



RESOLUTION

APPROVING THE EAST KAPOLEI NEIGHBORHOOD TRANSIT-ORIENTED DEVELOPMENT (TOD) PLAN.

WHEREAS, the Revised Ordinances of Honolulu (ROH) Sections 21-9.100 through 21-9.100-4 of the Land Use Ordinance, enacted by Ordinance 09-4, establish a procedure for the creation of special districts known as transit-oriented development (TOD) zones, and accompanying development regulations, around rapid transit stations to encourage appropriate transit-oriented development; and

WHEREAS, ROH Section 21-9.100-2 provides that for each TOD zone, a neighborhood TOD Plan shall be approved by the Council and shall serve as the basis for the creation or amendment of a TOD zone and the TOD development regulations applicable thereto; and

WHEREAS, plans for the Honolulu Rail Transit project call for two rail transit stations along Kualakai Parkway to serve East Kapolei and the University of Hawaii – West Oahu and surrounding areas, and another to serve the community of Hoopili;

WHEREAS, the Department of Planning and Permitting (DPP) and its consultant, PBR Hawaii, have prepared the East Kapolei Neighborhood TOD Plan (July 2020) to serve as the basis for the creation of a TOD zone around the East Kapolei rail transit stations; and

WHEREAS, the process of creating the East Kapolei Neighborhood TOD Plan was inclusive, open to residents, businesses, landowners, community organizations, government agencies, and others; and

WHEREAS, the process considered population, economic, and market analyses and infrastructure analyses, including capacities of water, wastewater, and roadway systems; and

WHEREAS, the East Kapolei Neighborhood TOD Plan is consistent with the Ewa Development Plan, as amended on _____, established by ROH Chapter 24, Article 5; and

WHEREAS, the Council desires to approve the East Kapolei Neighborhood TOD Plan; now, therefore,

DPPEKTD.R20



RESOLUTION

BE IT RESOLVED by the Council of the City and County of Honolulu that, pursuant to ROH Section 21-9-100-2(f), the Council hereby approves the East Kapolei Neighborhood TOD Plan (July 2020) attached hereto as Exhibit A and incorporated herein by this reference; and

BE IT FURTHER RESOLVED that, pursuant to ROH Section 21-9.100-3(a), the Director of the DPP is directed to submit to the Planning Commission, within 120 days of the adoption of this Resolution, a proposed ordinance establishing TOD zones for the East Kapolei rail transit stations, and the TOD development regulations applicable thereto; and

BE IT FINALLY RESOLVED that copies of this Resolution be transmitted to the Mayor, the Director of the Department of Planning and Permitting, and the Honolulu Authority for Rapid Transportation.

INTRODUCED BY:

 (br)

DATE OF INTRODUCTION:

AUG 31 2020
Honolulu, Hawaii

_____ Councilmembers

ENCLOSURE 1

**EAST KAPOLEI NEIGHBORHOOD TOD
DRAFT FINAL PLAN**



EAST KAPOLEI NEIGHBORHOOD TOD PLAN

DRAFT FINAL PLAN

JULY 2020

UPDATE PREPARED BY: PBR HAWAII & ASSOCIATES, INC.

INITIAL DRAFT BY: VAN METER WILLIAMS POLLACK

FOR: THE DEPARTMENT OF PLANNING & PERMITTING
CITY AND COUNTY OF HONOLULU



(This page intentionally left blank.)

Table of Contents

I.	EXECUTIVE SUMMARY	1
A.	THE VISION	2
B.	CHANGES INFLUENCING THIS UPDATE	2
C.	SUMMARY OF RECOMMENDATIONS	5
1.	Honouliuli Rail Transit Station Area	5
2.	Keone‘ae Rail Transit Station Area	5
3.	Kualaka‘i Rail Transit Station Area	6
D.	NEXT STEPS	8
II.	PROJECT OVERVIEW AND EXISTING CONDITIONS	9
A.	BACKGROUND CONTEXT AND EXISTING CONDITIONS	10
1.	Background Context	10
2.	History	10
3.	Scenic Views and Natural Landmarks	10
4.	Cultural	11
5.	Land Use Designations	12
6.	Climate Change and Flooding	15
B.	‘EWA DEVELOPMENT PLAN	16
C.	UNILATERAL AGREEMENTS	17
D.	PROCESS	19
III.	PLAN PRINCIPLES	23
A.	MAKE THE CONNECTIONS	24
B.	CREATE THE ACCESS	26
C.	MIX IT UP	27
D.	CREATE GATHERING PLACES	28
E.	DEVELOP UNIQUE RAIL TRANSIT STATION AREA IDENTITIES	30
F.	PROMOTE A VARIETY OF HOUSING CHOICES	32
G.	CREATE A DYNAMIC URBAN ENVIRONMENT	33
H.	SUSTAINABILITY	34
IV.	PLAN OVERVIEW	36
A.	LAND USE SUMMARY	38
B.	OPEN SPACE IMPROVEMENTS	39
C.	CONNECTIVITY	41

D.	DESIGN ELEMENTS	41
1.	Urban Design Elements	41
E.	TOWER GUIDELINES	44
1.	Guidelines	44
F.	IMPORTANT VIEWS AND VISTAS	45
G.	STREET STANDARDS	45
1.	Transit-Oriented Community Street Network.....	45
2.	TOD Street Characteristics	47
3.	Elevated Pedestrian Crossings.....	53
4.	Greenway Corridors	53
5.	Green Streets.....	54
V.	HONOULIULI RAIL TRANSIT STATION AREA PLAN	56
A.	OVERALL STRUCTURE	58
B.	CONNECTIVITY AND CIRCULATION	59
C.	PARKS AND OPEN SPACE.....	60
D.	LAND USE AND URBAN FORM.....	61
VI.	KEONE'AE RAIL TRANSIT STATION AREA PLAN.....	63
A.	OVERALL STRUCTURE	65
B.	CONNECTIVITY AND CIRCULATION	66
C.	PARKS AND OPEN SPACE.....	67
D.	LAND USE AND URBAN FORM.....	68
VII.	KUALAKA'I RAIL TRANSIT STATION AREA PLAN	69
A.	OVERALL STRUCTURE	71
B.	CONNECTIVITY AND CIRCULATION	72
C.	PARKS AND OPEN SPACE.....	74
D.	LAND USE AND URBAN FORM.....	75
VIII.	ZONING RECOMMENDATIONS	76
A.	TOD SPECIAL DISTRICT.....	77
B.	ZONING RECOMMENDATIONS.....	77
1.	Applicability.....	77
2.	District Boundaries	78
3.	Permitted Land Uses	78
4.	Density and Floor Area Ratio.....	79

5. Maximum Building Area	80
6. Maximum Building Heights	80
7. Community Benefits Bonus (CBB)	83
8. Affordable Housing Requirement (AHR)	85
9. Parking Requirements	85
10. Yard Setbacks	88
IX. DEVELOPMENT IMPLEMENTATION	90
A. OVERALL STRUCTURE	91
B. INFRASTRUCTURE	91
C. TOD DEVELOPMENT PHASING	92
D. RESPONSIBLE AGENCIES	96
E. RESPONSIBLE AGENCIES AND STRATEGIC PARTNERS	97
1. Intent	97
2. Federal Agencies	98
3. State Agencies	98
4. City Agencies	100
5. Private Developers	101
6. Landowners and Businesses	101
7. Residents and Community Groups	101
F. INFRASTRUCTURE FUNDING SOURCES	102
1. Revenue Bonds	105
2. General Obligation Bonds	105
3. Community Facilities Districts	106
4. Lease Revenue Bonds and Certificates of Participation	106
5. Public-Private Partnerships	106
6. Impact Fees and Capacity Charges	106
7. Payment In Lieu Of Taxes and Tax Increment Financing	107
8. Assessment and Improvement Districts	107
9. General Excise Tax (GET) Surcharges	107
10. Other Programs and Federal Credits	108
11. Developer Incentives	108

LIST OF FIGURES

Figure 1. East Kapolei Major Developments	4
Figure 2. State Land Use District	13
Figure 3. Current Zoning	14
Figure 4. Proposed Rail Transit Station Area Land Use Plan	37
Figure 5. Parks Map	40
Figure 6. Street Hierarchy Map	51
Figure 7. Bike Circulation Map	52
Figure 8. Honouliuli Rail Transit Station Area Land Use Plan	57
Figure 9. Keone'ae Rail Transit Station Area Land Use Plan	64
Figure 10. Kualaka'i Rail Transit Station Area Land Use Plan	70
Figure 11. Proposed Heights Map	82

LIST OF TABLES

Table 1. Plan Principles and Possible Community Benefits Bonus	84
Table 2. Matrix of Major Projects by Responsible Agencies	96
Table 3. Common Public Finance Tools and Other Programs	105

LIST OF ACRONYMS

ADA	Americans with Disabilities Act
AHR	Affordable Housing Requirements
AICUZ	Air Installation Compatibility Use Zone
AMI	Area Median Income
BFS	Budget and Fiscal Services, City and County of Honolulu
BID	Business Improvement Districts
BWS	Board of Water Supply, City and County of Honolulu
CBB	Community Benefits Bonus
CDBG	Community Development Block Grant
CFD	Community Facilities District
CGB	Community Growth Boundary
COE	U.S. Army Corps of Engineers
COP	Certificates of Participation
DCAB	Disability and Communications Access Board
DDC	Department of Design and Construction, City and County of Honolulu
DFM	Department of Facility Management, City and County of Honolulu
DHHL	Department of Hawaiian Home Lands, State of Hawai'i
DLNR	Department of Land and Natural Resources, State of Hawai'i
DOE	Department of Education, State of Hawai'i
DP	Development Plan
DPP	Department of Planning and Permitting, City and County of Honolulu
DPR	Department of Parks and Recreation, City and County of Honolulu
DTS	Department of Transportation Services, City and County of Honolulu
DURF	Dwelling Unit Revolving Fund
EJSCREEN	Environmental Justice Screening and Mapping Tool
ENV	Department of Environmental Services, City and County of Honolulu
EPA	U.S. Environmental Protection Agency

ESA	Environmental Site Assessments
FAA	Federal Aviation Administration
FAR	Floor area ratio
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GET	General Excise Tax
GO	General Obligation
HART	Honolulu Authority for Rapid Transportation
HDOT	State of Hawai'i Department of Transportation
HDOT-AIR	Airports Division, State of Hawai'i Department of Transportation
HDOT-Highways	Highways Division, State of Hawai'i Department of Transportation
HFD	Honolulu Fire Department
HHFDC	Hawaii Housing Finance and Development Corporation
HMMF	Hula Mae Multi-Family Tax-exempt Bond
HOME	HOME Investment Partnerships Program
HPD	Honolulu Police Department
HPHA	Hawaii Public Housing Authority
HRS	Hawaii Revised Statutes
H RTP	Honolulu Rail Transit Project
HTF	Housing Trust Fund Grant Program
HUD	U.S. Department of Housing and Urban Development
ID	Improvement Districts
LIHTC	Low Income Housing Tax Credits
LID	Low Impact Development
LUO	Land Use Ordinance, City and County of Honolulu
MOCA	Mayor's Office of Culture and Arts, City and County of Honolulu
NPDES	National Pollutant Discharge Elimination System
OED	Office of Economic Development, City and County of Honolulu

P3	Public-Private Partnership
PD-T	Planned Development-Transit
PHHT	Pearl Harbor Historic Trail
PILOT	Payments in Lieu of Taxes
PRD	Public Review Draft
PRU	Plan Review Use
ROW	Right-of-Way
SID	Special Improvement Districts
SLR	Sea Level Rise
SLR-XA	Sea Level Rise Exposure Area
TIF	Tax Increment Financing
TIFIA	Transportation Infrastructure Finance and Innovation Act
TOD	Transit-Oriented Development
UA	Unilateral Agreement
UDP	Urban Design Plan
UH	University of Hawaii
UHWO	University of Hawaii-West O'ahu
USFAWS	US Department of the Interior, Fish and Wildlife Service

I. EXECUTIVE SUMMARY



A. THE VISION

The East Kapolei Neighborhood Transit-Oriented Development (TOD) Plan presents an opportunity to create sustainable, compact mixed-use development in the areas surrounding the Honouliuli/Ho'opili, Keone'ae/University of Hawaii-West Oahu (UHWO), and Kualaka'i/East Kapolei rail transit stations. Located at the current western terminus of the 20-mile elevated rail transit line, each East Kapolei community will be connected with convenient rail transit access to downtown Honolulu. The three rail transit station areas are envisioned to be neighborhoods structured in a pedestrian-friendly environment with numerous housing, employment, educational, and recreational opportunities. Such compact, mixed-use development enhanced by pedestrian amenities takes full advantage of the benefits of rail transit service.

Each of the rail transit station areas will provide for unique development opportunities and the TOD Plan aims to give each station its own identity based on the local conditions and development needs. Rail transit station area plans have been developed for each of the three rail transit stations through an inclusive community-based planning effort to ensure that the needs of the area stakeholders have been integrated into the final TOD Plan.

The Honouliuli rail transit station will service a brand new town with an integrated mix of uses for residences and employment. The Keone'ae rail transit station will facilitate UHWO's "town and gown" university village, which envisions a different mix of uses focused on students and campus life. The Keone'ae rail transit station also enhances the Department of Land and Natural Resources' (DLNR) vision for its landholdings, primarily to create jobs, provide affordable housing opportunities, and to support its natural, cultural and recreational resource management and protection programs. The Kualaka'i rail transit station area will include the Salvation Army Kroc Center, residential and commercial uses on the properties owned by the Department of Hawaiian Home Lands (DHHL), the Ko'oloa'ula affordable rental housing complex, housing provided by the University of Hawaii (UH) with its development partners, and a mixed-use center near the station.

While taking into account the individual requirements for each station, the overall vision for the TOD Plan is to create an integrated, connected urban environment that fosters healthy living and community identity.

B. CHANGES INFLUENCING THIS UPDATE

The vision set forth above is based on underlying TOD principles advocating smart growth generally within the half-mile areas surrounding the three rail transit stations. The original draft TOD Plan process began in October 2008 by identifying project area issues, opportunities, and constraints. Three community workshops were held in March 2009, July 2009, and April 2010, and Public Review Draft (PRD) #1 was released in April 2010.

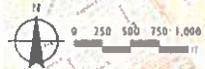
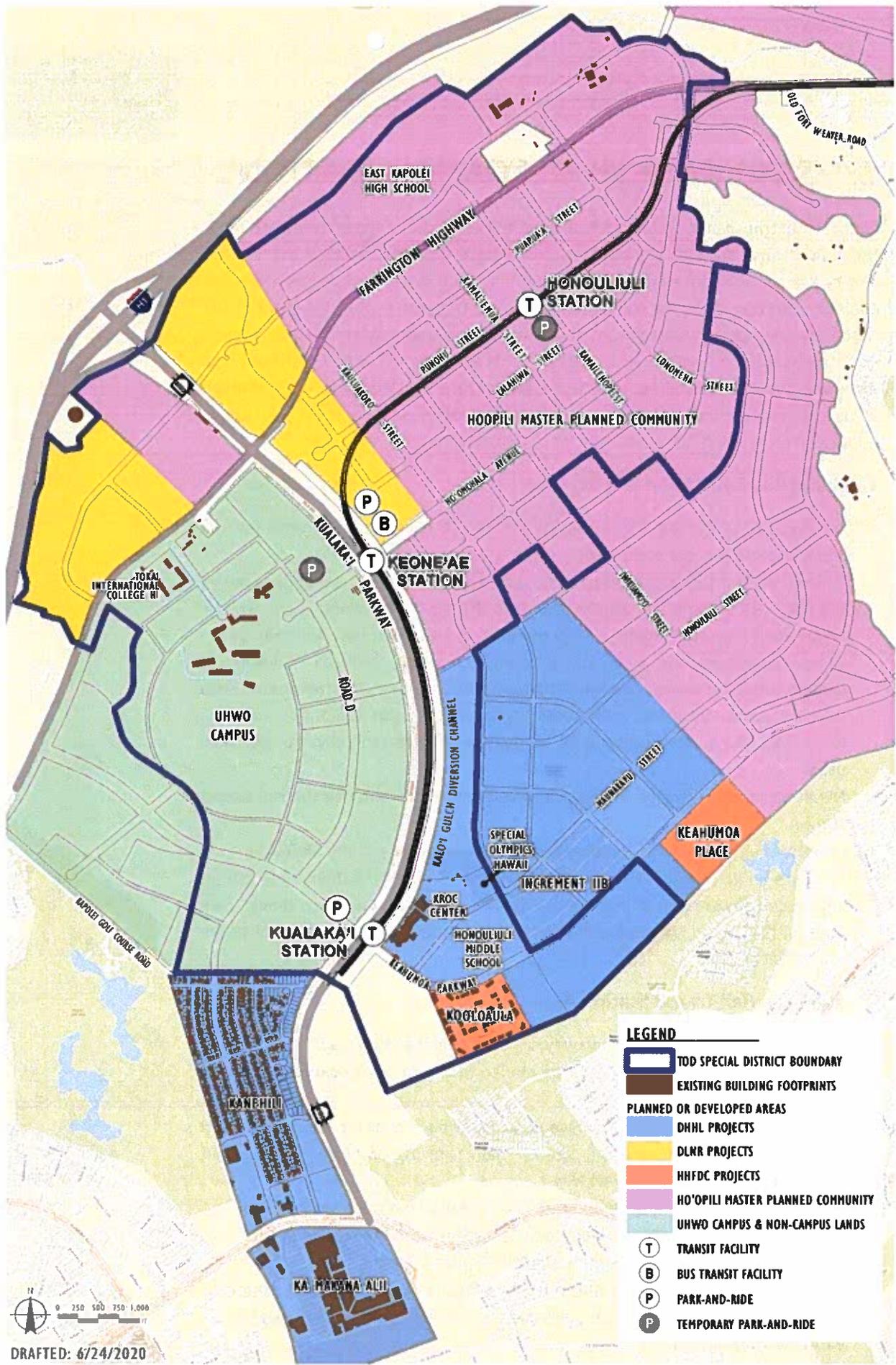
Since the release of PRD #1, substantial changes in land use and zoning have occurred in the vicinity of the three East Kapolei rail transit stations. Over the last 10 years, East Kapolei has transformed due, in large part, to several major developments and new facilities such as the Salvation Army Kroc Center, the UHWO campus, the Ho'opili master-planned community, the Ko'oloa'ula Residential Apartments, the DHHL Kānehili residential community, the Ka Makana Ali'i Shopping Center, Increment IIB of Kauluokahai (DHHL East Kapolei II), the site of the Special Olympics Hawai'i, the Keahumoa Place Residential Apartments, and the Honouliuli Middle School (see Figure 1). Major transportation projects during this timeframe include the completion of Kualaka'i Parkway, the connection of Kapolei Parkway between 'Ewa Beach and Kapolei, the planning and programming of widening Farrington Highway, and the construction of the Honolulu Rail Transit Project (H RTP).

With the rail transit line in place and the three rail transit stations near completion and partial rail transit service to begin in early 2021, area landowners and other stakeholders can now better visualize opportunities for TOD. Most of the land in the TOD Plan area is held by major private developers or State agencies, many of whom have recently updated their own plans, or are in the process of developing site-specific plans. For instance, UHWO has decided to retain more of its lands for campus use (up to 306 acres in order to accommodate a future campus population of up to 20,000 students), while decreasing the lands available for non-campus development.

Significant planning updates regarding TOD implementation, policies, and incentives occurred since the PRD #1 was published. These updates are discussed further in Chapter VIII, Zoning Recommendations, and include, but are not limited to, the following:

- Honolulu Complete Streets ordinance (Ordinance 12-15) and Design Manual (September 2016)
- Affordable Housing Requirement (Ordinance 18-10) to help address critical affordable housing shortage on O'ahu and the Affordable Housing Incentives ordinance (Ordinance 18-1), to help stimulate affordable housing production
- TOD Zoning and Special District ordinance adopted for the Waipahu Neighborhood will serve as prototype for future TOD zone changes and Special District creation at the other rail transit stations along the rail line
- TOD Special District Design Guidelines (June 2018)
- Rail access projects identified, funded, and in the design or pre-construction stage such as bus bays or pullouts and completing the missing segments of the existing multi-use path along the diamond head side of Kualaka'i Parkway

In sum, the significant changes in land use, policy direction, and strategies that have emerged since the completion of PRD #1 warrant this update in order to implement the vision established in the TOD Plan.



DRAFTED: 6/24/2020

EAST KAPOLEI MAJOR DEVELOPMENTS*
 (*AREAS WHERE DEVELOPMENT HAS BEEN PLANNED OR STARTED SINCE 2010)

SOURCE: CITY AND COUNTY OF HONOLULU, DPHL, DLNR, OR HORTON, UHWO.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

FIGURE 1

C. SUMMARY OF RECOMMENDATIONS

All three rail transit station areas will include transit plazas at the station entrances. These rail transit stations will not only be connected by the elevated rail line but also by a multi-use path starting from the Kalo'i Gulch Diversion Channel alongside Kualaka'i Parkway that is recommended to follow the path of the elevated rail line as the "Kalo'i-Kualaka'i Greenway." This planned active greenway will also connect to a 100-foot wide "greenway corridor," otherwise known as Pu'uwai Park that extends across the Ho'opili community adjacent to the elevated rail line. Rail transit station areas will also integrate neighborhood open spaces in certain areas. Additional recommendations specific to each station are listed below.

1. Honouliuli Rail Transit Station Area

- Temporary surface park-and-ride lot at the rail transit station until full rail transit operations are completed
- Pu'uwai Park, a 100-foot wide greenway corridor, to provide a landscape buffer between the rail line and adjacent uses to the elevated rail line separated by landscaped median within. This should connect to the Kalo'i-Kualaka'i Greenway (shared-use path) being completed along Kualaka'i Parkway. To complement the shared-use path feature, select amenity improvements such as view areas, benches, and nature path could turn the Kalo'i-Kualaka'i Greenway into a community asset for passive and limited active recreational uses
- Medium- to high-density, mixed-use development surrounding the rail transit station
- Lower density, mixed-use development on the periphery of the TOD area
- Promote an active main street, a "festival street" block of Kamāliemua Street, key street designation of Farrington Highway and several street blocks (see Chapter IV.G.2 and Figures 6 and 8 for description and location) adjacent to the rail transit station

2. Keone'ae Rail Transit Station Area

- Elevated pedestrian station walkway crossing Kualaka'i Parkway
- Temporary, 300-space park-and-ride mauka of Ho'omohala Avenue and west of Kualaka'i Parkway
- Bus transfer facility and 1,000-space permanent park-and-ride facility wrapped by street-fronting commercial space, mauka of Ho'omohala Avenue and diamond head of Kualaka'i Parkway
- Higher density, mixed-use development adjacent to the rail transit station
- Medium-density, mixed-use development further from the station on the UHWO side, respecting the landmark UHWO Library Tower
- Employment centers on UHWO campus and business park and retail center development on DLNR lands surrounding the Farrington Highway/Kualaka'i Parkway intersection

- New internal, tree-lined, pedestrian-friendly connector street (Road D) perpendicular to Ho'omohala Avenue, on the UHWO side of Kualaka'i Parkway to connect UHWO's Innovation District to the lower (makai) portion of UHWO property
- Key street designation along Ho'omohala Avenue (formerly Campus Drive) on both sides of Kualaka'i Parkway, Road 2 for one block mauka and makai of Ho'omohala Avenue as well as for Farrington Highway, and Kualaka'i Parkway (see Figures 6 and 9 for locations)
- A festival street block of Ho'okulaia Street between Kauluakoko and Kamolehonua Streets that can be closed for special community events (see Figure 6 for locations)
- Pedestrian and bicycle connections to the festival streets within the Ho'opili community

3. Kualaka'i Rail Transit Station Area

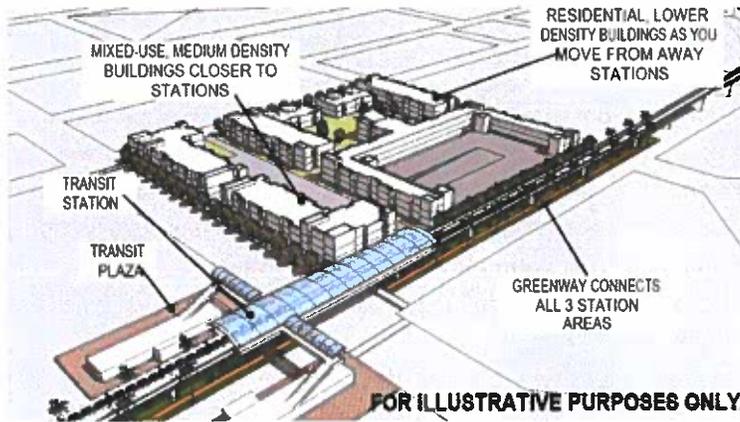
- Safe, convenient pedestrian connections across and alongside Kualaka'i Parkway to access DHHL neighborhoods on both sides of the Parkway, as well as to UHWO
- A park-and-ride lot or series of lots consisting of 900 spaces to support the use of the transit system for residents from 'Ewa, Kalaeloa, 'Ewa Beach, and Wai'anae
- Active community uses compatible with the Salvation Army Kroc Center, East Kapolei Elementary, and Honouliuli Middle School, as well as the residential uses along Keahumoa Parkway
- Lower to medium-density, mixed-use development west of Kualaka'i Parkway
- Key street designation of Kualaka'i Parkway and Keahumoa Parkway in the vicinity of the rail transit station (see Figures 6 and 10 for locations)

The TOD Plan recommends changes to existing development standards to support a more intensive land use pattern. Most of the zoning is in place for UHWO and Ho'opili. To encourage development of DLNR and DHHL lands, mixed-use apartment, business, and light industrial is proposed. The more intensive mixed-uses will be closest to where the roadway and transit networks can support them such as along Farrington Highway and at intersections along Kualaka'i Parkway (see image on the following page).

In addition to changes to the zoning, the TOD Plan recommends providing additional bonuses to developers that participate in providing community benefits. A community benefits bonus (CBB) leverages a project's development potential to incentivize improvements that meet a community's needs, goals, and objectives. In order to obtain these certain bonuses, community benefits will be required.

The TOD Plan also makes general recommendations regarding the phasing of development. This phasing will be crucial in synchronizing development to ensure the delivery of services and amenities for this emerging community are provided in a coordinated and efficient manner. Various infrastructure funding sources are also covered.

The TOD Plan document structure, following this Executive Summary, consists of eight chapters. Chapter II provides the background and context of the existing conditions at the rail transit station areas, followed by the principles that underpin TOD in this TOD Plan (Chapter III). Chapter IV provides a general overview of the TOD Plan while Chapters V, VI, and VII provide a more detailed overview of the TOD Plan at each of the three rail transit stations. At each rail transit station area, the TOD plan proposes opportunities to expand land uses; roadway, bicycle, and pedestrian networks; parks and open space; and development standards. Chapter VIII addresses the zoning designations, heights and density, the TOD Special District and introduces the CBB. Chapter IX discusses potential development phasing, infrastructure funding sources, and strategic partnerships with government agencies, the private sector, and the community to make TOD viable in East Kapolei in both the short- and long-term.



A typical rail transit station area layout.

D. NEXT STEPS

The following steps should be taken by the City and County of Honolulu (the City) in the near term in order to put the TOD Plan into action and ensure the framework for TOD follows the vision and principles defined by the community and embodied in the TOD Plan.

1. Prepare recommendations for density and height amendments to the 'Ewa Development Plan (DP) and submit to the Planning Commission and City Council for adoption.
2. Prepare TOD zoning and special district recommendations to implement the TOD Plan to forward to the Planning Commission and City Council for adoption.
3. Finalize plans to complete and construct the missing segments in the existing multi-use path on State-owned land adjacent to the Kalo'i Gulch Diversion Channel on the diamond head side of Kualaka'i Parkway. The project is underway and planned for construction in the near future.
4. Coordinate with the Hawaii Interagency Council for TOD to make timely infrastructure improvements necessary for new growth, especially as it complements TOD on State land.
5. Complete the environmental review process and obtain the necessary approvals to begin widening the segment of Farrington Highway, mauka of the three rail transit stations.
6. Continue to work on simplifying oversight and design review of master-planned areas and reduce redundancies or conflicts between master plans in planned review use (PRU) areas or development agreements and TOD Special District requirements.

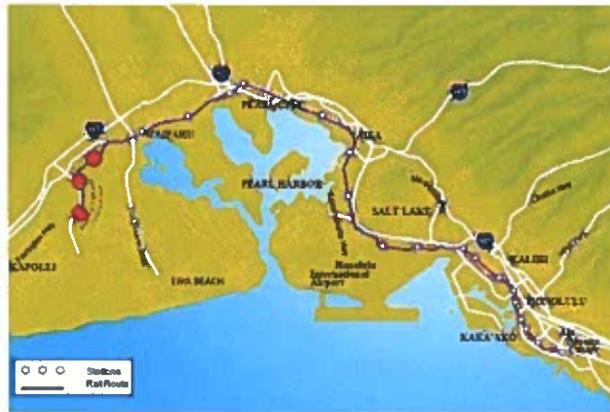
II. PROJECT OVERVIEW AND EXISTING CONDITIONS



A. BACKGROUND CONTEXT AND EXISTING CONDITIONS

1. Background Context

The H RTP is a 20-mile elevated rail line with 21 rail transit stations (see image below) that will connect East Kapolei with the Daniel K. Inouye International Airport, downtown Honolulu, and the Ala Moana Center. The H RTP will improve the ability of people to move in the highly congested east-west corridor. The system will feature electric, steel-wheeled trains with each train (four cars) capable of carrying 800 passengers, transporting an estimated 100,000 people each day. Development trends reported in the 2019 Honolulu TOD Demand Analysis and Market Projections indicate that approximately 60 percent of O'ahu's new residential units between 2018 and 2040 will be located in the rail transit station areas along the rail corridor.



Location of the East Kapolei rail transit stations (shown in red).

2. History

East Kapolei was historically an agricultural area consisting mainly of sugar cane plantations. Generations of people lived and worked on these plantations and the surrounding areas and this connection to the land should be acknowledged in the development of the rail transit station areas. With no historic buildings in any of the rail transit station areas, the three rail transit station sites and surrounding areas provide an important opportunity to connect new development with the area's agricultural history and plantation heritage by creating gathering places where the community can celebrate its past, present, and future.

3. Scenic Views and Natural Landmarks

The most prominent view in the East Kapolei area is the Wai'anae Mountain range, particularly the large-scale ridgeline residential development, Makakilo, during both days and nights. Distant views of the Ko'olau Mountain range, Diamond Head, and downtown Honolulu are also visible from various vantage points within the rail station areas. The closest natural landmarks are Pu'u Kapolei, Pu'u Pālailai, Pu'u Makakilo, and the Honouliuli, Kalo'i, and Hunehune Gulches. Other visual landmarks in the East Kapolei area include the UHWO Library Tower and the H RTP rail line itself.

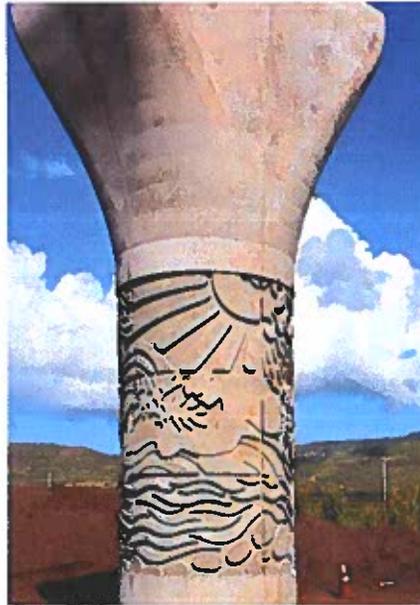
Views of natural features, natural view corridors, heritage resources, and other landmarks can be important cultural resources.

4. Cultural

Cultural landmarks in the rail transit station areas should be clearly identified. Future development of the rail transit stations and surrounding areas should offer opportunities to create new cultural landmarks and destinations to build and reflect upon 'Ewa's rich history and surrounding geographical resources. Cultural nodes include UHWO and the Salvation Army Kroc Center, which are located near two of the rail transit stations. These nodes can serve as a catalyst to form other social and cultural nodes in the area.

With the help of an expert working group, HART assigned culturally authentic and accurate station names to reflect the history of each area. In addition, unique column patterns were created for each of the 21 rail transit stations, which depict the historic and cultural stories of each community and ahupua'a. The column designs incorporate *mele* (songs), *mo'olelo* (legends and stories), and *wahi pana* (storied places) as sources for design inspiration.

Guideway columns at the Honouliuli rail transit station, for example (shown right), focus on the story of agriculture



Rail column design depicting the story of Ho'opili.



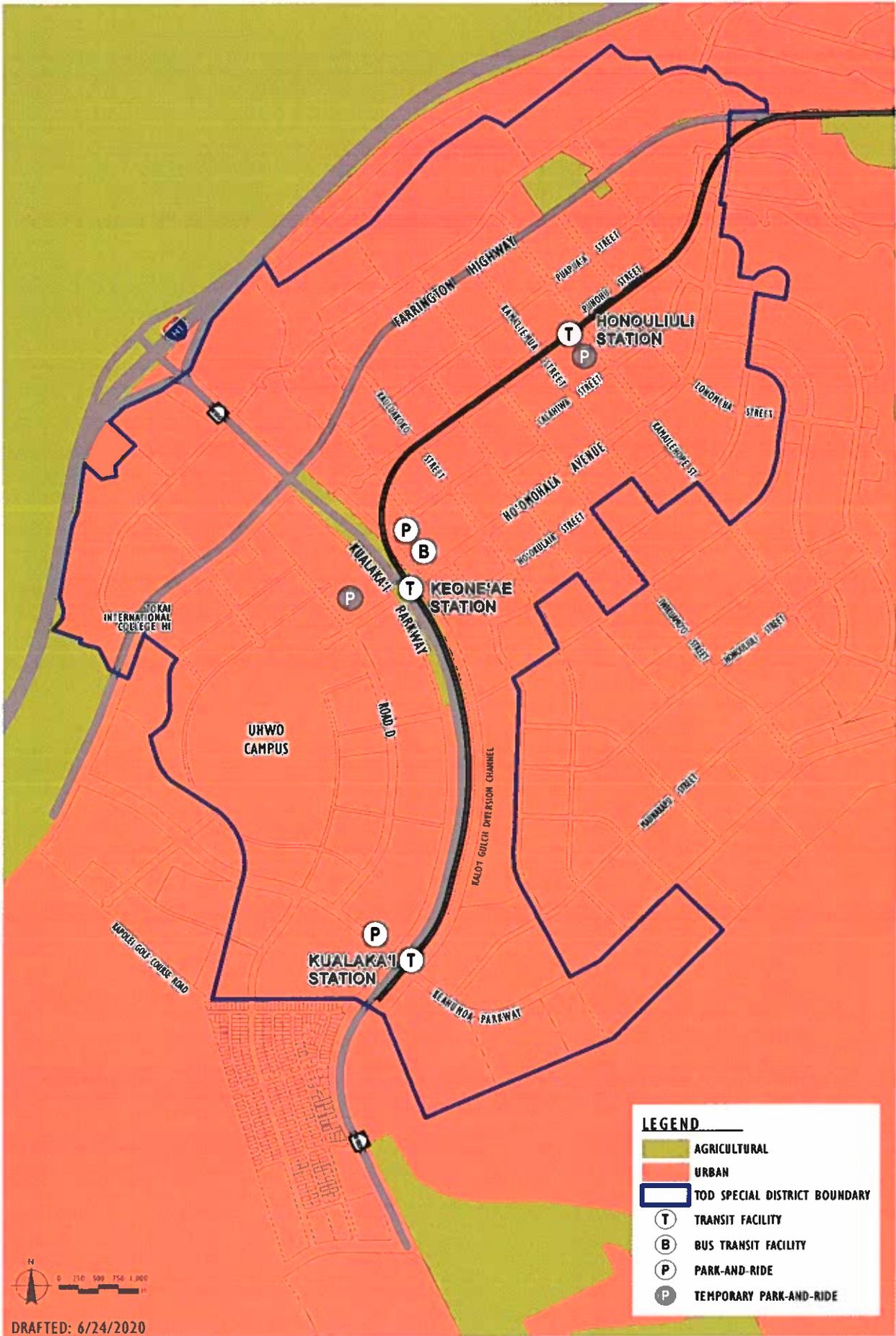
Rail column designs unique to each ahupua'a and rail transit station area.

through symbols of wind, planting of the plentiful ulu trees, sea salt beds, sun, and rain, which were all significant to the agricultural history of Ho'opili.

5. Land Use Designations

The majority of the TOD Plan area is currently within the State Land Use Urban District (see Figure 2). Parcels in the TOD Plan area that remain classified as State Land Use Agricultural District include a segment of Kualaka'i Parkway, the HECO transmission, and City pump sub-stations along Farrington Highway.

The lands on which UHWO and Ho'opili are situated have been re-zoned by the City to reflect urban uses, but the lands owned by DHHL and DLNR are currently zoned AG-1 Restricted Agricultural District. State agencies may request a waiver from local zoning regulations, particularly if their mission is to develop their lands on behalf of statutorily designated beneficiaries and for public purpose. An exception is the DHHL, which is statutorily exempt from the City's zoning and need not apply for waivers. If their lands are leased or sold for private development, local zoning control is in full effect. The area west of Kualaka'i Parkway, where the proposed UHWO campus expansion area will be located, is primarily zoned BMX-3 Community Business Mixed-use District, with pockets of A-2 Medium Density Apartment District, P-2 General Preservation District, and R-3.5 and R-5 Residential Districts. Immediately east of Kualaka'i Parkway, where the Salvation Army Kroc Center is located, is currently zoned A-2 Medium Density Apartment District (see Figure 3).



DRAFTED: 6/24/2020

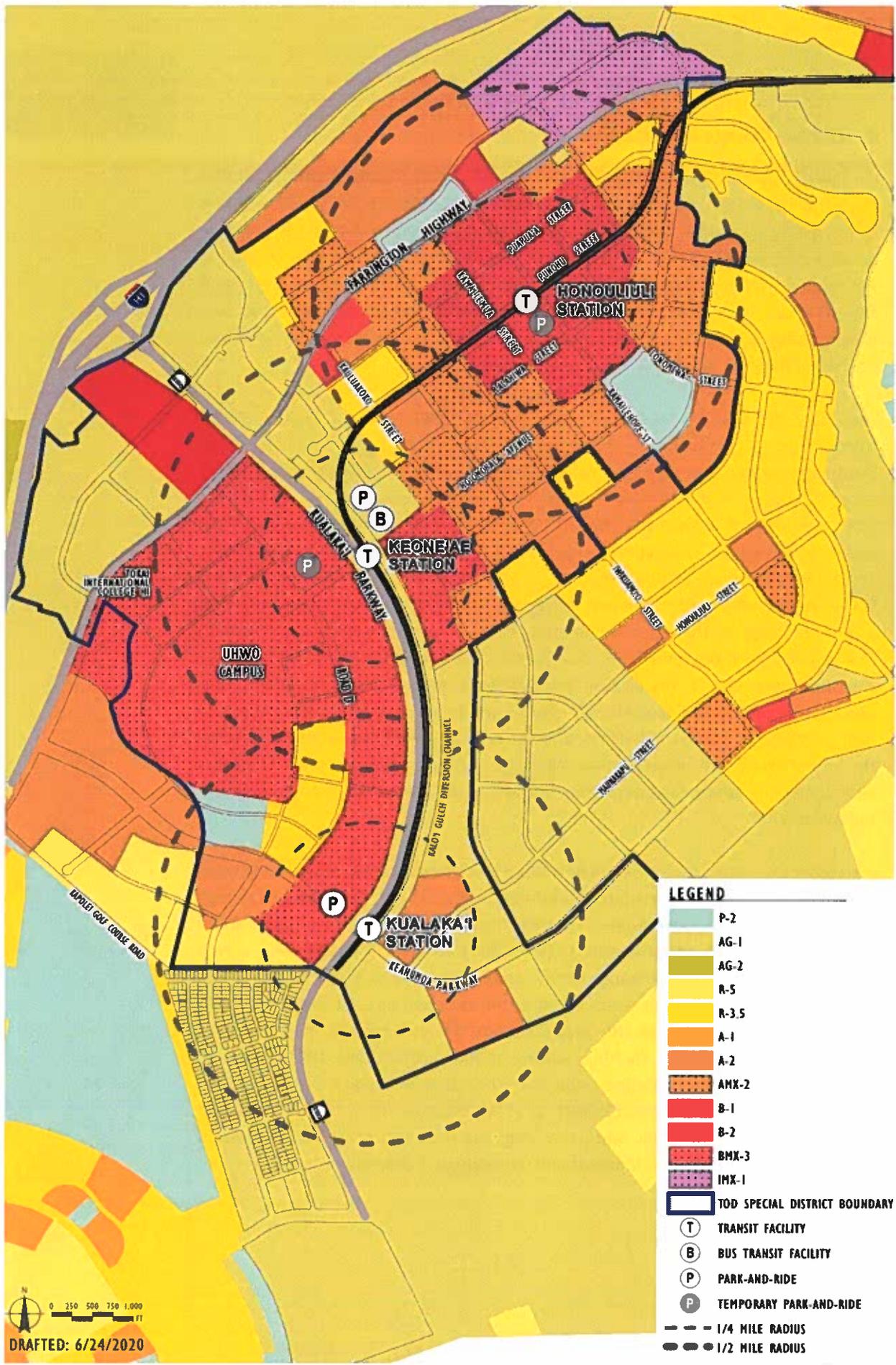
STATE LAND USE DISTRICTS

SOURCE: STATE LAND USE COMMISSION

Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary determinations or other spatial analysis.

FIGURE 2





CURRENT ZONING

SOURCE: CITY AND COUNTY OF HONOLULU.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

FIGURE 3



DRAFTED: 6/24/2020

6. Climate Change and Flooding

On July 16, 2018, Honolulu Mayor Kirk Caldwell issued Directive 18-2 to all City departments and their consultants to consider climate change and sea level rise in all City plans, programs, and capital improvement projects, and to apply planning benchmarks assuming there will be 3.2 to 6 feet of sea level rise (SLR) by the end of this century. Among these actions is the use of the *Sea Level Rise Guidance* and *Hawai'i Sea Level Vulnerability and Adaptation Report* in planning and programming as well as in the development and implementation of land use policies to mitigate and adapt to climate change and SLR.

According to the 3.2 foot sea level rise exposure area (SLR-XA) model (recommended benchmark in the directive), none of the three East Kapolei rail transit stations are projected at this time to be exposed to chronic flooding, storm surge, or underground infiltration from SLR due to climate change. Natural drainage ways are located throughout the TOD Plan area and should be retained and improved as needed to avoid increased risk of flooding as development increases around the rail transit station areas. Landscaping and parks located around the rail transit station areas will also help to offset some increased runoff from heavy rains and “hardening” of the surrounding area from increased development. The TOD Plan encourages more low-impact development (LID) features that provide on-site retention/detention for flooding or larger rainfall events such as infiltration basins and trenches, vegetated bio-retention basins, permeable pavement and pavers, as well as vegetated swales, bio-filters, and buffer strips. The City is actively pursuing the formation of a stormwater utility, which would impose fees for impervious area and further incentivize the use of green infrastructure and LID solutions in new and redevelopment.

Increasing temperatures as a result of climate change necessitate more shade trees to promote a pleasant pedestrian environment. In December 2017, Mayor Caldwell signed the US Conference of Mayor's Climate Protection Agreement to fight climate change and combat global warming, committing to plant 100,000 trees across O'ahu by 2025 and increasing urban tree canopy coverage to 35 percent by 2035. This commitment is further exemplified in the requirements of the UHWO and Ho'opili Street Tree Plans, the Honolulu Complete Streets Design Manual, the DPP's Standards and Procedures for the Planting of Street Trees (July 1999), the TOD Special District Design Guidelines, and the TOD street tree plans currently being drafted. Resilient design features such as green infrastructure, LID, water reuse, cool roofs, energy efficiency, and heat-mitigating materials should be integrated into new and proposed development and infrastructure projects.

B. 'EWA DEVELOPMENT PLAN

The 'Ewa DP, adopted in 2013, outlines the vision and key components for 'Ewa's future development. The role and vision for 'Ewa, as described in the 'Ewa DP, supports the growth policies outlined in the City's General Plan for Kapolei and East Kapolei. As the location of the Secondary Urban Center, the 'Ewa DP emphasizes the need to relieve development pressures on the rural and urban fringe as well as preserve the country lifestyle. By being an area designated for future major economic activity and significant residential development touting a variety of housing types, the development of a multi-modal transportation system will give residents and workers many transportation options to choose from based on their destinations helping to prevent traffic congestion on the roadway system.

According to the 'Ewa DP, this vision will be implemented through the following:

- Protecting Agricultural Lands and Open Space
- Developing the Secondary Urban Center
- Building Master Planned Residential Communities that Support Walking, Biking, and Transit Use
- Protecting Natural, Historic, and Cultural Resources
- Providing Adequate Infrastructure to Meet the Needs of New and Existing Development

The 'Ewa DP defines a Community Growth Boundary (CGB). Its purpose is to contain all urban growth and protect outlying agricultural land and open space. This boundary is important in defining this area as the Secondary Urban Center for O'ahu. All three rail transit stations and the areas surrounding them are inside this CGB.

Development of these rail transit station areas supports the 'Ewa DP's vision of "Medium Density Apartment/Commercial Mixed-use" communities that support walking, biking, and transit use by encouraging development that uses principles of community building and "place-making." Projects must take into consideration site design, streetscape treatments, open space, and landscaping along with the development of town centers anchored by main street-style business centers, in order to enhance individual community identities.

A major component of the 'Ewa DP is the development of a rail transit corridor to connect 'Ewa with the Primary Urban Center. This rail transit system serves as the foundation for the TOD Plan with the three rail transit stations serving as the primary activity hubs where retail, offices, personal and business services, and residential development will be concentrated. These rail transit stations will also lay the foundation for creating the unique but connected identities for each of the three rail transit station areas.

Significant to the development of the Secondary Urban Center is the UHWO campus, which is in relatively close proximity to the Keone‘ae station. The UHWO Land Use Plan (September 2014) evaluated and updated the plans for the ultimate size of the campus, recommending that the UH reserve 306 acres for campus uses to accommodate up to 20,000 students to respond to the anticipated long-term growth in the region. These numbers are subject to change as market, economic, and educational forces could play a role in affecting the future timing and size of the student and faculty population to achieve this target. However, as an institution of higher learning, the UHWO could become a significant employment center in East Kapolei.

The anticipated job growth in East Kapolei along with residential development in the TOD Plan area will create opportunities for people to live in the area in which they work. Such proximity is expected to reduce commute times and traffic congestion. The majority of ‘Ewa residents will still commute; however, it is projected that there will be a substantial increase in residents who both live and work in ‘Ewa. Those who still commute will have other attractive and time competitive options besides automotive/highway travel, such as rail, carpooling, and bus. The TOD Plan aims to make commuting and traveling via alternate modes of transportation as convenient as possible with appropriately located rail and bus transit stops, park-and-ride lots, access to bicycle paths and pedestrian-friendly environments.

Overall, the TOD Plan implements the vision policies established by the ‘Ewa DP by providing a cohesive, responsible, and detailed vision for community building in East Kapolei. As the TOD Plan is being updated, there has been broad support by the State and private landowners for more intensive use and higher height limits particularly around the Honouliuli and Keone‘ae rail transit stations. Changing the height limits, even to discretionary bonus height, will require an amendment to the ‘Ewa DP.

C. UNILATERAL AGREEMENTS

A unilateral agreement (UA) is a recorded document, which encumbers certain properties with specified conditions of development, regardless of ownership change. There are two UAs guiding future development of the East Kapolei region in proximity to the three rail transit station areas. The first UA is associated with the UHWO development and is a part of Ordinance 08-30. The second UA is associated with the Ho‘opili development and is part of Ordinance 15-13. These UAs are discussed further below.

The zoning of the current UHWO campus was created with the passage of Ordinance 08-30. The re-zoned property is comprised of two areas: the area for the UHWO campus itself, and the other for the UHWO Non-Campus Lands, anticipated to be conveyed to a private developer. The Non-Campus Lands area is bounded on the east by the Kualaka‘i Parkway, to the south by the DHHL Kānehili Subdivision and Kapolei Golf Course, and the UHWO campus to the north and west.

The UA conditions associated with the Non-Campus Lands stipulate that the UH create an affordable housing program, a park master plan for the dedication of parks, a non-potable water master plan to construct a non-potable water system on the property, a transportation master plan and roadway master plan, an urban design plan, a wastewater master plan, and other assorted improvements for the Non-Campus Lands. There is consideration that the TOD Plan and Special District, as well as the City's Affordable Housing Requirements (AHR) could effectively substitute some, most, or all of the conditions of the UA to guide the future development of the Non-Campus Lands. The UHWO campus area is subject to the PRU permit (Resolution 08-140) conditions in addition to applicable UA conditions of Ordinance 08-30.

The re-zoning of the land for the master-planned community of Ho'opili was enacted by the passage of Ordinance 15-13. The UA conditions of Ordinance 15-13 include an agreement to participate in an affordable housing plan, provide traffic and transportation improvements consistent with the applicable traffic impact analysis report and multi-modal improvements as recommended in its transportation management plan, as well as to prepare drainage, water, and sewer master plans. Providing parks, meeting facilities, a day care facility, and a fire station are also conditions stipulated by the UA. Tying all these various elements together with a comprehensive set of design concepts, standards, and guidelines for Ho'opili in an urban design plan is also a condition of the UA associated with Ordinance 15-13.

In light of the many interrelated regulatory mechanisms affecting these properties, it is worth exploring a means to reduce redundancies or conflicts between master plans in PRU areas and UAs as well as the TOD Special District requirements.

D. PROCESS

Successful TOD depends on participation and broad-based support from government, residents, businesses, community organizations, landowners, developers, and the financial sector. Successful TOD projects include careful listening to the needs and concerns of all parties that result in a common set of goals. The TOD Plan reflects the coordinated effort of all stakeholders.

The TOD planning process began in October 2008 by identifying project area issues, opportunities, and constraints. The PRD #1 was initially published in 2010.

The TOD Plan has been developed through a community based, multi-step, integrated effort, which included task force workshops and community workshops to provide the project team with critical information and feedback to develop the TOD Plan in a responsive manner. The Task Force included local property owners, developers, neighborhood board members, and other community stakeholders (see images below). Based on the workshops, the design team refined the proposed alternatives and vision presented in the PRD #1. All interested parties were able to actively participate in the design process, including the creation of draft rail transit station area alternatives, refinements of the proposed alternatives, and development of a Preferred Rail Transit Station Area Land Use Plan.



Photo from a Task Force Workshop, 2009



Photo from a Task Force Workshop, 2009

With input from project stakeholders, the project team then developed recommendations on phasing and implementation. PRD #1 was released in April 2010 to allow the public to comment on the Draft. The final Task Force and Community Workshops were held in April 2010, with a subsequent presentation to the City Council (see timeline on the following page).

However, around the time that PRD #1 was published, many of the major State and private landowners in East Kapolei had also begun developing their own detailed master plans for their lands surrounding the three rail transit stations. In order to better reflect the updated plans of the major surrounding property owners, further consideration of the PRD #1 was postponed until the master plans were finalized and approved. For example, the UHWO Long-Range Development Plan Update process began in 2017 and is ongoing. The PRD #2 aimed to build upon the 2010

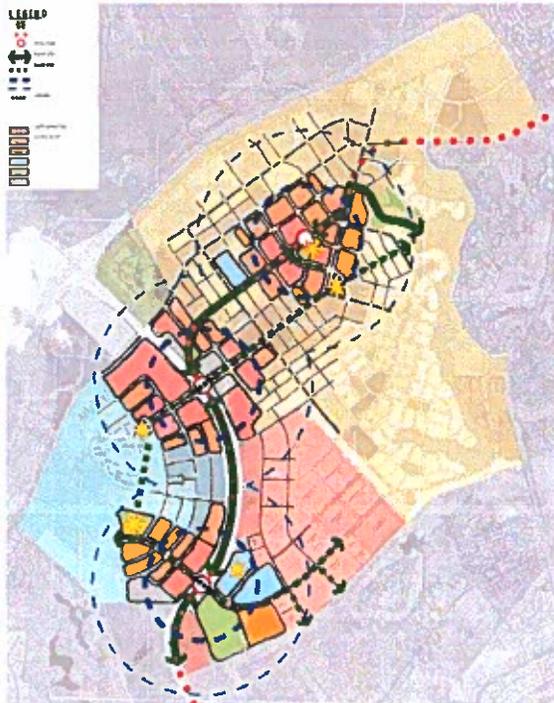
PROJECT OVERVIEW & EXISTING CONDITIONS

PRD #1 to address the significant land use changes in East Kapolei, as well as to incorporate the equally significant changes to TOD policies, implementation, and other relevant planning policies that have been approved since 2010.

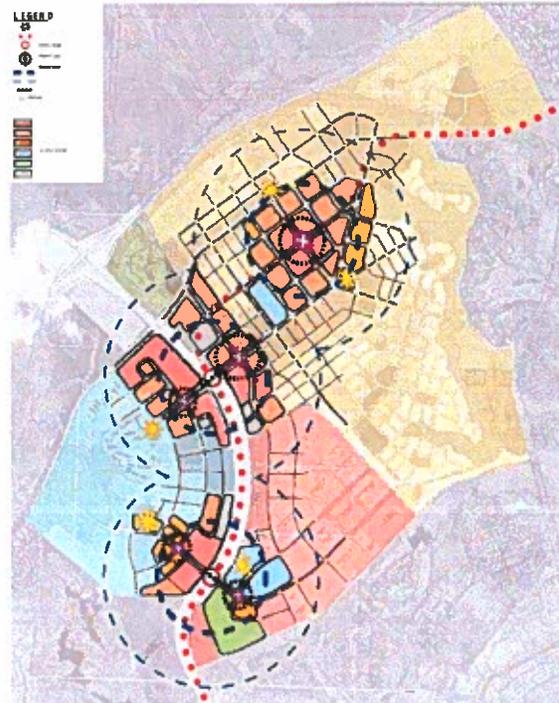


Timeline for production of the 2010 TOD Plan (PRD #1)

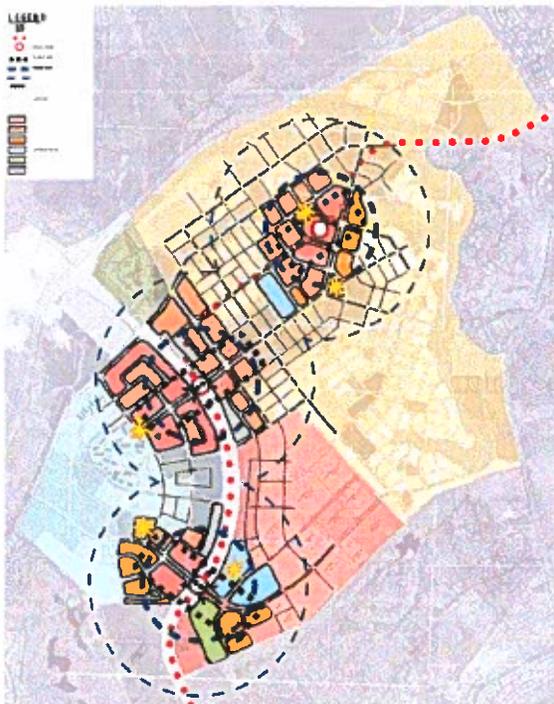
DRAFT ALTERNATIVES PRESENTED AT TASK FORCE WORKSHOP 2 OF PRD#1



Draft Alternative A | Greenways



Draft Alternative B | Centers



Draft Alternative C | Integration

The three draft alternatives on this page represent the initial big ideas that helped to form the proposed rail transit station area Land Use Plans. Each alternative features a different TOD planning concept that was adapted and incorporated into the PRD #1, including compact, mixed-use development, vibrant urban-type centers, open space, and a linear park and multi-use path along the rail line. The Preferred Rail Transit Station Area Land Use Plan in PRD #1 represents an integration of many ideas borne out over an intensive, community-based planning process.

PROJECT OVERVIEW & EXISTING CONDITIONS

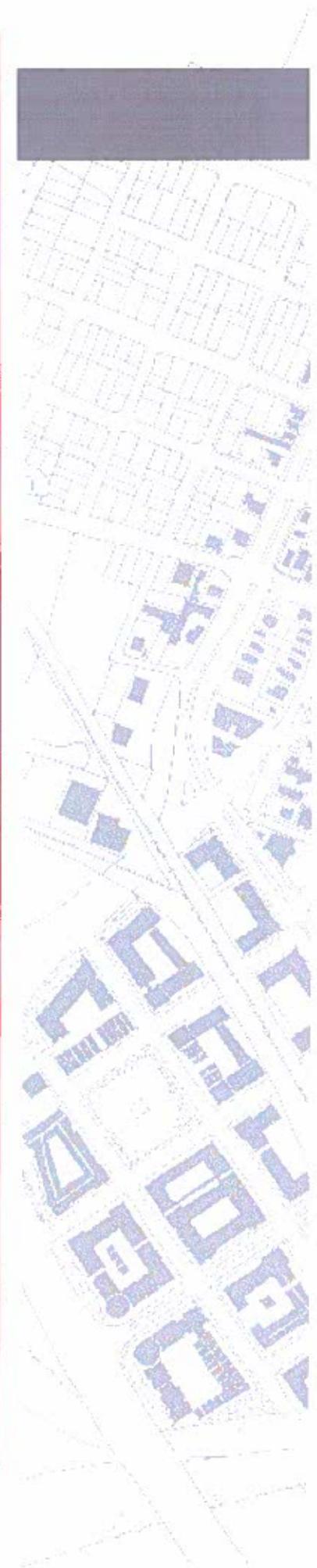
In the years since the PRD #1 was completed and community workshops were held, land use in East Kapolei has changed dramatically and, in part, so have the City's TOD Special District regulations (see Ordinance 17-54 and the TOD Special District Guidelines [June 2018]). Thus, an update to the PRD #1 and community review were necessary to address the existing and planned uses in East Kapolei that were not included in PRD #1. The PRD #2 aimed to connect the previous visions and identities for each rail transit station area from prior drafts of the TOD Plan with updated landowner development plans and TOD zoning recommendations that will better inform development standards around the three rail transit stations.

The updated project timeline (see timeline below) picked up from the efforts of the earlier planning work and allowed an additional community workshop, neighborhood board meetings, public comments, and consultations with area stakeholders to produce a Draft Final Plan for review and approval by the Planning Commission and City Council. Drafting of the recommended zone changes and Special District for properties within the TOD Plan Area, and an amendment to the 'Ewa DP, are planned to be closely coordinated with the Draft Final Plan for their review by the Planning Commission and City Council.



PRD #2 Project Timeline

III. PLAN PRINCIPLES



During the first meeting held in 2008, the following principles were generated and highlighted as key elements to integrate into the TOD Plan. The principles reflect the priorities and values of the broad cross-section of the population that participated in the planning process. In concert, the following strategies will create a responsible, creative, and attractive place to live, work, play, study, and shop in East Kapolei. The PRD #2 added sustainability as a principle.

A. MAKE THE CONNECTIONS

To create the greatest community benefit from the introduction of rail transit, it is important to carefully integrate it into the existing transportation network with connections to and accessibility from surrounding land uses (where people live and work), as well as with other 'Ewa communities and regional destinations. This is especially important for the walking environment, which is needed for completion of all trips and is sensitive to indirect, out-of-the-way connections. Safe pedestrian connections across Kualaka'i Parkway will be essential to the success of rail transit station area neighborhoods on both sides of this regional roadway. Tying adjacent neighborhoods together with high-quality sidewalks, frequent crosswalks including mid-block crossings where higher pedestrian traffic is anticipated, and providing efficient access to rail and bus transit are also essential elements that factor in making these connections. Finally, to enhance community character, the design of the areas around the rail transit stations need to announce that people are welcome, are cool and comfortable with tree-lined streets, and that adjacent streetscapes offer potential vibrant places for celebrating history, culture, and art.



Example of a bicycle and pedestrian trail separated from vehicle roadways.

Vehicular traffic will remain a significant part of daily travel in the future. While this TOD Plan emphasizes travel choices for all modes of travel, it recognizes the importance of ensuring connections for vehicles as well. The grid layout road pattern in Ho'opili will complete the road network upon build-out on that side of Kualaka'i Parkway, connecting to the surrounding neighborhoods, particularly DHHL

subdivisions to the south and west, which will foster better access and encourage more walking and bicycling.

On the UHWO side of Kualaka'i Parkway, new streets are integral to connecting Farrington Highway to Kualaka'i Parkway for convenient access to the campus and Non-Campus Lands. A pedestrian bridge across Kualaka'i Parkway is incorporated as part of the Keone'ae rail transit station design. At this time, an at-grade crossing of Kualaka'i Parkway at the Kualaka'i rail transit station is provided.



Example of pedestrian connections to transit areas



B. CREATE THE ACCESS

It is important to create multi-modal and interconnected communities to give residents, workers, students, and visitors, of all ages and abilities, access to a range of transportation choices so that they can choose the most direct, efficient, and economical way for them to travel. The individual rail transit station area plans ensure that rail and bus transit, paratransit, cars, bikes and pedestrians are accommodated in comfortable and convenient ways. New streets, paths, and trails will be developed in order to accommodate pedestrians, bicyclists, park-and-ride drop-offs, buses, and local through traffic. Likewise, increasing the number of connections shortens the distances for people to access goods, services, and activities.



Cyclists using a bike lane along King Street in Honolulu.



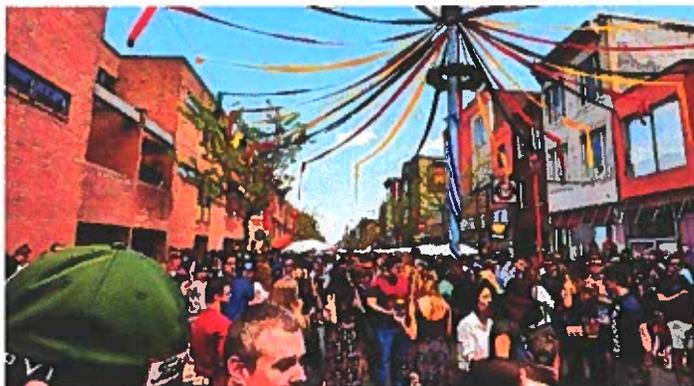
A campus shuttle vehicle with bike racks.

C. MIX IT UP

Encouraging a diverse mix of uses (residential, offices, retail shops, restaurants, entertainment) around each rail transit station area will lead to the creation of vibrant, walkable communities that are attractive to residents and visitors. A compact, mixed-use land use pattern improves access between housing, jobs, and services by shortening travel distance. Rather than driving several miles to a grocery store, for example, a resident in a TOD neighborhood might walk a few blocks, avoiding the need to drive in potentially congested conditions or finding a parking place at the destination. To encourage walking, medium- to higher density development should be concentrated within a quarter-mile of each of the rail transit stations. The higher density will help facilitate affordable housing and generate pedestrian activity, and the various uses will ensure that the area is busy at different times of the day and week. With greater density, residents and visitors should be able to walk to a number of destinations and accomplish a lot within a smaller area (while relying less on cars).



A key pedestrian street adjacent to mixed-use developments.



A pedestrian area surrounded by active, mixed-uses.

D. CREATE GATHERING PLACES

The introduction of rail transit provides the opportunity to create gathering spaces at each of the rail transit stations. Public gathering spaces should be free and inviting to all, and—if properly designed with ample seating that is moveable, appropriately sited, and configured to encourage social interaction—give residents a sense of place and neighborhood, connection to local cultures, and sense of ownership. Steps and ledges can also be used for seating and should be sized with this in mind. Gathering places can occur in many ways but the principal venues include:

- **Transit plazas:** Outside the station areas, transit plazas can include place-making features, such as landscaping, public art, informational signage, and displays, which will help celebrate the uniqueness of each community. The plazas can also serve as locations for community and special events. Limited commercial uses could be made available to serve the convenience needs of rail transit riders.
- **Streets:** The pedestrian environment on streets can act as neighborhood focal points where sidewalk cafes, spaces for events, gathering places for conversation, places to enjoy art, and window shopping create an active, vibrant public environment. A festival street within each of the Honouliuli and Keone‘ae rail transit station areas will be specifically created for this purpose.



An active pedestrian street with casual gathering and seating areas.

- **Community-Based Parks:** Two district and four neighborhood parks will be located within the TOD Plan area. All but one will be located in the vicinity of the Honouliuli and Keone‘ae rail transit station areas. The other will be on the Non-Campus Lands of UHWO in proximity of the Kualaka‘i rail transit station. Parks are typically great community gathering places for active and passive athletic events, recreational pursuits, picnicking, family gatherings, and hosting other special events.

- **Linear Urban Park and Greenways:** Pu'uwai Park, the greenway corridor, is a 100-foot wide planned linear park in the core TOD area of Ho'opili that is intended to serve as a landscape buffer between the rail line and adjacent uses. Its other benefit will be to serve as a community gathering place offering a variety of seating areas, recreational space, and space for community gardens. The Kalo'i Gulch Diversion Channel also offers an opportunity to be activated and reprogrammed into a publicly accessible space. The completion of the Kalo'i-Kualaka'i Greenway planned for construction by the DTS along the diamond head side of Kualaka'i Parkway will provide a connection between important collector roadways such as Ho'omohala Avenue and Keahumoa Parkway and lead to additional connections mauka to Farrington Highway. This new Greenway, adjacent to the rail transit service and new development alongside the channel, could be the impetus to convert this drainage corridor into a more meaningful open space amenity. Additional improvements such as footbridges across the drainage channel and use of the Greenway alongside the channel will offer access and possible gathering spaces at key locations to turn the Kalo'i-Kualaka'i Greenway into a community open space and recreational asset.

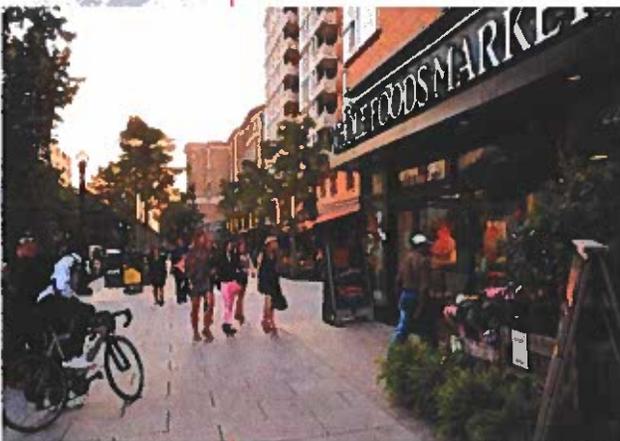


A rendering of Pu'uwai Park with active and passive recreational space.

E. DEVELOP UNIQUE RAIL TRANSIT STATION AREA IDENTITIES

Each of the rail transit station areas is intended to have a unique identity, based on local conditions and development needs. For example, each rail transit station area has been researched by HART to ascertain the predominant Hawaiian place name for the area. The column designs also were chosen to recognize aspects of the area's past and its importance in Hawaiian culture. Such knowledge could inspire owners or developers to incorporate some aspects of this localized identity into the names of their businesses, some architectural design elements on their buildings such as murals or signage, and possibly choosing to locate there because of the products they want to sell. For example, an owner may want to open a fish market at a rail station area because the rail transit area has been identified as once being the area known for its fishponds. Contributions by every business or resident will add up to shape and reinforce this continued sense of identity with the past. Linking together such a diverse collection of destinations will provide an unrivaled experience in which one can immerse themselves by giving residents and visitors a wider choice of opportunities to interact, explore, and enjoy the features, characteristics, and services to be found at each destination. The following is a glimpse into how each rail station area may serve rail transit ridership and what they might find there.

Honouliuli Rail Transit Station – The Honouliuli rail transit station area will be a “local, mixed-use village,” with a vibrant mix of uses including housing, offices, retail, restaurants, entertainment, personal services, nearby schools, and parks. A unique feature of this rail transit station is the future development of Pu’uwai Park, a 100-foot wide greenway corridor, adjacent to the rail line offering an unparalleled opportunity to create an eclectic blend of passive and active recreational and open space amenities near this rail transit station.



Example of a mixed-use village.

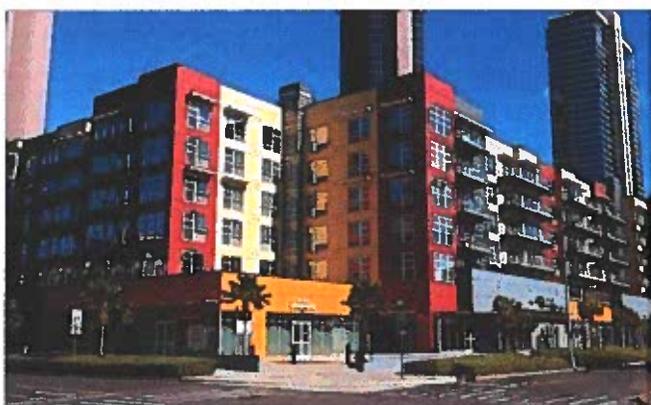
Keone’ae Rail Transit Station – The Keone’ae rail transit station will be a “campus gateway” for the UHWO (see image on following page) with a “University Village” community that is welcoming and accessible and creates a feeling of *ho’okipa* (hospitality) towards students, faculty, staff, visitors, and the community. Both sides of Kualaka’i Parkway will be anchored by a main street-style mix of commercial and residential uses. This rail transit station also serves as a focal point for TOD on nearby State-owned lands. Possible land uses being considered include business mixed-use,

industrial mixed-use (employment center), and affordable housing. The Non-Campus Lands are proposed as a mixed-use community to complement and support the UHWO campus and to provide amenities for the surrounding neighborhood. With its close proximity to the H-1/Kualaka'i Parkway interchange, this rail transit station will draw ridership from Makakilo, Kapolei West, Ko'Olina and the Wai'anae Coast.



Current UHWO campus located near the Keone'ae rail transit station.

Kualaka'i Rail Transit Station – The Kualaka'i rail transit station will be a "community use" station. It will draw ridership from 'Ewa, Kalaeloa, 'Ewa Beach, and Kapolei, including users of the Salvation Army Kroc Center, and other surrounding uses such as the campus and Non-Campus Lands of UHWO.



Example of medium-density, mixed-use residential buildings in Kaka'ako, O'ahu.



F. PROMOTE A VARIETY OF HOUSING CHOICES

The TOD Plan calls for a variety of housing choices in order to meet the needs of a diverse mix of residents. Campus housing, senior housing, live/work housing, multi-family housing, and single-family housing, both for sale and rent, will be provided to encourage diverse, mixed-income communities. An integral component of fostering these diverse communities is the availability of affordable housing, especially for families, in addition to mixed-use developments within the three rail transit station areas. Car ownership places a heavy financial burden on many families, and siting affordable housing near rail transit allows less dependence on personal automobiles as the primary form of transportation from home to work and schools. The cost of providing parking also drives the cost of housing higher, making affordability a challenge. Near the rail transit stations, housing will be in the form of medium- to high-density, multi-family developments. Also envisioned are mixed-use buildings with apartments or condos over lower-floor active uses, such as retail, offices, restaurants, community services, etc. Blocks within a half-mile of the rail transit stations may also include low-density apartments, townhouses, and single-family neighborhoods, but will be further from the rail transit stations.

Having a community that is comprised of many residents contributes to its overall health. A dynamic community is one where a variety of people can invest their time and energy into making contributions, strengthening community social bonds, and growing a sense of shared responsibility. Providing people with a neighborhood that they can be proud of and feel responsible for generates a healthy, productive community.



Example of medium to higher density developments.



Example of lower density apartments.

G. CREATE A DYNAMIC URBAN ENVIRONMENT

Each of the previously stated principles will contribute to the overall success of the area, resulting in a dynamic urban environment. A dynamic urban environment encourages residents and visitors to actively utilize the amenities provided in the rail transit station areas. Pedestrian activity will enliven the streets, thus reducing automobile domination and strengthening community social bonds (see images below).

Streets will be designed to be pedestrian-friendly, and be organized by a well-connected street network with small block sizes, frequent intersections, and no long dead-end streets. They will provide a safe and comfortable environment for pedestrians to move around the rail transit station area. The rail transit station areas will be designed primarily for pedestrians but also provide safe, comfortable, and convenient access for bicycles, passenger pick-up and drop-off, and connecting bus and rail transit.



Public amenities that facilitate safe and comfortable pedestrian use



Farmer's market creating active pedestrian use in an urban environment.

H. SUSTAINABILITY

Encouraging sustainable communities is essential for future growth around the three rail transit stations. Sustainability communities strive for balance between economic prosperity, social and community well-being, and environmental stewardship.

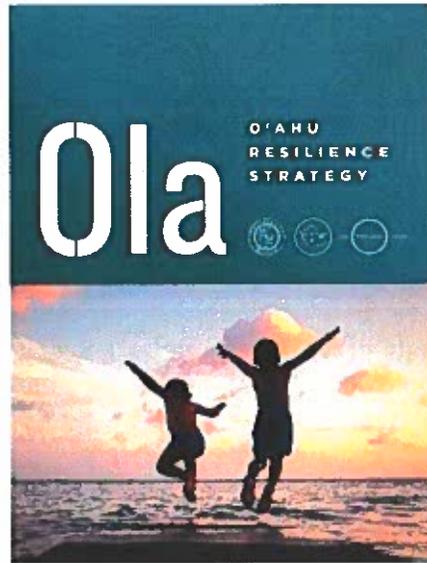
The previously stated TOD Plan principles support sustainable economic activities through uses that provide opportunities for job creation as well as active uses within each rail transit station area. Incorporating mixed-uses with a variety of housing options and accessible community resources also supports sustainable social equity for residents and visitors, and lays the foundation for sustaining diverse communities. Concentrating density around the rail transit stations will improve accessibility and increase interactions at the pedestrian level, which can further encourage sustainable growth of economic and social activities. A sustainable and resilient street network constrains traffic growth by limiting the number of vehicle lanes on each street while providing alternative (multi-modal) travel options on more streets. Sustainable street networks encourage alternative modes of travel, and increased roadway connectivity provides shorter routes. Walking and bicycling improve both personal and public health with no adverse impacts to the environment.

Sustainable practices to address environmental stewardship, especially related to building and design include:

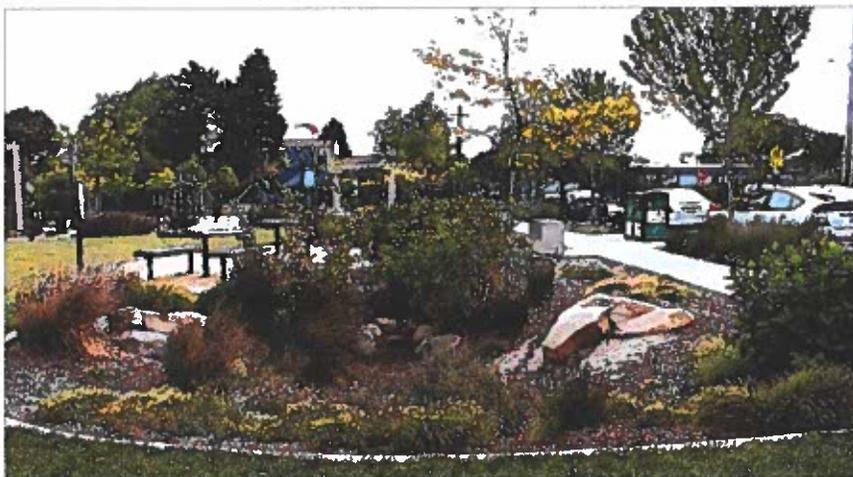
- reducing impervious surfaces;
- using green infrastructure to absorb and treat more stormwater;
- using renewable energy technologies;
- planting of more street trees along both sides of the street and in street medians, parks, and open space areas;
- using drought tolerant plants and xeriscape landscaping;
- incorporating overall energy efficiency by using renewable sources and technologies;
- utilizing water conservation measures such as non-potable water for irrigation and efficient irrigation systems such as a drip system; and
- promoting transportation options that reduce fossil fuel consumption.

Energy consumption, greenhouse gases, and air pollution can all be reduced if communities are designed to include as many elements of “live, work, play, study and shop,” in close proximity to each other so that trip lengths are shorter and trips to other key destinations can be made using walking, bicycling, or public transit.

Higher building densities also allow for more efficient use of existing energy, water, storm water, and sewer infrastructure as well as easier implementation of energy and water efficient fixtures. Areas with higher density may also have more efficient recycling and waste collection programs as opposed to sprawling, lower density areas with a greater number of collection points.

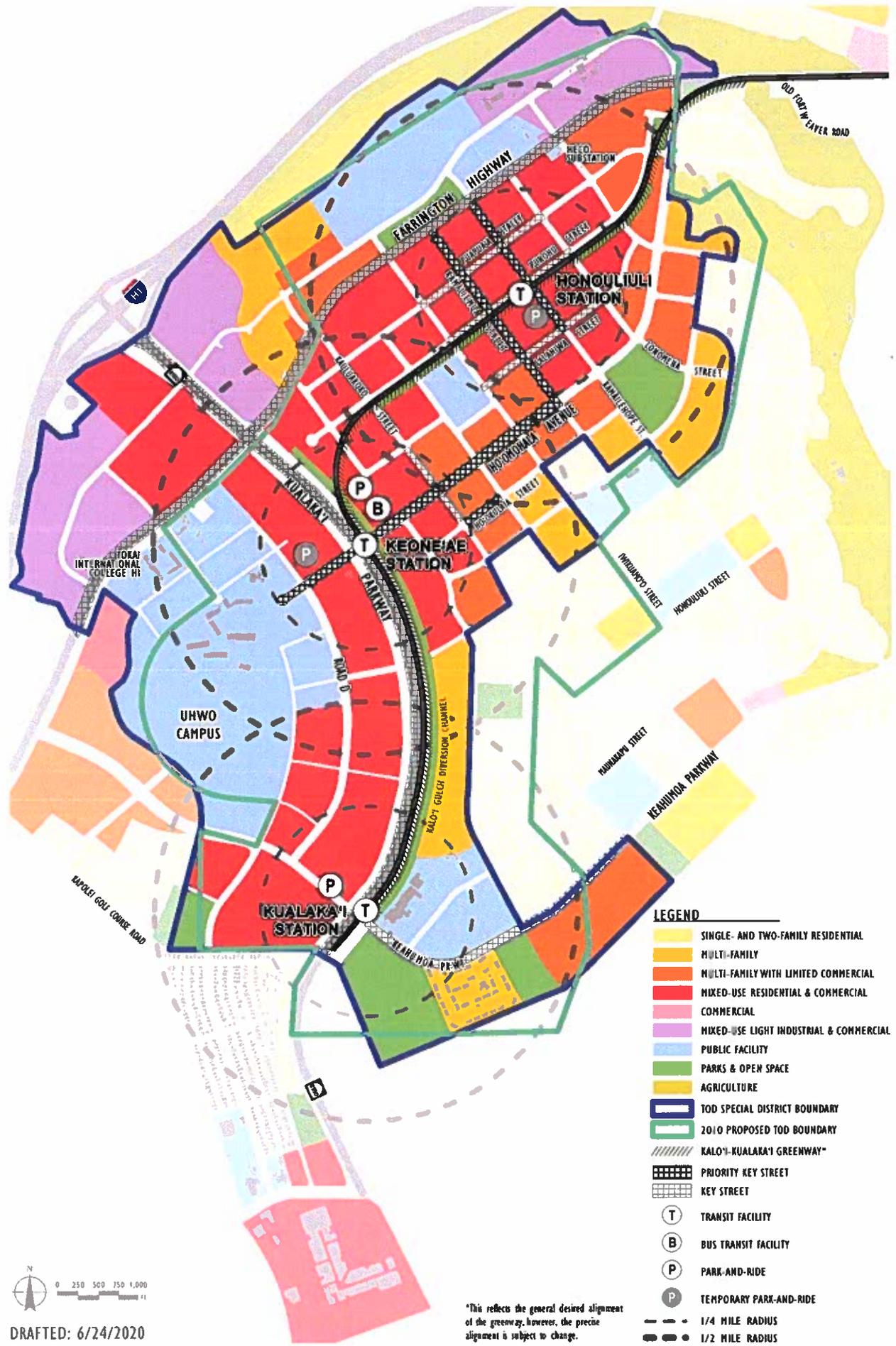


Cover of the Ola O'ahu Resilience Strategy report



A retention basin incorporated into park landscaping.

IV. PLAN OVERVIEW



DRAFTED: 6/24/2020

*This reflects the general desired alignment of the greenway, however, the precise alignment is subject to change.

PROPOSED RAIL TRANSIT STATION AREA LAND USE PLAN

FIGURE 4

SOURCE: CITY AND COUNTY OF HONOLULU, DHHL, DLHA, DR HORTON, UHWO
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other special analysis

A. LAND USE SUMMARY

The TOD Plan envisions three vibrant neighborhoods along the rail line at the Honouliuli, Keoneʻae, and Kualakaʻi rail transit station areas. At a minimum, the TOD Plan includes the provisions required under Section 21-9.100-4 of the Land Use Ordinance (LUO). The TOD Plan focuses higher density mixed-use development of retail and office space along with affordable and rental housing around each station in order to create highly walkable and diverse village centers. These core areas provide the foundation for each of the rail transit station area's unique but integrated identities.

The Honouliuli rail transit station area is envisioned as the "local, mixed-use town center," drawing ridership from Hoʻopili and parts of ʻEwa, while the Keoneʻae rail transit station area is the "campus gateway," drawing ridership from Makakilo, Kapolei West, KoʻOlina and the Waiʻanae Coast, and the Kualakaʻi rail transit station area is the "community use station," drawing ridership from ʻEwa, Kalaeloa, and ʻEwa Beach. The areas beyond a quarter-mile from the rail transit stations have less intense but still active and diverse development since they are within walking distance of the transit station. This supports the idea of "stepping down" the development in both building height and density to be compatible with the less dense, residential neighborhoods beyond a half-mile of the rail transit station areas. Within the TOD Plan framework, overall feasibility of development in these areas will be determined by the influence of rail transit and market and economic conditions.

Development of schools, churches, and other community and civic uses should be promoted within walking distance of the stations. As an example, Hoʻopili has sites reserved for five new Department of Education (DOE) schools: three elementary, one middle, and one high school. These five schools are uniquely located since the Hoʻopili development includes smaller pedestrian-friendly blocks. It should be noted that the proposed DOE East Kapolei High School is within a half-mile of the Honouliuli rail transit station, providing students, faculty, and staff alternatives to automobile usage to access the campus.

Most of the UHWO lands situated west of and the master-planned residential community of Hoʻopili east of Kualakaʻi Parkway are currently zoned for the intended land use. The State-owned (DLNR and DHHL) lands in the TOD Plan area are zoned AG-1 Restricted Agriculture. In order to adhere to the principles and achieve the overall vision of the TOD Plan, zone changes for these State-owned lands, will be needed to change to either apartment mixed-use, business mixed-use, or industrial mixed-use. DHHL-controlled lands are statutorily exempt from City zoning. Recommended changes to help enable the vision are described in Chapter VIII, Zoning Recommendations. Land uses illustrated on the Proposed Rail Station Area Land Use Plan (Figure 4) are intended to be illustrative in nature and fit within the recommended zoning changes.

B. OPEN SPACE IMPROVEMENTS

The TOD Plan includes a series of new open spaces in the three East Kapolei rail transit station areas. These open spaces are intended to reflect the principle of “Create Gathering Places.” Open spaces help to establish an identity and focus for new developments, as well as provide an important recreational resource for the surrounding community. Parks, plazas, and other public open spaces should be sited and designed to be versatile, secure, and easily maintained.

The open spaces should provide active and passive recreational space with benches, landscaping, and tables, as well as children’s play areas. Within the TOD Special District, 15 parks and open spaces, two elementary schools, one middle school, one high school, and Special Olympics Hawai’i are already planned and will act as destination points for residents, students, and visitors (see Figure 5). Access to school grounds will be regulated by each school.

At the UHWO campus, an area to be called the Commons is intended to serve as a large flexible open space that will allow for multiple campus uses, including outdoor performing arts and music events, science, technology, engineering, and mathematics (STEM) fairs and large scale exhibitions, and additional intramural and recreational activities.

The Pu’uwai Park greenway corridor, completion of the adjoining multi-use path along Kualaka’i Parkway, and the opportunity to activate the Kalo’i Gulch Diversion Channel into a publicly accessible space are crucial elements of the open space network and provide connectivity between the stations. Another greenway, simply called the “Kalo’i Greenway,” along the former channel on the UHWO campus, is still a concept but may one day become an important open space walkway to connect various areas of the campus and Non-Campus Lands.

Nearby parks and open space will allow for community gathering and help foster community identity. Further, these open spaces will connect Hawai’i residents and visitors to the unique natural beauty and cultural resources that the area has to offer, such as farmers’ markets, cultural festivals, hula performances, and community gatherings and events.





DRAFTED: 6/24/2020

PARKS AND OPEN SPACE MAP

SOURCE: CITY AND COUNTY OF HONOLULU, D.H.H.L. DLNR, DR. HORTON, UHWO
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.

- LEGEND**
- PARKS
 - OPEN SPACE
 - GREENWAYS*
 - TOD SPECIAL DISTRICT BOUNDARY
 - T TRANSIT FACILITY
 - B BUS TRANSIT FACILITY
 - P PARK-AND-RIDE
 - P TEMPORARY PARK-AND-RIDE
 - 1/4 MILE RADIUS
 - 1/2 MILE RADIUS

*This reflects the general desired alignment of the greenways, however, precise alignment is subject to change.

FIGURE 5

C. CONNECTIVITY

The TOD Plan not only intends to connect people to natural and open spaces but also to the developed areas radiating from the stations. According to the UHWO Long-Range Development Plan and Urban Design Plan, and the Roadway Master Plan and Urban Design Plan for Ho'opili, streets are designed to support pedestrian activity, along with bicycles and other alternative modes of transportation with an extensive network of bike lanes and multi-use paths on greenway corridors (see Figures 5 and 7). The density and diversity of uses contribute to this pedestrian environment and the unique character of place. Important neighborhood historic, scenic, and cultural landmark resources will be protected and enhanced, as necessary, offering opportunities to create community gathering places.

D. DESIGN ELEMENTS

Entrance into the UHWO campus and core nodes surrounding each of the rail transit stations will be made through a series of gateways expressed through a combination of signage and art, special landscape and lighting treatment, and/or the orientation and massing of buildings. Community roadways, pathways, and trails will build visual and physical linkages both externally and internally. The desired external connectivity brought on by the new rail transit system will be achieved through various off-site circulation improvements, such as extensive feeder bus service and the design of streets using the Complete Streets Design Guidelines, that support multi-modal movement. Internal linkages include important vehicular and pedestrian routes that will connect gateways, activity nodes, and focal points including parks. Appropriate levels of streetscape amenities, including canopy shade trees, lighting, and outdoor furniture will support the highest level of activity and pedestrian flows. Generous planting of Hawaiian or adapted vegetation can help communicate both the design quality and create a visually attractive boundary of TOD in the rail transit areas. Urban design within the three rail station areas should emphasize community building and place-making with the intent of achieving a high design standard to make the East Kapolei neighborhood a great place to live, work, and learn.

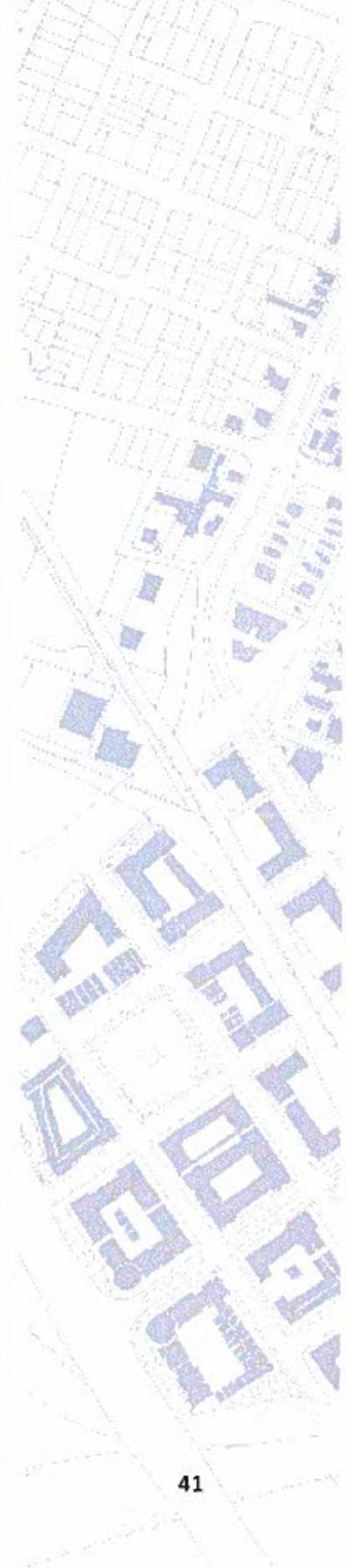
1. Urban Design Elements

I. STREET LEVEL TRANSPARENCY AND ACTIVATION

Transparency allows for buildings to engage pedestrians and contribute to a vibrant public realm. Transparency can take the form of windows and open-air connections. Outdoor dining is one way to activate the streetscape.

II. ENSURE INTERACTION WITH ADJACENT BUILDINGS

To promote sidewalk orientation and a vibrant district character, buildings close to each other should interact with and engage each other through their building frontages. These frontages should:



- Allow direct building access during business hours;
- Contain at least one public entrance on the street; and
- Provide a public entrance per street front on corner buildings.

III. BUILDING ORIENTATION TO STREET AND PUBLIC SPACES

To sustain street-level activity and promote pedestrian traffic, buildings should be oriented to the street and public spaces. This orientation should include:

- Retail storefronts oriented to the street and public spaces;
- Open air seating at ground-level restaurants;
- Wide sidewalks and support amenities (e.g. waste bins, benches, lighting);
- Storefront transparency at ground level; and
- Pedestrian-scaled architectural features (awnings, canopies, overhangs) that help activate streets and storefronts.

IV. PROVIDE PEDESTRIAN-ORIENTED STREETScape

It is important that the overall streetscape within the rail transit station areas make the public realm attractive and safe for pedestrians. Landscape buffers against buildings or open spaces with sidewalks at the curb should not be encouraged within development sites. A preferable streetscape alignment includes:

- The identification of key streets that are most vital to facilitate a walkable, vibrant, economically active neighborhood in direct vicinity of the rail station (see discussion of which blocks of streets are recommended as key streets in Chapter IV.G.2);
- Street trees and planting zones along the curb;
- Sidewalks set back against the building; and
- A clear differentiation of 1) landscape zone, 2) pedestrian zone, and 3) frontage zone.

V. REDUCE VISUAL IMPACT OF PARKING

TOD intends to reduce the overall impact of automobile use; however, vehicular access will still be improved at the three rail transit stations. As new developments will include parking facilities, it is recommended that their design and management minimize their impacts on the public realm by consolidating dedicated parking structures and surface parking in the vicinity of the elevated fixed guideway. Parking recommendations include:

- Parking garages and podiums should be screened or wrapped on the street side with habitable dwelling units or commercial spaces;
- Reducing the number of curb cuts on pedestrian-oriented streets;
- Encouraging the planting of shade trees on surface parking lots;
- Limiting the visibility of parking facilities from the street; and
- Encouraging parking management and creation of a park-once district, where appropriate.

VI. SCREEN/BUFFER SERVICE AND LOADING FACILITIES FROM PUBLIC STREETS

Service and loading facilities, while essential to commercial and residential activities, detract from the public realm. Their impact on pedestrian-oriented areas may be reduced by:

- Placing facilities away from sidewalks, open spaces, or amenity facilities;
- Incorporating equipment architecturally, where applicable; and
- Screening facilities with walls or landscaping.

VII. AVOID BLANK WALLS

Blank walls are not visually interesting and are difficult to mitigate, even with landscape and streetscape improvements. Such feature-less walls should instead be designed with transparency. If unfeasible, articulation, texture, and/or vegetation can add interest to a wall. Blank walls should be avoided, but in unavoidable cases can be somewhat mitigated by:

- Placement of active uses and entries along public spaces and streets;
- Maintaining a required amount of transparency at the street level; and
- Incorporation of public art or appropriately scaled signage elements.

VIII. UNDERGROUND UTILITIES

New development and any redevelopment provide an opportunity to underground overhead transmission lines to improve the aesthetics in the area.

IX. OUTDOOR STREET AND BUILDING LIGHTING

To reduce the effects of light pollution and to reduce energy usage, all street and building lights should have:

- LED or comparable low energy use bulbs, with appropriate correlated color temperature;
- Exterior light features on buildings in parking lots have full cut-off light fixtures;
- Light is directed appropriately without glare; and
- Automatic shut-off.

X. NOISE AND EXCESS LIGHT MITIGATION

Projects will comply with City and State's noise level standards and excess light requirements. Mitigation measures, such as sound barriers, architectural design and sound dampening materials in buildings, along with use of full-cut off lighting, lower temperature, and non-blue light wavelength lighting, will help lower the health impacts associated with excessive noise and light. Estimated noise levels from the rail system and



methods to mitigate their potential impacts were covered in the Final Environmental Impact Statement (FEIS) for the H RTP.

E. TOWER GUIDELINES

“Towers” is a relative term for any tall buildings on the relatively flat, undeveloped plain of East Kapolei. The highest base height in the vicinity of the rail transit stations is 90 feet. The maximum bonus height recommended in the TOD Plan is 120 feet with the provision of commensurate community benefits. How these towers are designed in relation to view corridors, the public realm, and shadowing will play a key role in the future developed environment in the vicinity of the rail transit stations. There are several key issues that should be addressed when establishing architectural guidelines for the possibility of these relatively tall buildings.

1. Guidelines

I. TOWER MASSING

The design of tall buildings generally consists of three sections: base or podium, middle (tower), and top. Design principles should be established for each building section to address how:

- The podium will affect the experience of the building at street level. Podium heights should be no taller than 60 feet and should be massed in a way to maintain street-level solar access;
- The tower will affect the building’s shadows on the urban environment; and how
- The tower top will affect the building’s aesthetic and experiential contribution to the development skyline.

II. PROMOTE NATURAL AIR CIRCULATION AND VENTILATION WHILE MINIMIZING ADVERSE WIND CONDITIONS

Tall buildings that are correctly oriented have the ability to capture natural breezes, which can provide benefits through reduced energy consumption and higher indoor air quality. Tower design should also evaluate wind-tunnel impacts that may have negative effects at the street level. Consideration may be needed to establish minimum separation distance between tall buildings proposed to be over 90 feet tall on opposing and adjacent blocks, in order to preserve views and solar access.

III. PROVIDE PROPER SETBACKS FOR TOWERS

Tall buildings can create imposing facades along street frontages. As such, tower placement is key to ensuring the public realm remains a comfortable environment. By setting back upper stories in towers away from street frontages, parks, trees, or open spaces, the perceived impact of the tower on the developed environment can be significantly reduced.

IV. ORIENT TOWERS TO OPTIMIZE VIEW CORRIDORS

Public view corridors, primarily in the mauka-makai direction, may be impacted by new tall buildings. Towers should be oriented in a mauka-makai direction to preserve these view corridors, as well as to create mauka-makai visual connections for people at street level.

F. IMPORTANT VIEWS AND VISTAS

The two preceding sections offer guidelines for protecting important views and vistas. Since the area surrounding the three rail transit stations is predominantly flat, the most prominent view is the Wai'anae Mountain range, particularly the large-scale ridgeline residential development, Makakilo, during both days and nights.

Distant views of the Ko'olau Mountain range, Diamond Head, and downtown Honolulu are also visible from various vantage points within the rail station areas.

The closest natural landmarks are Pu'u Kapolei, Pu'u Pālailai, Pu'u Makakilo, and Honouliuli, Kalo'i, and Hunehune Gulches. Other visual landmarks in the East Kapolei area include the UHWO Library Tower and the H RTP rail line itself. It is the intent of the TOD Plan to preserve and enhance scenic views and natural landmarks in the rail transit station areas. Mauka-makai view corridors, panoramic and significant landmark views, and views of natural features should be identified and preserved by limiting heights, spacing between buildings, and abundant open space features.

G. STREET STANDARDS

1. Transit-Oriented Community Street Network

Places where people take transit are places where people walk or bike. Every transit trip starts and ends with a walking trip, and places where walking and biking are comfortable and appealing have a larger catchment area for transit patrons who can access the system on foot or bicycle. For non-transit riders, active, walkable streets are one element of a "park once" district, where walking is possible between multiple destinations.

The 'Ewa DP states that "the transportation system should provide adequate access between residences and jobs, shopping and recreation centers in 'Ewa as development occurs. Reduce reliance on the private passenger vehicle by providing supporting facilities and amenities for pedestrian, bicycle and public transit use, including the use of bike trails and the provision of bicycle racks at commercial centers, bicycle storage facilities at employment centers and bus shelters and bus stops" (Section 4.1.6). The TOD Plan supports the 'Ewa DP through the TOD principle of "Create the Access."

The local street network in these communities accommodates automobiles while also encouraging the use of rail transit, buses, bicycling, walking, and other non-automobile forms of transport that are safe and convenient. The City is committed to solutions that improve safety, accessibility, and comfort for all users, encourage physical activity, and reflect community needs and character. With the passage of Ordinance 12-15, the Honolulu Complete Streets Ordinance was signed into law in 2012, establishing the City's Complete Streets policy. The City has finalized its Complete Streets Design Manual and created a Complete Streets Program Administrator position to move toward implementation of improvements that make O'ahu's streets and neighborhoods safe and inviting for all users, regardless of age or ability.

Complete Streets are part of a transportation and design approach that aims to create a comprehensive, integrated network of streets that are safe and convenient for all users, whether traveling by foot, bicycle, transit, or automobile, and regardless of age or ability. Complete Streets move away from streets designed with a singular focus on automobiles toward a design approach that is context-sensitive, multi-modal, and integrated with the community's vision and sense of place. The end result is a road network that provides safe travel, promotes public health, and creates stronger communities.

The Ho'opili and UHWO Roadway Master Plans (a new Long-Range Development Plan is forthcoming which will require submittal and approval of a new roadway master plan) have already been approved, along with the DHHL master planned communities. The Roadway Master Plans were based on traffic studies and current subdivision rules and regulations with modifications. In Ho'opili, the street network is designed to provide multi-modal connectivity through managed block sizes, a grid system layout, and connections to major regional roadways. The street organization will create easy pedestrian access throughout the neighborhoods by creating a diverse, interconnected selection of routes to maximize connections to commercial centers and parks using the gridded block system. The street network provides a pattern of multi-modal streets that serves all community land uses and facilitates easy access to local and regional destinations. The pattern, which should give priority to non-motorize modes, results in the distribution of traffic that is consistent with the desired function of the street. One characteristic of this pattern is that it offers route choices that connect origins and destinations. Streets will be designed with consideration for public safety, ease of maintenance, and environmental sustainability (see Figure 6). The street network works best when it provides a variety of street types.

The TOD Plan recommends a number of new streets to provide access onto the DLNR lands. Ideally, every opportunity should be made to interconnect new streets with the street networks contained in the roadway master plans of Ho'opili, UHWO, and the DHHL subdivisions. Within each community or campus, there is a highly connected street network, but a more interconnected street network between communities is encouraged. The integrated street network allows users to circulate freely and provide a structure for neighborhood development. Streets within the TOD

rail transit station areas should have frequent intersections and should not contain long stretches or dead ends.

It is recommended that new public or private streets be created on large parcels when land is redeveloped, in order to provide this level of connectivity. Smaller block sizes between 300 and 350 feet in length are ideal, but not always realistic throughout all of the TOD Special District. In such cases, blocks created by new streets should be a maximum of approximately 500 feet in length between intersections. Certain locations may have larger blocks, such as within the UHWO campus, which follows a more traditional “cloistered environment” development style used for universities. In cases like these, it is also recommended that new developments contribute to a network of internal pedestrian and bicycle pathways connecting to public streets.

To ensure development of a transit-oriented community street network, subdivisions of land for redevelopment purposes should be incorporated into the TOD Special District regulations. Having regulations and review are particularly important within the undeveloped areas that characterize the East Kapolei rail transit station areas.

2. TOD Street Characteristics

The City has provided guidance on street characteristics through its Complete Streets Design Manual, which is consistent with the following recommendations:

- **Street Types:** The types of streets approved in the network of roadways for the Ho’opili and DHHL master-planned communities should reflect the placement and frontage of buildings, adjacent land uses and open space, and historic, cultural, and other characteristics that form the built and natural environments of a given place. While these streets include an auto travel corridor, each is, or should be, designed to be highly walkable to provide maximum travel options that fit the intended use of the area.

The general land use pattern in East Kapolei is planned to be primarily suburban residential but pockets closer to the rail stations will be relatively urban in character with planned business and industrial mixed-use areas, core town centers, and a university campus within a half-mile (or ten-minute walk) of the three rail transit stations. The street types described here provide mobility for all modes of transportation with a particular focus on the pedestrian.

Farrington Highway and Kualaka’i Parkway function as arterials (or similar to principal arterials as described in the Complete Streets manual) in the area and are designed or will be designed for high vehicular capacity and moderate speed traversing the area. They have (or will have) four or more travel lanes and also serve as primary transit and walking routes, paired with separated multi-use paths.



Ho'omohala Avenue, Keahumoa Parkway, and Road D function as major collector roadways to carry moderate to high vehicular capacity at low to moderate speed typically spanning short distances between urban centers and major arterials. These streets have two to four travel lanes and may have landscaped medians (such as Ho'omohala Avenue). Some of these roadways may act as main streets, which in this context for the TOD Plan are intended to conjure up an image of a concentrated commercial section lined with retail and commercial uses in the rail transit station areas.

Key streets function similarly in that they adhere to the TOD Special District regulations, with additional considerations, but in some cases, may not have the same commercial concentration as a main street on those blocks. The two festival streets in the TOD Plan are selected blocks of the street near the Honouliuli and Keone'ae rail transit stations, which will be lined with retail and commercial uses that can be closed off to vehicular traffic and host a high volume of pedestrians for farmers markets, arts and crafts fairs, or other events.

- **The Parking/Curb Zone:** The area between the auto travel corridor (the through travel lanes of the street) and the landscape/furniture zone should be reserved for on-street parking, bike lanes (where designated), and if feasible, space for bikeshare stations and bike corrals (where multiple bicycles are parked). It is recommended that neighborhood TOD streets provide on-street parking on both sides in a parallel configuration. It is preferred that underground utilities be installed in this zone to prevent the inevitable conflict with street trees planted in the landscape/furniture zone.
- **The Landscape/Furniture Zone:** This includes the space between the parking/curb zone and the pedestrian zone. This area helps to provide a buffer from motor vehicle traffic. The landscape buffer includes street furniture (located appropriately), signage, hydrants, bus shelters, bikeshare facilities (as necessary), street trees (per the Standards and Procedures for the Planting of Street Trees [July 1999]), and other landscape features at the pedestrian level. To accomplish the Mayor's 2017 initiative for the City to plant 100,000 trees by 2025 and achieve 35 percent urban tree canopy coverage by 2035, it is imperative that the City takes every opportunity to increase tree plantings. In the TOD Plan, areas with high foot traffic should receive street trees with larger tree canopies to provide as much shade as possible. Wider landscape zones are recommended where higher vehicular speeds are present. The various street tree documents covering the area will provide further guidance.



A rendering of a landscape/furniture zone adjacent to parking and pedestrian zones.

- **The Pedestrian Zone:** This area includes ADA compliant sidewalks, which serve the through movement of pedestrian traffic. This may also include the front setbacks of ground-floor uses. These front setback areas should include outdoor seating and cafes in retail locations and attractive landscaping and entry walks in multi-family and office locations to enhance commercial activity within mixed-use development. Wider pedestrian zones between eight and 12 feet are recommended in the TOD Special District, especially in very active areas with large concentrations of pedestrians. Providing adequate shade in these pedestrian areas should also be a priority to create a comfortable environment, which can be addressed with trees or umbrellas in outdoor gathering areas. Permeable paving should be utilized to minimize storm water runoff.
- **The Frontage Zone:** Comfortable, safe sidewalks alone do not make a place a pedestrian destination. To generate foot traffic, land uses must be highly mixed, reasonably dense, and adequately designed. Some combination of residential, retail, restaurant, personal and business services, and civic and employment uses must be present on ground floors within a contiguous area. Buildings in the TOD Special District must also be oriented to the street with transparency that shows active uses at ground level, among other design considerations, per the LUO, Section 21-9.100.8.
- **Bicycle Circulation and Facilities:** New neighborhoods in TOD areas provide an opportunity to build a complete bicycle system of safe bicycle facilities that enables a broad array of the population to bicycle safely and comfortably to key destinations. Both the UHWO campus and Non-Campus Lands and Ho'opili community have street hierarchies that support bike route networks (see Figure 7). Generally, bike lanes are provided on most avenues, parkways, and connector streets. The Ho'opili bicycle network will serve both commuter and recreational trips. The bicycle network will provide connections to all schools

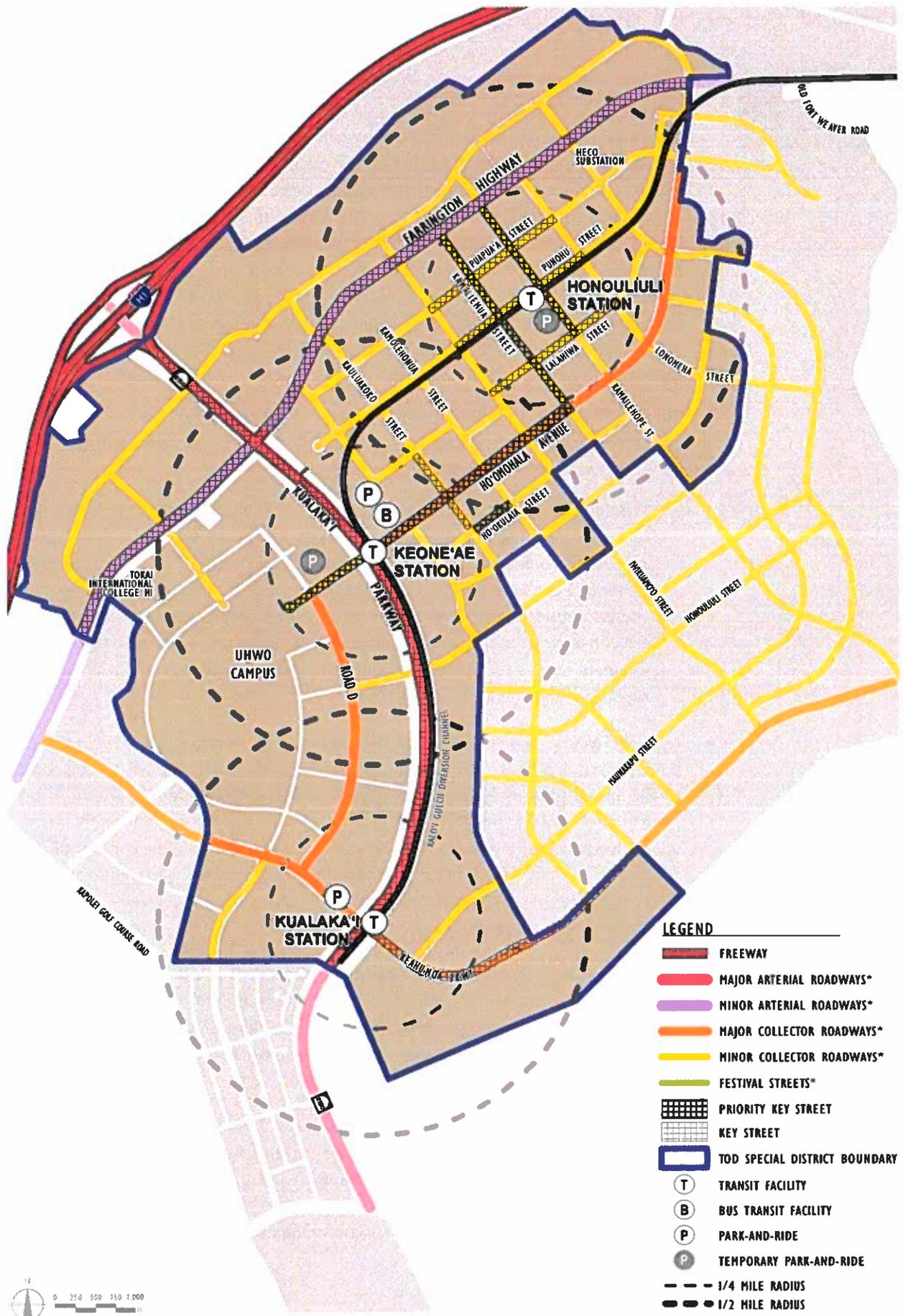


and parks within Ho'opili as well as the two nearest rail transit stations (Honouliuli and Keone'ae stations), in addition to bicycle parking facilities at each destination. Types of bicycle paths within the Ho'opili street network include striped bike lanes, bike sharrows, and shared-use pathways on the diamond head side of Kualaka'i Parkway as well as one being recommended within the Pu'uwai Park greenway corridor. An interconnected network of bicycle routes are recommended for all of the major roadways on the UHWO campus and the Non-Campus Lands. Bicycle ridership will also be supported by access improvements, including bicycle signal detection marking and signage, bicycle racks, bike corrals, bicycle sharing programs, and bicycle education and encouragement.

The bicycle system should continue to evolve with development around the three rail station areas to encourage and attract a wide variety of users and increase bicycle ridership. This includes:

- i. A complete, connected network of safe cycling facilities physically separated from vehicles, including cycle tracks (or protected bicycle lanes), shared bike and pedestrian facilities (or multi-use paths), and buffered bike lanes (painted divider between the bike and travel lanes);
 - ii. A dense network of on-street facilities, not physically separated from vehicles but with a designated space in the street corridor, such as bike lanes; and
 - iii. Abundant access to bicycles through supporting programs and facilities (i.e., bicycle parking and bike sharing).
- **Festival Streets:** These pedestrian-oriented streets provide space for outdoor dining areas, diagonal parking, colored/textured pavement, and will be closed to traffic on multiple occasions for open-air markets and community events. Two festival streets, approximately one block in length, are planned in Ho'opili. One will be located in the Honouliuli rail transit station area, one block makai of the rail line on Kamāliemua Street, between Punohu and Lalahiwa Streets, and the other in the Keone'ae rail station area on Ho'okulaia Street between Kauluakoko and Kamolehonua Streets.
 - **Key Streets:** Key streets are distinguished as being the most vital to facilitate a walkable, vibrant, and economically active neighborhood in direct vicinity of the rail transit station. Buildings along these streets shall be designed and used for active commercial and residential uses at the street level. A key street defines and regulates development that fronts the street.

Key streets are shown on Figures 4, 6, 8, 9, and 10. Sections of Kualaka'i Parkway and Keahumoa Parkway are designated key streets in the Kualaka'i rail transit station area. Portions of Kualaka'i Parkway, Farrington Highway, Ho'omohala Avenue (on both sides of Kualaka'i Parkway), two blocks of Kauluakoko Street (one-block both mauka and makai of Ho'omohala Avenue), and one block of



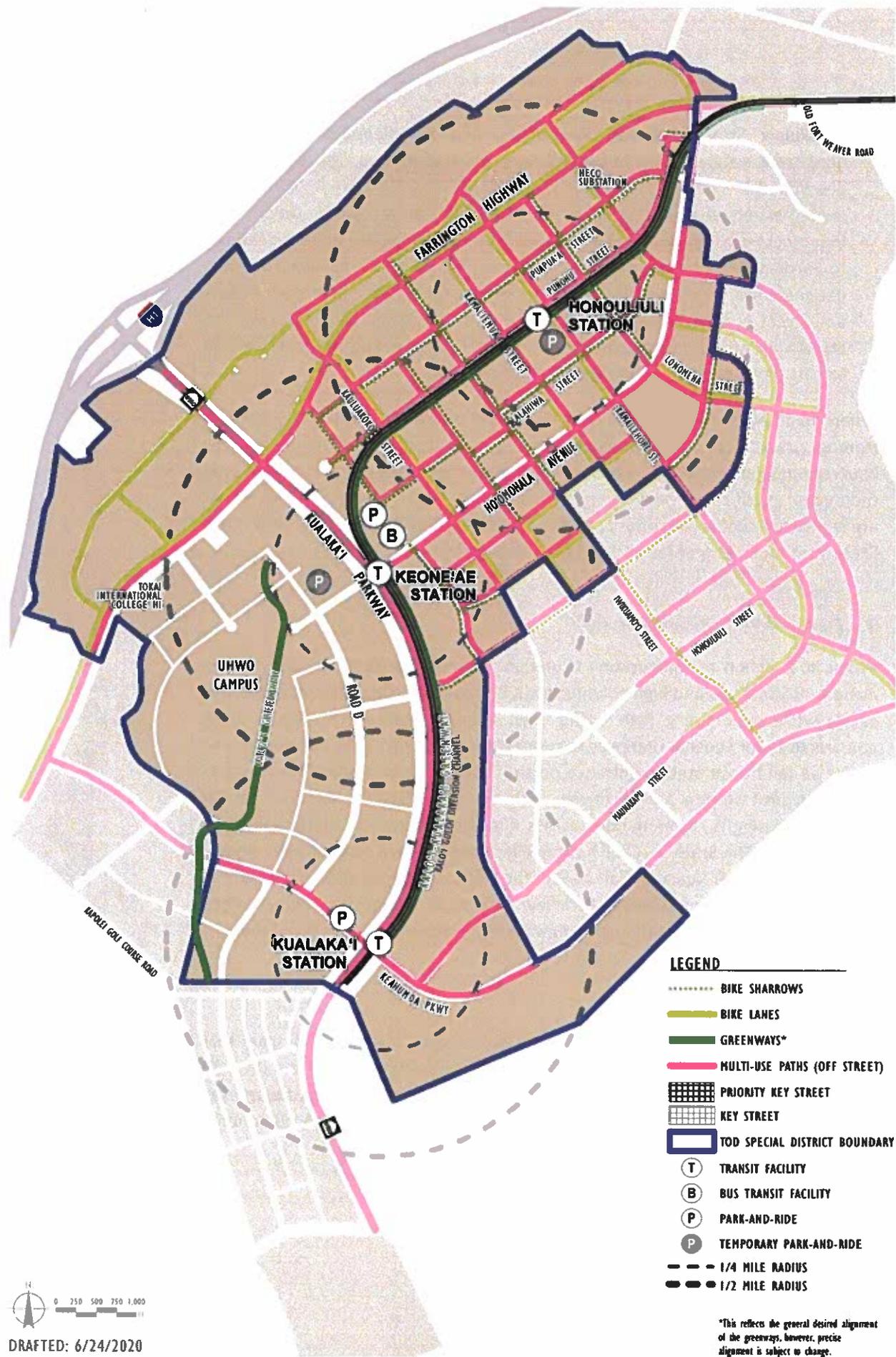
DRAFTED: 6/25/2020

*Roadway classes shown in this figure do not necessarily reflect the official State and County roadway classes and are included for general planning purposes only. For more information on official Highway Functional Classes, please refer to the State of Hawaii Department of Transportation, Highways Division.

STREET HIERARCHY MAP

FIGURE 6

SOURCE: CITY AND COUNTY OF HONOLULU, DIANA, DR. HORTON, UHWO.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.



DRAFTED: 6/24/2020

BIKE CIRCULATION

SOURCE: CITY AND COUNTY OF HONOLULU, DHLM, DLMA, DR HORTON, UHWO.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

FIGURE 7



Ho'okulaia Street between Kauluakoko and Kamolehonua Streets are designated as key streets in the Keone'ae rail station area. This block is also designated as a festival street that can be closed off to vehicles for community market events and street festivals. At the Honouliuli rail transit station area, four blocks of Kamāliemua Street, extending mauka from Ho'omohala Avenue to Farrington Highway (one block between Punohu and Lalahiwa Streets is designated as a festival street which is intended for community market events and street festivals), three blocks of Kamailehope Street between Lalahiwa Street and Farrington Highway, three blocks of Puapua'a, Punohu, and Lalahiwa Streets between Lonomeha and Iwikuamo'o Streets.

Where two key streets intersect, one key street is selected for primary building frontage orientation. In this situation, at the Honouliuli rail transit station, the TOD Plan recommends Kamāliemua and Kamailehope Streets take key street priority. At the Keone'ae rail transit station area, Ho'omohala Avenue and Ho'okulaia Street are recommended to take priority as the primary key street. More key streets will likely need to be designated as development progresses.

3. Elevated Pedestrian Crossings

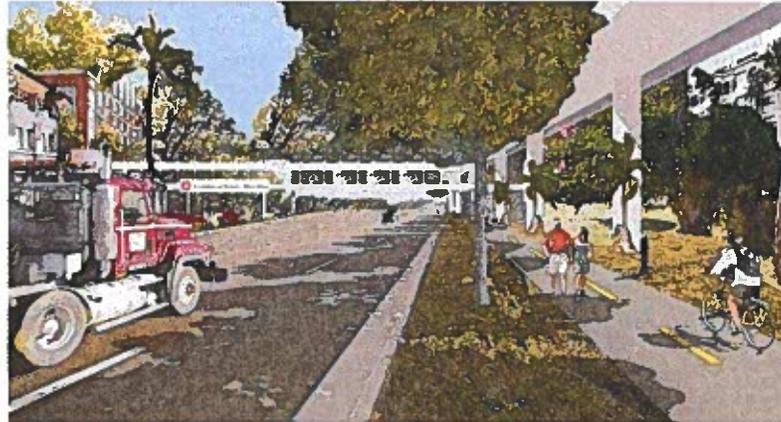
When intersection reconfiguration is unable to provide pedestrian safety at the busiest intersections and high-volume roads, above-grade separation may improve safety while maintaining high traffic flow. A new, elevated crossing is being constructed over Kualaka'i Parkway to connect the temporary park-and-ride lot and Keone'ae rail transit station entrance on the UHWO side of Kualaka'i Parkway to the rail transit station and guideway with the Ho'opili side. Ideally, a similar elevated crossing is recommended across Kualaka'i Parkway at the Kualaka'i rail transit station. The State DOT will have to agree and approve such a facility since it has jurisdiction over Kualaka'i Parkway. In the interim, they are allowing the City to expand the median on Kualaka'i Parkway to serve as a pedestrian refuge when crossing the roadway from the park-and-ride to the Kualaka'i rail transit station.

4. Greenway Corridors

Pu'uwai Park, the greenway corridor, is a 100-foot wide planned linear park that extends in the ewa-diamond head direction along the rail transit line from the TOD core area surrounding the Honouliuli rail transit station. The area below and adjacent to the rail transit line should also incorporate a multi-use path, community gardens, small trees, flowers, landscaping, and areas for public art.



The Kalo'i-Kualaka'i Greenway is an important section that will extend the greenway corridor from the edge of the Ho'opili community to the Keone'ae rail transit station and then south to the Kualaka'i rail transit station. This will not only provide a direct connection between all three East Kapolei rail stations, but also provide a connection between important collector roadways, such as Ho'omohala Avenue and Keahumoa Parkway, and lead to additional connections mauka to Farrington Highway.



Rendering of a greenway along Kualaka'i Parkway (for illustrative purposes)

The Kalo'i-Kualaka'i Greenway will re-purpose a portion of the Kalo'i Gulch Diversion Channel into a publicly accessible space that, being adjacent to the rail transit service and new development alongside the channel, could be the impetus for conversion of this drainage corridor into a more meaningful open space amenity. With additional access points to the community and gathering spaces at key locations along the channel, the Kalo'i-Kualaka'i Greenway will become a veritable community open space and recreational asset.

Another greenway, simply called the "Kalo'i Greenway," along the former channel on the UHWO campus, is still a concept, but may one day become an important open space shared-use path to connect various areas of the campus and Non-Campus Lands. A conceptual location of the Kalo'i Greenway is shown on Figure 5.

5. Green Streets

It is recommended that "green street" principles be adopted, where appropriate, to support the TOD Plan principle of "Sustainability." A green street is defined as a street that uses vegetated facilities to manage stormwater runoff at its source. A green street is a sustainable stormwater strategy that meets regulatory requirements and resource protection goals by using a natural systems approach to manage stormwater, reduce flows, improve water quality and enhance watershed health.

Green streets should be designed with the following considerations:

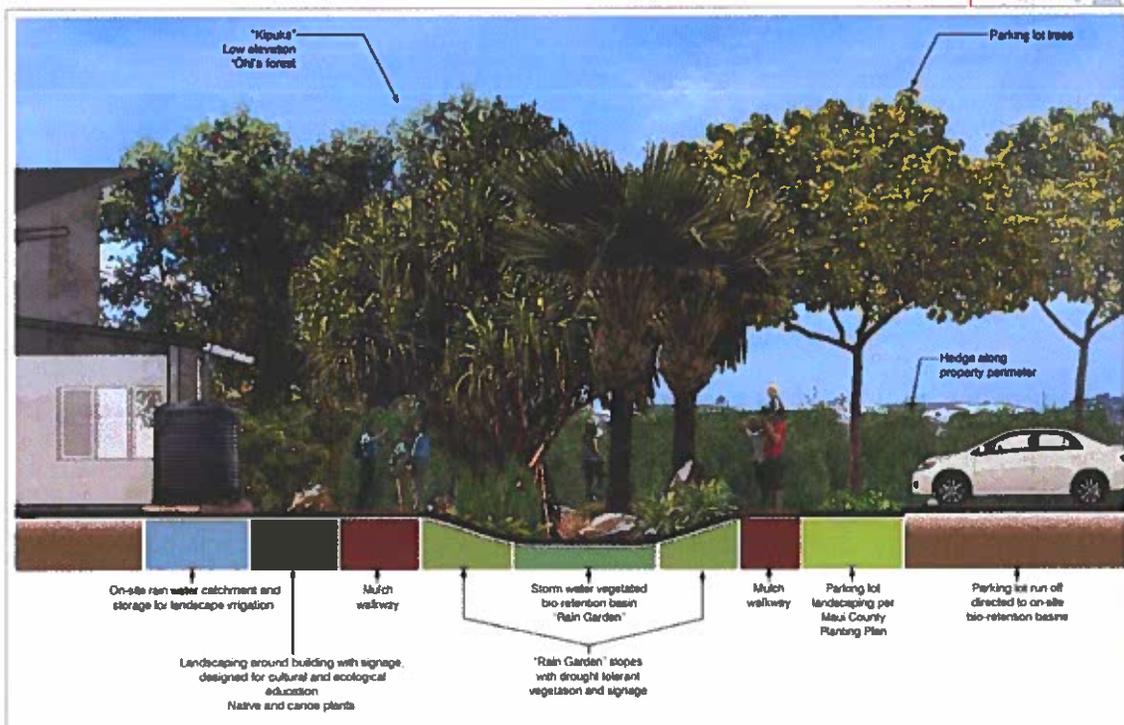
- Reducing polluted stormwater entering Honouliuli Stream and Kalo'i Gulch compared to conventional design;
- Diverting stormwater and reduce basement flooding, sewer backups and combined sewer overflows to Pearl Harbor and island shorelines;

- Increasing urban green space;
- Improving air quality and reduce air temperature;
- Reducing impervious surfaces so stormwater can infiltrate to recharge groundwater and decrease surface water run-off; and
- Addressing requirements of federal, State and City regulations to protect public health and restore and protect watershed health.

Further considerations and examples of green street benefits and best management practices include the “U.S. Environmental Protection Agency Greening Iwilei and Kapalama Report” (see the City’s website at www.honolulu.gov/tod). The City Department of Facility Maintenance (DFM) has also convened a Stormwater Utility Advisory Group that is investigating the establishment of a “stormwater fee” based on the amount of impervious surfaces on properties. Both resources, when enacted, will help, in part, to create more green streets in East Kapolei.



A bioswale integrated into landscaping.



General concepts of green street design.

An aerial photograph of Honolulu, Hawaii, showing the rail station area plan. The map is oriented vertically and shows a dense urban grid with various buildings and streets. A red line indicates the rail station area. The text 'V. HONOULIULI RAIL TRANSIT STATION AREA PLAN' is overlaid on the right side of the map.

V. HONOULIULI RAIL TRANSIT STATION AREA PLAN



HONOULIULI RAIL TRANSIT STATION AREA LAND USE PLAN

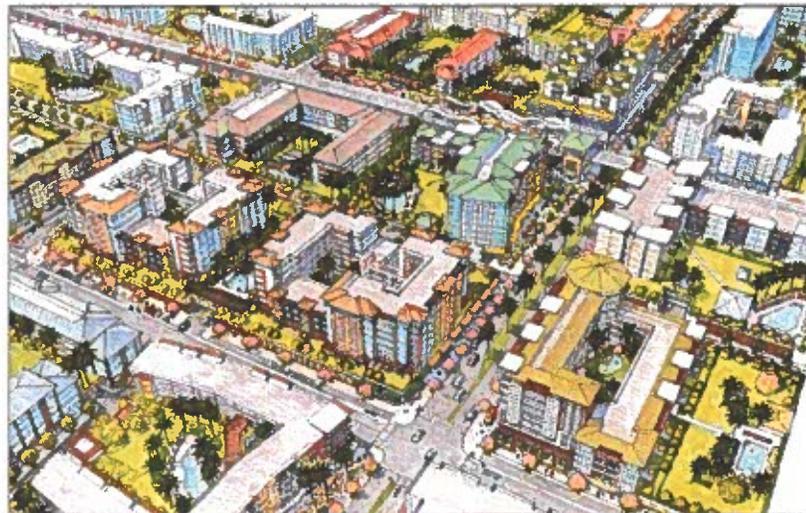
FIGURE 8

SOURCE: CITY AND COUNTY OF HONOLULU, DHLM, DLNR, DR, HORTON, UHWO.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

A. OVERALL STRUCTURE

The Honouliuli rail transit station area will be a local, mixed-use community. Stepping out of the rail transit station, one will see an active rail transit plaza with kiss-and-ride areas, taxi and rideshare drop offs, and bus stops within a bicycle- and pedestrian-friendly environment. A little further away in the mauka direction, a denser urban core, or town center, will host a lively commercial district bustling with active retail uses on the ground floor, such as bakeries, flower and coffee shops, business and personal service establishments, offices, restaurants, and outdoor cafes. Above the commercial uses, a variety of medium- to high-density housing and income groups will enjoy an active lifestyle suited to their retail and service needs. These are situated on a grid-patterned street network with narrower, mid-block access points. Behind the street curbing, an array of benches and seating areas, quality sidewalk paving, and appropriate landscaping will create great places for people to socialize, view artwork, and attend events contributing to the identity and place-making of the neighborhood.

The area surrounding the Honouliuli rail transit station will provide a supportive neighborhood of medium-density residential uses with a diverse resident mix that will enjoy convenient access to rail transit service, a compact mix of uses, open spaces, linear park, and activities in the town center. Ho'opili will have a unique identity as a walkable, sustainable urban neighborhood for O'ahu (see illustration below).



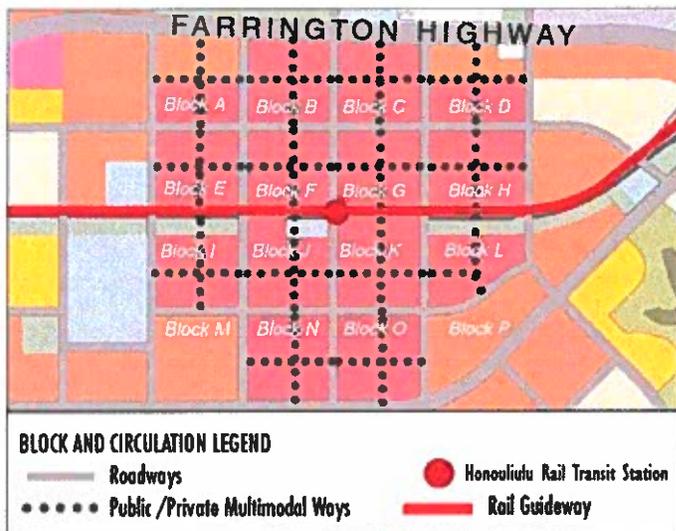
Rendering from the Ho'opili Urban Design Plan of a dynamic, walkable community near the Honouliuli rail station.

B. CONNECTIVITY AND CIRCULATION

The development surrounding the Honouliuli rail transit station will be organized in a grid layout with smaller blocks created by mid-block access points to improve pedestrian-scale connectivity. Streets will be designed to accommodate multi-modal transportation and prioritize safety for pedestrians and cyclists. The street network will be designed to provide many connections to major roadways and prioritize networks of local and connector streets (see illustration below). Street networks within the neighborhood will also be designed to connect to other local street networks beyond a half-mile of the Honouliuli rail transit station, in order to provide better connectivity.

Bus transfer facilities in connection with the rail transit station will allow for easy transfer between different modes of transportation. Bus routes will include both regional lines and short community circulators. Kiss-n-rides will allow for easy drop offs and the Pu'uwai Park greenway corridor and connecting Kalo'i-Kualaka'i Greenway (multi-use path) will offer an alternate way for bicyclists and pedestrians to reach the Keone'ae and Kualaka'i rail transit stations as well. In the diamond head direction, a trail extension could link up to the Pearl Harbor Historic Trail (PHHT), connecting East Kapolei with neighboring Waipahu, and points eastward.

The Honouliuli rail transit station will have a temporary park-and-ride that will provide approximately 344-571 parking stalls at full build-out. This park-and-ride is expected to serve commuters from the greater 'Ewa region, until removed when the rail transit line has been extended to the Ala Moana Center, estimated to be by 2025. It should be noted that high popularity and usage of this temporary park-and-ride might make it difficult for the private landowner to remove it in the future, but there would still be opportunities to redevelop it into vertical parking wrapped with retail.



Conceptual illustration adapted from the Ho'opili Urban Design Plan of a general block pattern and circulation layout (for illustrative purposes only).



C. PARKS AND OPEN SPACE

The Honouliuli rail transit station area integrates several types of parks and open spaces. First, the Pu'uwai Park greenway corridor extends throughout Ho'opili and connects Honouliuli rail station to the other two East Kapolei rail transit station areas by the Kalo'i-Kualaka'i Greenway. In addition, the 100-foot width of the Pu'uwai Park greenway corridor will serve as a linear park to host both active and passive activities from gatherings for picnics, social events, farmer's markets, bicycling and walking, to reading and relaxing. Other amenities may include play and exercise equipment, pavilions, and picnic tables (see illustration below). Adjacent residences will have direct access to this open space, thus further enhancing one's connection to the natural environment.



Rendering of Pu'uwai linear park adjacent to the Honouliuli rail station from the Ho'opili Urban Design Plan.

D. LAND USE AND URBAN FORM

The land uses shown on Figure 8 are recommended within the Honouliuli rail transit station area TOD zone. The Honouliuli Rail Transit Station Area Land Use Plan carefully integrates several land uses and the station itself, from medium- to higher-density, mixed-use buildings to open spaces and lower density housing. The areas adjacent to the rail transit station are envisioned as a medium- to higher-density, mixed-use town center to help establish the individual identity of this neighborhood. The primary area of active ground floor uses should be in close proximity to the rail transit station to create a dynamic pedestrian-oriented environment with the rail transit station as the nucleus. Relatively small block sizes are recommended in this neighborhood, with a street network configured at approximately 300 to 400 feet in length.

The active ground floor uses should continue beyond the immediate rail transit station area and town center to support a pedestrian-friendly, mixed-use neighborhood (see illustration on the following page). Parking garages or parking podiums should be screened or wrapped on the street side with habitable dwelling units or commercial spaces. Specific blocks should have semi-private open spaces or a neighborhood open space/park to allow for gathering, recreation, and relaxation. Medium- and lower-density mixed-use buildings should be concentrated within a 10-minute walking distance of the Honouliuli rail transit station (within approximately a half-mile radius of the rail transit station) to encourage rail transit ridership and a pedestrian-oriented community.

Commercial mixed-uses will be concentrated closer to the rail transit station in order to provide accessibility to a variety of business and employment options. Businesses and job centers will be attracted to locations closest to the rail transit stations because of their accessibility along the rail transit corridor, heavier pedestrian traffic, as well as for employees who would prefer not to commute by single-occupancy vehicles or carpooling. Medium- and higher-density apartment mixed use may also extend southwest toward the Keone'ae rail transit station, where the rail transit station TOD zones overlap. Building orientations and frontages in the mixed-use areas should be sited and designed to create a vibrant, pedestrian-oriented environment. Buildings and open space should also be configured to take advantage of public amenities and views of the Wai'anae and Ko'olau mountain ranges. Such orientation should respect the prevailing trade-wind pattern as well as the site's other environmental conditions, in order to capitalize on opportunities for alternative energy and natural solutions.

To facilitate a walkable, vibrant, economically active neighborhood, the TOD Plan designates a series of key streets in close proximity to the Honouliuli rail transit station. They include four blocks of Kamāliemua Street, extending mauka from Ho'omohala Avenue to Farrington Highway (one block between Punohu and Lalahiwa Streets is designated as a festival street which is intended for community market events and street festivals), three blocks of Kamailehope Street between Lalahiwa Street and Farrington Highway, three blocks of Puapua'a, Punohu, and



HONOULIULI RAIL
TRANSIT STATION
AREA PLAN

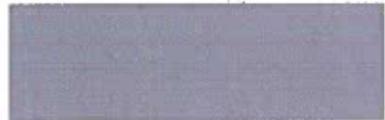
Lalahiwa Streets between Lonomeha and Iwikuamo'o Streets. In areas where these key streets intersect, the TOD Plan recommends Kamāliemua Street, Kamailehope Street, and Ho'omohala Avenue take priority. Where these streets intersect with each other, Ho'omohala Avenue is recommended to take priority.

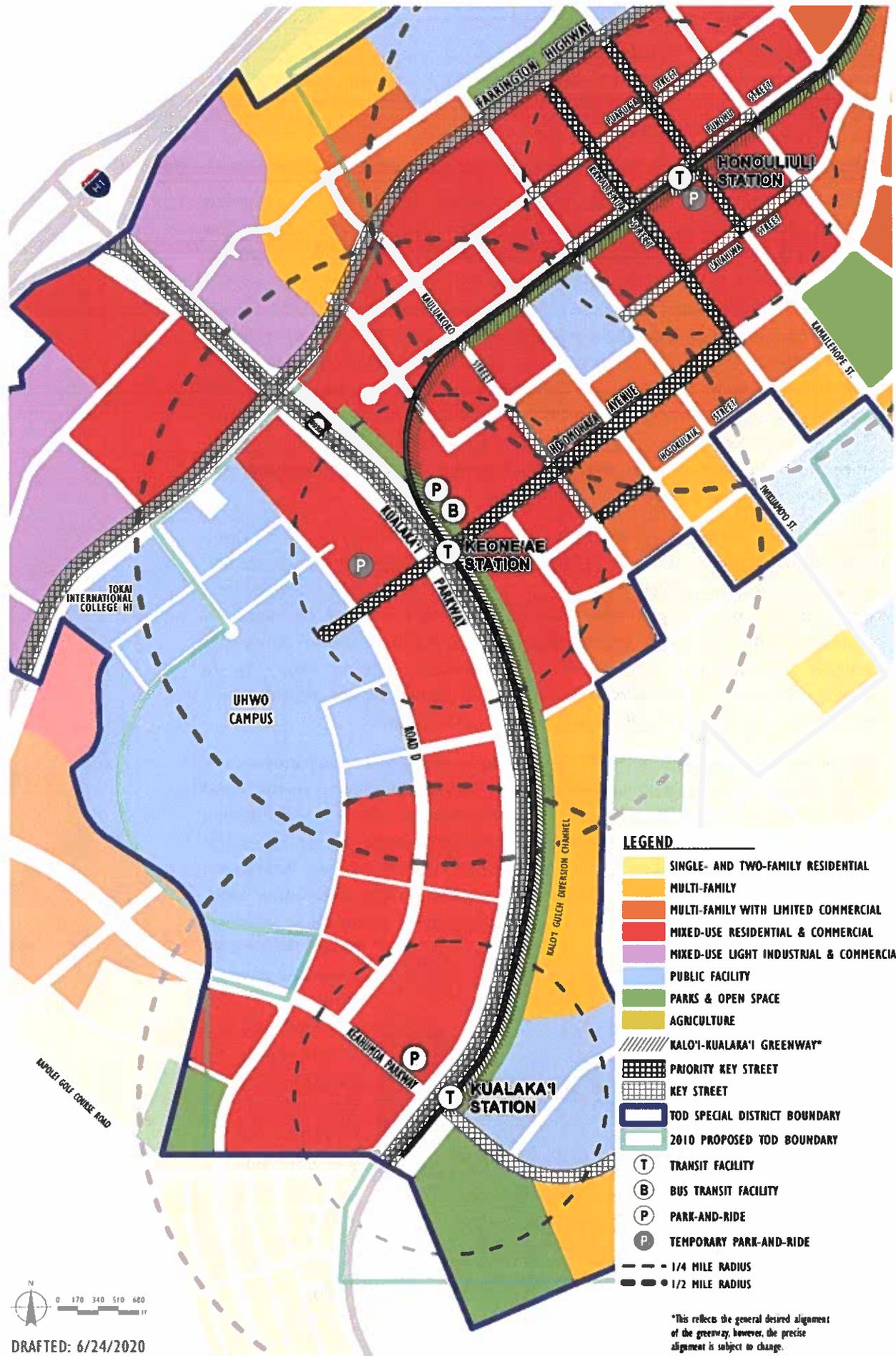
Pedestrian-friendly streets will be a continued focus outward from the rail transit station as the land uses transition from higher to lower density and from mixed-use to primarily live-work residential so that people feel safe and are encouraged to walk throughout the area. Also planned is a festival street, a slow-speed street block shared by pedestrians, cyclists, and vehicles. To create a public space for social activities and play, the festival street can be closed off to vehicular travel in order to host a variety of activities such as street festivals, farmer's markets, and outdoor concerts. The designation of Farrington Highway as a key street is important to set the pattern of orienting building towards and up close to the roadway. Intersecting key streets, Kamāliemua and Kamailehope Streets, are recommended to take priority but Farrington Highway can still maintain an orientation to the highway. Maintenance and other back of house activities can then be accessed by internal streets or service roads. Businesses will especially benefit from having the front of their stores or offices visible to high vehicle and pedestrian traffic.



Rendering of a pedestrian-oriented main street from the Ho'opili Urban Design Plan.

VI. KEONE'AE RAIL TRANSIT STATION AREA PLAN





DRAFTED: 6/24/2020

KEONE'AE RAIL TRANSIT STATION AREA LAND USE PLAN

SOURCE: CITY AND COUNTY OF HONOLULU, DIHL, DLNR, OR HORTON, UHWO
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretation or other spatial analysis.

FIGURE 9

A. OVERALL STRUCTURE

The Keone'ae rail transit station area will be a campus gateway to UHWO that will serve as a destination for students, workers, shoppers and residents. Although the actual rail transit station is located across Kualaka'i Parkway from the UHWO, an interim 300-space surface park-and-ride lot and "touchdown" facility to access the rail transit station is located on the UHWO Non-Campus Lands (proposed University Village). The touchdown will be connected by a pedestrian walkway over the intersection allowing for safe, easy access to the rail transit station. Diamond head of Kualaka'i Parkway, a permanent 1,000 space park-and-ride and bus transfer center is planned on the land mauka of Ho'omohala Avenue. The University Village could accommodate campus expansion and/or a mix of land uses, including retail, office, and residential uses (including student housing), to foster a "town and gown" interaction with a main street-style atmosphere.

Mauka of the Keone'ae rail transit station, near the intersection of Kualaka'i Parkway and Farrington Highway, rail transit will serve UHWO's Innovation District, an area proposed as a global think tank, promoting a synergy between academia and industry. Likewise, key State landholdings held by the DLNR mauka of Farrington Highway at these intersections are planned for industrial mixed-use, business employment opportunities and affordable housing sites. As an employment center, employers and workers will benefit by convenient transit service and non-vehicular facilities between the rail stations.

The permanent park-and-ride facility should be wrapped with retail uses on the ground floor to mask the parking with office and/or residential spaces on the upper floors facing the street. Adjacent businesses and a range of housing types, including an affordable apartment housing complex across Ho'omohala Avenue called The Element, will cause an active, main street-like corridor to emerge. Pedestrian-friendly features include a planned festival street, which is a slow-speed street block shared by pedestrians, cyclists, and vehicles, that can be closed off to vehicular



A gathering place at the current UHWO campus near Keone'ae rail transit station.

travel. This type of street will allow a variety of activities, such as street festivals, farmer's markets, and outdoor concerts, which will help create a dynamic, active urban neighborhood at this rail transit station.

B. CONNECTIVITY AND CIRCULATION

The connections between the park-and-ride and bus transfer facilities at the Keone'ae rail transit station are critical for safe, comfortable access to reach the UHWO campus and surrounding destinations at this rail transit station. Easy vehicular access to reach the planned permanent 1,000-space park-and-ride facility is intended to serve drivers from Kapolei and the Wai'anae Coast, as well as for the surrounding community. Transit riders should find easy connections that are direct links, preferably separated from traffic and augmented by wayfinding signage, ample lighting, and other comfort amenities. One example includes a planned elevated pedestrian crossing over Kualaka'i Parkway to connect the rail transit station with a temporary 300-space surface park-and-ride on the UHWO side of the Parkway. This elevated crossing will provide safe pedestrian access across Kualaka'i Parkway. In addition, as the campus expands, it may be necessary to provide a bus shuttle system between the campus and rail transit station. Additional City bus routes may also be considered to improve connections to and from surrounding areas.

Kualaka'i Parkway and Farrington Highway will serve as the regional arterials in the area. Over time, as the master-planned community of Ho'opili, the UHWO campus and Non-Campus Lands, DLNR, and DHHL lands are developed, a local street network in a relatively grid-like pattern with smaller blocks will emerge. These developments were approved with TOD in mind; therefore, the planned streets and roadways will provide pedestrian, bicycle, and automobile connections that are convenient and coordinated with existing and planned public transportation services. At the Keone'ae rail transit station, the multi-modal circulation network will be enhanced with bicycle parking, bikeshare stations, vehicular parking, carpooling, a passenger drop-off and pick-up area, and bus transit connections.

The Pu'uwai Park greenway corridor and the Kalo'i-Kualaka'i Greenway will provide multi-modal connections to the three rail transit stations and points beyond, allowing greater regional access for bicyclists and pedestrians alike.



A campus shuttle with bike racks.

C. PARKS AND OPEN SPACE

Through transforming a portion of the Kalo'i Gulch Diversion Channel into a bonafide recreational greenway and extending this multi-use path between the Keone'ae and Kualaka'i rail transit stations, the Kalo'i-Kualaka'i Greenway will serve as an important multi-modal connection between rail stations as well as a corridor of open space. Open spaces will also be provided within the UHWO campus and Non-Campus Lands. A special open space called the "Great Lawn" is recommended in the TOD Plan to be open to the public. As an organizing element for the campus and Non-Campus Lands, the Great Lawn will serve as a major activity node for university events.

At the UHWO campus, an area to be called the Commons is intended to serve as a larger, flexible open space area that would support a variety of uses as the campus grows and expands its programs. This open space could provide a necessary location for larger campus-wide activities, such as outdoor performing arts and music events, STEM fairs and large scale exhibitions, and additional intramural and recreational activities. Figure 5 shows the approximate size and location of the Great Lawn and the Commons; however, the final design for these spaces may be adjusted as planning progresses.

In addition, preliminary plans for more open space and active and passive recreational areas are underway for the UHWO campus and Non-Campus Lands. A shared-use path, simply called the Kalo'i Greenway, along the former channel on the UHWO campus, is still a concept but may one day become an important open space multi-use path to connect various areas of the campus and Non-Campus Lands. Additional open space areas may also be included in future development plans.

Other gathering spaces will be located on retail streets in the form of small plazas, wide sidewalks, seating areas, and cafes (see image to the right). These important elements will help strengthen the sense of community in this new neighborhood and foster positive interactions between residents, students, and visitors.



Open pedestrian areas adjacent to retail and other active uses.

D. LAND USE AND URBAN FORM

Near the Keone'ae rail transit station, mixed-use zones of higher building heights and densities, with compact designs are the principles underpinning this TOD Plan (see Figure 9). Appropriately sized and designed spaces for the establishment of retail shops, personal service establishments, restaurants, financial institutions, medical, and professional offices all contribute to a high level of pedestrian activities during the day and night around the rail transit station. Parking garages or parking podiums should be screened or wrapped on the street side with habitable dwelling units or commercial spaces.

The TOD Plan envisions a series of key streets in the vicinity of the Keone'ae rail transit station to facilitate a walkable, vibrant, economically active neighborhood where active ground-floor uses are supported by medium- to high-density residential development. Residential uses should provide for a diversity of housing types, incomes, and family sizes (except for campus student housing) within close proximity to each other. Kualaka'i Parkway, Farrington Highway, Ho'omohala Street (on both sides of Kualaka'i Parkway), two blocks of Kauluakoko Street, and one block of Ho'okulaia Street (this is also a festival street that lends itself to regular closures for community market events and street festivals) are designated as key streets in this rail transit station area.

The desire is to create a pedestrian-friendly and active streetscape. Designating Kualaka'i Parkway and Farrington Highway as key streets is supported by incorporating greenways and/or multi-use paths along these roads. This additional open space can serve to better transition the buildings from the roadway making it more feasible to orient toward these roadways. Maintenance and other back-of-house activities can then be accessed by internal streets and service roads. Businesses will especially benefit from having the front of their stores or offices visible from these roadways.

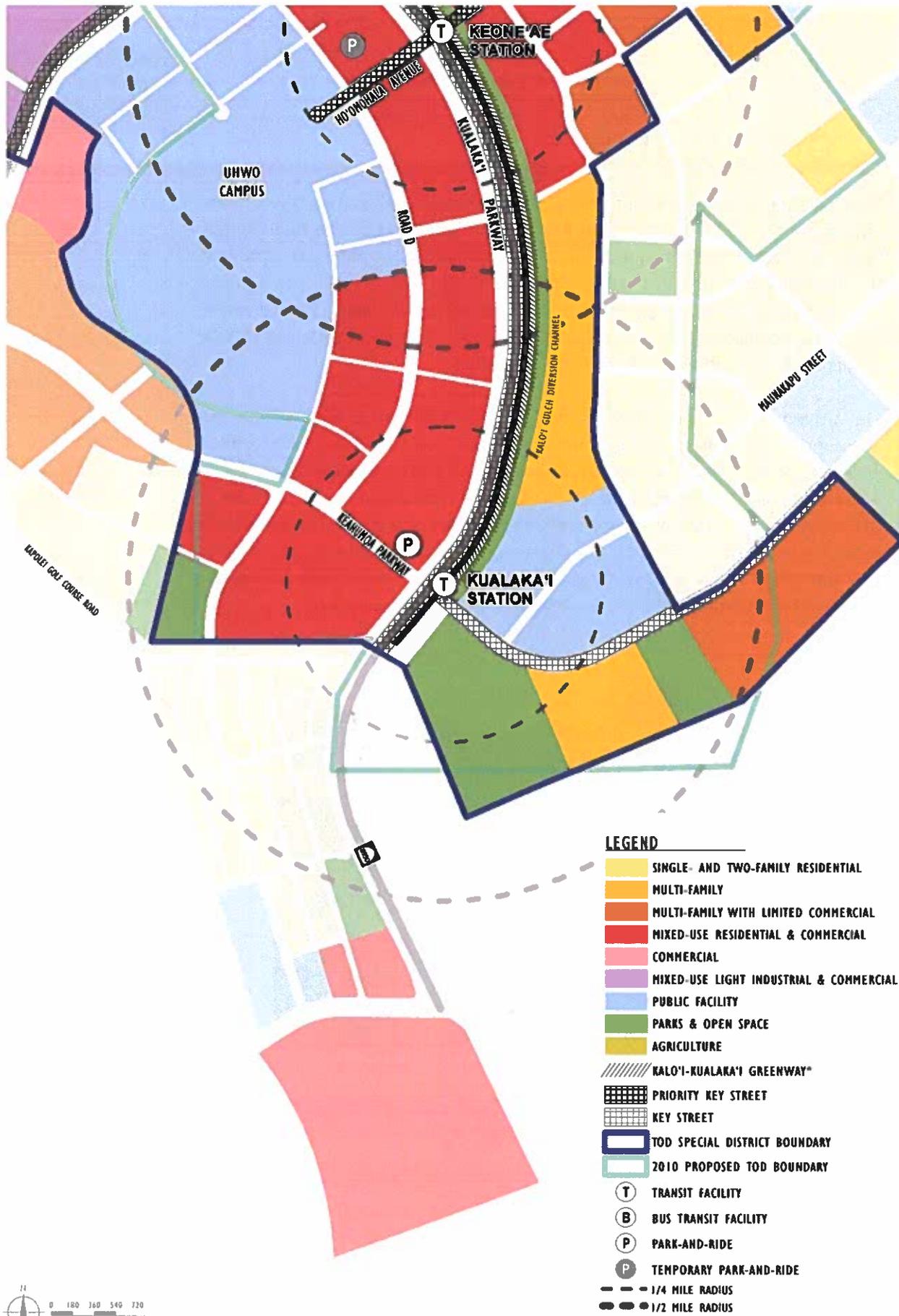


Food trucks add dynamic, pedestrian-level uses along a street in Portland, Oregon.

Buildings and open space should also be configured to take advantage of public amenities and views of the Wai'anae and Ko'olau mountain ranges. Such orientation should respect the prevailing trade-wind pattern as well as the site's other environmental conditions in order to capitalize on opportunities for alternative energy and natural solutions.

VII. KUALAKA'I RAIL TRANSIT STATION AREA PLAN





DRAFTED: 6/24/2020

KUALAKA'I RAIL TRANSIT STATION AREA LAND USE PLAN

SOURCE: CITY AND COUNTY OF HONOLULU, DHHL, DLNR, DR HORTON, UHWO.
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

FIGURE 10

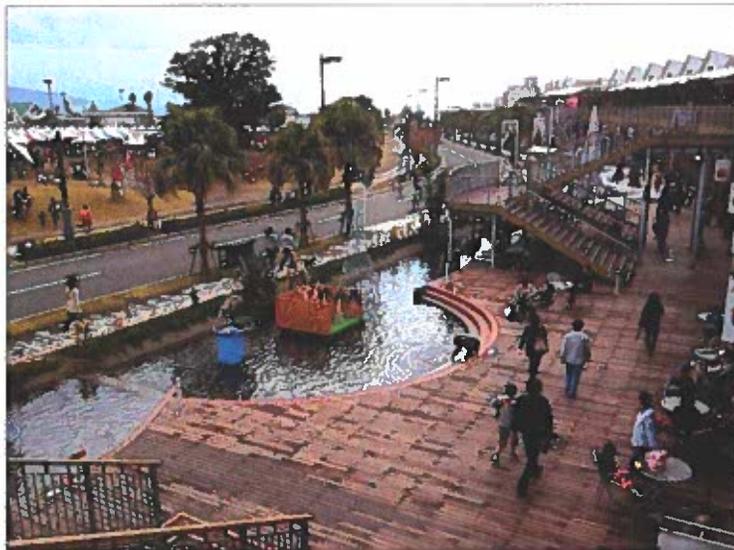


*This reflects the general desired alignment of the greenway, however, the precise alignment is subject to change.

A. OVERALL STRUCTURE

The Kualaka'i rail transit station will be a "community use" station. It will draw ridership from 'Ewa, Kalaheo, 'Ewa Beach, and Kapolei areas. The Non-Campus Lands of UHWO provide the most land available for development in the vicinity of the Kualaka'i rail transit station. However, DHHL has several single-family residential projects awaiting construction with some lands available for apartment mixed-use development fronting Kualaka'i Parkway. The new Honouliuli Middle School is within a half-mile of this rail transit station.

The UHWO Non-Campus Lands in the Kualaka'i rail transit station area are envisioned to be a place to live, learn, work, shop, and play. They will provide a walkable community for families seeking a place for their children to be within walking and biking distance of the UHWO facilities. Those who reside and work in the UHWO Non-Campus Lands will enjoy the benefits of a new community. With proximity to the UHWO campus, learning, employment, and cultural opportunities will emerge to create a dynamic neighborhood. Access to the two rail transit stations, Keone'ae and Kualaka'i, will be within easy walking distance.



Open gathering spaces with multi-modal access in Kagoshima, Japan.

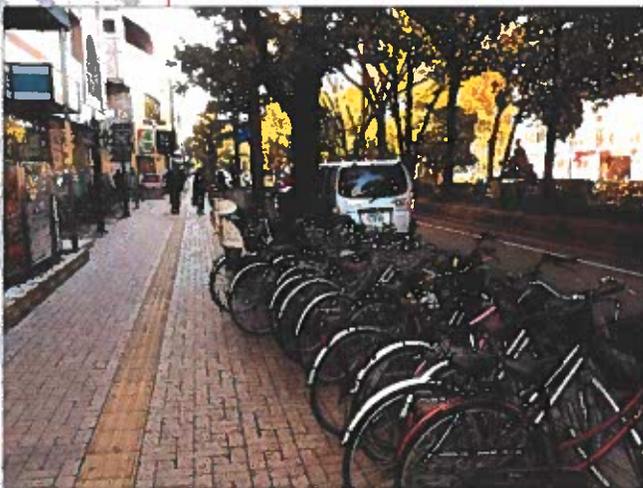
B. CONNECTIVITY AND CIRCULATION

Pedestrian connections are planned between the Kualaka'i rail transit station and surrounding neighborhoods on either side of Kualaka'i Parkway. Because this rail transit station is currently the western terminus of the rail transit system, multi-modal connections at this station are also critical for enhancing overall transit ridership. To facilitate multi-modal access to this rail transit station, connections by bus, bicycle, walking, and shared-use transportation will improve access. Commuters will be served by large park-and-ride facilities, a multi-use path along Kualaka'i Parkway next to the Kalo'i Gulch Diversion Channel, as well as a bus transit center. Pedestrians from the nearby DHHL Kānehili subdivision can enter onto Kualaka'i Parkway from openings in the perimeter wall to access the sidewalks that lead to the Keahumoa Parkway intersection in order to get to the Salvation Army Kroc Center. Therefore, pedestrians will be able to access this rail transit station from the Kānehili subdivision, but over time it may become necessary for an elevated pedestrian crossing over Kualaka'i Parkway.

A 900-space, surface park-and-ride lot, or series of lots, planned for the Kualaka'i rail transit station will be located on the UHWO side of Kualaka'i Parkway. In the H RTP FEIS, the site for this lot was directly mauka of the Kānehili subdivision. However, recent discussions between HART and UHWO have not resulted in a determination of the final location or configuration of this temporary park-and-ride. The initial location, adjacent to the subdivision, falls within an Air Installation Compatibility Use Zone (AICUZ). An AICUZ is a designated area within the vicinity of military air fields (Kalaeloa Airport and US Coast Guard: Air Station Barbers Point) where heights and development are limited to protect the health, safety, and welfare of those living nearby while preserving the defense-flying mission. Such restrictions on that location may not compromise the ability to build a multi-story park-and-ride facility in the future, as "government services" (and cultural activities, auditoriums, concert halls, nature exhibits, outdoor music shells, amphitheatres, recreational activities, resorts

and group camps, parks, and other cultural, entertainment and recreation) are allowable. The area is currently used as a temporary stormwater detention basin.

The TOD Plan includes the City's plans for Kualaka'i rail transit station access improvements that will provide for future bus stops with pullouts on both sides of Kualaka'i Parkway at its intersection with Keahumoa Parkway. While the H RTP FEIS envisioned an elevated platform and walkway to cross Kualaka'i Parkway, 'value-engineering' has called for at-



Convenient and ample bicycle parking in Japan.

grade crossings on an interim basis. Enhanced pedestrian crossing signage and a widened median 'refuge' are planned at the mauka crosswalk over Kualaka'i Parkway. Bike and pedestrian facilities at the rail transit station will provide safe and convenient access to the adjacent Salvation Army Kroc Center and surrounding residential neighborhoods.



Bus and rail transit connection.



C. PARKS AND OPEN SPACE

On the UHWO side of the Kualaka'i rail transit station area, a community park is proposed in the makai portion of the Non-Campus Lands. The park will serve as the southern terminus of the Kalo'i-Kualaka'i Greenway (via an enhanced pedestrian crossing) and provide for active recreational activity with grass fields, a recreation pavilion, and hard courts.

Unlike the other two rail transit stations, the Kualaka'i rail transit station is near a large natural preservation area makai of the station (Abutilon Contingency Reserve Area). This natural preservation area is intended to provide a habitat for the endangered Red Ilima (*Abutilon menziesii*), but as open space, it will also preserve views and one's connection to the natural environment. The combination of transforming a portion of the Kalo'i Gulch Diversion Channel into a bonafide recreational greenway and connecting this multi-use path between the three rail transit stations will serve as an important multi-modal connection to many other collector roads as well as a corridor of open space.



Open gathering area surrounded by dense development at Kamehameha V Post Office Alan Sanford Davis Park on Merchant Street in downtown Honolulu.

D. LAND USE AND URBAN FORM

Land uses shown on Figure 10 are recommended within the Kualaka'i rail transit station area. Major developments existing within the vicinity of the Kualaka'i rail transit station include: the UHWO campus and Non-Campus Lands, the Salvation Army Kroc Center, Special Olympics Hawai'i site, Ko'olua'ula Residential Apartments, DHHL Kānehili residential subdivision, Increment IIB of Kauluokahai (DHHL East Kapolei II), Keahumoa Place Residential Apartments, and Honouliuli Middle School.

To facilitate a walkable, vibrant, economically active neighborhood, the TOD Plan designates Kualaka'i Parkway and Keahumoa Parkway as key streets. Residential uses will provide for a diversity of housing types, incomes, and family sizes in relatively close proximity to each other. Buildings should be oriented toward the street, and generally observe a uniform setback in order to create a continuous facade. The Kalo'i-Kualaka'i Greenway with multi-use paths along Kualaka'i Parkway will provide more transition for buildings from the roadway and allow them to face the road, allowing maintenance and other back-of-house activities to be accessed by internal streets and service roads. Parking garages or parking podiums should be screened or wrapped on the street side with habitable dwelling units or commercial spaces. Businesses will especially benefit from having the front facades of their stores or offices visible from the roadways. Buildings and open space should also be configured to take advantage of public amenities and views of the Wai'anae and Ko'olau mountain ranges. Such orientation should respect the prevailing trade-wind pattern as well as the site's other environmental conditions, in order to capitalize on opportunities for alternative energy and natural solutions.

Mixed-use development in this rail transit station area should be developed to promote an active, vibrant streetscape and include commercial activity on the frontage of most streets that provide distinctive, vibrant public spaces at the ground level. Relatively smaller block sizes are recommended in the vicinity of the rail transit station with blocks bisected approximately every 300 to 400 feet by public or private multi-modal paths.



Medium-density, mixed-use residential building in Kaka'ako Oahu.

VIII. ZONING RECOMMENDATIONS

A. TOD SPECIAL DISTRICT

The TOD Special District is intended to ensure the implementation of the community vision for the rail transit station areas through zoning standards that enable and promote TOD. Section 21-9.100 of the LUO establishes the TOD Special District with appropriate land use standards and regulations for those areas around the H RTP stations. Per the LUO, Section 21-9.100-6, the objectives of a TOD Special District are to:

- Promote an appropriate mixture and density of activity around the rail transit stations to improve transit ridership and the use of multi-modal transportation;
- Allow for more intense and efficient use of land for the mutual reinforcement of public investments and private development;
- Support transit by ensuring connectivity and convenient access, while limiting conflicts among vehicles, pedestrians, bicycles, and transit operations;
- Establish standards for buildings and sites that provide quality urban design that attracts and encourages pedestrian activity;
- Provide streetscape amenities that create a comfortable environment for pedestrians, bicyclists, and other uses, such as walkways, street furniture, street trees, and human-scale architectural features;
- Promote an appropriate mix of housing types, including affordable housing and rental housing;
- Promote quality publicly accessible and usable spaces, parks, and gathering places; and
- Contribute positively to the economic enhancement of the area and the City, particularly with regard to providing a broad mix of uses, diverse housing, and diverse employment opportunities.

In addition, the TOD Special District Design Guidelines further explain and illustrate how to comply with the TOD Special District regulations.

B. ZONING RECOMMENDATIONS

1. Applicability

TOD Special District regulations are mandatory and the regulations will supplement and/or modify the underlying zoning district regulations. A property owner must follow the provisions of the TOD Special District in order to develop their property. In doing so, the property may take advantage of modified densities, heights, yards and parking requirements but may also be subject to project specific conditions. The current underlying zoning at UHWO and Ho'opili are essentially serving as interim regulations while the TOD Plan and implementing zoning for the TOD Plan are prepared and become adopted.

TOD Special District permits are not necessary if the Special District goals and objectives are fully incorporated into other regulatory mechanisms, such as PRUs.

For example, the UHWO is approved under an existing PRU permit; however, given the change in the university's enrollment growth strategy and to reflect a proposed campus Long-Range Development Plan, the university will likely be preparing a new PRU application. In the meantime, any major or minor modifications to the PRU can incorporate the same language until the new PRU is approved as long as modifications conform to TOD zoning and design guidelines. The purpose of this structure is to streamline the review process, while not compromising the ability for TOD. Regulations to allow for this option should be established, as they do not currently exist (see Chapter II.C).

As a condition to receive their current zoning, the Non-Campus Lands of UHWO and all of Ho'opili are governed by their respective UAs. Each UA required the formulation of an urban design plan (UDP). While the creation of the TOD Special District adds a specific set of standards for TOD, there may be some overlap with the required UDPs. A streamlined process is recommended for projects subject to an UDP, such as an administrative process so applicants address the UDP as part of their TOD Special District application, or a modification to the existing UA condition requirements. However, careful consideration and review should be given to eliminate the UDPs because they may cover additional land outside the TOD Special District boundary depending on phasing and/or content not covered by the TOD Special District regulations.

2. District Boundaries

The recommended TOD Special District boundaries around each rail transit station area take into account proximate distances from the rail transit station, natural topographic barriers, property lines, extent of market interest in development, planned land uses, and the overall benefits of transit, including the potential to increase transit ridership.

TOD rail transit station areas within the TOD Special District include land subject to the TOD development regulations. Given the parameters for drawing the TOD Special District boundaries mentioned in the previous paragraph, the TOD Plan is cognizant that successful TOD is generally within approximately half-mile of the stations, which is roughly the distance of a 10-minute walk from the station. These areas will likely be developed sooner and should include allowances for larger building forms and higher-intensity mixed-use, employment and residential options.

3. Permitted Land Uses

The TOD rail transit station areas are planned for a mix of complementary land uses in a compact, mixed-use setting. Complementary land uses are those that offer goods and services at different times of the day and week and provide a consolidated "one-stop" area for people to live, work, shop, study, and participate in entertainment and community activities in close proximity to one another.

Complementary land uses located in a neighborhood designed to accommodate pedestrians, bikes, buses, and trains, reduce dependence on the automobile and, thereby, the need for standard provisions of parking. This is consistent with the TOD Plan principle of “Mixing It Up” in the core rail transit station areas.

Within the TOD Special District, permitted and prohibited uses are proposed to be similar to those set forth under the existing BMX-3 community business mixed-use District. Per the LUO, Section 21-9.100-7, permitted uses and structures are enumerated in Table 21-3, except as provided below:

- In the business mixed-use district, the ground floor of buildings facing a key street, public open space, or transit station must be designed and used for active ground floor activities, as defined in the LUO, Section 21-9.100(c), for at least 80 percent of the ground-floor building frontage. On corner lots, this requirement must be met on each key street-facing façade.
- In the apartment mixed-use district, the ground floor of the building frontage facing any key street, public open space, or transit station must be designed and used as residential dwelling units or active ground floor activities, as defined in the LUO, Section 21-9.100(c). On corner lots, this requirement must be met on each key street-facing façade.
- Up to 10 dwelling units may be permitted per zoning lot above the ground floor in the IMX-1 industrial commercial mixed-use district, subject to a TOD Special District permit. Accessory caretaker dwellings do not require a TOD Special District permit.

Within the TOD Special District, to encourage convenient pedestrian access as well as an increasingly popular ‘Live-Work’ lifestyle, which are both found to be well suited to multi-family with limited commercial environments, it is recommended that the zoning list of permitted neighborhood-oriented commercial uses be expanded. Since the LUO is currently in the process of being updated, it may be more appropriate to have these types of commercial uses included as part of that update rather than a separate amendment.

4. Density and Floor Area Ratio

Floor area ratio (FAR) is a measure of floor area to overall site area and is used to define building intensities. The current underlying zoning allows FARs in the proposed TOD Special District areas within the range of 0.9-2.5. It is recommended that the upper end of existing underlying FARs remain in the TOD Special District. The maximum FAR throughout a TOD Special District is prescribed by the underlying zoning district, unless modified through a TOD Special District permit or Planned Development-Transit (PD-T) permit, through which an applicant may seek approval to exceed the base FAR up to a maximum FAR per Section 21-9.100-8 of the LUO.

Allowing a higher FAR in certain areas helps to promote the TOD Plan principle of “Providing a Variety of Housing Choices,” as well as the intent of the TOD Special District FAR regulations to focus more intense development, in the TOD rail transit station areas.

5. Maximum Building Area

TOD is most efficient when buildings optimize lot coverage (e.g., through structured parking with wrap around retail uses) in order to create active, urban street edges. Generally, buildings set far back from the street within large open spaces or surface parking lots should be avoided. In some cases, larger buildings will have greater setbacks. In these cases, smaller liner buildings should be developed adjacent to the sidewalk to create an attractive pedestrian environment.

With this in mind, it is recommended that no maximum for building area be established for the TOD Special District.

6. Maximum Building Heights

New buildings in the rail transit station areas should generally be taller near the station and step down in height further from the station. Rail transit stations should serve as focal points and hubs for more intense development. Within certain station areas, landmarks, such as the UHWO library tower on the UHWO campus, should be considered in order to create neighborhood focal points from certain vantage points and from view corridors. The recommended maximum building heights (including bonus heights) by rail transit station area are as follows:

Honouliuli Rail Transit Station

- Generally, buildings within a quarter-mile of the Honouliuli rail transit station area are recommended to have a maximum bonus height of 120 feet. Beyond a quarter-mile, but within a half-mile, the recommended maximum bonus building height is generally 90 feet.

Keone’ae Rail Transit Station

- Generally, buildings within a quarter-mile of the Keone’ae rail transit station area are recommended to have a maximum bonus height of 120 feet. Beyond a quarter-mile, but within a half-mile, the recommended maximum bonus building height is generally 90 feet.

Kualaka’i Rail Transit Station

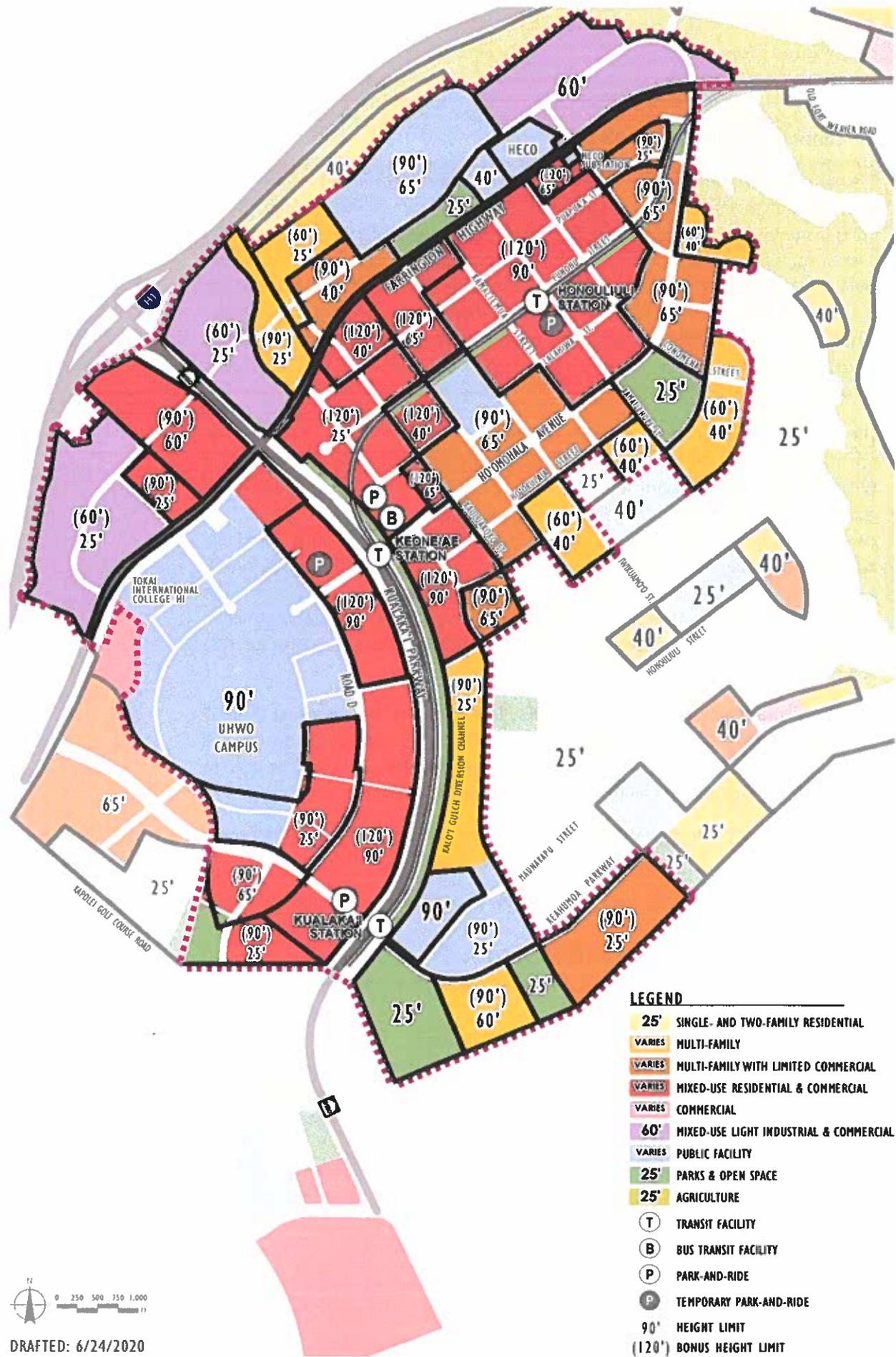
- Generally, buildings within a quarter-mile of the Kualaka’i rail transit station area on the UHWO side of Kualaka’i Parkway are recommended to have a maximum bonus height of 120 feet, which is consistent with AICUZ height restrictions. Beyond a quarter-mile, but within a half-mile, the recommended maximum bonus building height is generally 90 feet. On the other side of Kualaka’i

Parkway, the recommended maximum bonus height is 90 feet except for parks and single-family residential areas within a half-mile of the station.

According to the 'Ewa DP, building heights are set at 90 feet, except in Kapolei and Ko'Olina. An amendment to the 'Ewa Development Plan is necessary to increase the maximum building height to 120 feet.

All new heights beyond what is permitted by the zoning designation are recommended to be in the form of bonus heights, which will require a CBB, described in the next section.





DRAFTED: 6/24/2020

PROPOSED HEIGHT LIMITS

SOURCE: CITY AND COUNTY OF HONOLULU, DHHL, DLNR, DR, HONOLULU, UHWO
 Disclaimer: This graphic has been prepared for general planning purposes only and should not be used for boundary interpretations or other spatial analysis.

FIGURE 11



7. Community Benefits Bonus (CBB)

The use of a CBB is one of several development regulatory tools that should be used both to shape the growth and development in the East Kapolei TOD Neighborhood rail transit station areas and to realize community values and goals. In their most basic form, CBBs are a means by which new development may exceed a baseline level of FAR and/or building height in exchange for providing support for community goals. Per the LUO, Section 21-9.100-9(e), community benefits must be proposed in a TOD Special District permit application to justify the bonus height and density, or to mitigate the impacts related to the modification of TOD Special District development standards.

The CBB should be used to support community principles in East Kapolei. The provision of affordable and workforce housing and the principle of “Promote a Wide Variety of Housing Choices” in the rail transit station areas are very important goals for the community and, therefore, should be included as a baseline for participation in any CBB program. A bonus could be provided if more affordable housing is built than the baseline required amount, as established by the City’s AHR. Per Ordinance 18-10, there is a different AHR for TOD Special District projects seeking bonus height and/or density. If affordable dwelling units are being provided as a community benefit, those units must be in addition to the base AHR for TOD Special District projects.

Additionally, a major principle of the TOD Plan is to “Create Gathering Places.” Public open space becomes increasingly important as people begin to use rail transit and the station areas as central gathering places. The CBB could be used to provide for public spaces in all three rail transit station areas.

Other community benefits that may be achieved through this program could include:

- Pedestrian connectivity and streetscape improvements beyond minimum standards;
- Green development, including LEED certification;
- Space for non-profit organizations in office buildings or non-school buildings;
- Public art;
- Cultural facilities (e.g., visitor centers and museums);
- Community gardens and community center (including public swimming pools);
- Contributions for improvements to public facilities, such as fire stations;
- Dog parks; and
- Bikeshare infrastructure.

Table 1. Plan Principles and Possible Community Benefits Bonus

Possible Community Benefits*	Make the Connections	Create the Access	Mix it Up	Create Gathering Places	Develop Unique Station Area Identities	Promote a Variety of Housing Choices	Create a Dynamic Urban Environment	Sustainability
Affordable Housing			X			X	X	
Complete the Kalo'i-Kualaka'i Greenway adjacent to Rail Line	X	X						X
Pedestrian Connectivity	X	X					X	X
Streetscape Improvements	X	X					X	X
Green Development								X
Spaces for Non-Profits			X					
Public Art				X	X		X	
Cultural Facilities			X	X	X		X	
Community gardens			X	X				X
Dog Parks			X	X				
Public Swimming Pools				X				
Bikeshare infrastructure		X						X

**This is not to imply that the list of community benefits is complete and/or final. The benefits listed are for illustrative purposes only.*

8. Affordable Housing Requirement (AHR)

The City's AHR was established by Ordinance 18-10, which requires certain projects intended for for-sale residential use to contribute to the affordable housing supply by either constructing new dwelling units, substantially rehabilitating existing dwelling units, or providing improved land for affordable housing. The AHR provides a range of options for the provision of affordable dwelling units. In addition, the TOD Special Districts allow for bonus density and/or height for the provision of affordable housing that exceeds the AHR.

For TOD Special District projects seeking bonus height and/or density, the required base provision of affordable housing, as a percentage of the total number of dwelling units in the principal project, is 15 percent for rental units (for households earning 80% and below of the area median income [AMI]), and varies from 10 to 30 percent for affordable housing units that are for sale (for households earning 120% and below of the AMI), depending on affordability period and whether they are provided on-site or off-site. For projects that are not seeking bonus heights and/or density, the AHR is lower. The TOD Special District may help incentivize affordable housing through relaxation of certain development standards such as the reduction of required parking.

Other affordable housing incentives, such as exemptions and fee waivers, are available through Ordinance 18-1 to help offset costs of developing certain types of affordable housing projects. Per ordinance, most incentives will expire June 2027 (except for real property tax waivers for rental projects). The BWS may also waive Water Service Facility Charges and new meter costs for certified affordable or homeless dwelling units. In addition, Ordinance 19-8 establishes a temporary program to accelerate the construction of affordable rental housing in the apartment and business mixed-use zoning districts by relaxing certain zoning and building code standards and offering certain financial incentives.

The AHR doesn't apply to properties with UAs that already address affordable housing. The UAs for UHWO and Ho'opili affect all of the three rail transit station areas. These properties are also excluded from the incentives of Ordinance 18-10.

9. Parking Requirements

Off-street parking requirements in the TOD Special District are specified in the LUO, Section 21-9.100-8(c) (1). Bill 2 (2020) was recently introduced by the DPP, where in dense urban areas or master planned communities in Kapolei and parts of Ewa (East Kapolei) minimum parking requirements will be completely eliminated. Eliminating parking minimums allows developers to determine the right amount of parking for each project so they can explore creative options for meeting their project's needs. The TOD Plan supports the elimination of the required number of off-street parking spaces in order to reflect lower auto ownership and increased transit usage in the TOD Special District, while allowing developers to adjust their projects to the TOD lifestyle. Even other travel modes, such as carshare and rideshare, can support reduced requirements.

Implementing a coordinated approach that decreases the total number of new surface parking for new development also reduces the overall negative impacts on the local natural environment and supports the City's environmental sustainability goals—lessening urban runoff and transporting pollutants, such as gas, oil, grease, and heavy metals, to local waters and aquifers, reducing the cost of development, and making more efficient use of the land.

Eliminating required parking also helps to promote the TOD Plan principle of "Promote a Variety of Housing Choices" in the rail transit station areas. Reducing parking can lower overall construction costs, which in turn, can result in the improved financial performance of a project, increase affordable housing, and allow for higher intensity development.

As the three rail transit station areas become walkable, mixed-use areas, the goal of an overall parking strategy is to optimize the utilization of parking resources, facilitate desired new development, support and improve access for customers, residents, employees, and freight in a cost-effective manner, and support a "park once and walk" strategy that reduces traffic and increases pedestrian activity. Parking management seeks to ensure that the available parking supply is optimized and efficient to meet local needs. This can be achieved through "right sized" parking, shared parking, on-street parking, in lieu fees, joint public-private partnerships, and non-vehicular modes of travel, such as bicycle parking.

Right Sizing Parking Requirements

Right sizing parking requirements seek to set parking minimums, and maximums, that balance parking demand and supply, and take into consideration the cost of development and overall space available for parking. In particular, minimum parking requirements have a significant impact on the overall cost of development and the resulting development footprint. Over time, as the use of rail transit becomes more familiar and popular, it is expected that a higher proportion of residents, employees, and visitors will use transportation modes other than driving alone, leading to a situation where today's expected parking requirements may need to be adjusted downward and more commensurate with desired and expected levels of parking demand.

Maximum parking limits restrict the total number of parking spaces that can be constructed rather than establish a minimum that must be provided. Typically, a maximum number of spaces is based on square footage of a specific land use. Should maximum parking requirements be considered in the TOD Special District, amenities other than parking, such as convenient access to services and places of employment, attractive streetscapes, and pedestrian-friendly neighborhoods, must be in place to influence parking demand and reduce automobile usage.

Shared Parking & District Parking

Shared parking is publicly or privately owned parking that is used by two or more distinct land uses without conflict. The success of shared parking depends on the specific uses on adjacent properties and the interaction between them. In addition, shared parking could benefit local projects by allowing them to better utilize their sites with the provision of parking off site. Shared parking would also allow for scalability should projects determine they do not need as much parking after rail transit is in operation.

In particular, shared parking works best when adjacent land uses have different peak activity periods (e.g., an office building and a cinema).

District parking is the large-scale application of shared parking and is usually implemented in urban commercial and retail areas using multiple common parking facilities. District parking can be particularly beneficial to new development, as it can reduce the marginal costs of new construction. District parking can also provide publicly or privately managed spaces for commuter park-and-ride use.

In order to provide a shared or district parking resource and facilitate the right sizing of private segregated parking in the TOD Plan area, it is recommended that local property developers be introduced to the concept of a shared or district parking resource and investigate its potential within the three rail transit station areas.

On-Street Parking

On-street parking is essential to creating Main Street retail environments and in promoting the Plan principle of “Mix It Up.” By providing on-street parking along public and private streets, the more intense TOD uses in the rail transit station areas will have less need for on-site structured and surface parking. However, on-street parking should be regulated (e.g., pay meters, time limits, or permits), especially near commercial uses to ensure availability.

On-street parking also provides an important buffer between the sidewalk/pedestrian realm and the auto and bicycle travel lanes, thereby making the pedestrian realm feel safer and more comfortable. Ideally, the street right-of-way is sufficient to include a bike-lane in either direction as well. The spaces could be on both public and private streets and would be available for all uses in the area. In some instances, along certain corridors, the provision of on-street parking is a “holding” pattern until the full street right-of-way is needed for improved circulation and accommodation of more modes of transportation in accord with Complete Streets concepts.

In-lieu Parking Fees

The City does not have an adopted in lieu-fee program for parking, but other jurisdictions that do allow developers to contribute cash in lieu of providing parking themselves. Funds then become dedicated toward funding shared public parking facilities within a rail transit station. Often, the in-lieu fee is less than the cost of providing parking directly, and supports the development of a shared parking

resource, where each public space can serve multiple users and multiple land uses throughout the day, resulting in higher turnover and usage.

Joint Public-Private Partnerships

Joint public-private parking partnerships are often found within mixed-use neighborhoods and seek to reduce the costs of jointly developed private office, retail, or residential uses, or their use can serve to defray some of the public cost of developing a shared parking facility. These public-private partnerships can occur through a variety of arrangements, including: 1) sale or lease of land or air rights not needed for parking to accommodate supporting private use; 2) private mixed-use development sales or leases back the parking portion of the development, and 3) through an authority of special purpose entity created to provide and/or manage parking (e.g., the Waikiki Transportation Management Association).

Bicycle Parking

To help foster a multi-modal transportation network, the rail transit station areas should include secured bicycle parking for workers, shoppers, students, and residents. Bicycle parking should be located at the rail transit stations and may include bike storage facilities and lockers. It is required that developments in the TOD rail transit station areas provide bicycle parking areas according to the requirements set forth in the LUO, Section 21-6.150, which states that both short- and long-term bicycle parking must be provided whenever new floor area, a new dwelling unit, or a new parking structure is proposed.

Providing bikeshare infrastructure is recommended for projects seeking additional density and/or height through the TOD Special District permit.

10. Yard Setbacks

Minimum and maximum front yard setback requirements are specified in the LUO, Section 21-9.100-8(a) (3), depending on whether a development parcel is located on a key or non-key street. Yard setbacks are illustrated in the LUO, Figures 21-9.3 and 21-9.4. Yards should foster an attractive pedestrian environment, while relating directly to the principles of “Create Gathering Places” and “Create a Dynamic Urban Environment.”

Front yards in the rail transit station areas should foster a strong pedestrian-oriented character with the following recommendations:

- New buildings should generally maintain a frontage with the building face adjacent and parallel to the front yard along streets and should address or open directly on to the sidewalk. Small variations in yards should be used to create small open spaces, delineate pedestrian pathways and emphasize main building entries;
- Front yards for buildings with retail uses on the ground floor should include additional pedestrian space and seating areas. It is recommended that outdoor

dining and cafes be incorporated into the overall building and subdivision designs to utilize front yards for an active, vibrant pedestrian environment, rather than rely on private use of the public sidewalk area. Retail uses on the ground floor should have a higher degree of transparency with storefront windows;

- Front yards for buildings with residential uses on the ground floor should include landscaping and entry walks along with porches and lanais within the yard. Small transparent fences should be allowed to help delineate public and private space within the front yards;
- Front yards for buildings with industrial uses on the ground floor should include landscaping along with ground floor windows along the front facades wherever possible in order to avoid blank walls along the street;
- Buildings within the rail transit station areas should avoid blank walls facing streets or pedestrian pathways;
- To avoid the appearance of top-heavy buildings, development should step back on upper levels for both residential and office uses; and
- Front yards on university and college campuses and technical schools outside of industrial zones will be dictated by their PRU approvals.

The recommended minimum side and rear yard setbacks in the TOD rail transit station areas are to conform to the underlying zoning districts.



IX. DEVELOPMENT IMPLEMENTATION

A. OVERALL STRUCTURE

The implementation of the East Kapolei Neighborhood TOD Plan following creation of the TOD Special District will involve various players at different times during the process. This chapter outlines:

- **Infrastructure:** The considerations and costs to prepare for full build-out of the master planned Ho'opili and Kauluokahai (DHHL East Kapolei Increments IIA-IIF) communities, to support the UHWO campus and development of the Non-Campus Lands, and the DLNR lands near the Farrington Highway and Kualaka'i Parkway.
- **Development Phasing:** Since not all the objectives of the TOD Plan can be completed at the same time, a phased approach can allow for the full extent of the Plan to roll out over the short-, medium-, and long-term development of the district.
- **Responsible Agencies and Strategic Partners:** Identifying who the partners are and their responsibilities in the area's development gives accountability to each player in the process.
- **Funding Sources:** With the large extent of infrastructure projects proposed in the Plan, funding is a key issue in moving these improvements forward. Identifying various local, State, federal, and private funding sources for construction, operation, and maintenance should help advance implementation.

B. INFRASTRUCTURE

The acceleration of critical infrastructure improvements is needed to support TOD and leverage community benefits. Since the State is the largest landowner in the East Kapolei area, it was selected as one of three priority areas for the State to pursue TOD (the others are Halawa and Iwilei-Kapalama). The State Office of Planning, on behalf of the Hawaii Interagency Council for TOD, undertook a comprehensive review of needed infrastructure in East Kapolei. Prepared by PBR Hawaii, Inc., the initial findings in the draft report, "*State Transit-Oriented Development (TOD) Planning and Implementation for the Island of Oahu*," were released in January 2020. According to the preliminary estimates in this report, the total estimated infrastructure needed over the next 30 years approaches \$2.5 billion (2019 dollars). The range of these physical improvements includes road and intersection improvements, transit facilities and shared-use path extensions, storm and sanitary sewers, water lines and system upgrades, electric upgrades, and new schools. Close coordination of capital improvement projects among various public and private entities is ongoing and needs to continue in order for East Kapolei to

realize its full TOD potential. Utilizing available financing tools, if established, could help cover some of this capital outlay.

Given the thorough research and up-to-date inputs regarding the needed infrastructure to support all the planned projects anticipated for the next 30 years in the East Kapolei area, the TOD Plan recommends this document as the leading resource on the subject.

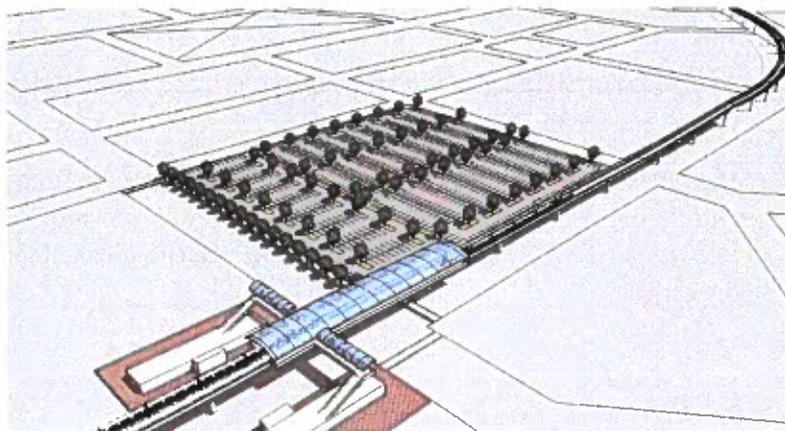
C. TOD DEVELOPMENT PHASING

In accordance with the 'Ewa DP, phasing needs to be carefully orchestrated to support the vision for 'Ewa. Appropriate phasing will maximize the effect of investment in infrastructure, guiding development in critical areas and public investment, incorporating the TOD Plan priorities and evaluating progress. The TOD Plan is phased in such a way that it respects the guidelines laid out by the 'Ewa DP.

The H RTP is a top priority in the 'Ewa DP, and the TOD Plan is based on the development of such a corridor. Below is a sample phasing program for a prototypical block that uses the rail transit system as a baseline. The phasing strategies can be applied to any rail transit station area as development occurs and as appropriate. The TOD Plan also recommends opportunities for joint development at the rail transit station areas between property owners and public agencies in order to help fulfill the overall community vision.

PHASE 1

Phase 1 is the opening of the three rail transit stations currently under construction. Blocks adjacent to the rail transit stations may be used as surface park-and-rides facilities to serve users of the rail transit line. These surface lots may only be temporary but should be landscaped as much as possible to enhance user satisfaction and reduce the heat island effect that can occur with large paved areas. In addition, street trees should be planted during the first developed portion of the main street to help create a pleasant walking environment for pedestrians. Crosswalks and sidewalks will be provided, where appropriate, at this time, as well as possibly lining the perimeter of the parking lot with food trucks or other pop-up businesses to ensure activity on the street.

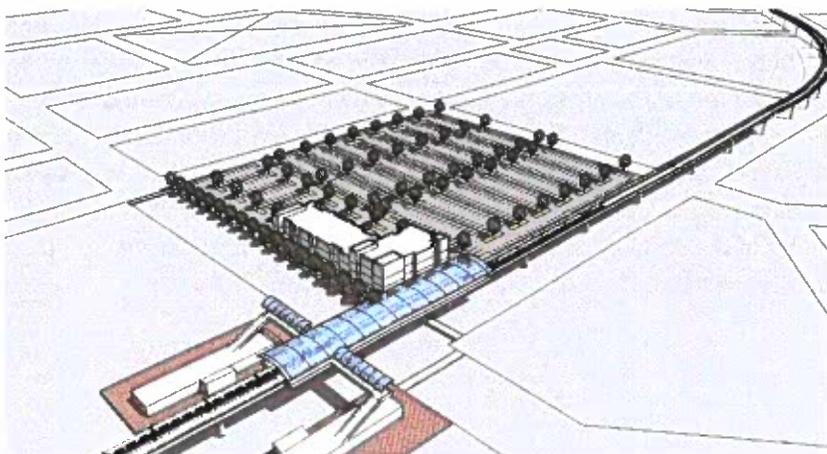


Phasing Strategies, Phase 1 (for illustrative purposes only).

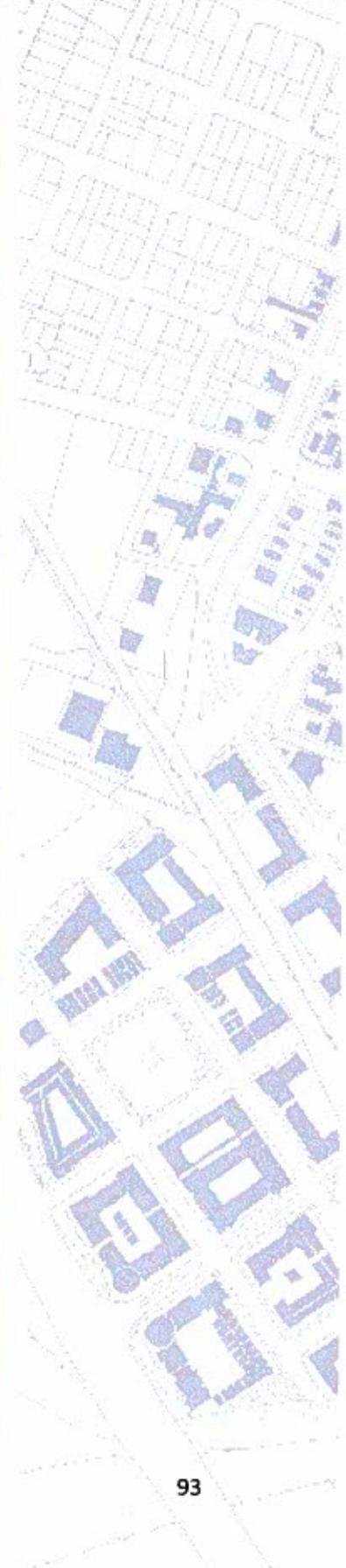
PHASE 2

Over time, as TOD is attracted to the areas surrounding the rail transit stations, surface parking lots may be considered underutilized given the new development potential afforded by the increase in their overall market value due to rail transit and TOD. In response, Phase 2 produces the first mixed-use building on the primary corner of the lot closest to the rail transit station area. This building will act as an anchor and catalyst for the area. The remainder of the site will remain a surface parking lot (possibly with pop-up businesses along the perimeter) to serve building tenants, patrons, and transit riders until further development becomes economically feasible.

Riders utilizing the rail transit station will help to support the shops, restaurants, and other tenants of the building, as the riders move from the rail transit station to the parking lot beyond.



Phasing Strategies, Phase 2 (for illustrative purposes only).



PHASE 3

As market conditions warrant, Phase 3 expands upon Phase 2 by adding a second building, extending facades along the street that begin to resemble characteristics of a main street. This street will cater to pedestrians with an active ground floor, including services, retail, restaurants and cafes. The main street will help to establish the rail transit station area's identity and provide an amenity for residents, visitors, and workers.

In addition, Phase 3 also includes the development of residential-only buildings, perhaps situated behind or to the side of the fronting main street mixed-use buildings. The residents of these buildings will help to support the businesses in the mixed-use buildings. This will be an attractive place for potential residents because of its proximity to services, shops, restaurants and transit. The residential units closest to the rail transit station will be at a premium because of the amenity of nearby rail transit service.

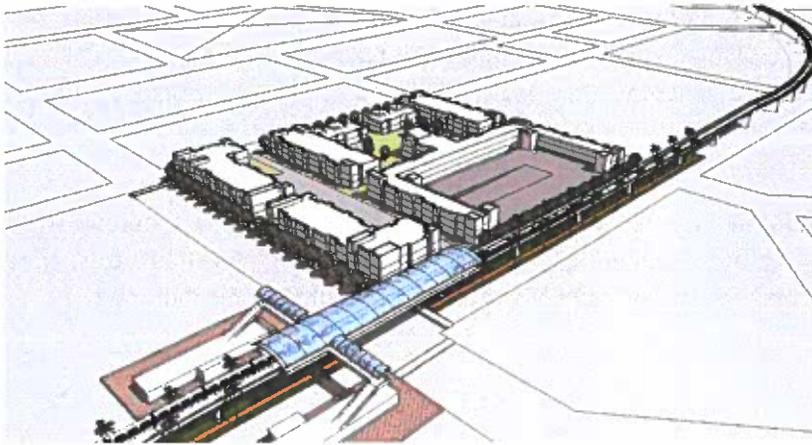
Additional amenities to the growing neighborhood may also be provided, such as landscaping, trees, gathering spaces, and pedestrian connections, to support safe, comfortable, pedestrian-friendly streets throughout the neighborhood.



Phasing Strategies, Phase 3 (for illustrative purposes only).

PHASE 4

Phase 4 represents full build-out. The entire block is complete and the surface parking has been replaced by more residential and mixed-use buildings, and an optional parking structure that will serve the entire site as well as rail or bus transit riders. The full build-out block represents a dynamic and cohesive development. The residents support and are attracted by the mixed-use 'main street' which is fully developed and active. A vibrant, pedestrian-oriented streetscape awaits visitors, users of the transit line, and residents. In addition, any plazas, courtyards, or other open spaces may provide residents and visitors with a public or semi-public space to pause and relax, to eat their lunch, or meet friends and family.



Phasing Strategies, Phase 4 (for illustrative purposes only)



D. RESPONSIBLE AGENCIES

Table 2. Matrix of Major Projects by Responsible Agencies

	Dev	HART	DDC	DFM	DPR	DPP	DTS	HDOT	UHWO
Transit plazas at station		L	S			S	L		
Greenway beneath and adjacent to the elevated rail transit line	L		S	S	S	S	S		
Integrate neighborhood open spaces	L		L		S	L			
Create new local streets to improve connectivity and circulation	L		S	S		S	S		
Construct bicycle and pedestrian paths in the TOD Special Districts	L		S	S	S	S	L		
Accommodate outdoor dining and pedestrian amenities in the sidewalk areas	L			S		L	S		
Transit plazas on both sides of Kualaka'i Pkwy to serve Keone'ae rail transit station	S		S			S	L		
Elevated pedestrian walkways crossing Kualaka'i Pkwy		S	S				L	S	S
Multi-use path adjacent to Kualaka'i Pkwy			S		S		L	S	
Bus transfer facility mauka of Ho'omohala Avenue			S	S			L		
Park-and-Ride facility on the mauka side of Ho'omohala Avenue		L					L		

L = Lead Agency

S = Supporting Agency

Dev – Developer or Landowner (Public or Private)

HART – Honolulu Authority for Rapid Transportation

DDC - Department of Design and Construction

DFM - Department of Facility Management

DPR - Department of Parks and Recreation

DPP - Department of Planning and Permitting

DTS - Department of Transportation Services

HDOT - Department of Transportation

UHWO - University of Hawaii - West Oahu

E. RESPONSIBLE AGENCIES AND STRATEGIC PARTNERS

1. Intent

There are many different strategic partners who will be key players in successfully implementing TOD in the East Kapolei area. Internal and external coordination occurs on many levels. Coordination between the City and State occurs within the Hawaii Interagency Council for TOD, whose focus is to encourage agency collaboration and cost-sharing of infrastructure needed to complete City and State TOD initiatives, and the Mayor's TOD sub-cabinet, which coordinates initiatives between City departments and relevant agencies.

Although the majority of TOD will be privately initiated and financed, various State agencies have large land holdings and are actively pursuing development of their properties in alignment with the TOD Plan. The TOD Plan lays the groundwork for the character and intensity of TOD, including affordable housing in a service- and amenity-rich environment within these station areas. The State, along with its land holdings, is determining which State infrastructure investments will be needed as State TOD projects build out as part of this community vision. Continued coordination is required to support full TOD build-out on State properties.

Regional wastewater capacity has been determined from the wastewater master plans provided by developers. Capacity of the Kapolei and Makakilo Interceptors is based on an approved master plan. DLNR currently does not have reserved sewer capacity through the Makakilo Interceptor line and the Honouliuli Wastewater Treatment Plant. Any additional system capacity needed due to new development or an increase in density will require a new master plan to be submitted and possible system upgrades.

Although the TOD Plan envisions a well-connected urban community in East Kapolei, there are significant design challenges for road, pedestrian, and bicycle crossings on Farrington Highway and Kualaka'i Parkway. Both the City and State would be responsible for certain public improvements, such as street upgrades and regional infrastructure.

TOD development will require coordination among master developers responsible for installing potable and recycled water systems in the region. Use of non-potable water will be required for irrigation of large landscaped areas, if a suitable supply is available. TOD in the three rail transit station areas will be required to use R-1 recycled water from the BWS Honouliuli Water Recycling Facility for this purpose.

To ensure the continued safety and quality of new publicly accessible improvements, such as parks, plazas, and festival streets, memoranda of understanding between responsible entities should be developed to establish maintenance jurisdiction over public and private improvements. Public spaces and infrastructure provided by private entities will also need to be constructed in accordance with City, State, and Federal standards, charges, and fees, in order to be dedicated to and maintained by the appropriate agency.

2. Federal Agencies

There is little direct federal presence in the East Kapolei station areas compared to other rail station areas within the H RTP corridor but federal cooperation may be crucial in determining how the proposed TOD at the Kualaka'i rail transit station relates to the AICUZ boundary there. The federal government's responsibilities can include, but are not limited to:

- Maintenance and review by the Federal Aviation Administration (FAA) of the AICUZ boundary and other safeguards towards development and activities within five miles of State-operated airports. Should market shifts or changes in the tactical presence at the Kalaeloa Airport by commercial aviation or the US Coast Guard (Air Station Barbers Point) change flight patterns, or where technological improvements no longer require an avigation and noise easement, the FAA could consider vacating the easement and reducing the extent of the AICUZ. (FAA)
- Coordination with the FAA on any specific projects regarding potential impacts from proposed solar-energy facilities in the vicinity of the rail transit stations. (FAA)
- Oversight and regulatory review of any drainage improvements to Kalo'i Gulch to mitigate flooding on the DLNR parcel between Farrington Highway and the H-1 freeway. Any aesthetic improvements to include passive recreational opportunities, such as a greenway along the channel. (U.S. Army COE)
- Managing and regulating endangered species of area flora and fauna. U.S. Fish and Wildlife Service (USFAWS)
- Oversight and regulatory control of the National Flood Insurance Program. Federal Emergency Management Agency (FEMA)
- Conformance of all projects to local, State and federal environmental health regulations to support sustainable and healthy design, to maintain and/or improve water quality, to comply with the National Pollutant Discharge Elimination System (NPDES) permit requirements, to apply provisions of the respective government department of health administrative rules, and to comply with the Hawaii Environmental Policy Act. Where appropriate, a Health Impact Assessment and environmental justice analysis, combining environmental and demographic indicators to ascertain vulnerable sectors of the population utilizing the Environmental Justice mapping and screening tool (EJSCREEN), should be considered. As necessary, Environmental Site Assessments (ESA) may be conducted to determine if pollutants and contaminants need to be remediated on-site. U.S. Environmental Protection Agency.

3. State Agencies

As mentioned previously, the Hawaii Interagency Council for TOD encourages agency collaboration and cost sharing of infrastructure needed to complete City and State TOD initiatives. The East Kapolei Permitted Interaction Group within the Hawaii Interagency Council for TOD was specifically formed to focus on land use planning and infrastructure needs assessment for certain rail transit station areas. The State's responsibilities can include, but are not limited to:

- Completion and approval of a strategic master plan for the four DLNR parcels situated adjacent to UHWO, D. R. Horton's Ho'opili lands, and the Keone'ae rail transit station. Upon submittal and approval of the strategic master plan, DLNR will use funds appropriated in the 2019 legislative session to prepare an EIS for the plan. (DLNR)
- Public-private partnerships or development agreements for development on DLNR lands that are capable of providing a revenue stream for its resource management and protection programs. (DLNR)
- Funding for affordable rental housing and necessary infrastructure improvements to support development on DLNR lands. (HHFDC)
- Public-private partnerships or development agreements to develop the UHWO Non-Campus Lands. (UHWO)
- Completion and approval of the UHWO Long Range Development Plan update to coordinate the development and phasing of the Non-Campus Lands. (UHWO)
- Public-private partnerships or development agreements to develop the Kauluokahai Increment II-A mixed-use development consisting of multi-family rental units for native Hawaiian beneficiaries plus retail commercial activities. (DHHL/HHFDC)
- Ensure safe and convenient pedestrian access to stations across Kualaka'i Parkway, including consideration of above-grade crossing where feasible. (HDOT-Highways)
- Maintenance and review by the FAA of the AICUZ boundary and other safeguards towards development and activities within five miles of State-operated airports. Should market shifts or changes in the tactical presence at the Kalaeloa Airport by commercial aviation or the US Coast Guard (Air Station Barbers Point) change flight patterns, or where technological improvements no longer require an aviation and noise easement, the FAA could consider vacating the easement and reducing the extent of the AICUZ. (HDOT-Air Division)
- Coordination with the FAA on any specific projects regarding potential impacts from proposed solar-energy facilities in the vicinity of the rail transit stations. (HDOT-Air Division)
- Funding for affordable rental housing and necessary infrastructure improvements. (HHFDC)
- Funding for necessary infrastructure improvements to support development on DLNR lands. (HHFDC)
- Explore options for expanding public housing. (HPHA)
- Build a new high school mauka of Farrington Highway to serve the East Kapolei and Ho'opili communities. Vertical high school design is being considered. Land is set aside for new elementary and middle schools at an estimated cost of \$600 million (2019 dollars) for all schools. (DOE)
- Coordination of any aesthetic improvements to the channelized Kalo'i Gulch Diversion Channel and the natural, upper portions of the stream. (DLNR)
- Coordination with the Disability and Communication Access Board is encouraged. Future projects within the East Kapolei area will comply with the Americans with Disabilities Act (ADA) requirements. (DCAB)

4. City Agencies

City agencies are responsible for planning, construction, and maintenance of public facilities and capital improvement projects, as well as regulating and providing services to new residential and commercial development. These responsibilities, include, but are not limited to:

- Completing construction of the Kualaka'i, Keone'ae, and Honouliuli rail transit stations. (HART)
- Providing efficient and timely rail transit service. (HART/DTS)
- Coordinating bus and rail timetables for efficient transfers. (DTS)
- Constructing bus transfer facilities, bus bays or pullouts at the rail transit stations, and completing the missing segments of the existing multi-use path along the diamond head side of Kualaka'i Parkway. (DTS)
- Improving multi-modal travel, access, and pedestrian safety. (DTS/DDC)
- Completion of the Environmental Assessment on proposed improvements to Farrington Highway between Fort Weaver Road and Kapolei Golf Course Road. (DDC)
- Coordinating with the HDOT regarding the widening of Farrington Highway, initially to four lanes with turn lanes, along with right-of-way sufficient to expand to six lanes with turn lane plus sidewalks and bike lanes at build-out. (DDC/DTS)
- Coordinating with the HDOT regarding the widening of Farrington Highway at its intersection with Kualaka'i Parkway and the right-of-way required from the State landowners with frontage on Farrington Highway. (DDC/DTS/DPP)
- Ensuring safe and convenient pedestrian access to the rail transit stations across Kualaka'i Parkway, Farrington Highway, and from the surrounding neighborhoods and facilities. (DTS/DDC/DPP)
- Improving City infrastructure such as streetscapes, multi-modal connections, and bicycle lanes. (DTS/DDC)
- Maintaining public streets, public parks, rail infrastructure, and street trees. (DFM, DPR, HART/DTS)
- Public-private partnerships or development agreements to develop the park-and-ride facilities at the rail transit stations. (HART, DTS, DDC)
- Increasing water (potable and non-potable), sewer, and storm water capacity to allow development at TOD intensities. (ENV, DDC, BWS, DPP)
- Providing emergency shelters for protection and sanctuary in the event of hurricanes, flood hazards, and other natural disasters in the local community. It is expected that all new buildings will be built to meet applicable national, State, and local building codes. Outdoor Warning Siren coverage will be reviewed and approved per federal, State, and local standards. Requests for additional City emergency evacuation planning and management funding will be made when resources become available at the time projects are completed. (DEM)
- Providing additional funding for City services, such as police and fire protection, when resources for additional personnel and equipment become available at the time projects are completed. (HFD, HPD)
- Facilitating the provision of high-speed broadband internet access to support economic development. (DIT)
- Updating zoning designations, regulations, and standards (DPP).
- Supporting cultural programs and small businesses. (MOCA, OED)

- Planning new off-street bicycle and pedestrian facilities. (DTS, DPP)
- Providing plan updates and implementation actions to all affected neighborhood boards as well as area residents, businesses, etc. (DPP)
- Providing property tax abatements and other financial tools as incentives for TOD projects. (DPP, BFS)
- Additional funding for City infrastructure improvements will be requested when resources for additional personnel and equipment become available at the time projects are completed. (BFS)

5. Private Developers

Private developers are responsible for providing the majority of investment into developing the State lands, the Ho'opili and DHHL master planned communities, and other sites. In other words, they will contribute to the realization of a dense second city, but with the provision of much needed affordable housing in a service- and amenity-rich environment. These responsibilities can include, but are not limited to:

- Partnering with State landowners to develop according to the TOD vision established in this TOD Plan;
- Building new housing, offices, and commercial uses;
- Attracting ownership and leases for new mixed-use development;
- Constructing and improving privately owned infrastructure, such as streets, open spaces, multi-modal connections, and pedestrian and bicycle facilities;
- New development and construction adhering to all City, State, and federal standards, charges, and fees;
- Property maintenance, including privately owned open spaces, streets, pedestrian and bicycle facilities, and other landscaping; and
- Providing community benefits in conjunction with new development, including improvements that help implement the elements in City's Complete Streets Design Manual.

6. Landowners and Businesses

As the phasing of implementing the Plan matures, the landowners and business owners will be responsible for participating in government processes to ensure the business community's input is taken into account to keep the East Kapolei area a competitive place for business. These responsibilities can include, but are not limited to:

- Encourage, where feasible, pursuance of TOD that adheres to TOD principles;
- Embrace TOD Special District regulations and intent in TOD Special District;
- Attending community meetings;
- Providing insight into market trends;
- Forming business improvement districts (BIDs), as necessary; and
- Sharing in ownership, programming, and maintenance of public spaces.

7. Residents and Community Groups

As the phasing of implementing the TOD Plan matures, residents of the community living in and around the East Kapolei area will be responsible for participating in

government processes, to ensure that community input continues to be a part of TOD Plan implementation. These responsibilities can include, but are not limited to:

- Supporting rail transit ridership and TOD development;
- Attending community meetings;
- Providing input on community context for development projects; and
- Communities “adopting” facilities, such as parks, for maintenance.

F. INFRASTRUCTURE FUNDING SOURCES

Successful implementation of TOD in East Kapolei will require, on both private and public lands, costly upgrades to various regional infrastructure, including drainage solutions, multi-modal connectivity, and utility systems addressing electrical, sewer and water needs of the planned developments.

In order to fund such improvements in a timely manner and, therefore, be poised to realize the values created by transit service, State and City entities are exploring a variety of financing tools and other incentives. Public investments in a transit area may be in the form of developing or paying for the additional or enhanced infrastructure necessary to support the higher densities and quality of life factors targeted by TOD. Needed infrastructure is also supported when the public sector enables special financing tools or lends its preferential financing abilities to private sector players who may ultimately implement the infrastructure. Particularly in under-served areas, such investments send a signal to the private sector that the area has development potential and it improves the physical and economic attractiveness of the area for private investment.

This section provides an introduction to various tools commonly used to fund public and regional infrastructure, while mentioning some other incentives that governments can offer to encourage private sector contributions.

OVERVIEW

Tools for funding public infrastructure are diverse and expanding. They should be thought of as four broad and overlapping categories that identify where the funding comes from. See the subsequent sections for further information on each of the examples cited.

Note that there can be overlap between the different categories of funding described below. For instance, a revenue bond may be considered a new source of funds if such bonds are funded by increased rates or fees, or it can be considered a revenue diversion if the revenue that is used to pay back the bond comes from existing rates or fees.

Revenue diversion

One funding approach is to divert taxes or fees that would have otherwise gone to a general fund, and commit them to a special use, generally for a defined period. Most often, this is applied to taxes or fees expected to be generated by the new development that is to be enabled by the improvements. Revenue bonds, Payments in Lieu of Taxes (PILOTs) and Certificates of Participation (COPs) are examples.

New revenues

Other mechanisms create new sources of revenue, adding new costs or fees to projects or properties that are considered to benefit from the improvements. Community Facility Districts (CFDs), Improvement Districts (IDs) and impact fees are examples.

Outside funding

Some mechanisms, such as General Obligation (GO) bonds, Public-Private Partnership (P3) structures, and grants, bring outside (non-local and/or non-governmental) funds to the table, which may or may not need to be paid back via a financing mechanism.

Developer incentives

In addition to facilitating the funding of needed infrastructure, governments can offer a variety of tax and other incentives to encourage desired developments in TOD zones. These generally involve the forgiveness of tax or other revenues by the public sector and, thus, are an indirect funding mechanism. Such programs are most often targeted at affordable housing, but may also support infrastructure development.

Financing approaches

Where public funds are to be used, their financing can be considered in two categories. Depending on the options for infrastructure available, the needs of the community and the tolerance of the electorate, public financing often takes the form of a “pay-as-you-go” measure, long-term borrowing, or a combination of the two.

- With the pay-as-you-go approach, government spends revenues from general appropriations or a dedicated funding source. This funding source, which can include property taxes, general excise tax (GET) set-asides, real estate transfer taxes, and one-time impact fees or even fines and budget surpluses, can be attractive to debt-resistant constituents and public officials. Pay-as-you-go means year-by-year accountability and no borrowing costs. However, it also means that the revenue may not all be available when projects are actually needed. For example, the amount of pay-as-you-go funds collected to date may not be sufficient to pay for a large capital project that is needed in the near-term.

- **Borrowing presents its own set of opportunities and obstacles. On the opportunities side, government-sponsored debt can provide a community with the revenue and flexibility it needs up-front to fund large-scale infrastructure projects, at borrowing rates that are lower than those available to the private sector. Bonds are typically paid off over 30 years with tax-exempt interest rates. Financing charges are part of the package; however, convincing constituents and/or public officials of the merits of incurring debt can be challenging.**

Often, the two techniques are combined to take advantage of the most attractive elements of both methods. In this scenario, the revenues will contribute toward certain projects over time as well as be used to pay debt service on bonds that have been issued to bring in up-front cash to pay for projects needed in the near-term.

The sections below provide brief descriptions of common public finance tools and other programs. In addition, the table summarizes the funding buckets (i.e., new revenue source, diversion of revenues, or outside revenue source/developer incentive) for each type of mechanism.

Table 3. Common Public Finance Tools and Other Programs

New State/City Revenue Source	Diversion of Existing State/City Revenues	Outside Revenue Source/Developer Incentive
<ul style="list-style-type: none"> • Revenue Bonds (if bonds are funded by increased rates or fees) 	<ul style="list-style-type: none"> • Revenue Bonds (if bonds are funded from existing rates or fees) 	<ul style="list-style-type: none"> • Public Private Partnerships • Other programs and federal credits
<ul style="list-style-type: none"> • Community Facilities Districts 	<ul style="list-style-type: none"> • General Obligation Bonds (if bonds are funded by an existing revenue source) 	<ul style="list-style-type: none"> • General Obligation Bonds
<ul style="list-style-type: none"> • Lease Revenue Bonds and Certificates Of Participation (if bonds are funded by a new or increased revenue source) 	<ul style="list-style-type: none"> • Lease Revenue Bonds and Certificates Of Participation (if bonds are funded by an existing revenue source) 	
<ul style="list-style-type: none"> • Impact Fees and Capacity Charges • Assessment and Improvement Districts 	<ul style="list-style-type: none"> • Payment In Lieu of Taxes and Tax Increment Financing 	
<ul style="list-style-type: none"> • General Excise Tax (if it is a tax increase) 	<ul style="list-style-type: none"> • General Excise Tax (if using the existing tax) 	

1. Revenue Bonds

Revenue bonds typically address the capital needs of utility facility development, and are instruments floated by a municipality or public utility operator that are secured by a specific and related revenue source. For instance, water rates that consumers pay for utilizing water facilities/services can be used to underwrite utility revenue bonds to develop new wells, tanks, or transmission facilities. Likewise, rates charged for sewer use can underwrite revenue bonds to support development of wastewater facilities.

2. General Obligation Bonds

State and City governments may also float General Obligation (GO) bonds. GO bonds differ from revenue bonds in that they do not tie the infrastructure financing to a specific and related source of income but rather the repayment of the bonds must be assured by the “full faith and credit” of the issuing jurisdiction. Government’s ability to issue GO bonds is limited by a cap on the amount of total outstanding GO bond debt in relationship to its general fund revenues. For the State, GO bonds must meet approval by the Legislature, while for the City, terms are outlined by the Director of Finance.

3. Community Facilities Districts

A Community Facilities District (CFD) encompasses a defined area that must be authorized by the County Council to levy special taxes to finance the construction, reconstruction, or acquisition of certain designated capital infrastructure facilities. These future revenues are typically used to issue a bond to support improvements up front. The special taxes are in addition to the other property taxes otherwise paid by property owners and must be approved by affected owners (if protests are received from owners of more than 55 percent of land, or from more than 55 percent of landowners, then they cannot proceed with formation of the CFD).

Once approved, the new special taxes will appear on the City property tax bills of the parcels included in the CFD boundary. In Hawai'i, the resort community of Kukui'ula was the first to form a CFD in 2008 and subsequently issue bonds in 2012. Additional bonds are expected to be issued in December 2019.

4. Lease Revenue Bonds and Certificates of Participation

A Lease Revenue Bond or COP is a bond or certificate that is repaid by income generated by lease revenues on public lands being used for a particular project. COPs do not rely on property taxes and hence may be somewhat easier to implement than certain other approaches.

5. Public-Private Partnerships

A public-private partnership (P3) is a contractual agreement between a public agency and a private entity to deliver a service or facility that benefits the general public. This structure may be employed to allow the private partner to implement a desired public infrastructure development that will not generate revenues, in which case government must identify the financing means by which the private partner will be paid for its efforts. Alternatively, where the desired project will be associated with revenues, a P3 may in itself constitute a financing tool. P3 structures generally assign a major share of the risks of design, financing, building, operating and/or maintaining a public facility to the private party in exchange for a negotiated share of revenues from the public facility operation and/or private development rights to related areas. In Kapolei, the James Campbell Company and HDOT have executed a P3 for highway interchanges in Kapolei, and UHWO is considering a P3 to fund expansion of the university campus. Likewise, the Aloha Stadium Authority and the HART are considering P3 proposals for their projects.

6. Impact Fees and Capacity Charges

Impact fees and capacity charges are fees that may be imposed on new developments by a public agency to mitigate the impacts of the new development on infrastructure needs of that agency. A development impact fee must be supported by a needs assessment study and approved through City Council ordinance. The fee is typically collected from the builder or developer at the time of building permit issuance.

Examples include impact fees charged by the BWS for new residential and commercial developments. A similar process is required to establish State impact fees for schools. At the State level, the DOE charges an impact fee on new residential development in the Leeward Oahu School Impact Fee District that includes East Kapolei.

7. Payment In Lieu Of Taxes and Tax Increment Financing

Payment In Lieu Of Taxes (PILOT) is a method of “value capture” that essentially diverts taxes that would have otherwise been paid by a private entity, and directs them to fund a particular infrastructure development or its operations. PILOTs require an agreement between a private entity and possibly multiple public entities. PILOT programs often work in conjunction with P3 structures where a private development is occurring on public lands.

Tax Increment Financing (TIF) “captures” the additional property taxes generated by private development projects to finance the up-front public development costs. These funds could provide the necessary amenities to help spur development in targeted locations. Both PILOTs and TIFs divert property taxes to be used toward a specific project(s). However, TIF has not been implemented in Hawaii due to regulatory concerns.

8. Assessment and Improvement Districts

The State of Hawai‘i, Hawai‘i Community Development Authority has authority to assess special assessments for various improvements and infrastructure and to issue bonds backed by these assessments in areas it oversees, such as Kaka‘ako. The City has authority to assess special assessments for certain water, sewer, and street improvements and to issue bonds backed by these assessments in defined areas.

Assessment districts may also take the form of a Special Improvement Districts (SIDs) or Business Improvement Districts (BIDs). SIDs and BIDs generally address the development or maintenance of supplemental facilities and improvements, such as landscaping and park facilities. For instance, the unique street standards in Waikiki are supported by the Waikiki BID.

9. General Excise Tax (GET) Surcharges

The State of Hawai‘i has recently permitted counties to adopt a surcharge on the State’s GET at a rate no greater than 0.5 percent. The City first enacted this surcharge, adopting a 0.5 percent surcharge that was effective from January 1, 2007 to 2020. It has since been extended twice, now set to expire December 31, 2030, and to be used for rail construction, not future operations and maintenance. This surcharge is currently limited by State Legislation to supporting the City’s mass transit project.

10. Other Programs and Federal Credits

Other sources of financing include grants and loans such as from:

- Private foundations
- The Transportation Infrastructure Finance and Innovation Act (TIFIA)
- The State's Dwelling Unit Revolving Fund (DURF)
- Federal and State Rental Housing Revolving Fund
- Federal Transit Administration (FTA) Small Starts/New Starts programs
- US Department of Housing and Urban Development (HUD), Community Development Block Grant (CDBG), HOME, and HTF grant programs

There are also various federal tax credit programs such as:

- Low Income Housing Tax Credits (LIHTC) – A long-standing federal program with funds administered in Hawai'i by the HHFDC that supports low-income housing development by allowing investors to claim income tax credits
- HMMF Tax-Exempt Bonds
- New Market Tax Credits – A program that provides various incentives to direct investment to qualifying, distressed communities

11. Developer Incentives

While not a means of generating financing for projects, tax abatement programs likewise encourage new TOD development by exempting the property tax or other payments for a period of time, or offering density bonuses in exchange for meeting certain TOD goals. Examples include the real property tax exemptions granted for local income rental housing on Oahu.