Honolulu High-Capacity Transit Corridor Project (HHCTCP)	
Project Location:	Honolulu, Hawai'i
Lead Agency:	City and County of Honolulu, Department of Transportation Services
Project Status:	LPA selected; EIS underway
Date entered PE:	*Anticipated October 2007*
Date entered Final Design:	*Anticipated July 2009*

A. RATINGS AND CHANGES

OVERALL RATING – Medium

CATEGORY RATINGS

Existing Land Use –Medium

Plans and Policies – Medium

Performance and Impacts – Medium-High

FACTOR RATINGS

		Plans and Policies				Performance and Impacts	
	Existing Land Use	Growth Management	Corridor Policies	Zoning Regs.	Tools to Implement	Performance of Policies	Potential Impact
FY 2007	3	4	4	3	2	3	4

B. SUMMARY OF KEY FINDINGS

I. EXISTING LAND USE

a. Existing Land Use

- The Honolulu High-Capacity Transit Corridor Project (HHCTCP) stretches from the community of East Kapolei eastwards around Pearl Harbor and through downtown Honolulu to the Ala Moana Center. Ranging from west to east, existing land uses in the station areas typically include open, agricultural land; low-density, single-family residential; moderate-density, multi-family residential; light-commercial and harbor front industrial; high-density commercial and retail, and moderate-density, mixed-use retail and residential.
- Pedestrian facilities in the corridor's station areas are non-existent in the undeveloped western end of the corridor but generally improve with west to east travel. Many station areas suffer from wide arterial streets, considerable surface parking, disconnected residential subdivisions, and segregated development patterns. The corridor's eastern areas have adequate pedestrian infrastructure and better pedestrian amenities and design.
- Average population density across all station areas is 8,300 persons per square mile, rating "medium" according to FTA guidance. Total employment served is at least 164,000 (including 48,000 in the CBD) which also rates "medium" according to FTA guidance. Parking is scarce and expensive in the CBD, but generally free and available in most other station areas.

II. TRANSIT-SUPPORTIVE PLANS AND POLICIES

a. Growth Management

- Land use in the corridor is controlled by only two entities – the State of Hawaii, and the City and County of Honolulu. Honolulu has specifically sought to concentrate new development in the Honolulu primary urban center and to establish a secondary urban area to the east in the community of Kapolei, at the eastern end of the proposed alignment. City and state-developed regional and subarea plans that cover the corridor include urban growth boundaries with strong protections for agricultural and preserved land outside these boundaries. The majority of the developable urban area was built up in the 1940s to 1960s and has been redeveloped since.

b. Transit-Supportive Corridor Policies

- Neighborhood transit-oriented development (TOD) plans are being developed for each of the 19 station areas, and will serve as the basis for rezoning and other improvements.
- All current area and sub-area community land use plans contain objectives that explicitly support the HHCTCP and that generally encourage transit-oriented projects, pedestrian orientation, and dense, mixed-use patterns of development.

c. Supportive Zoning Regulations Near Transit Stations

- In 2006, the City Council of Honolulu amended its *Revised Ordinances* to define a *Transit-Oriented Development Ordinance*. The ordinance is intended to guide development in and around transit stations and is currently under development by the city.
- Existing zoning statutes allow for relatively high commercial and residential densities and relatively low parking requirements compared to most suburban areas in the U.S., and in some cases allow for mixed-use development. Some planned-unit developments and special districts have provisions for pedestrian amenities, but for the most part pedestrian-oriented design requirements and guidelines are not included in existing zoning regulations.

d. Tools to Implement Land Use Policies

- Of the several comprehensive plans covering corridor communities, only the initial TOD Ordinance definition in the *Revised Ordinances* proposes incentives to explicitly promote transit-oriented development, including the use of FAR bonuses, shared parking requirements, and reductions in external trips. However, these incentives have not been adopted, and it is unclear what, how often, and when policy tools are effectively applied by the City and County of Honolulu to encourage transit-oriented practices, policies, and projects. Honolulu is currently engaged in a TOD planning process for the proposed station areas to develop more detailed plans and amendments to zoning ordinances in order to implement land use policies and encourage appropriate development. No information was provided regarding efforts to work with developers.

III. PERFORMANCE AND IMPACTS OF POLICIES

a. Performance of Land Use Policies

- Opportunities for redevelopment are greatest near the termini of the alignment in the Ewa Plain to the west and the Kaka'ako Community Development District (CDD) to the east. The Ewa Plain has master plans for major development projects including high densities, a mix of uses, and pedestrian-friendly design in the vicinity of three proposed stations.
- The Kaka'ko CDD has seen an abundance of pedestrian/transit friendly development projects recently including expansion of open air, pedestrian retail strips, major commercial and shopping centers located at existing bus transit stations (and the site of a proposed station), and high-density, live-work developments within walking distance of downtown. In addition, the area has undergone upgrades to its street network and infrastructure to add or replace sidewalks and improve the flow of pedestrian and vehicular traffic.

b. Potential Impact of Transit Investment on Regional Land Use

- The greatest impact of the transit project, outside of the Ewa Development Area, will be the redevelopment of existing land uses. Policies and market forces are at work within the Kaka'ako CDD to encourage infill and TOD redevelopment. However, areas near stations in the Waipahu, Pearl City, and Salt Lake communities may be the least adaptable to redevelopment due to the concentration of industrial/light-commercial uses, U.S. military and state property, and lower demand than other areas.

C. PROJECT OVERVIEW

PROJECT DESCRIPTION

The Honolulu High-Capacity Transit Corridor Project (HHCTCP) recently selected the locally preferred alternative (LPA) of a fixed guideway system with exclusive right-of-way to serve the populated area of greater Honolulu. The purpose of the project is to improve mobility within the dense corridor by providing high-speed, high-capacity transit (the specific technology has not been determined) and in doing so, to encourage future patterns of smart growth and development. The City and County of Honolulu has secured voter approval for a dedicated ad valorem funding stream for the system. The planned alignment, which has been approved by City Council, includes 19 stations and serves a wide variety of educational, governmental, civic, retail, residential, commuter, and tourist trip generators. The alignment follows existing but heavily congested transportation corridors through communities and takes advantage of current public transit infrastructure. In August of 2005, the Honolulu City Council adopted ordinance 05-027 to levy a 0.5-percent excise tax surcharge to fund some of the initial planning, design, and construction of the project. The LPA was selected in December 2006 and the draft environmental impact statement (EIS) process initiated in March 2007.

CORRIDOR DESCRIPTION

Geographically, the proposed corridor is located on the leeward extent of the island of Oahu, Hawai'i and extends a length of 20 miles from the western edge of urban Honolulu at Kapolei around Pearl Harbor and terminating east of the Honolulu central business district (CBD). This corridor, and nearly all of the development surrounding Honolulu, is naturally bounded to the south by the Pacific Ocean coastline and to the north by the Koolau and Waianae Mountains, limiting the developable urban corridor to a maximum width of four miles and to a minimum of less than one mile.

The corridor is diverse in its existing land uses. Proceeding west to east, the corridor encompasses agricultural lands and low-density single-family suburban residential areas and then borders commercial, retail, and light industrial uses around the harbor, with pockets of moderate density residential. It finally enters the CBD and proceeds through to a rejuvenated warehouse district with high-density residential and mixed-use infill development. The area is also unique due to the high proportion of land occupied by U.S. military facilities as well as the density of state-owned land in the civic and governmental center near downtown.

Demographically, the corridor is home to nearly two-thirds (63 percent) of the population and four-fifths (81 percent) of the employment on Oahu (which in turn represents the majority of the State of Hawai'i's population). In 2005, the corridor's population was 433,000 and employment totaled 338,000. The narrow urban corridor is also moderately dense, with 3,700 residents and 2,900 jobs per square mile. Growth rates are projected to be high with population expanding by 41 percent and employment by 28 percent by 2030. Within the corridor, population within ½ mile of the proposed stations areas is project to increase by 72 percent, from 99,000 to 175,200, by 2030.

DESCRIPTION OF LOCAL AGENCIES

The lead agency for the project is the City and County of Honolulu's Department of Transportation Services (DTS). The entire project falls within the jurisdiction of the City and County of Honolulu, with the exception of the Kaka'ako Community Development District (Stations 17-18). Planning decisions within this zone are the responsibility of the Hawaii Community Development Authority (HCDA). The HCDA is a state agency established to supplement traditional community renewal methods by promoting and coordinating public and private sector community development.

The Oahu Metropolitan Planning Organization (Oahu MPO) is the regional MPO responsible for the Island of Oahu and urbanized area of Honolulu. The State of Hawaii, Department of Transportation (HI DOT), additional state agencies, and a variety of U.S. Federal Government agencies, including the Federal Aviation Administration, Department of the Navy, and U.S. Marine Corps, have interests or jurisdiction within some parts of the corridor that may impact project planning as well as related land use planning.

D. QUANTITATIVE DATA SUMMARY			
Data	**Base Year 2005**	**Forecast Year 2030**	**Growth (%)**
Metropolitan Area			
Total Population	876,156	1,117,300	27.5%
Total Employment	476,207	605,424	27.1%
Central Business District			
Total Employment	48,317	52,356	8.4%
Employment Density (Employees per Square Mile)†	116,416	126,144	
Corridor			
Total Population	433,427	611,817	41.2%
Total Employment	337,603	427,142	26.5%
Total Land Area (Square Miles)	117.7		
Population Density (Persons per Square Mile)	3,684	5,200	
Employment Density (Jobs per Square Mile)	2,869	3,630	
Station Areas:			
Total Population	101,358	173,080	70.8%
Total Employment	164,481	196,593	19.5%
Total Land Area (Square Miles)	12.26		
Population Density (Persons per Square Mile)	8,269	14,119	70.8%
Employment Density (Jobs per Square Mile)	13,418	16,038	19.5%

Area definitions and other notes:

† CBD employment density reported in units of acres, converted to sq mi.

DETAILED ASSESSMENT OF LAND USE CRITERIA	
I. EXISTING LAND USE	
a. EXISTING LAND USE	**Rating: Medium**
Existing corridor and station area development	The HHCTCP stretches from the community of Kapolei eastwards, around Pearl Harbor, and through downtown Honolulu to the Ala Moana Center. Average population density across all station areas is 8,300 persons per square mile, rating "medium" according to FTA guidance. Total employment served is at least 164,000 (including 48,000 in the CBD) which also rates "medium" according to FTA guidance. The proposed alignment is best analyzed in segments, because it encompasses a variety of land uses, development patterns, densities, and transit-oriented growth potential. The segments, with stations and communities named, are as described below from west to east: **Kapolei, Stations 1-3**: The community of Kapolei and the surrounding Ewa Plain contain the stations of East Kapolei, UH West O'ahu, and Ho'opili and are the least dense centers within the corridor, primarily composed of open, agricultural land. Several large-scale redevelopment and expansion projects are planned in the future, including the expansion of the University of Hawaii (scheduled to open in 2009) and a large mixed-use, TOD development (expected to finalize construction/occupancy by 2012). As well as lacking basic pedestrian facilities, the segment merits a "low" rating by FTA standards for dwelling unit, population, and employment densities. **Waipahu, Stations 4-6:** Traveling easterly, the next stations of Leoku Street, Mokuola Street, and Leeward Community College are surrounded by moderately-dense residential and mixed commercial uses. This segment traverse the communities of Waipahu, Pearl City, and Halawa, all of which have commercial and light industrial uses concentrated to the south of the proposed route, near the waterfront, and residential uses to the north. Significant destinations include the Leeward Community College and Pearl Highlands Shopping Center, though the area is largely single-family with scattered dense commercial and residential foci. There is also a concentration of U.S. Federal Government property in this section. Population density is rated "medium" by FTA guidelines. **Pearl City, Stations 7-9:** The stations of Kuala Street, Kaonohi Street, and Kahuapa'ani Street are all located to serve major retail, military, and medical complexes. The area is primarily suburban and contains waterfront-related industrial uses, although there are a number of in-town centers that focus activity. Relative to preceding segments, station areas are increasingly dense, rated as "medium" population density. Residential land use remains mostly single-family housing with scattered high-rise developments, and the area is a significant tourist travel destination. Major trip generators located near the Kahuapa'ani Street Station include Aloha Stadium as well as bridge access to Ford Island and the USS Arizona Memorial. **Salt Lake, Station 10:** This Honolulu neighborhood is a primarily residential area that transitions between the single-family, single-use developments of the eastern communities and the high-density, mixed-uses of Eastern Honolulu. The community is effectively surrounded by several major military installations and, as a result, land uses include significant areas of military housing. To the south, commercial and light-industrial development is clustered around the Honolulu International Airport. The Ala Nioi Place Station receives a "high" rating of population density (nearly 17,000 persons per sq. mi.).
Existing corridor and	**Kalihi, Stations 11-14:** The segment includes the Middle Street Transit Center,

DETAILED ASSESSMENT OF LAND USE CRITERIA	
station area development (cont.)	Mokauea Street, Kokea Street, and Ka'aahi Street stations, which follow Dillingham Blvd. for approximately two miles through the communities of Kalihi Kai, Iwilei, and areas adjacent to Chinatown. Dillingham is the approximate divider between the harbor-related light-industrial and retail commercial uses to the south of the alignment and the moderate-density, but largely single-family residential areas to the north. Despite a preponderance of alternative land uses, this segment receives a "medium-high" rating for population density. The Middle Street Transit Center station, located near a large correction facility, may be a possible intermodal hub in the future. **Downtown Honolulu, Stations 15-19:** The final segment serves Honolulu's central business district and densest residential areas, including Chinatown, the Financial and Capital Districts, and the Ala Moana Shopping Center. This segment receives a "medium-high" rating in terms of population density. (The highest population density in the corridor is in the Kekaulike Station area at Chinatown, with 27,000 persons per square mile.) This segment contains two-thirds of the corridor's employment and one-third of total corridor population. The stations of Kekaulike Street, Fort Street, and South Street serve the CBD, while Ward Avenue and Ala Moana Center stations serve existing or planned residential and retail environments near the Kaka'ako Community Development District. Aside from the central downtown traffic, additional significant trip generators include the island's cruise ship terminal, government center, and Ward Center (retail and entertainment). Below are descriptions of the major areas within the Downtown core, taken from the *Kaka'ako Mauka Area Plan* (2007): • **Chinatown** is a historic district that has seen a resurgence of investment in building restoration, infill development and economic and cultural activity in recent decades. The area offers a successful example of the "urban village" concept. • **Civic Center** is home to state and city agencies and most of the federal agencies in Hawaii. It also contains many of Hawaii's most significant historic buildings, including Iolani Palace and Kawaiahao Church. Civic Center buildings are situated in a landscaped campus with shaded sidewalks and interior pathways that invite walking, recreation and public events. • **Cultural District** is centered on Honolulu's first park, which is the focal point for a cluster of cultural institutions. • **Ala Moana Shopping Center**, which sits on the Waikiki side of the Mauka Area, is Hawai'i's largest retail center. A cluster of entertainment and retail uses, known as the Ward Centers, has emerged in close proximity. • **Ala Moana Regional** and **Kaka'ako Waterfront Parks,** two of Honolulu's largest shoreline parks, are located directly makai (seaside) of Mauka Area, across Ala Moana Boulevard. The parks' beaches and outdoor recreation facilities draw a large numbers of users.
Existing corridor and station area development character	Despite the overall relatively high population and employment densities in the corridor, the station areas are not as pedestrian-friendly as might be expected given these densities. Aside from the five stations in the CBD, station areas are generally suburban in character with separated uses, multi-lane arterials, and considerable amounts of surface parking. Pedestrian accessibility varies and is compromised in some areas by major nearby transportation facilities as well as by circuitous layouts of residential subdivisions. **Kapolei, Stations 1-3**: These station areas are primarily composed of open, agricultural land that is planned for future development. **Waipahu, Stations 4-6:** In general, the segment is oriented to vehicle travel, though

DETAILED ASSESSMENT OF LAND USE CRITERIA	
	some areas are served by bus routes. Stations 4 and 5 are along the Farrington Highway, a wide arterial road (six to eight lanes with a median) that is primarily fronted by surface parking lots. Commercial and industrial uses to the south of station 4, however, are relatively high-density for a suburban location and there are some apartment complexes in the station areas in addition to the detached residential areas. Station 6 is located adjacent to the compact campus of Leeward Community College although the college is surrounded primarily by surface parking, agricultural or undeveloped land, and transportation infrastructure. **Pearl City, Stations 7-9:** The station areas are suburban in character and contains waterfront-related industrial uses as well as some residential uses. The alignment again follows a multi-lane, divided arterial. Residential land use remains mostly single-family housing in relatively dense but poorly-connected subdivisions. There are a few scattered high-rise developments. Pedestrian connectivity is generally poor. Station area 9 is located near the Aloha Bowl but there is little else accessible except for a residential neighborhood. **Salt Lake, Station 10:** This Honolulu neighborhood is a primarily residential area that transitions between the single-family, single-use developments of the eastern communities and the high-density, mixed-uses of Eastern Honolulu. There is a considerable amount of multi-family apartment complex development as well as some single-family residential neighborhoods that are poorly connected to the main arterial. Most of the developments have significant amounts of surface parking. **Kalihi, Stations 11-14:** The density of development in these station areas increases dramatically and becomes markedly more urban in character, with buildings having relatively small setbacks on a grid street system. The station areas are still not entirely pedestrian-friendly, however, as some buildings are fronted by surface parking, developments tend to be somewhat monolithic (e.g., apartment blocks, industrial buildings) and there are some wide arterials present. **Downtown Honolulu, Stations 15-19:** Development in these station areas is generally urban in character, especially in station areas 15 through 17. The urban fabric in station areas 18 and 19 is somewhat fragmented by surface parking lots, and by buildings with varying setbacks and different architectures that do not present a consistent streetwall. Ala Moana Shopping Center in Station area 19 is a sprawling complex of multi-level parking surrounding a large indoor mall.
Existing station area pedestrian facilities, including access for persons with disabilities	• Currently, 16 station areas provide sidewalks. Sidewalks in the central districts of Honolulu have curb ramps and the city provides an accessible system for requesting new curb ramps. In station areas currently served by bus routes (Stations 4-19), pedestrian facilities are well-developed in the immediate area, declining with distance away from central routes and primary roads. • Two of the proposed stations (Fort Street and Kekaulike Street) are located on or near existing pedestrian malls. • Where pedestrian crosswalks and sidewalks do exist near stations they may not be effectively connected to destinations to provide safe and efficient routes. Trip generators such as Leeward Community College, Aloha Stadium, the USS Arizona Memorial, U.S. military housing and facilities, among other destinations, currently offer limited pedestrian connectivity. • Pedestrian connectivity is also limited by the fact that many of the proposed stations are located adjacent to, or on, wide, multi-lane arterial streets. This includes stations 4, 5, and 6 along Farrington Highway, stations 7, 8, 9, and 10 along Kamehameha Highway/Salt Lake Blvd., stations 11, 12, and 13 along Dillingham Blvd., and stations 15 & 16 along Nimitz Highway. Many of these

<table>
<tr><th colspan="2">DETAILED ASSESSMENT OF LAND USE CRITERIA</th></tr>
<tr><td></td><td></td></tr>
<tr><td></td><td>areas are not pedestrian friendly.
• The 2000 U.S. Decennial Census found that 5.6 percent of workers in the City and County of Honolulu commuted to work by walking (the national rate was 2.9 percent.) While more persons are active walking than in the rest of the nation, the County of Honolulu has a significantly high number of pedestrian deaths. In 2005 according to the Fatality Analysis Reporting System, 35 percent of transportation fatalities included a pedestrian. The national average is 11 percent. It should be noted however, that the County of Honolulu includes a much greater area than the study corridor.</td></tr>
<tr><td>Existing corridor and station area parking supply</td><td>• According to the Colliers North American CBD 2005 Parking Rate Survey, the median Honolulu monthly parking rate was $210. Daily costs for CBD parking are estimated to be between $30 and $40, above the national median and well above the FTA threshold for a “high” rating.
• Parking is generally available free or at limited cost outside the immediate CBD and developed areas of downtown. Within the CBD, parking is limited, expensive, and confined to structures. According to FTA benchmarks, the supply of parking per employee is rated “medium” and spaces per unit of office space receives a “high” rating. The following data is provided about the parking supply within the CBD:
<table>
<tr><th>Employment Area / Parking Measure</th><th>Chinatown</th><th>Financial District</th><th>Capital District</th></tr>
<tr><td>Commercial Office Space (sq. ft.)</td><td>n/a</td><td>6,300,000</td><td>4,000,000</td></tr>
<tr><td>Spaces per Office Space Sq. Ft.</td><td>n/a</td><td>636</td><td>615</td></tr>
<tr><td>Number of Employees</td><td>3,300</td><td>27,500</td><td>16,600</td></tr>
<tr><td>Spaces for Employees</td><td>1,000</td><td>9,900</td><td>6,500</td></tr>
<tr><td>Spaces per Employee</td><td>0.30</td><td>0.36</td><td>0.39</td></tr>
<tr><td>Number of Residents</td><td>3,360</td><td>990</td><td>450</td></tr>
<tr><td>Number of Dwelling Units</td><td>940</td><td>575</td><td>300</td></tr>
<tr><td>Spaces per Dwelling Unit</td><td>0.50</td><td>0.96</td><td>0.93</td></tr>
<tr><td>Average Daily Parking Cost</td><td>$27</td><td>$43</td><td>$28</td></tr>
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E. DETAILED ASSESSMENT OF LAND USE CRITERIA	
II. TRANSIT-SUPPORTIVE PLANS AND POLICIES	
a. GROWTH MANAGEMENT	**Rating: Medium-High**
Concentration of development around established activity centers and regional transit	• It has long been the intent of the City and County of Honolulu's *O'ahu General Plan* (1977, revised 1992) to concentrate new development in the Honolulu Primary Urban Center and to establish a secondary urban area at the City of Kapolei. City and county policies have generally been effective at controlling growth, primarily through the Urban Growth Boundary. The majority of the downtown and core suburban area was built up in the 1940s to 1950s and has simply been redeveloped since. Further resort-oriented and expansionary development continued in the 1960s through 1970s and since then geographic and state and local land use limitations have constrained new development, increased land costs, and forced redevelopment of urbanized areas. • The State of Hawai'i has one of the most centralized government structures in the nation and the City and County of Honolulu government jurisidiction encompasses the entire island of Oah'u. As a result, just these two governments control land-use and zoning decisions for the entire transit corridor project. City and county planning objectives, goals, and broad policies are set by the *O'ahu General Plan*. Within this macro framework eight regional plans set future policies for specific areas of the island. Those within the transit corridor are the: – *Primary Urban Center Development Plan* (2004) The plan establishes an Urban Community Boundary and links transit with established activity centers. This plan applies to station areas 7-19. – *Central Oahu Sustainable Communities Plan* (2002). The plan establishes an Urban Community Boundary and targets redevelopment around two transit centers in Waipahu. The plan applies to station areas 4-5. – *Ewa Development Plan* (1997). The plan establishes an Urban Growth Boundary to protect agricultural lands and open space from urban development. The Plan also reserves a Rapid Transit Corridor with six transit nodes which are to be surrounded by high density residential and commercial development. The plan applies to station areas 1-3. In addition, there are several special area plans for specific communities that apply to the corridor project. These include the: – *Ala Moana–Sheridan Community Plan* (2006) – stations 17-19 – *Aiea-Pearl City Livable Communities Plan* (2004) – stations 7-9 – *Waipahu Town Plan* (1996) – stations 4-5 These regional and sub-regional plans are intended to be entirely conceptual and to provide goals and objectives to guide land-use and permitting decisions. Regulatory zoning requirements are provided in the the base zoning ordinances of the City and County of Honolulu, in the *Revised Ordinances of Honolulu, Chapter 21, Land Use Ordinance.* • The State of Hawai'i Community Development Authority (HCDA) is the designated planning entity for the Kaka'ako Community Development District. There are several relevant plans and zoning regulations for this 600 acre district to the west of downtown: – *Kaka'ako Mauka Area Plan* (2007)

E. DETAILED ASSESSMENT OF LAND USE CRITERIA	
	– Mauka Area Hawai'i Administrative Rule Chapter 22 (2005) – *Makai Area Plan* (2005) – Makai Area Hawai'i Administrative Rule Chapter 23 (2005)
Concentration of development around established activity centers and regional transit (cont.)	• The *Primary Urban Center Development Plan* is the comprehensive plan that covers the greatest and densest portion of the corridor. This document contains strong policy concepts and goals to steer development, create a rapid transit corridor, encourage redevelopment and infill, promote activity centers, and support pedestrian, transit, and transportation alternatives. • At the area sub-level, comprehensive plans have been developed for many specific communities within the corridor. The Ewa and Central O'ahu Plans as well as special area plans including the *Aiea-Pearl City Liveable Communities Plan* and the *Waipahu Sustainable Communities Plan* all contain policies that are potentially very supportive of high-density, infill, and transit-oriented development. These area plans are used to reconcile new development proposals with current zoning practices so that permitted development aligns with community objectives.
Land conservation and management	• The City and County of Honolulu's *Oah'u General Plan* establishes growth management practices to direct development, including the Urban Community Boundary. The stated objective within the plan is to establish a green belt constraining the Ewa and Central Development Areas, to the west of the corridor. The governing plan also provides for specific goals and objectives related to the preservation of currently protected natural areas, but does not explicitly call for the addition of greater conservation areas. • In 2003, the City and County Charter was amended to establish a regulatory Urban Growth Boundary to provided enforceable restrictions against state land use zoning changes outside the bounds of established urban areas. Each regional sub-plan identifies an Urban Growth Boundary which is then enforced by upholding current state land-use zoning and restrictions. • The State of Hawai'i, in 2005, enacted the Legacy Land Conservation Fund to provide for the acquisition of environmentally valuable land. • In 2006, the City and County of Honolulu passed an amendment providing dedicated funding for land acquisition and conservation.
b. TRANSIT-SUPPORTIVE CORRIDOR POLICIES	**Medium-High**
Plans and policies to increase corridor and station area development	• The city held a conference on the topic of Transit-Oriented Development (TOD) in July 2007 to engage the public and begin the planning process of developing TOD plans for the corridor and for communities. TOD neighborhood plans are being developed for all 19 stations areas which will be used as a basis for amending zoning ordinances. • The *Primary Urban Center Plan* (2004) applies to stations 7 through 16 and promotes mixed-use town centers, defines higher-density and lower-density residential areas and provides for transit linkages. These policies would particularly affect development near stations 8 and 9. Plans call for in-town residential development densities of 13-90 units per acre for medium-density residential and up to 140 units/acre for high-density, mixed-use residential developments. The plan also contains policy objectives to, "Identify and stimulate transit-oriented development on potential infill and redevelopment properties within the rapid transit corridor. Examples of

E. DETAILED ASSESSMENT OF LAND USE CRITERIA	
	development stimulators include tax incentives, development code amendments, and public infrastructure investments." • The *Central O'ahu Plan* (2002) provides for medium density-mixed use around station 4 and a regional town center near station 5. For developments near transit areas, the plan suggests densities of 25-90 units per acre and maximum building heights of 60 feet. The plan states that Central O'ahu will be, "developed with a transportation system which provides easy access to transit, uses traffic calming design, and encourages people to walk and bike, reducing the need for use of the automobile". • The *Ewa Development Plan* (1997), currently under review, affects stations 1-3. It provides for the establishment of a secondary urban center in Kapolei, the development of UH West Campus, redevelopment of military facilities, development of master planned communities, reserved space for the HHCTCP transit corridor, and pedestrian oriented streets and connections. The plan calls for FARs of 1.0 to 2.5 and housing densities of 25 units per acre within ¼ mile of transit nodes along the mass transit corridor and greater densities within transit nodes. • The *Kaka'ako Makau Area Plan* (2007) calls for transit-oriented development in the areas surronding stations 17 and 18, within the Kaka'ako Community Development District (KCDD). The plan is supportive of transit, pedestrian orientation, and mixed-use, dense development practices. For example, it recommends a maximum FAR of 3.5, building envelopes with a street-front element to create public street spaces, and mid-height element and tower elements of buildings to preserve area views and increase density. This area has been particulary successful in generating transit supportive, dense redevelopment in recent years. • The difference between state and local development patterns is illustrated best within the Kaka'ako district. With large blocks of land controlled by large landowners, infrastructure upgrades already in place, and relatively generous FARs available for larger projects, the Kaka'ako district is projected to absorb about 30 percent of the primary urban center future residential growth and a large portion of the region's projected commercial growth.
Plans and policies to enhance transit-friendly character of corridor and station area development	• The *Primary Urban Center Plan, Ewa Development Plan, Aiea-Pearl City Plan,* and *Waipahu Liveable Communities Plan* all contain objectives that seek to encourage the walkability and liveability of neighborhoods along the transit alignment. • The *Primary Urban Center Plan* ontains implementation guidance that recommends regulatory zoning amendments that will: "promote pedestrian activity and facilitate transit ridership, establish special land use, design, and development standards for frontage properties along transit-oriented streets, with particular attention to the areas around transit centers and stops. Development standards may include reduced off-street parking; pedestrian entries close to the sidewalk, façade treatments that provide interest and amenities for pedestrians, and uses at ground level that generate pedestrian traffic." • The *Central O'ahu Plan* calls for at least 85 percent of units to be within ¼ mile of a proposed transit stop and all commercial developments greater than 1,000 sq. ft. and employment sites with more than 10 employees be within 1/8 mile of transit. It includes the policy goals of,

E. DETAILED ASSESSMENT OF LAND USE CRITERIA	
	"Mid-rise, medium density apartment buildings, including mixed-use developments, should be encouraged in areas within one-quarter mile of future town centers/transit nodes at the intersection of Leoku and Farrington and at the intersection of Waipahu Depot Road and Farrington." • The *Ewa Development Plan* recommends that most residences should be within a five-minute (or one-quarter-mile) walking distance of a proposed bus route. No information was provided on specific recommendations related to transit-supportive design. • The *Central O'ahu Sustainable Communities Plan* provides for "medium density residential/commercial mixed use" around station 4 and a "Regional Town Center" around station 5. No information was on specific recommendations related to transit-supportive design.
Plans to improve pedestrian facilities, including facilities for persons with disabilities	• In 2006 voters amended the Honolulu City and County Charter to prioritize making the city pedestrian- and bicycle-friendly. The charter amendment gave the DTS powers over bicycle and pedestrian and pathways and established a pedestrian friendly goal for the city. DTS is in the first year of a five year plan to upgrade 105 pedestrian signal intersections to include electronic countdown timers and is currently undertaking projects to improve access for persons with disabilities to bus stops and other transit locations. The *Honolulu Bicycle Master Plan* and the *Pearl Harbor Historic Trail Master Plan* provide for significant planning efforts to improve cycling routes within neighborhoods and throughout the corridor. • The *Hawai'i Statewide Transportation*, *O'ahu Regional Transportation Plan*, and other local area plans all reinforce pedestrian friendly development and include strategies to improve cycling and walking path access and safety improvements. • The *Central O'ahu Plan* calls for separated pedestrian and cycling paths and intersections with special signage and paving to encourage safe and convenient pedestrian and bicycle crossings. • The *Primary Urban Center Plan* recommends a pedestrian network, designating streets for improvement as well as shared-use paths. It also includes a number of recommendations related to bicycle parking and facilities. • The *Ala Moana-Sheridan Community Plan* places a strong emphasis on pedestrian improvements and design features in new development.
Parking policies	• The *Primary Urban Center Plan* offers implementation guidance to ssupport older commercial centers by providing public parking, possibly using parking improvement districts and by reducing or eliminating parking requirements for small, older commercial buildings in targeted neighborhood business districts. • Information on parking policy recommendations in other plans was not provided.
c. SUPPORTIVE ZONING NEAR TRANSIT STATIONS	**Rating: Medium**
Zoning ordinances that support increased development density in transit station areas	• The development plans for the Primary Urban Center and 'Ewa, as well as the Sustainable Communities plans described under Factor IIb, were adopted in the Revised Ordinances of Honolulu (i.e., zoning code). The plans are incorporated through zoning map and development code amendments consistent with the policies, as well as infrastructure functional plans that support the vision of the overall development plan. • In 2006, the City Council of Honolulu amended the *Revised Ordinances of Honolulu, Chapter 13* to include a section defining a Transit-Oriented

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Development Ordinance. This section defines what the TOD ordinance shall do, including:

- Enable a mix of land uses;
- Enable higher densities;
- Eliminate or reduce minimum off-street parking requirements for such development;
- Encourage travel by rail transit, buses, walking, bicycling, and other nonautomobile forms of transport;
- Encourage development of a mixture of market-rate and affordable housing;
- Encourage public-private partnerships in such development;
- Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and utilize other incentives to encourage such development;
- Encourage activity at a defined community center; and
- Encourage public input in the design of each transit station so each station reflects unique community design themes, history, or landmarks

- The Department of Permitting and Planning has begun developing a TOD overlay district for the entire corridor. This enabling legislation is scheduled to be presented to the City Council in December of 2007. The City Council appears to strongly support the proposed TOD ordinance. When the LPA was selected, the Council proposed an (unsuccessful) bill to delay further development in station areas until the ordinance was in place. The Council also passed a resolution encouraging DPP to increase the maximum height limit in the PUC.
- The average floor area ratio of zoning ordinance likely to be included in the CBD is approximately 8.0, a "medium" FTA rating. Because of Honolulu's unique environs, maximum building heights may be lower than in other regions to protect natural viewsheds from the mountains to the oceanfront.
- Maximum FARs and minimum setbacks for zoning districts "likely to be found in transit station areas" (per the documentation) are shown below. (Information such as a zoning map was not provided to allow specific zoning designations to be associated with specific station areas.) Commercial FARs generally compare favorably with allowable FARs in other non-CBD areas, rating at least "medium" (B-1 and I-4) and "high" for most other districts. Residential densities also compare favorably, with A-1 and A-2 zones corresponding to densities of rougly 20 to 25 units per net acre ("medium-high") and A-3 zones to densities of roughly 60 to 80 units per net acre ("high").

Use	Zone Code	Max. FAR	Front Setback (Feet)
Apartment (low-density) / Mixed use	A-1/AMX-1	0.9	10
Apartment (medium-density) / Mixed use	A-2/AMX-2	1.9	10
Apartment (high-density) / Mixed use	A-3/AMX-3	2.8	10
Business (neighborhood)	B-1	1.0	10
Business (community)	B-2	3.5	5
Business mixed use (community)	BMX-3	3.5	10
Business mixed use (central)	BMX-4	7.5	5

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	<table><tr><td>Industrial (limited)</td><td>I-4</td><td>1.0</td><td>10</td></tr><tr><td>Industrial (intensive) / (waterfront)</td><td>1-2/I-3</td><td>2.5</td><td>5</td></tr><tr><td>Industrial-Commercial mixed use</td><td>IMX-1</td><td>2.5</td><td>5</td></tr></table> • The Kaka'ako district's (stations 17 and 18) actual zoning standards vary depending on land use classification. Current base zoning in the district allows for a maximum of 1.5 to 3.5 FAR with a 45 to 200 foot height limit. Kaka'ako regulations provide for a maximum FAR of 3.5 to 3.8 for Planned Developments.
Zoning ordinances that enhance transit-oriented character of station area development and pedestrian access	• The DPP is developing a TOD ordinance that would address elements including placemaking, public amenities, open space, affordable housing, and improved motorized and non-motorized circulation requirements. • Guidance in Honolulu's *Land Use Ordinances* explicitly, "encourages public input in the design of each transit station so each station reflects unique community design themes, history, or landmarks." • *The Land Use Ordinances* contains restrictions that the Historic Core district should employ landscaping that complements strong retail character and public transit corridor function. • The *Land Use Ordinances* contains provisions for mixed-use zoning that encourages public open spaces and require that projects reflect a strong pedestrian orientation. This includes project specifications for arcades, open spaces, seating areas, outdoor features, and human-scaled architectural elements. • Current zoning in station areas 4 and 5 is Community Business (zone B-2), not mixed-use. The *Central O'ahu Sustainable Communities Plan* calls for mixed-use in these areas. • The Kaka'ako District Administrative Rules for the Makua (landward) and Makai (seaward) areas call for new developments to provide pedestrian enhancements such as public seating, dedication of public easements for pedestrian right-of-ways, and bus stop shelters. Minimum front setbacks range from 10 to 20 feet.
Zoning allowances for reduced parking and traffic mitigation	• Current zoning practices require moderate minimum amounts of commercial parking (1.67 spaces per 1,000 square feet of office space in the CBD, a "medium-high" rating, and 2.5 spaces elsewhere, a "medium" rating) and contain some allowances for shared parking facilities. Joint use of required parking spaces is restrained by some requirements and is at the discretion of the director of planning. Parking Requirements in Existing Zoning Ordinances <table><tr><th>Land Use</th><th>Oah'u Base Requirements</th><th>Central Business (BMX-4)</th><th>Kaka'ako District Base Requirements</th></tr><tr><td colspan="4">Commerical</td></tr><tr><td>Office, Other</td><td>1/400 sf</td><td>1/600 sf</td><td>1/444 sf</td></tr><tr><td>Dining</td><td>1/300 sf</td><td></td><td>0.9/300 sf</td></tr><tr><td>Shopping/Retail</td><td>1/300 sf</td><td></td><td>0.9/300 sf</td></tr><tr><td colspan="4">Residential</td></tr><tr><td>Detached Dwellings</td><td>2/unit</td><td></td><td>2/unit</td></tr><tr><td>Multifamily <600 sf</td><td>1/unit</td><td>1/unit</td><td>0.9/unit</td></tr><tr><td>Multifamily >800 sf</td><td>2/unit</td><td>1/unit</td><td>1.35/unit</td></tr></table> • The *Revised Ordinances*, Transit Oriented Development Ordinance calls for

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	reductions in minimum parking requirements. • The City and County's *Land Use Ordinance* has been amended to reduce parking requirements in mixed-use zoned areas that occur near transit stations, town villages, or activity centers.
d. TOOLS TO IMPLEMENT LAND USE POLICIES	**Rating: Medium-Low**
Outreach to government agencies and the community in support of land use planning	• The planning process for the HHCTCP has incorporated extensive public outreach programs that appreciate the unique local culture of personal exchange of information. The DTS created a website and monthly newsletters specifically for the corridor project to communicate and make information available to the public. • The City and County of Honolulu is undertaking a comprehensive community TOD planning process to develop neighborhood plans for each of the transit stations. This process relies heavily on input from local communities on issues of transit-supportive development. • The O'ahu Metropolitan Planning Organization and State of Hawai'i were partners in the project progression, and due to the intensity of U.S. Federal and military uses in the project corridor the Department of the Navy and other Federal agencies were consulted. Integration of the project with the O'ahu MPO is high. Opportunities exist to redevelop former military facilities in cooperation with the Department of Defense and BRAC, such as Barbers Point Airfield in the Ewa Development Area. However, no facilities scheduled for closure currently lie within the transit corridor. • The City and County of Honolulu has an active system of Neighborhood Boards of elected representatives that serve in advisory capacities on manners such as land use planning and capital investment projects.
Regulatory and financial incentives to promote transit-supportive development	• The *Primary Development Plan* recommends incentives to promote transit-oriented development, including the use of FAR bonuses, shared use of required parking, and incentives to developers and employers to reduce external trips. These are simply proposed incentives and have not been fully incorporated into regulatory frameworks. • The Hawai'i Community Development Authority (HCDA) is the designated planning entity for the Kaka'ako Community Development District. Stations 17 and 18 fall within this district. The HCDA provides public-private financing and incentives for developers to provide mixed-use, high-density, and affordable housing projects in this improvement district. • A significant portion of the project corridor falls within state-designated Enterprise Zones for business attraction and retention. • No information was provided on the use of expedited permitting processes, waived or flexible zoning regulations, or other regulatory strategies to promote preferred development.
Efforts to engage the development community in station area planning and transit-supportive development	• Information on this factor was not included in Template 11. Further research did not reveal any posted information on efforts to engage the development community.

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III. PERFORMANCE AND IMPACTS OF POLICIES	
a. PERFORMANCE OF LAND USE POLICIES	**Rating: Medium**
Demonstrated cases of developments affected by transit-oriented policies	• Most recent development in the immediate Honolulu area has been concentrated in the areas of Kaka'aku and the Ala Moana Shopping Center (stations 17-19). While a number of these projects were underway before the transit project and corridor alignment were proposed, the documentation suggests that the project's potential may have generated a higher level of development activity near sites expected to be included in the transit alignment, such as Ala Moana Center. Recent developments that provide pedestrian amenities, support mixed uses, and have boosted density within this area include: – The Ala Moana Center complex, which includes Honolulu's largest public transit hub and largest outdoor, pedestrian shopping mall, is completing a significant expansion of retail space (near 300,000 sq ft.) in the immediate station area and is expected to be ready in 2008. – The *Keola-La'i,* a 44-story, 352 unit building with ground floor retail, is currently under construction one block from a proposed station on a parcel previously used as a surface parking lot. – The *Halekauwila Place*, a 18-story affordable housing complex with street level commercial space, is proposed for a lot adjacent to the *Halekauwila Street* station. – The *Hokua Tower*, a 41-story, 248 unit building recently completed with ground-level commercial space, replaces several gas stations and low-rise office buildings. – The *Ward Village Development*, is an 18-story, 175 unit building currently under construction that will include 200,000 square feet of retail space on two levels. – The *Ward Avenue Commercial Area*, within which the previous developments are located, is the centerpiece of the redeveloping Kaka'ako Community Development District. The state HCDA has approved many zoning modifications to ensure that all new developments incorporate pedestrian street frontages among other TOD features. • Examples of recent projects with transit-supportive design (or otherwise) in other station areas were not provided.
Station area development proposals and status	• Major planned developments in the undeveloped western end of the corridor (stations 1-3) are demonstrating transit-supportive designs including multi-use buildings, high densities, pedestrian-oriented streets, and connected street networks. – The future campus of the University of Hawai'i West is located between stations 2 and 3 and in the future urban center of East Kapolei. Scheduled to open in the fall of 2009, this 200 acre site will, once fully developed, support as many as 1,500 students. The design of the campus is intended to be pedestrian and transit oriented. In addition to the college campus, the proposed development on UH West O'ahu lands includes over 4,000 residential units, over 800,000 square feet of commercial floor space, and a number of administrative and classroom buildings in a 500-acre development area. Currently, maximum residential density is 19 units per acre; however, the university has indicated a willingness to increase the density in the

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	vicinity of transit stations. – The Department of Hawai'ian Home Lands (DHHL) will move its state operations to new office facilities being constructed in the vicinity of station 2 by 2008. Within the DHHL area are plans to develop several hundred acres for new homestead housing, to construct a new retail and shopping center, and to complete the state's largest community center by 2010. This move is intended to relieve commute pressures and encourage ridership among state employees. – The proposed Ho'opili development in East Kapolei, near station 3 and the future UH West Campus, is designed to be the first master planned, wholly transit–orientated development on O'ahu and is dependent on transportation linkages provided in the HHCTCP. The planned unit development is to occupy 1,600 acres and include 11,700 homes, as many as five schools, a regional park, retail units, and other commercial space in a walkable design. Residential densities are planned at up to 50 units per acre. The project is not expected to be occupied until 2012.
b. POTENTIAL IMPACT OF TRANSIT INVESTMENT ON REGIONAL LAND USE	**Rating: Medium-High**
Adaptability of station area land for development	• Opportunities for redevelopment are greatest near the termini of the alignment in the Ewa Plain and the Kaka'ko former warehouse district. • Within a ½ mile radius of the proposed stations there is currently 1,700 acres of vacant land and 5,000 acres of built land. Near stations 1-3 in the Ewa Development area there is an average of 500 vacant acres in the vicinity of stations (nearly all of the station areas). Within walking distance of the remainder of the stations the average vacant land is just 14 acres and beyond Salt Lake (stations 11-19) the average is 3 acres. • The existing policies within the Kaka'ako Community Development District encourage infill and TOD redevelopment. Areas near stations in the Waipahu, Pearl City, and Salt Lake communities may be the least adaptable to redevelopment due to the concentration of industrial/light commercial uses, U.S. military, federal, and state property, and lower demand than other areas.
Corridor economic environment	• The Honolulu area experienced net population growth in the last decade, but saw a significant redistribution of population to certain areas. The Primary Urban Center Development Area saw a net decline in population of 3 percent between 1990 and 2000 while the Ewa Development Area saw its population grow by 60 percent. Within the Primary Urban Center, trends were diverse with neighborhood areas such as Downtown, Ala Moana, and Waipahu growing in population from 22 to 29 percent while neighborhoods such as the Airport Area declining 30 percent and Aiea and Pearl City remaining stable. • The population of the corridor area is projected to grow over 40 percent from the 2005 population of 433,000 to 611,000 by 2030. This is consistent with state long-range economic forecasts for the City and County of Honolulu which predict significant out-migration to other islands but still with a net increase from 2000-2030 of 50 percent. • Employment in the corridor is forecast to expand 27 percent to 427,000, while employment within the station areas is expected to grow 20 percent. • The City and County of Honolulu saw overall favorable economic conditions in 2007 with annual increases in employment and general tax revenues, but declines

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	in tourism indicators. • In 2007, Honolulu's office vacancy rates fell to 7 percent, the lowest since 1991. Retail rates were low at 3 percent, and industrial vacancy stood at 2 percent. Monthly office space rents are between $1.40 and $1.68 per square foot. • In 2006, there were $3.8 billion in 350 transactions in the real estate investment market, nearly two-thirds of which was commercial investment. Land values in downtown Honolulu are high; the assessed value of vacant land in the financial district is approximately $275 per square foot or $12 million per acre. To the west, in neighboring Chinatown, land values are $175 per square foot or nearly $8 million per acre.
IV. OTHER FACTORS (OPTIONAL)	
Other factors not otherwise identified	• Tourism may complement the HHCTCP project and facilitate greater ridership, trip generation, and travel efficiency during seasonal periods. In 2005, 4.8 million persons visited the Island of O'ahu and contributed $11.9 billion in expenditures to the economy.

F. SUBMISSION INFORMATION

TIMELINESS OF SUBMISSION

FY	Description	Rating (Pass/Fail)
2007	The submission was provided at the end of July, well in advance of the Sept. 7 deadline, and requested by FTA for early review.	Pass

QUALITY OF SUBMISSION

FY	Description	Rating (1 – 5)
2007	The submission was generally well-organized and comprehensive, but lacked sufficient detail, information, and focus, particularly as related to supporting information for plans and policies. Documentation of the Locally Preferred Alternative and existing land use in corridor was very good with considerable mapping, imagery, and quantitative data. Some information provided was out of date, irrelevant or incomplete, and the proposal could have benefited overall from greater scope, depth, and narrative and less repetition. Detailed information on zoning within each station area was not provided.	2

LIST OF SUBMISSION MATERIALS

FY	Materials Submitted
2007	• Template 11: Supplemental Land Use Information and Supporting Documentation Worksheet with electronic links to additional documents.

G. RECOMMENDATIONS FOR IMPROVEMENT

Factor	Potential Strategies to Improve Land Use Rating
Existing Land Use	• Demonstrate higher-density, transit-oriented development (or potential for) in proposed station areas other than the east and west termini of the alignment (e.g. Leeward Community College, Pearl Highlands Shopping Center, Farrington Highway stations, and Kamehameh Highway stations.)
Growth Management	• Provide greater detail on the scope and effectiveness of the Urban Growth Boundary. • Consider including brief explanation of Hawai'i's unique land use system and the relationship between the City and County of Honolulu's General Plan, Area Development Plans, Sub-Area Plans and their implementation through the revised ordinances and permitting approval process.
Transit-Supportive Corridor Policies	• Ensure timely creation and adoption of Transit-Oriented Development Ordinance overlay district for the entire corridor. Provide documentation of TOD zoning details once adopted. • Provide greater detail on plans, if any, to connect station areas to major area trip generators or intermodal hubs (e.g. Ford Island, Aloha Stadium, Honolulu International Airport, Middle Street Transit Center to pedestrian or shuttle connections at stations).
Zoning Regulations	• The City and County's Revised Ordinances and many communities' development plans contain few specific zoning requirements, outside plan objectives, for transit, pedestrian accessibility, and provisions to encourage transit-oriented development. • Provide information (e.g., zoning maps) on which specific districts are applicable to which station areas.
Tools to Implement Land Use Plans	• Document the successful application to station area developments of tools to support TOD, such as expedited permitting, use of tax credits or incentives, or zoning allowances. Document the successful application of any tools or incentives within enterprise zones that cover the majority of the eastern alignment. • Demonstrate support among local agencies and organizations (including Neighborhood Boards) for developing and adopting tools to achieve desired development patterns.
Performance of Land Use Policies	• Provide more detailed information on existing or recently planned TODs or station-area developments that illustrates the mixed-use, transit/pedestrian oriented nature of land-use plans or identify any specific applications of the policies and objectives in special area development plans.
Potential Impact of Transit Investment on Regional Land Use	• Given the built-up nature of the corridor, the greatest potential impact of the project is through redevelopment. To provide evidence of this impact consider providing greater and updated information on economic and housing conditions within the corridor, including, for example: vacancy rates (commercial and residential), market rents, absorption rates and other trends. • Conduct a market assessment or study to establish evidence that transit investment has the potential to alter development and land-use patterns.