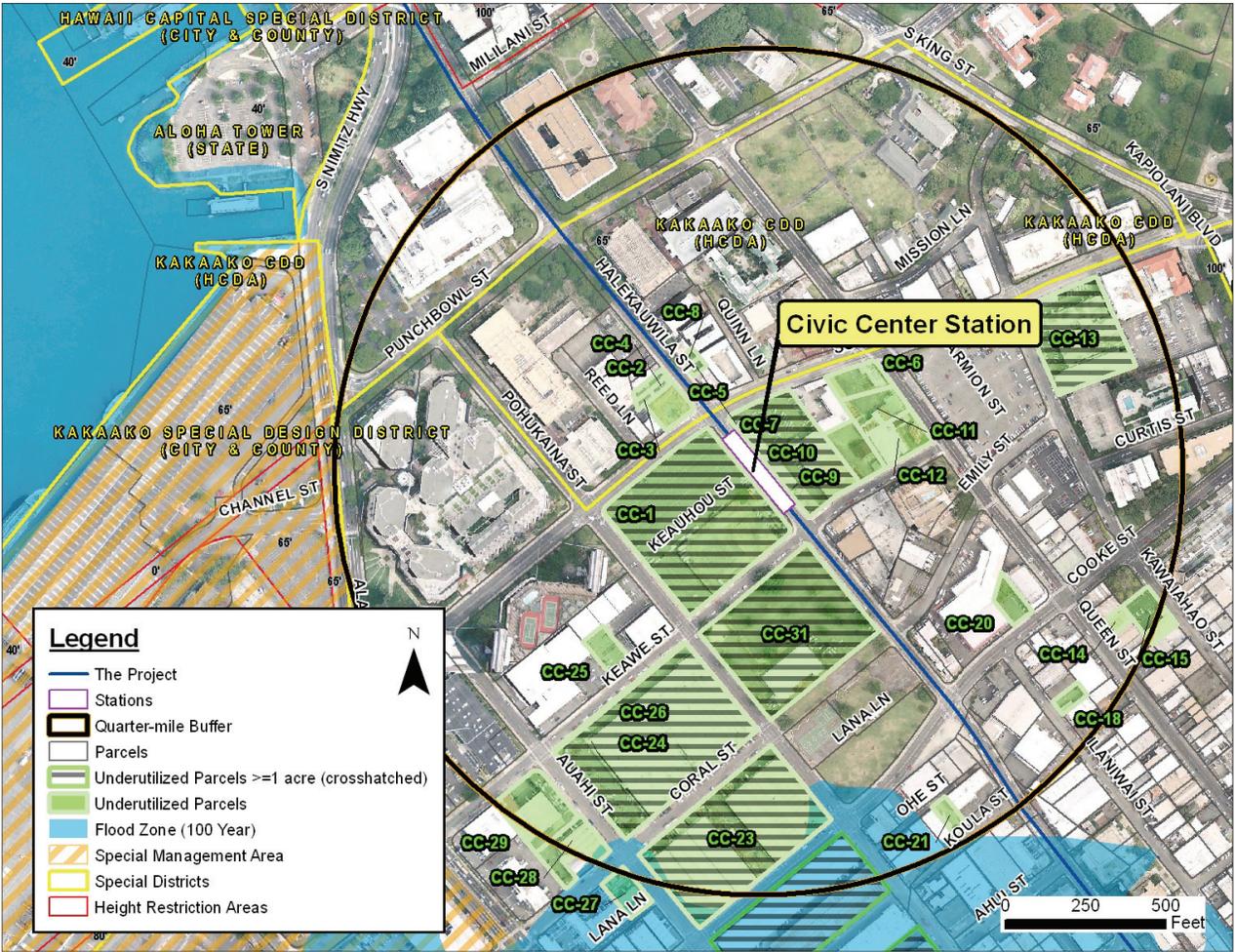


Figure 3.19-2: Civic Center Station Area Underutilized Parcels



Figure 3.19-3: Underutilized Parcel CC-1



Figure 3.19-4: Underutilized Parcel CC-10



Figure 3.19-5: Underutilized Parcel CC-13



Figure 3.19-6: Underutilized Parcel CC-23



Figure 3.19-7: Underutilized Parcel CC-24



Figure 3.19-8: Underutilized Parcel CC-30



Figure 3.19-9: Underutilized Parcel CC-31

Many underutilized parcels within the quarter-mile Civic Center station area are surface parking lots, while others are low-rise warehouses and garages. The proximity of parcels CC-1 (555 South Street), CC-10, and CC-31 to the Project platform presents a unique opportunity to create near-total enclosure around the station or to integrate future development with the station itself (i.e., joint development). Parcels CC-23, CC-24, and CC-30 are contiguous with CC-1, CC-10, and CC-31, and may present an opportunity to create a seamless and interconnected patchwork of transit-oriented development that is fully integrated with the Civic Center Station. Kamehameha Schools, the owner of Parcel CC-1 (555 South Street; currently a public parking lot), has expressed interest in redeveloping the site, but not released any specific plans. There are a number of opportunities for smaller scale infill development, as well as larger scale TOD, on parcels smaller than 1 acre that border each other.

Any future development—whether infill or larger scale TOD—on underutilized parcels in the quarter-mile Civic Center station area should attract development that promotes transit use, walking and bicycling, less dependence on the private automobile (for example, lower parking space to square footage ratios, very limited off-street surface parking), and contextually sensitive design. Upgrades to water and sewer systems may be required to meet the needs of newly built higher density development.

3.20 Kaka'ako Station Area

3.20.1 Station Area Overview

Kaka'ako Station will be located near the intersection of Halekauwila Street and Ward Avenue in what is now the Ward Gateway Center, an outdoor retail and warehouse complex. Existing nearby development consists of a wide range of urban and suburban development types, including big-box retail, festival marketplace retail (the Ward Center), entertainment uses (Dave & Buster's and the Ward Stadium 16 Cineplex), more recently built single-story street-oriented retail, freestanding office buildings and parking structures, and newly built high-density residential towers with ground-level retail uses (mainly toward the Koko Head end of the quarter-mile station area). Existing housing density in the station area is approximately 12 to 25 dwelling units per acre, which is supportive of high-frequency transit service. Most of this development is interspersed with light industrial uses. Neal Blaisdell Center and Kewalo Basin Harbor also fall along the edge of the quarter-mile station area radius.

In general, the density of the quarter-mile area is inconsistent and varies greatly from block to block. The provision of mid-sized surface parking lots at many retail-commercial establishments gives the Kaka'ako Station area a somewhat suburban, drive-in/drive-out look and feel. The entire quarter-mile station area except the Blaisdell Center and a part of Ala Moana Regional Park falls within the HCDA-controlled Kaka'ako Community Development District. The HCDA *Mauka Area Plan*, which is slated for adoption in mid-2011, calls for mixed-use development in the District that establishes a vibrant urban community.

3.20.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.20-1 shows how existing parcels will be affected by the Project. The three acquisition parcels are located closer to the station and have some redevelopment potential. The proximity of these parcels to the station could make them valuable as stand-alone developments; they could also be combined with adjacent parcels, which would increase their development potential. One of the remaining parcels will be long and narrow, limiting development potential unless consolidated with other parcels nearby.

The parcel at 404 Ward Avenue is currently zoned B-2 (community business). As part of the station area neighborhood TOD planning process, this parcel may be rezoned to provide more flexibility for future development. Although the parcel is small, it has street frontage on both Halekauwila Street and Ward Avenue, and is close to the rail station.

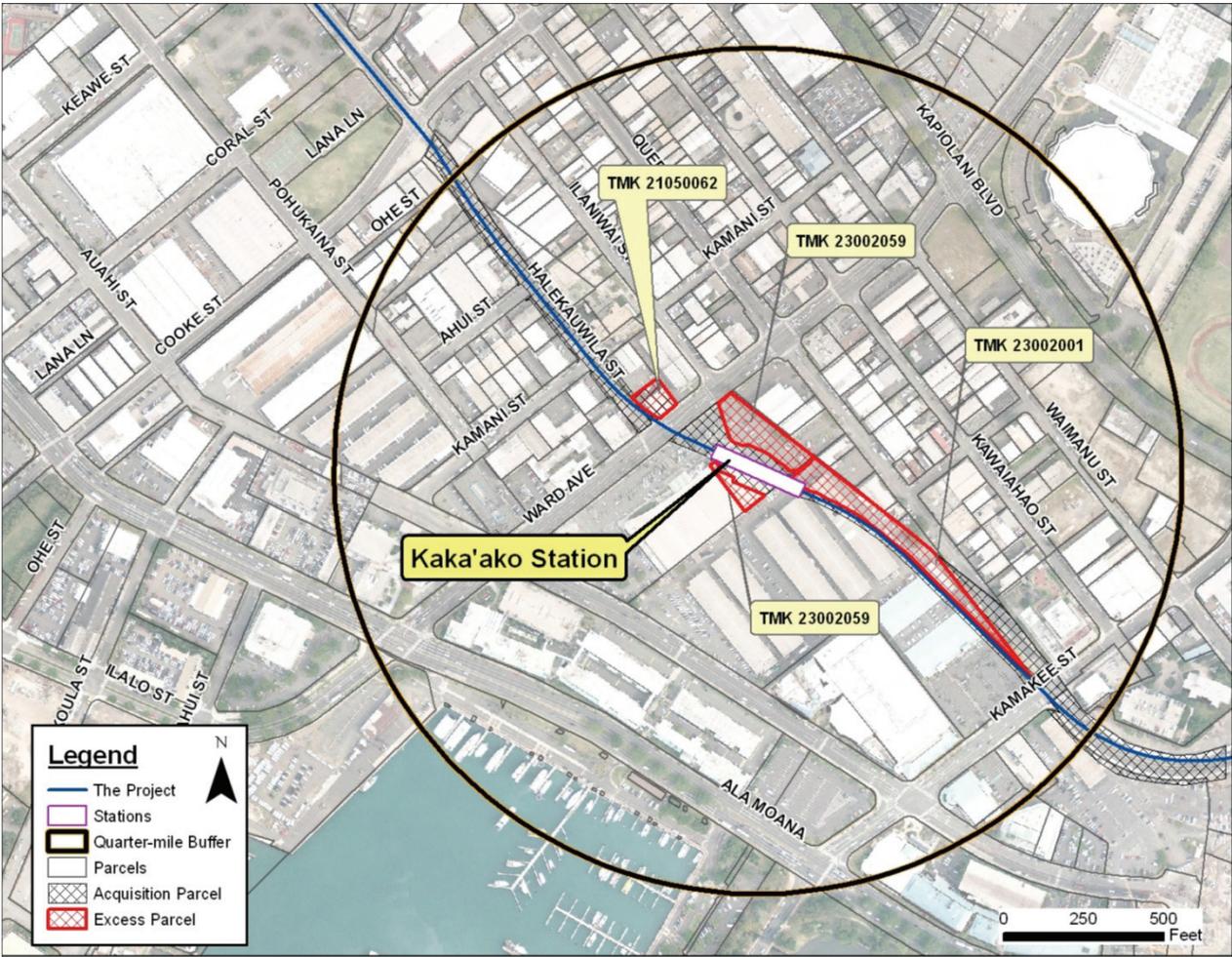


Figure 3.20-1: Kaka'ako Station Area

The other two excess parcels are also zoned B-2 (community business). Access to these parcels may be limited as they have little or no street frontage; coordination with adjacent landowners who do have street frontage is crucial to spurring the redevelopment of these parcels. Most of the surrounding property is owned by the Howard Hughes Corporation, a real estate investment trust and management firm.⁸ Ownership by a single entity with an interest in real estate introduces a unique opportunity to create a coordinated development plan that incorporates the station. Consolidating the abutting parcels may improve the redevelopment potential of the excess parcels. Table 6 provides further information regarding these parcels. Figure 3.20-2 provides an aerial view showing the existing conditions of the parcels. Figure 3.20-3, Figure 3.20-4, and Figure 3.20-5 provide photos showing street views of the existing conditions of these parcels.

⁸ Howard Hughes Corporation assumed ownership of surrounding properties from General Growth Properties in November 2010. As of May 2011, the company is still evaluating the HCDA-approved mixed-use master plan for the area.

Table 6: Kaka'ako Station Area Excess Parcels

#	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use*	Zoning	Displace-ments	Total Lot Size (sf)	Lot Size Used by Project (sf)	Excess Parcel Size (sf)	Comments
7	21050062	Full	404	Ward Avenue	Com	B-2	3 Businesses	9,644	1,427	8,217	Corner lot with frontage on Ward Avenue provides excellent potential for redevelopment
8	23002059	Partial	333, 953, 953A, 953B, 953C, 953D, 953E, 953F	Queen Street	Com	B-2	1 Business	234,343	40,636	36,351	Opportunity to incorporate station into new development
9	23002001	Partial	310, 330, 340	Kamake'e Street	Com/ Ind	B-2	7 Businesses	477,582	44,358	31,640	Narrow parcel with little street frontage
	23002001	Partial	1020, 1030, 1044, 1060	'Auahi Street	Com/ Ind	B-2					

*Com = Commercial Ind= Industrial

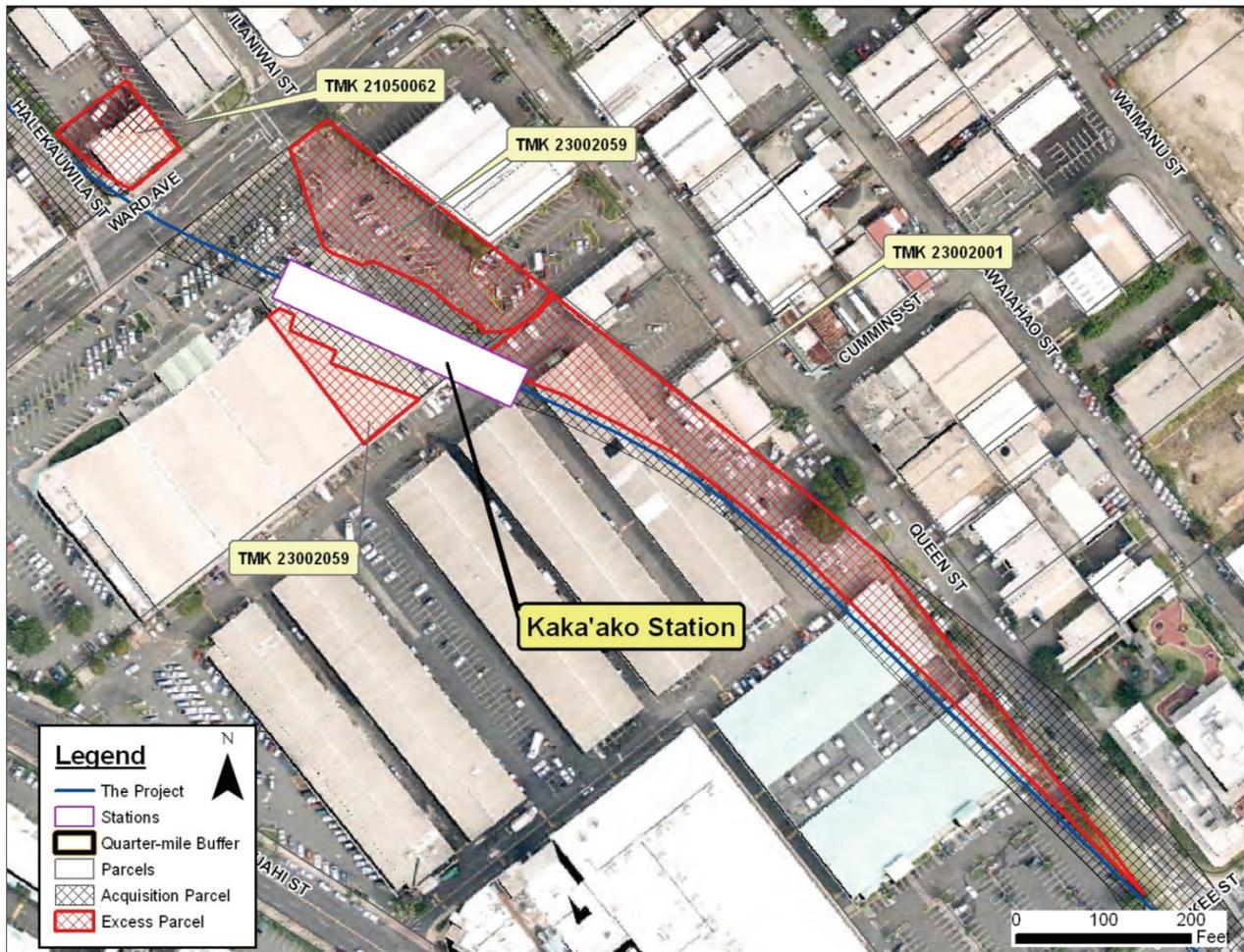


Figure 3.20-2: Kaka'ako Station Area Excess Parcel Aerial View



Figure 3.20-3: Kaka'ako Station Area Excess Parcel 7 Street View



Figure 3.20-4: Kaka'ako Station Area Excess Parcel 8 Street View



Figure 3.20-5: Kaka'ako Station Area Excess Parcel 9 Street View

3.20.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

Potential development opportunities on underutilized parcels in the Kaka'ako quarter-mile station area are significant, as shown in Figure 3.20-6. In all, the quarter-mile area is 10 percent underutilized, with 13.3 acres in underutilized parcels—a collection of low-assessed value industrial/warehouse buildings and surface parking lots. Small-to-medium scale infill opportunities predominate mauka of the Project alignment.

In all, smaller underutilized parcels (i.e., those that are less than 1 acre) within the quarter-mile radius total 8.7 acres; many of these parcels border each other, which increases their redevelopment potential. However, mixed residential uses may be incompatible with the industrial uses adjacent to many of these parcels. Larger development opportunities exist makai of the station platform, including Parcels KK-24/ KK-25 on Pohukaina Street (Figure 3.20-7) and Parcels KK-26/KK-27 on Ala Moana Boulevard (Figure 3.20-8), which combined measure 3.1 acres and 2.3 acres, respectively. Although not underutilized at present, numerous surface parking lots within the quarter-mile station area could be redeveloped with more transit-oriented uses as the Project matures and the *Mauka Area Plan* comes to fruition.

Any future development—whether infill or larger scale TOD—on underutilized parcels in the quarter-mile Kaka’ako station area should attract development that promotes transit use, walking and bicycling, and less dependence on the private automobile (for example, lower parking space to square footage ratios, limited off-street surface parking). Upgrades to water and sewer systems may be required to meet the needs of higher density development.

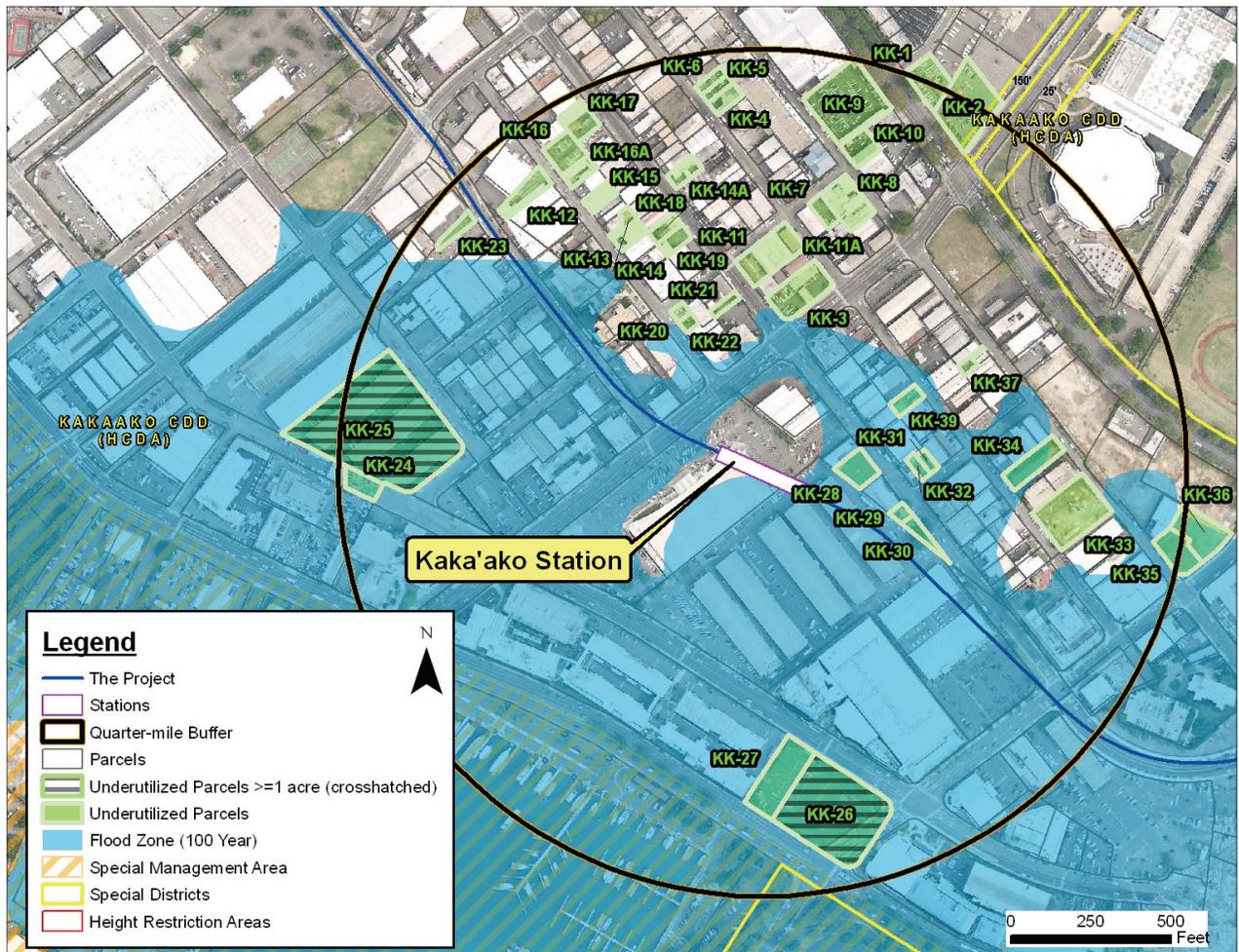


Figure 3.20-6: Kaka’ako Station Area Underutilized Parcels



Figure 3.20-7: Underutilized Parcel KK-25



Figure 3.20-8: Underutilized Parcel KK-26

3.21 Ala Moana Center Station Area

3.21.1 Station Area Overview

Ala Moana Center Station will be located near the intersection of Kona and Kona Iki Streets on the mauka edge of the Ala Moana Shopping Center. Existing nearby development includes high-intensity retail and high-rise residential land uses interspersed with offices, older single-story retail, and nightclubs, particularly along Kapi'olani Boulevard and Ke'eaumoku Street. Existing housing density in the area ranges between 45 and 70 dwelling units per acre, which is very supportive of high-frequency rapid transit.

Land uses in the quarter-mile area, although intense, are fairly segregated and mostly skewed toward autos (a few apartment buildings in the area have smaller neighborhood-oriented shops at ground level). Freestanding big-box retail, principally Wal-Mart and Sam's Club on Ke'eaumoku Street, is laid out in a compact, transit-supportive style that includes structured parking instead of surface parking, conveyer belts for moving shopping carts between floors, ground-level store fronts on Ke'eaumoku Street, and high-quality pedestrian amenities. Along Kapi'olani Boulevard, there are many lower-intensity uses, including front yard surface parking lots that are not underutilized at present but could redevelop as the Project matures. The 2007-built Moana Pacific Towers at Kapi'olani Boulevard and Pi'ikoi Street are a positive example of high-intensity mixed-use development in the station area.

Future development plans for the Ala Moana Station area are substantial. They include low-rise moderate income senior housing at the corner of Piikoi Street and Kona Street (to be developed by A&B Properties); a final infill residential tower on a vacant lot located makai of Pensacola Street and Queen Street (also to be developed by A&B); indefinite expansion of the Ala Moana Center; and a large luxury condominium on an underutilized site located immediately mauka of the station platform on Kona Iki Street (between Kapiolani Boulevard and Kona Street).

3.21.2 Development Opportunities and Issues from Excess Station Acquisition Parcels

Figure 3.21-1 shows how existing parcels near Ala Moana Center Station will be affected by the Project. Five parcels near the intersection of Kona and Pensacola Streets purchased for the Project will not be entirely used and could be redeveloped.

The five excess parcels are relatively small and located outside the immediate walking area of Ala Moana Center Station (generally defined as a one-quarter-mile radius, as shown on the station area map). These parcels are currently zoned B-2 (community business). As part of the station area neighborhood TOD planning process, these parcels may be rezoned to provide more flexibility for future development by allowing for a more diverse and finer mix of land use types. Consolidating the abutting parcels would improve their redevelopment potential and ensure they all have street frontage. Any redevelopment of excess or abutting parcels would need to consider that the Project guideway will pass above or nearby, and that access to the guideway for maintenance will need to be maintained. Table 7 provides more information on the five excess parcels. Figure 3.21-2 shows an aerial view of the existing conditions of the parcels. Figure 3.21-3, Figure 3.21-4,

and Figure 3.21-5 provide photos showing street views of the existing conditions of these parcels.

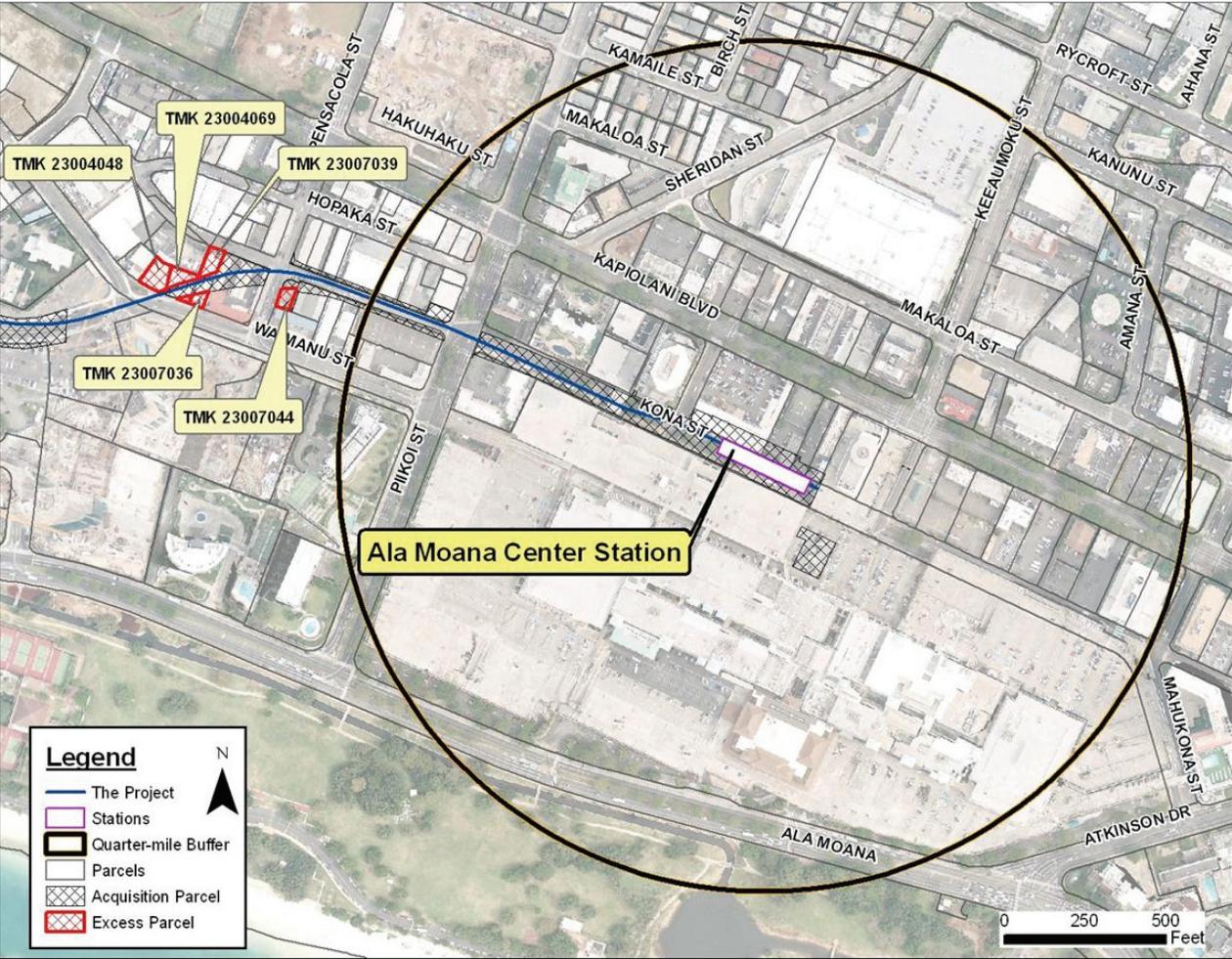


Figure 3.21-1: Ala Moana Center Station Area

Table 7: Ala Moana Center Station Area Excess Parcels

#	TMK	Parcel Acquisition	Lot (House) Number	Street Name	Land Use*	Zoning	Displacements	Total Lot Size (sf)	Lot Size Used by Project (sf)	Excess Parcel Size (sf)	Comments
10	23004048	Full	1156, 1158, 1160, 1162, 1164, 1166	Waimanu Street	Com	B-2	1 Business	7,027	80	6,947	Column placement could limit street frontage
11	23004069	Full	1168, 1170	Waimanu Street	Com	B-2	3 Businesses	8,190	3,975	4,215	Guideway columns and future track could limit access and development potential
12	23007036	Full	1174	Waimanu Street	Com	B-2	1 Business	4,600	2,569	2,031	Guideway columns and future track could limit access and development potential
13	23007039	Full	1163	Kona Street	Com	B-2	1 Business	5,001	353	4,648	Only small portion of site affected, leaving potential for redevelopment
14	23007044	Full	1201	Kona Street	Com	B-2	1 Business	3,778	1351	2,427	Remaining parcel will have frontage on Pensacola Street, increasing redevelopment potential

*Com = Commercial

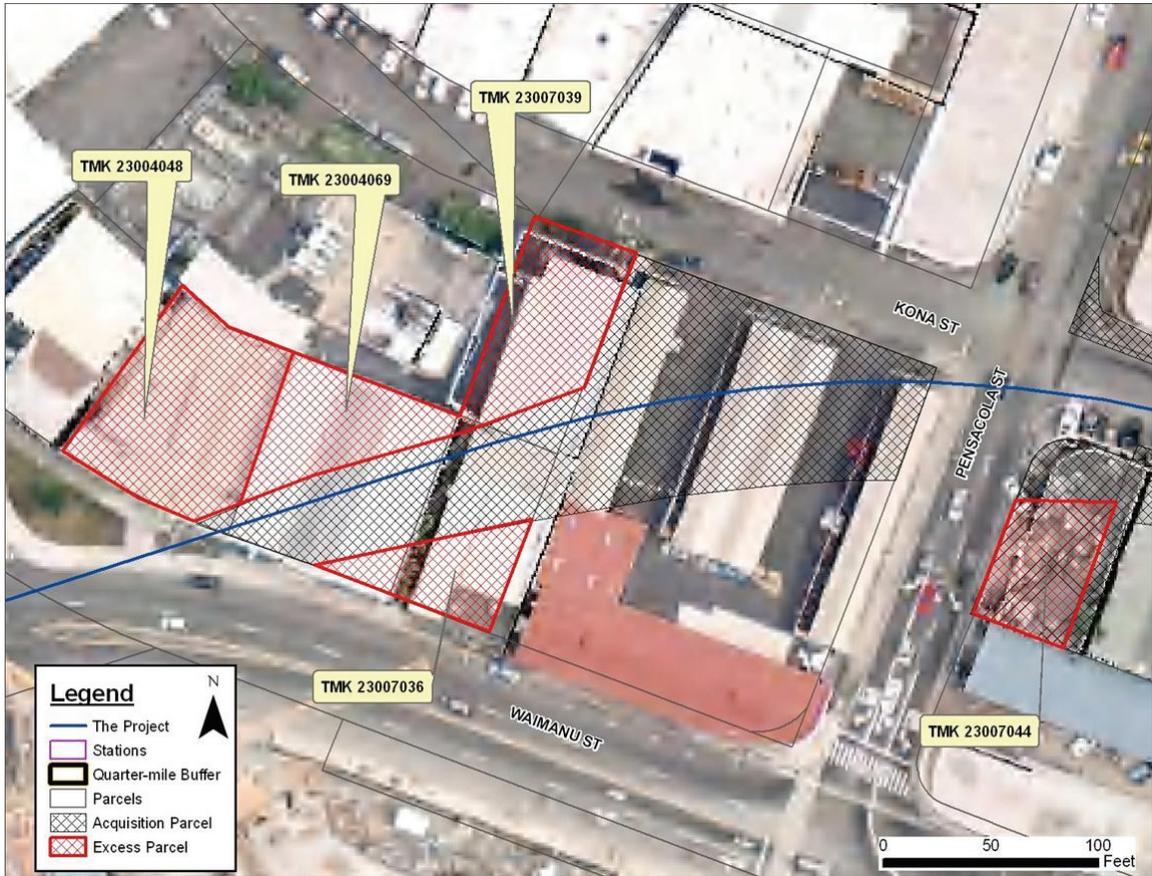


Figure 3.21-2: Ala Moana Center Station Area Excess Parcel Aerial View

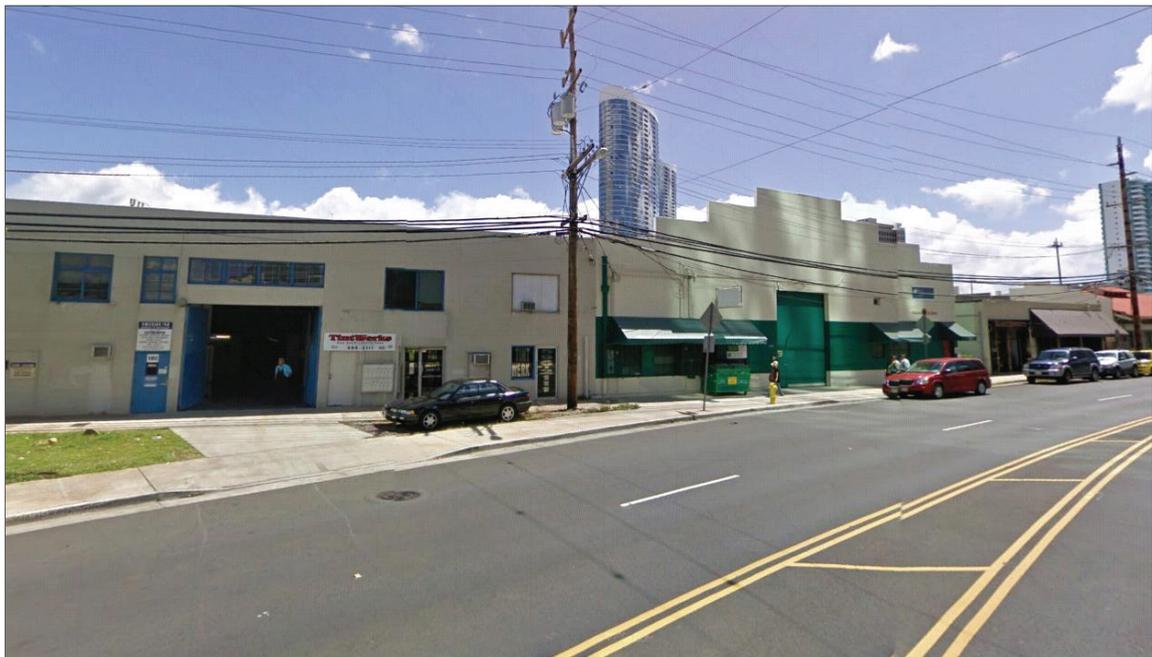


Figure 3.21-3: Waimanu Street Excess Parcels 10, 11, and 12 Street View



Figure 3.21-4: Kona Street Excess Parcel 13 Street View



Figure 3.21-5: Kona/Pensacola Streets Excess Parcel 14 Street View

3.21.3 Development Opportunities and Issues from Underutilized Parcels within the Station Area

As shown in Figure 3.21-6, development opportunities from underutilized parcels in the quarter-mile Ala Moana Center station area are limited to a few modestly sized infill sites mauka of the Project alignment. In all, approximately 2.3 acres, or 1.8 percent of the quarter-mile area, are underutilized. All underutilized parcels in the Ala Moana Center station area are smaller than 1 acre and consist of surface parking lots on Kona Street and Kapi'olani Boulevard (AM-1/AM-2 and AM-5/AM-6, respectively), a used car lot and repair facility on Sheridan Street (AM-4), and a single-story nightclub/casino on Kapi'olani Boulevard (AM-3). The two improved underutilized parcels, AM-3 and AM-4, consist mostly of surface parking.

Surface parking lots and other single-story buildings fronting Kapi'olani Boulevard—a signature street that has witnessed significant redevelopment during the past decade—may be convertible to high-density mixed-use development over the medium term. The *Value Capture Opportunity Analysis* released by the Department of Planning and Permitting states that such development would be supported by the marketplace.⁹

Potential development on Parcels AM-1 and AM-2 could be somewhat affected by their location in a 100-year flood zone. Parcels AM-3, AM-4, and AM-5/AM-6 are constrained by height maximums of 150 and 250 feet. Most of the quarter-mile area falls outside special districts, except for the portion 'Ewa and makai of Pi'ikoi Street and Kapi'olani Boulevard, which falls within the HCDA-controlled Kaka'ako Community Development District and includes underutilized parcels AM-1 and AM-2. Any future development would be constrained by at-capacity water and sewer system issues.

Any future development on underutilized parcels in the quarter-mile Ala Moana Center station area should attract development that promote transit use, walking and bicycling, and less dependence on the private automobile (for example, lower parking space to square footage ratios). According to the *Value Capture Opportunity Analysis*, Ala Moana Center has the financial capacity to support significant high-density mixed-use development—more so than any other station area. All high-density development scenarios proposed in the *Value Capture Opportunity Analysis* have internal rates of return well above the 15 percent threshold typically sought by private developers.

⁹ Jones Lang LaSalle, p. 70

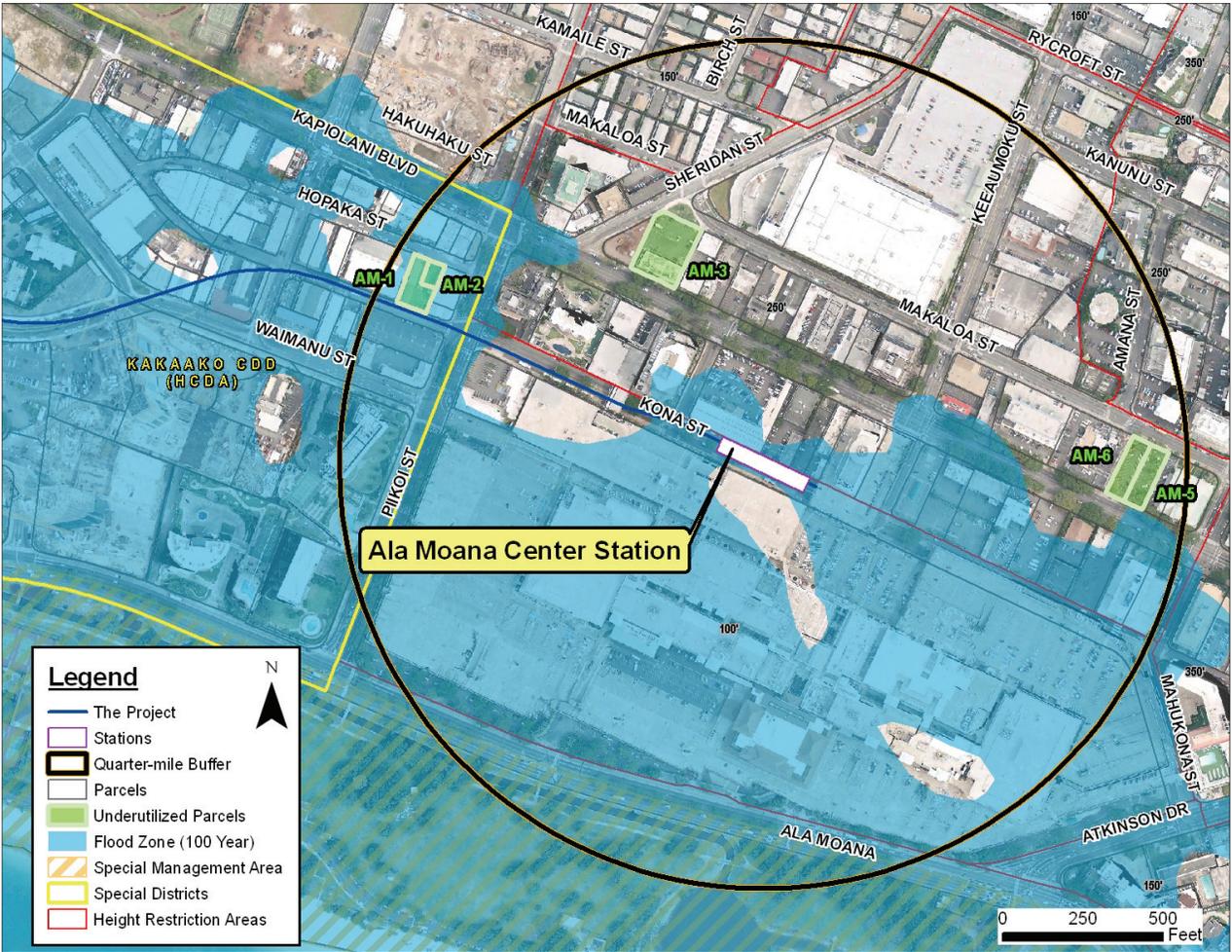


Figure 3.21-6: Ala Moana Center Station Area Underutilized Parcels

References

- City and County of Honolulu Department of Transportation Services. *Honolulu High-Capacity Transit Corridor Project Final Environmental Impact Statement*. June 2010.
- Jones Lang LaSalle (for City and County of Honolulu Department of Planning and Permitting). *Transit Oriented Development (TOD) Economic and Financial Study Value Capture Opportunity Analysis*. September 2010.
- Van Meter Williams Pollack (for City and County of Honolulu Department of Planning and Permitting). *Aiea-Pearl City Neighborhood Plan*. November 2010.
- Van Meter Williams Pollack (for City and County of Honolulu Department of Planning and Permitting). *East Kapolei Neighborhood TOD Plan*. April 2010.
- Van Meter Williams Pollack (for City and County of Honolulu Department of Planning and Permitting). *Waipahu Neighborhood TOD Plan Public Review Draft*. March 2009.