FINAL ENVIRONMENTAL ASSESSMENT

LONG-RANGE DEVELOPMENT PLAN FOR HONOLULU COMMUNITY COLLEGE

Prepared in Partial Fulfillment of the Requirements
of Chapter 343 Hawaii Revised Statutes and
Title 11, Chapter 200, Hawaii Administrative Rules

Prepared for:

University of Hawai'i
Community Colleges Facilities Planning Office
Honolulu, Hawai'i

Prepared by:

Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawai'i 96814

and

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1712 S. King Street, Suite 201
Honolulu, Hawa'i 96814

September 2007

University of Hawai'i

HONOLULU COMMUNITY COLLEGE

September 21, 2007

Laurence K. Lau, Acting Director
Office of Environmental Quality Control
State Office Tower
235 South Beretania Street, Room 702
Honolulu, Hawaii 96813

Dear Mr. Lau:

Subject: Finding of No Significant Impact (FONSI)
Long Range Development Plan for Honolulu Community College
Honolulu, Oahu, Hawaii

The University of Hawaii Community Colleges Facilities Planning Office, State of Hawaii has reviewed all comments received during the 30-day public comment period that began on January 23, 2007 and ended on February 22, 2007. The Facilities Planning Office has determined that this project will not have significant environmental effects and has issued a Finding of No Significant Impact (FONSI). Please publish this notice in the next edition of the Environmental Notice.

A completed OEQC Publication Form and four copies of the Final Environmental Assessment are attached.

Please call Mr. Owen Miyamoto of my staff at 832-3726 if you have any questions.

Sincerely,

Ramsey R. Pedersen

Ramsey R. Pedersen
Chancellor

Attachments

874 Dillingham Boulevard, Honolulu, Hawai'i 96817
Telephone: (808) 845-9211, Facsimile: (808) 845-9173, http://www.honolulu.hawaii.edu

PROJECT PROFILE

Project:	Long Range Development Plan for Honolulu Community College
Proposing Agency:	University of Hawaii Community Colleges Facilities Planning Office Honolulu, Hawaii
Accepting Authority:	University of Hawaii Community Colleges Facilities Planning Office Honolulu, Hawaii
Location:	Kapalama, Honolulu, O'ahu
Tax Map Key: *Main Campus*	1-5-005: 003, 039; 1-5-006: 026, 027, 028; 1-5-017: 001, 004, 005, 006; 1-5-018: 001, 002, 003, 004
Kokea Street Campus:	1-5-20: 009
Land Area: *Main Campus:*	25.622 acres
Kokea Street Campus:	6.446 acres
Landowner:	University of Hawaii, State of Hawaii
State Land Use Designation:	Urban
General Plan:	Primary Urban Center
Development Plan Area:	Primary Urban Center
Development Plan Land Use Map:	***Institutional: College/University*** (Main Campus) Industrial (Kokea Street Campus)
Zoning:	IMX-1
Special Management Area	Outside Special Management Area
Existing Use:	Community College
Need for Environmental Assessment:	Propose the use of State land and funds (§11-200-5(c)), Hawaii Administrative Rules
Determination:	Finding of No Significant Impact
Contact Person:	Ramsey Pedersen Chancellor, Honolulu Community College 874 Dillingham Boulevard Honolulu, Hawaii 96817 Telephone: (808) 845-9225

Note: Substantive Revisions to the text of the Draft Environmental Assessment are in ***bold italic*** type. Deleted text is [underscored and bracketed].

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EXISTING CONDITIONS 1

A. Introduction

Honolulu Community College was founded in 1920 with the establishment of the Territorial Trade School in Palama. The institution was renamed Honolulu Technical School in 1955 and, with the Community College Act of 1964, Honolulu Technical School was incorporated into a statewide community college system and renamed Honolulu Community College. In 1966, Honolulu Community College was authorized by the Board of Regents of the University of Hawaii to award Associate in Arts and Associate in Sciences degrees, thus mandating the institution to become a comprehensive community college. Since 1970, the Accrediting Commission of Community and Junior Colleges, Western Association of Schools and Colleges has continuously and fully accredited Honolulu Community College.

Honolulu Community College ("HCC or College") is a two-year liberal arts and technical/vocational institution under the University of Hawaii's community college system. It is the primary comprehensive technical training institution in the State of Hawaii and the Pacific and charged with the task of developing and training the future technical work force on the island of Oahu and for selected programs in the State. This charge is achieved by providing state of the art knowledge and skills in a variety of technical, occupational, and business fields. The College takes the lead in presenting to the community, appropriate businesses, and industries, the most recent developments in advanced technology. It also assists in retraining those who are already employed and those who aspire for upward mobility in other related industrial/business occupations.

HCC integrates basic academic and general courses with technical-occupational programs. The College provides a diverse curriculum with courses in Humanities and Social Sciences, Natural Sciences, Business Technologies, Food Service Technologies, Public Services, Human Services, and Technologies in various business and construction related trades.

The College has evolved into a fully comprehensive State community college. Learning assistance, remedial/developmental, and student services programs enable students to adapt and use the many resources and alternative learning modes provided by the College. It has also established a solid community/business service program to respond to the needs of the community. Special programs include non-credit, skill upgrade training for the currently employed technician, advanced technology and computer training, instruction and services for older adults, construction trades, and credit outreach education for the military.

HCC has a current student enrollment of approximately 3,800 full time equivalent (FTE*) students. About three-fourths of the student body attends class on a part-time basis. Of those part-time students, almost 70 percent are working. There are approximately 145 teaching faculty at HCC. Sixty percent of the faculty teaches general education courses while forty percent teach technical occupational courses.

*A full time equivalent student represents the use of classes and facilities by one full time student. Since the typical student at HCC only spends a portion of the school day on campus, one full time equivalent student may represent several students who attend HCC on a part time basis.

B. Location

Honolulu Community College is located in the heart of urban Honolulu in the Kalihi-Palama neighborhood just outside of the Chinatown district and Downtown Honolulu. The Main Campus is located on the northeast corner of the intersection of Dillingham Boulevard and Kokea Street. Dillingham Boulevard, a major road that traverses through the Iwilei and Kalihi areas, passes the Campus to the west and Kokea Street bounds the Campus to the north. Kokea Street separates the College from Kapalama Drainage Canal, which flows east to west. Kaiulani Elementary School and apartment buildings border the campus on the east. Location and Vicinity Maps are shown in Figures 1 and 2.

The Main Campus is surrounded by commercial and light industrial uses. An array of commercial businesses including restaurants, neighborhood shopping centers, and car dealerships front the Main Campus on Dillingham Boulevard. Likewise, restaurants, general contractors, subcontractors, shops, and a newspaper plant are located on Kokea Street. Kaiulani Elementary School, commercial activities, and apartment housing are located behind the campus.

Two parcels adjoining HCC to the west will be added to the Main Campus. The parcels are under the jurisdiction of the State Department of Land and Natural Resources ("DLNR"). Hazardous material remediation work at the former Kapalama Incinerator site (TMKs 1-5-018: 002, 004) has been completed and the property returned to the DLNR. In turn, the DLNR has given HCC permission to use the site for surface parking.

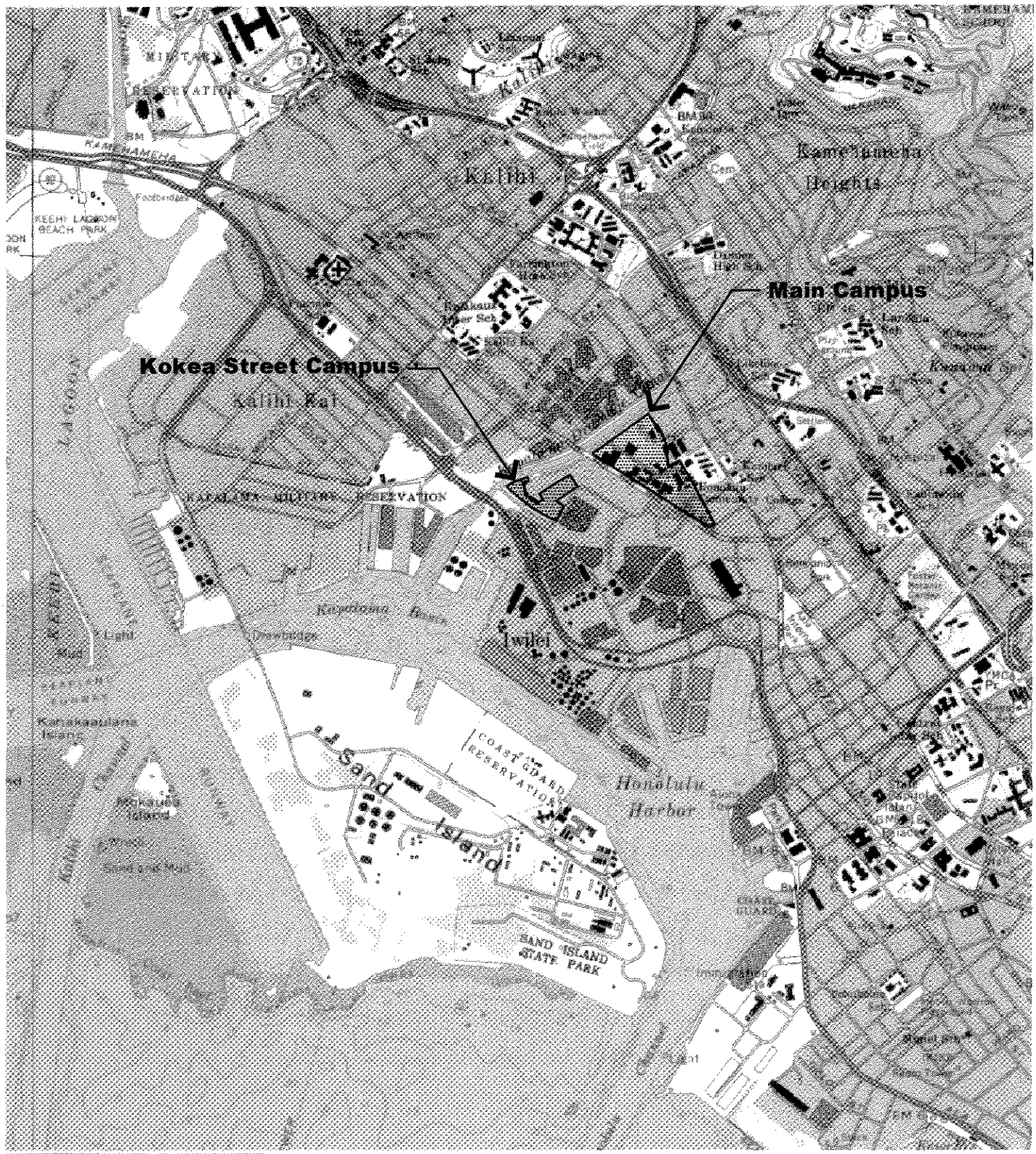
A third parcel (TMK: 1-5-018: 003), which is a narrow, elongated lot, borders the Kapalama Incinerator property and part of the Main Campus on the east. This former railroad right-of-way with access onto Kokea Street is improved with three unoccupied apartment buildings. Between 1989 and 2000, the apartment buildings were leased to Homeless Solutions, Inc. In 2000, the program's lease was not extended and the land was returned to the University of Hawaii for campus development. This parcel is planned for a proposed training center ("Kokea Training Center") that would provide pre-construction, job readiness, and life skills education for low to moderate income persons. The program will be funded by a grant from the U.S. Department of Housing and Urban Development.

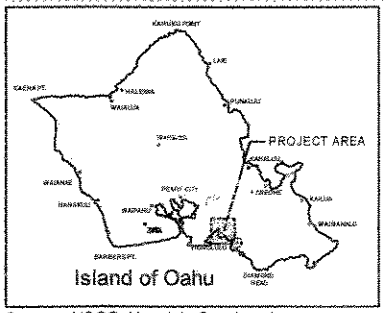
The Kokea Street Campus is located one block west of the Main Campus at the end of Kokea Street. The Campus is accessed from Dillingham Boulevard.

HCC programs also are located throughout the Island of Oahu. The Construction Academy provides programs to prepare high school students with skills to pursue a career in construction and is located on North King Street behind the Main Campus. There is also a campus near the Honolulu International Airport for the Aviation Maintenance, Avionics, and Aerospace Nondestructive Testing and Maintenance Technology programs. The Marine Science education program is located at Sand Island. The Commercial Aviation flight training program is located at Kalaeloa Airport in Kapolei.

C. Land Ownership

Fourteen parcels comprising HCC are shown in Figures 3a and 3b and listed in Table 1. Twelve of the parcels are owned by the University of Hawaii and two are owned by the State of Hawaii and under the jurisdiction of the Department of Land and Natural Resources.





Source: USGS, Honolulu Quadrangle

Figure 1
Location Map

Honolulu Community College

University of Hawaii — Kapalama, Honolulu, O'ahu

NORTH

LINEAL SCALE (FEET)
1000 500 0 500 1000 2000

Gerald Park
Urban Planner
December 2006

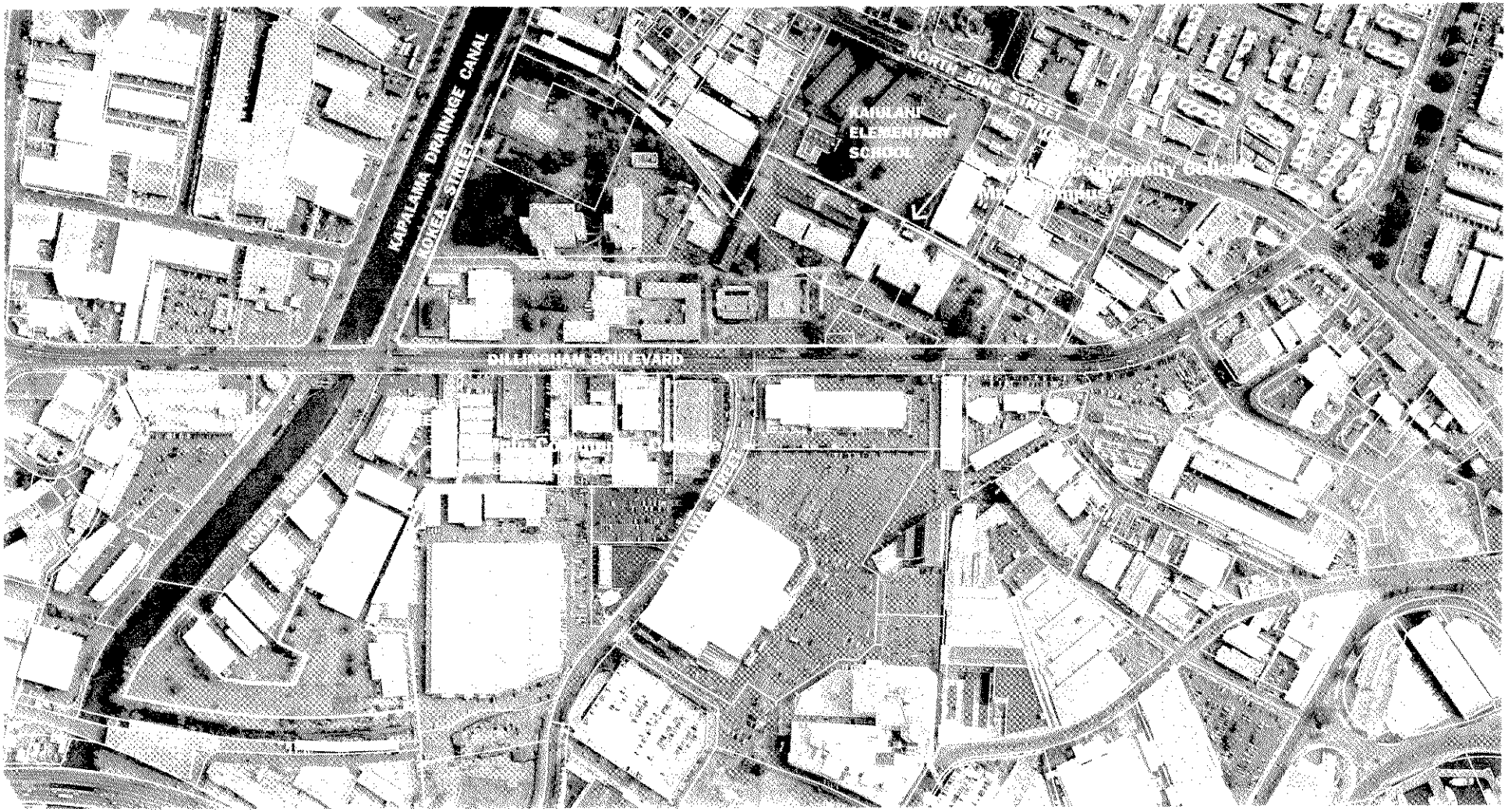


Figure 2
Vicinity Map

Honolulu Community College

University of Hawaii — Kapalama, Honolulu, O'ahu

NORTH

LINEAL SCALE (FEET)

Source: City & County of Honolulu GIS Database
Aerial Photo: USGS Website

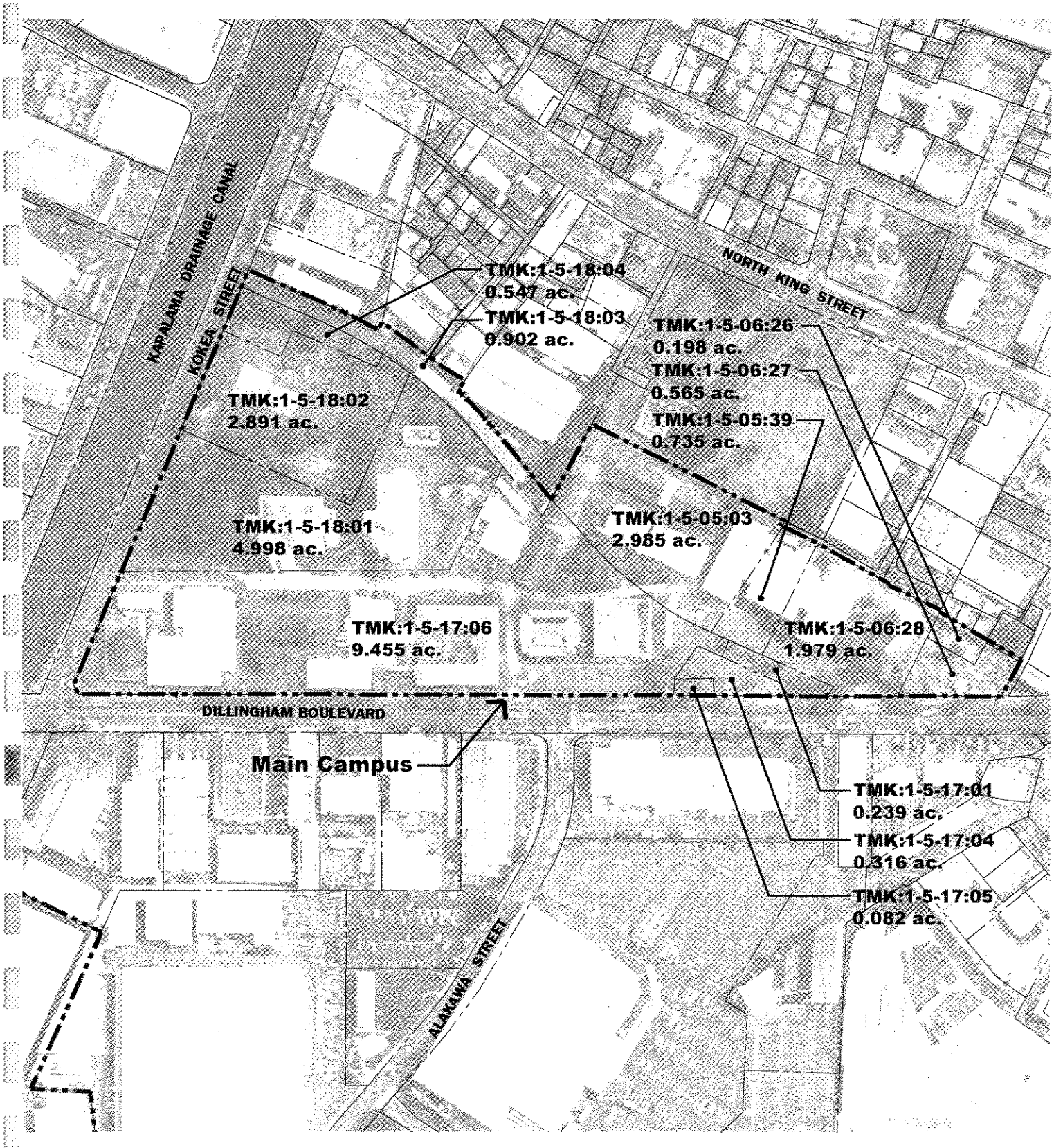


Figure 3a
Tax Map - Main Campus
Honolulu Community College
University of Hawaii — Kapalama, Honolulu, O'ahu

NORTH

LINEAL SCALE (FEET)
150 75 0 75 150 300

Gerald Park
Urban Planner
December 2006

Source: City & County of Honolulu GIS Database

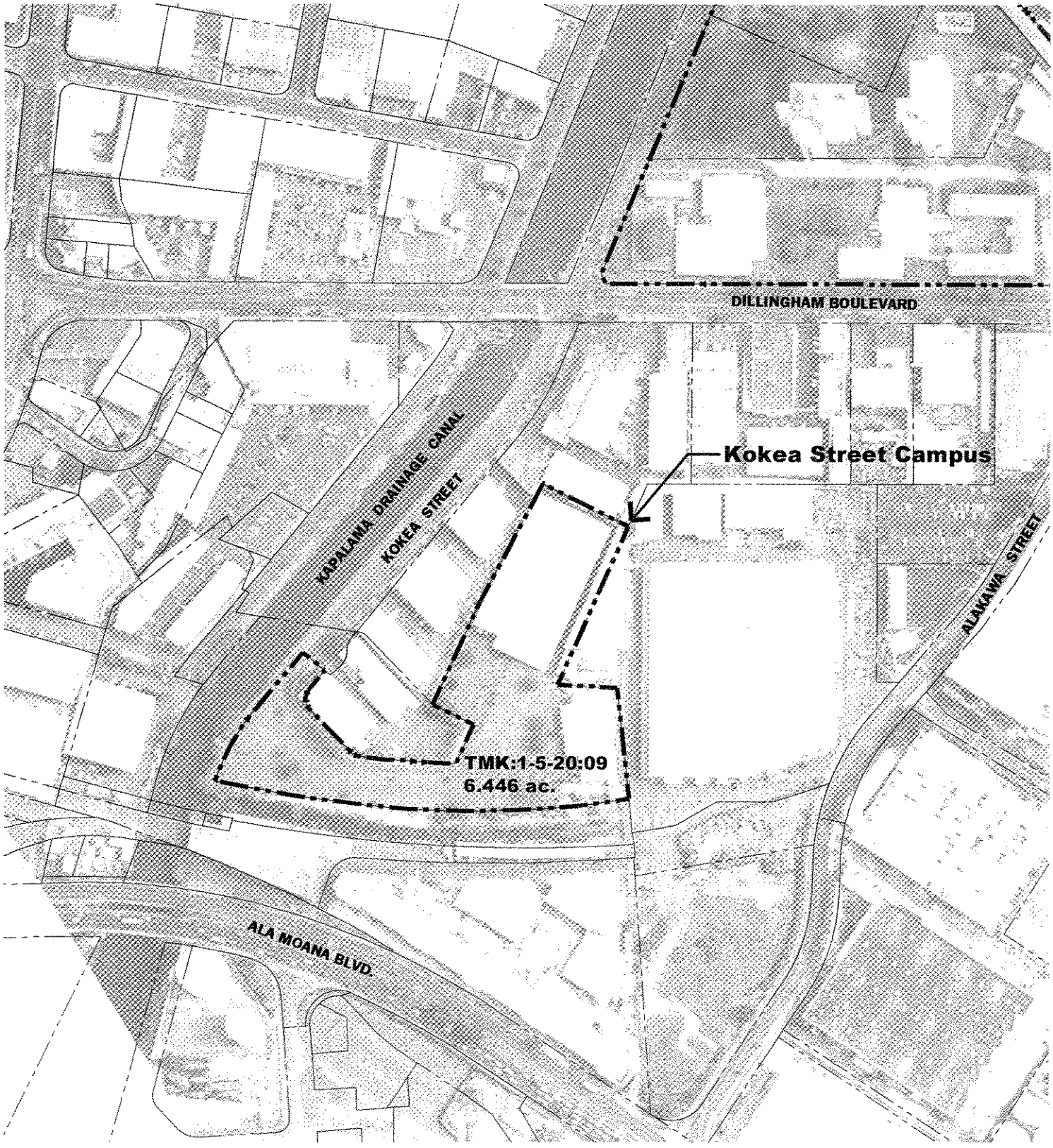


Figure 3b
Tax Map - Kokea Street Campus
Honolulu Community College
University of Hawaii Kapalama, Honolulu, O'ahu

NORTH

LINEAL SCALE (FEET)
150 75 0 75 150 300

Gerald Park
Urban Planner
December 2006

Source:City & County of Honolulu GIS Database

Table 1. Land Ownership

Tax Map Key	Area (Acres)	Owner	Campus
1-5-005: 003	2.985	University of Hawaii	Main
1-5-005: 039	.735	University of Hawaii	Main
1-5-006: 026	0.198	University of Hawaii	Main
1-5-006: 027	0.565	University of Hawaii	Main
1-5-006: 028	1.979		
1-5-017: 001	.239	University of Hawaii	Main
1-5-017: 004	.3162	University of Hawaii	Main
1-5-017: 005	.0826	University of Hawaii	Main
1-5-017: 006	9.455	University of Hawaii	Main
1-5-018: 001	4.998	University of Hawaii	Main
1-5-018: 002	2.8913	State of Hawaii	Main
1-5-018: 003	.902	University of Hawaii	Main
1-5-018: 004	.5475	State of Hawaii	Main
1-5-020: 009	6.446	University of Hawaii	Kokea

The Main Campus occupies a land area of 25.622 acres and the Kokea Street Campus 6.446 acres for a total of 32.068 acres.

D. Main Campus

1. Existing Buildings

Buildings on the Main Campus are a mixture of temporary buildings, very old hollow tile/concrete buildings, and fairly new buildings. The temporary buildings are inadequate to meet the needs of the school curriculum and do not provide options for future expansion. The older buildings are approaching their useful life-service span of between 40 to 50 years.

The Main Campus consists of twenty-five buildings organized on either side of a pedestrian mall. The mall, which is aligned through the center of the campus, functions as a centralized pedestrian corridor with walkways connecting all campus buildings to it. It is the primary thoroughfare for pedestrian traffic and also used by HCC maintenance and emergency vehicles to access buildings within the campus interior. Lined with medium size shade trees, walkway lighting fixtures, and outdoor seating areas, the mall is also an outdoor gathering area for students. Underground water, sewer and drainage systems are generally located within the mall area.

Most of the College buildings are one or two stories in height. Two buildings are 6 stories in height. Buildings are painted in light colors that contrast with the dark green landscaping foliage.

The Library, Campus Center, Child Care, Sheet Metal, Maintenance, Printing/Duplication, Machine and Pipefitters Shops, Electrical Maintenance and Installation, and Electronics Buildings are located on the north side of the mall.

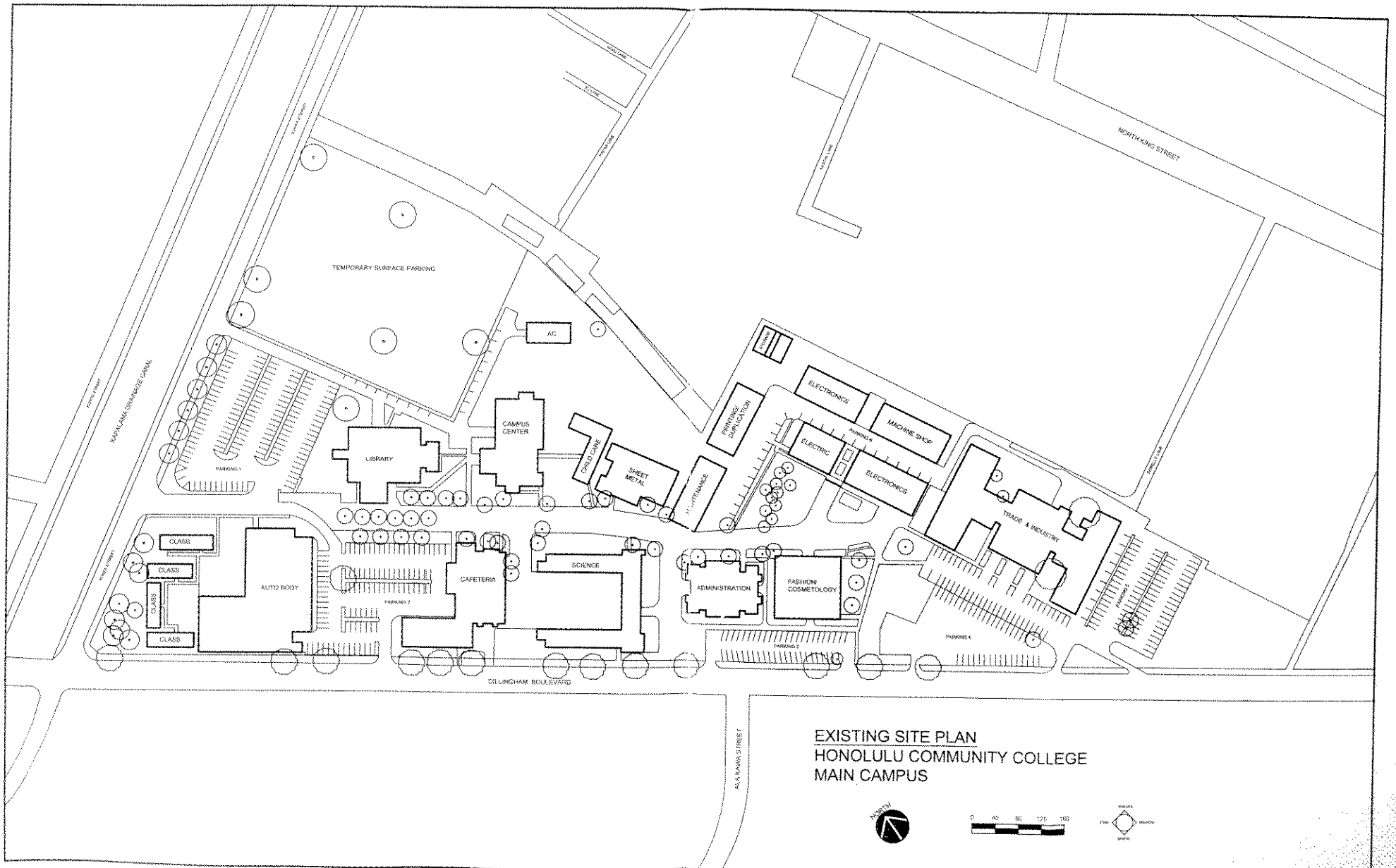
The Auto Body Shop, Apprenticeship/Cafeteria, Science Complex, Administration, and Fashion/Cosmetology Buildings line the mall on its south side. The Trade and Industry Building is located at the east end. An Existing Site Plan is shown in Figure 4 and Building Space Allocation is shown in Table 2.

Table 2. Existing Building Space Allocation

Building Name	Gross square footage
Library	103,272 gsf
Campus Center	79,803 gsf
Child Care	3,505 gsf
Sheet Metal	11,314 gsf
Maintenance	643 gsf
Print/Duplicating Shop	6,449 gsf
Operations & Maintenance	1,008 gsf
Human Services	1,008 gsf
Machine Shop	5,953 gsf
Pipefitters Shop	5,912 gsf
Electrical Installation & Maintenance	6,964 gsf
Electronics	11,203 gsf
Trade & Industry Building	80,247 asf
Service Maintenance Facility	1,845 gsf
Service Maintenance Facility Annex	473 gsf
Fashion/Cosmetology	133,460 gsf
Administration Building	17,380 gsf
Science Complex	32,733 gsf
Bakery/Cafeteria	18,369 gsf
Auto Body	30,711 gsf
Commercial Art	2,323 gsf
Classrooms	5,360 gsf
Air Conditioning Plant	2,396 gsf
TOTAL	**468,181 gsf**

Source: Paul Louie & Associates, 2006.

At six floors in height, the Library is one of the prominent buildings on campus. Located near the main entrance to the campus, it anchors the west end of the mall. The first and second levels house the college Library. Instructional Resource Center facilities are located on the third level. Classrooms and offices for various liberal arts courses occupy the remaining three floors.



EXISTING SITE PLAN
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS

Figure 4

The 6-story Campus Center adjoins the Library on the east. A Bookstore, Health Rooms, and offices comprise the first level and student recreation rooms and counseling services the second level. Classrooms and offices occupy the remaining four levels.
The Child Care building, a one-story, temporary wooden structure, is located on the east side of the Campus Center. The L-shaped building contains classrooms and has a fenced-in playground area at the rear of the building.

The Sheet Metal Shop, a one-story building, is located in the middle of the campus. The Maintenance and Printing/Duplication Shops are located next door to the Sheet Metal Shop. The Electronics Maintenance Technology Building and a vacant machine shop building are situated along the service road at the rear of the campus.

The Electrical Maintenance and Installation Building and Electronics Building are located to the south of the Electronics Maintenance Technology Building.

The Trade and Industry Building is located on the Waikiki end of the mall. This large two-story structure contains shops and offices for construction industry trade programs. The building is located near two student parking lots.

The two-story Fashion/Cosmetology Building, which houses classrooms, laboratories, and offices for the Cosmetology and Fashion programs, is located opposite the Electrical Maintenance and Installation and Electronics Buildings.

The two-story Administration Building is located in the center of the campus. Offices for academic, institutional, and student services support functions are housed in this building.

The Science Complex is a two-story structure with classrooms and offices for the various Science programs.

Food service program and functions are housed in the one-story Apprenticeship/Cafeteria Building.

Located at the corner of Dillingham Boulevard and Kokea Street, the Auto Body Shop Building contains labs and offices for the Auto Body Repair and Painting programs. The one-story wooden structure is posted above ground.

Employment Training Center classrooms are located in three wooden structures next to the Auto Body Shop Building.

The existing buildings have approximately 468,181square feet of gross area. The gross square footage for each building is listed in Table 2.

2. Vehicle Access

Vehicles access the Main Campus at several locations. The primary entrance is from Kokea Place off Kokea Street where a driveway leads to two parking lots, one for students and one for faculty and staff. A short access road from Kokea Street leads to the back of the Library, Campus Center, and Air Conditioning Building.

A service road which provided access to three apartment buildings from Kokea Street has been closed temporarily. The buildings are scheduled to be demolished in 2007.

From North King Street, Robello Lane connects with the service road at the back of the east end of campus and provides access to the Trade and Industry Building and supporting buildings. The service road does not access onto Kokea Street.

A driveway from Dillingham Boulevard enters two parking lots near the Trade and Industry Building at the Waikiki end.

The Administration Building is accessed directly from Dillingham Boulevard at Ala Kawa Street.

3. Pedestrian Access

Pedestrians can enter the College from three entry points. Kokea Place, located adjacent to Kokea Street, serves as the main entrance where people can enter from Kokea Street or the parking lot adjacent to Kokea Place. Students also can enter from the parking lots near the Trade and Industry Building. The third entry is near the center of campus where a convenient bus stop and shelter are located in front of the Administration and Science Buildings.

4. Parking

According to the City & County of Honolulu Land Use Ordinance (LUO), 336 off-street stalls are required for the current student body and faculty. This is based on 1 stall per 10 students, plus 1 stall per 400 square feet of office floor space for Technical and Trade schools.

Surface parking areas are located for convenient access to all buildings. Five parking areas provide 510 parking stalls for student, faculty, and staff use. Lot 1 at the main entry on Kokea Place has 156 stalls for student parking. Lot 2 further along the same road has 108 stalls for faculty and staff. Lot 4 fronting the Administration Building and Fashion/Cosmetology Building has 41 stalls for faculty and staff plus visitor's parking. Lots 3 and 7 near the Trade and Industry Building provides 195 stalls for students. Twenty stalls are available for students at Lot 5 at the Education Center on North King Street and 18 stalls for faculty and staff at Lot 6. A new 22 stall parking area was recently constructed behind the Campus Center. Parallel parking spaces are also available along the service road. Handicap stalls for 21 vehicles is disbursed in six of the eight parking areas.

The former Kapalama Incinerator site has been cleared and graded for use as a parking lot. As presently configured, the lot can provide surface parking for 450 vehicles.

5. Infrastructure

a. Water System

Water is supplied through an 8-inch FM meter with a 4-inch compound meter by-pass. This meter is connected to a 12-inch Board of Water Supply (BWS) water main within Dillingham Boulevard. Another meter is cross connected [1] to an 8-inch FM meter with 4-inch compound meter by-pass within Kokea Street. The meter within Kokea Street is connected to an 8-inch BWS water main in Dillingham Boulevard. The former Kapalama Incinerator and vacant apartment buildings are supplied water by a 12-inch BWS water main originating in King Street.

An 8-inch main within the mall connects the meters in Kokea Street to the meters in Dillingham Boulevard. This on-site water main is the primary water main loop for the campus. A secondary 4-inch water main loop encircles the maintenance and machine shops. This 4-inch loop taps off the 8-inch water main within the mall and provides water service to buildings between the Sheet Metal Building and the Pipe Fitters Shop. Water is supplied to the Trade and Industry Building by an 8-inch water main branch extending from the primary water main within the mall. Water laterals for the remaining buildings are connected directly to the primary 8-inch water main.

The on-site water system distributes an estimated 162,000 gallons per day (gpd). [2]

b. Drainage System

The City and County of Honolulu (City) maintains two off-site drainage systems in Iwilei. The primary drainage system in the area is the City's Kapalama Drainage Canal. The second system, which is within Dillingham Boulevard, discharges into Kapalama Drainage Canal near the southwest corner of the campus.

The access road to the vacant apartments site serves as a third off-site discharge area. Runoff flows along the western edge of the road where it enters a box drain adjacent to Kokea Street and discharges into Kapalama Drainage Canal.

The campus is divided into six drainage areas.[3] The Kokea Street parking lot and the Kapalama Incinerator site are generally level with average slopes of one percent or less. Runoff sheet flows across these areas toward Kokea Street where it enters three grate inlets along the northern boundary of the campus. The grate inlets connect to drain lines running under Kokea Street which discharge into the Kapalama Drainage Canal. A third area discharging into the canal is the 9.70 acres between the Auto Body Building and the Pipe Fitters Shop. Grate inlets are located throughout the campus at localized low points. The inlets connect to a six by four feet concrete box drain under the mall which discharges into Kapalama Drainage Canal.

Two drainage areas discharge runoff into the Dillingham Boulevard storm drain system. These two areas abut Dillingham Boulevard and extend from Kokea Street to the Trade and Industry Building parking lot. Runoff sheet flows toward Dillingham Boulevard and enters the City storm drain system through catch basins within the City right-of-way.

The final drainage area lies along the eastern boundary between the Campus Maintenance Building and the Kapalama Incinerator site. Runoff from this 0.88 acre landscaped area sheet flows into a grass swale. The swale discharges onto the access road leading to the

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[1] Cross-connected meters are physically connected through the common on-site water main or distribution system. Under adverse conditions, a water meter can supply water to the common on-site water main in a manner which creates a reverse flow condition at the cross connected meter.

[2] Estimate based upon the existing use of HCC facilities and methods detailed in the BWS Water System Standards.

[3] Since a topographic survey was not completed for the HCC Main Campus, all drainage patterns presented herein were compiled from as-built drawings. No assurances can be made that these conditions actually exist in the field.

vacant apartments site off Kokea Street. As previously mentioned, runoff enters a drain box adjacent to Kokea Street.

c. Sanitary Sewer System

The 36-inch Kapalama Interceptor Sewer Line within Dillingham Boulevard and the 18-inch Dillingham Boulevard-King Street Relief Sewer that crosses the campus between the Fashion Building and the Electronics Building are the main sewer systems servicing the Main Campus.

Four connections to the City sewer systems accommodate an estimated average flow of 162,000 gpd.[4] Two connections are made to the Dillingham Boulevard-King Street Relief Sewer which services the buildings bounded by the Science Complex, the Machine Shop and the Trade and Industry Building. The third connection is a sewer lateral connecting the Auto Body Building to the Kapalama Interceptor Sewer Line.

An 8-inch on-site sewer main within the mall services the Library, Campus Center, Child Care portable, Sheet Metal Building, and Cafeteria. The fourth connection is where this 8-inch on-site sewer main connects to a City maintained sewer branch within Kokea Street. The 8-inch branch connects the on-site sewer system to the Kapalama Interceptor Sewer Line. City records indicate that the Kapalama Interceptor Sewer Line also provides HCC with three additional stub outs which are currently not in use.

A third City sewer system, the Palama Area Relief Sewer, is [planned to be in service by December 2000] ***proposed for the area***. A City maintained 8-inch sewer main within Kokea Street will be abandoned when construction of the relief sewer is completed. City construction plans show the existing campus sewer system within the mall will connect to the Palama Area Relief Sewer.

d. Fire Protection System

Eight on-site fire hydrants provide fire protection for all existing buildings. Four fire hydrants are located along the mall, which can be used as a fire vehicle access route. The mall can be accessed from Kokea Street and the Apprenticeship/Cafeteria parking lot along Dillingham Boulevard. The fire hydrant near the Electronics Building is accessible from the adjacent parking lot; ingress to and egress from the Electronics Building parking lot is through the mall. The fire hydrant within the Trade and Industry Building parking lot can be accessed from a parking lot entrance along Dillingham Boulevard.

The remaining two fire hydrants are along the 20-foot wide service road for the A/C Building. The service road does not meet Honolulu Fire Department requirements for access roadways [5] since parallel parking is allowed along the eastern edge. Six City maintained fire hydrants within Kokea Street and Dillingham Boulevard supplement the on-site fire hydrants.

Individual campus buildings also are equipped for suppressing fires. The Campus Center

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[4] Average sewage flow is a design average flow estimated using methods detailed in the DWWM Design Standards. Figures for campus population were developed from "full time equivalent" projections provided by Paul Louie and Associates.

[5] The Honolulu Fire Department requires a 20-foot unobstructed, paved access roadway to fire hydrants per the Uniform Fire Code, 1985 edition.

and the Library have wet standpipe systems with 1½-inch fire hoses inside. The Auto Body Building and The Trade and Industry Building have fire sprinkler systems. The remaining buildings are equipped with ten pound fire extinguishers.

e. Solid Waste

Solid waste is collected at nine trash collection sites. Six sites have three cubic yard trash bins and four sites have six cubic yard trash bins. The bins are emptied every Monday, Wednesday, and Friday by a private waste disposal company.

f. Electrical Power

Electrical power is supplied through a 12.47kV dual radial system. The system is fed from existing 12.47kV primary switchgear. The current system capacity is 5MVA. Proposed campus additions will require a system capacity of 9MVA and the existing switchgear will need to be replaced with a new one. The switchgear is fed with two (2) Hawaiian Electric Company 12.47kV primary circuits. Power is distributed throughout the campus by existing electrical handholes and manholes.

g. Telephone System

Hawaiian Telcom (formerly Verizon Hawaii, Inc.) provides telephone service. The system enters the campus from Dillingham Boulevard through an underground conduit and handhold system. The main backboard is located in the Administration Building. The remainder of the campus is fed from the backboard through underground conduits with handholes and manholes and overhead lines.

h. Fire Alarm System

Several fire alarm systems are in operation but there is no networking system and all are stand-alone systems.

i. Security System

Sentinel Alarm Company provides security systems for each building. All are stand-alone systems, which report to Sentinel Alarm Company through telephone lines.

j. Campus Communication System

The voice communication system has its main backboard and PBX located in the Administration building and is distributed from the main backboard through underground conduits with handholes, manholes, and overhead lines.

The Administration Building is the center of the data network which provides connectivity to the Internet. The data network is distributed throughout campus by fiber optic and Category 5 unshielded twisted pair cables.

Oceanic Cablevision provides a fiber optic data link form the University of Hawaii Manoa Campus to the HCC campus through the Oahu I-net data and video connectivity.

They also operate CATV services from Dillingham Boulevard through the same conduit system as Hawaiian Telcom.

E. Kokea Street Campus

1. Existing Facilities

The Kokea Street Campus is located at the end of Kokea Street about 0.2 miles west of the Main Campus. The Automotive Mechanics Technology Building and the Heavy Equipment Maintenance and Repair Building are the principal facilities on the 6.44-acre site. The two buildings are one-story in height with laboratories and classrooms for their respective programs. An existing site plan is shown in Figure 5.

2. Vehicle Access and Parking

Kokea Street is the only access for vehicles and pedestrians from Dillingham Boulevard. A driveway at the end of Kokea Street continues into the site with a long row of parking stalls located makai of the driveway. The driveway terminates at the parking lot in the center of the site. The paved parking lot covers about two-thirds of the campus and accommodates 328 vehicles including 4 stalls for the handicapped.

3. Infrastructure

a. Water System

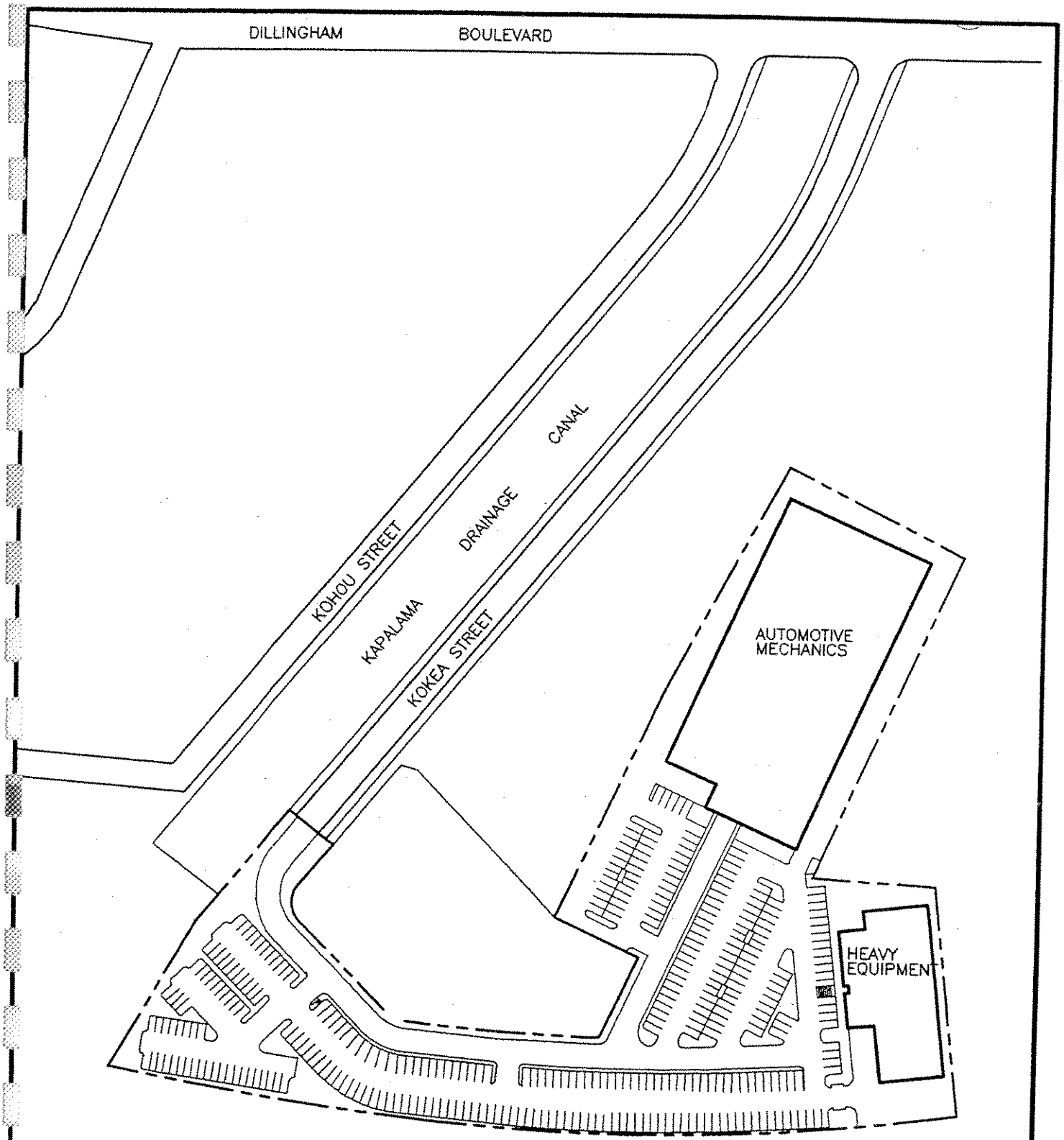
Two meters are connected to a 12-inch BWS water main within Kokea Street. An 8-inch compound meter is connected to the campus' 8-inch fire water line. A 2-inch compound meter provides water service to the Automotive Mechanics Building and the Heavy Equipment Building via a 4-inch domestic water line. The two water lines run parallel with each other within the driveway. The domestic water system provides an estimated 5,000-gpd to the two buildings on campus. Fire flow calculations provided by the BWS indicate that the water pressure (approximately 70 psi) is similar to the pressure found throughout the Main Campus.

b. Drainage System

Three sets of grate inlets and catch basins collect and discharge on-site runoff into Kapalama Drainage Canal located to the west of the campus. Two of the systems are interconnected and provide drainage inlets throughout the two parking lots, along the driveway, and around the Automotive Mechanics Building. The third drainage system collects runoff around the Heavy Equipment Building.

c. Sanitary Sewer System

Both buildings connect to an 8-inch on-site sewer line. The on-site sewer line discharges into a manhole within a City sewer easement to the east of the Automotive Mechanics Building. The City sewer line enters Kokea Street to the north and turns east to connect to



EXISTING SITE PLAN

HONOLULU COMMUNITY COLLEGE
KOKEA STREET CAMPUS

the Kapalama Interceptor Sewer Line within Dillingham Boulevard. The average daily sewage flow is estimated to be 4,040 gpd.

d. Fire Protection System

Fire protection is provided by two fire hydrants that are connected to the fire water line within the driveway. Fire department vehicles can access the fire hydrants via the driveway. As-built information indicates that both buildings have supplementary fire protection as well and each building is connected to the fire water line.

e. Solid Waste

A trash collection site with one, six cubic yard bin is located in front of the Automotive Mechanics Building. The bin is emptied every Monday, Wednesday and Friday by a private waste disposal company.

Electrical Power and Telephone Systems

An electrical distribution switchboard is located in the Automotive Mechanics Building. The switchboard is fed from an existing Hawaiian Electric Company pad mounted transformer.

The main telephone backboard is located in the Automotive Mechanics Building and cabling to the Heavy Equipment Building is fed through an underground conduit and handhole system.

F. Environmental Conditions

1. Topography

Ground elevation ranges from 4 feet mean sea level (msl) to 18 feet msl. The United States Soil Conservation Service (1972) classifies the soil in the Iwilei area as Fill Land. This soil classification is corroborated by reports that the grades of the Main Campus are five feet higher than the grades that existed during the time of Honolulu Technical School.

The Kokea Street Campus is generally flat with grades ranging from 4 feet msl to 5 feet msl. The slope on-site varies but generally never exceeds 0.5%.

2. Flood Hazards

Flood Insurance Rate Map panels for this area place the Main Campus and Kokea Street Campus in Zone "X (Unshaded)" which is defined as "areas determined to be outside 0.2% chance flood plain (Federal Emergency Management Agency, 2004)".

3. Archaeological/Historical Resources

No archaeological or cultural features are present on the ground surface. Features that may have existed in the area were removed long ago by the gradual development of the College and the surrounding neighborhood.

4. Landscaping

Landscaping consists primarily of numerous large trees and palms located throughout the Main Campus. The majority of the ground surface is planted in grass with shrubs and assorted ground covers planted at entries and building foundations. In general, the existing plant materials vary in appearance and maturity and are adequately maintained and healthy. Off-site, an attractive row of Kamani trees line both sides of Dillingham Boulevard and a row of Narra trees line Kokea Street. No endangered plant species or exceptional trees are known to be present.

Since most of the Kokea Street Campus is used for parking, landscaping consists primarily of trees used to provide shade in the parking lot.

5. Land Use Controls

Land use plans, policies, and controls are presented in Section 3 of this assessment. A summary of applicable land use controls is presented below.

State Land Use District: Urban
Oahu General Plan: Primary Urban Center (PUC)
PUC Development Plan Land Use Map: ***Institutional:College/University***(Main Campus)
Industrial (Kokea Street Campus)
Public Infrastructure Map: No Symbol
Zoning: IMX-1 Industrial-Commercial Mixed Use
Maximum Building height: 150 feet
Minimum Lot Area: 5,000 square feet

6. Acoustical Environment

The acoustical environment is dominated by sounds of passing traffic on nearby roads, notably Dillingham Boulevard. Other sources of noise include activities, classes, and events held on campus.

7. Visual Resources

The Main Campus is flat with a very slight slope from Dillingham Boulevard and Kokea Street toward the northeast corner of the campus. There are no prominent views from ground level except for mauka views toward Kapalama Heights and ocean views toward Dillingham Boulevard from the upper floors of the Campus Center and Library buildings. The campus is extensively landscaped with shrubs and medium height canopy trees. These trees should be maintained *in situ* or relocated when necessary.

Perhaps the most predominant visual feature is the central mall aligned east to west down the middle of the campus. Trees lining the mall offer shade and help to cool an otherwise warm environment. Assorted shrubs and groundcover define spaces and add color.
Off-site views in the immediate vicinity are generally that of low-rise buildings, portable classrooms, and off-street parking lots. The interior of the campus generally is not visible from nearby roadways.

8. Environmental Hazards

Older buildings may contain hazardous building materials (e.g. asbestos tile, lead based paint, etc.). A Phase I Environmental Assessment will be conducted for each building to be demolished to ascertain the presence or absence of hazardous materials. If detected, hazardous materials will be removed prior to demolition and disposed according to Department of Health protocols.

Hazardous material remediation at the former Kapalama Incinerator site has been completed and the site returned to the DLNR.

9. Roadways and Traffic

The HCC Main Campus occupies a major portion of the area bounded by Dillingham Boulevard, Kokea Street, and North King Street. Dillingham Boulevard is a major arterial street linking the downtown area with the freeway system to the west. Dillingham Boulevard is a five-lane roadway, with three eastbound lanes and two westbound lanes between the east end of the HCC campus and North King Street. A three-phase traffic signal is located on Dillingham Boulevard near the east end of the campus. This signal primarily serves access to and from Ala Kawa Street and "big-box" retailers (such as Costco and Home Depot) located south of Dillingham Boulevard.

To the west, Dillingham Boulevard generally consists of two lanes for traffic in each direction separated by a two-way left turn lane, which becomes a dedicated left turn lane at the approaches to signalized intersections, such as Ala Kawa and Kokea streets.

The signalized intersection of Dillingham Boulevard and Ala Kawa Street operates in five phases: separate phases for protected left turns from Dillingham Boulevard, which are not permitted during the through phase, two phases for through traffic and right turns from Dillingham Boulevard, and a fifth phase for Ala Kawa Street traffic. Pedestrian crossings occur with parallel traffic movements in the third through fifth phases. There are bus stops at the intersection, and turning movements are sometimes impeded by pedestrian crossings.

Between Ala Kawa Street and Kokea Street, the two-way left turn lane facilitates movements into and out of driveways serving commercial properties located opposite the college campus.

The intersection of Dillingham Boulevard and Kokea Street is controlled by a two-phase traffic signal (the nearby signal at the intersection of Dillingham Boulevard and Kohou Street has a third phase that allows westbound left turns a free movement prior to the east-west through phase). Pedestrian crossings occur simultaneously with the parallel traffic movement. Existing pedestrian movement is primarily across the east leg of the intersection, comprised mostly of students walking between the campus and the Kokea Street Campus at the end of Kokea Street.

Kokea Street is a two-lane local street along the east bank of the Kapalama Drainage Canal. South of Dillingham Boulevard, it is a curbed street with parallel parking permitted on both sides. Along its frontage with the campus, Kokea Street is generally uncurbed with unpaved shoulders. Many students and other visitors to the campus park their vehicles along the unpaved shoulders of Kokea Street. Kokea Street is estimated to provide 60% of the existing vehicular access to the campus.

The intersection of North King Street and Kokea Street is controlled by a traffic signal operating in two phases. Separate lanes are provided for left turns from North King Street, which are made through gaps in the oncoming traffic. Right turns are made from the curb lanes, which also accommodate City buses in local service. The single-lane Kokea Street approaches are wide enough for two lanes of traffic, but lane use is not controlled.

North King Street is a four-lane arterial street. Near Kokea Street, there are separate left turn lanes or parallel parking; however, parts of North King Street are barely wide enough for the four travel lanes.

Other nearby traffic signals are located at the North King Street intersections with Kohou Street, Palama Street, and Pua Lane, and the Dillingham Boulevard intersections with Kaaahi Street and North King Street (and Liliha Street).

Existing traffic conditions are described in the "Traffic Impact Analysis Report for Honolulu Community College Short Range and Long Range Development Plans". The Report is found in Appendix A.

DESCRIPTION OF THE PROPOSED PROJECT 2

A. Introduction

Honolulu Community College currently supports a 3,800 FTE student population. The current student population, however, is about 1.5 times the design enrollment of 2,500 FTE making the existing facilities inadequate to accommodate the needs of the College. Programs are dispersed throughout the campus creating communication and coordination problems between programs. The Long Range Development Plan ("LRDP") will help to better organize program spaces and related programs and to consolidate them in close vicinity to each other, thus promoting a stronger academic connection and physical relationship.

The LRDP is based on HCC Educational Specifications. The HCC Educational Specifications translate the goals, planned activities, and programs of the College into a projection of on-campus space requirements. The LRDP programs approximately 1,273,543 gross square feet of space for HCC programs to meet the needs for a design enrollment of 5,000 FTE students.

B. Objective of the Long Range Development Plan

The primary objective of the Long Range Development Plan is to develop a physical site and facilities plan to guide future expansion and growth and to accommodate the future educational program needs of the College. The Plan should be economical in cost and comply with government, utility, historic, aesthetic, and environmental requirements.

C. Proposed Main Campus Site Improvements

The Long Range Development Plan features 18 new buildings and 8 building renovations over the next 25 to 30 years (See Figure 6 and Table 3). On-site vehicle access will be improved with a new service road along the eastern boundary of the campus and loading/drop off areas on Kokea Street. Two multi-level parking garages will be constructed at the eastern and western ends of the campus for convenient centralized access to all buildings and to minimize on-campus vehicle traffic.

Programs that are related to each other will be located in the same building or in buildings that are placed in proximity to each other. Technology Division programs will be grouped at the east end of campus in three new buildings. General Education programs including Natural Sciences, Business, Public Services, Humanities and Social Sciences and Human Services will be located at the west end in new buildings. Administrative and other support functions including Student Services, Academic Support, Food Service, and Maintenance will remain in the center of the campus for access and support to all College programs.

The Plan proposes to add surface parking at the site of the former Kapalama Incinerator and at the eastern end of the Campus. Three vacant apartment buildings will be demolished for a new training center to be funded by the Department of Housing and Urban Development. The proposed Kokea Training Center will be housed in two portable modules to be located on the service road. One module will house offices and restrooms and the second classrooms. The single-story modules are not included in the building count.

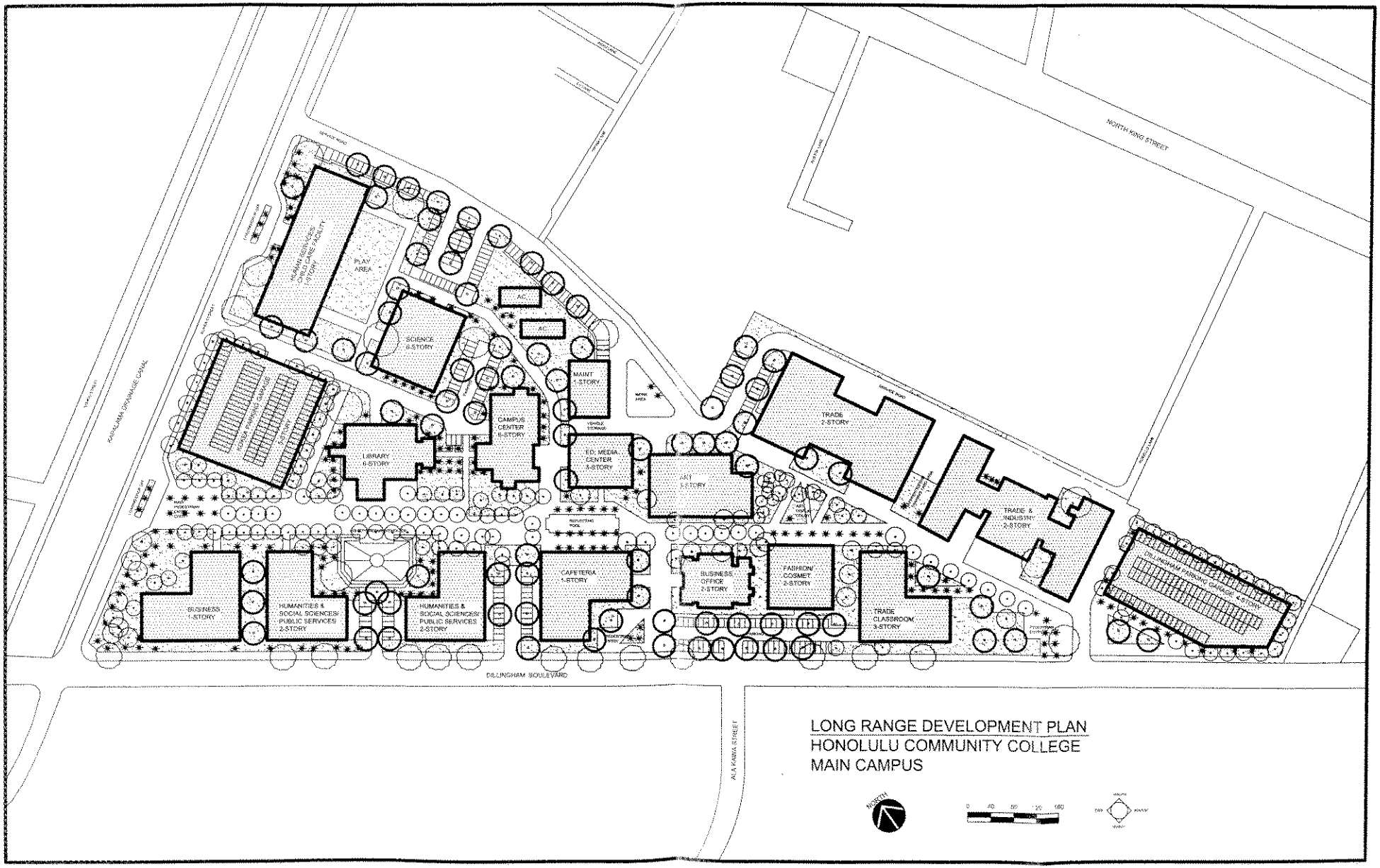

NORTH KING STREET
KAPALAMA DRAINAGE CANAL
SERVICE ROAD
HUMAN SERVICES CHILD CARE FACILITY
PLAY AREA
SCIENCE 6-STORY
AC
MAINT 1-STORY
CAMPUS CENTER 5-STORY
LIBRARY 6-STORY
ED. MEDIA CENTER 4-STORY
ART 3-STORY
TRADE 2-STORY
TRADE & INDUSTRY 2-STORY
DILLINGHAM PARKING GARAGE 4-STORY
CAFETERIA 1-STORY
BUSINESS 1-STORY
HUMANITIES & SOCIAL SCIENCES/ PUBLIC SERVICES 2-STORY
HUMANITIES & SOCIAL SCIENCES/ PUBLIC SERVICES 2-STORY
BUSINESS OFFICE 2-STORY
FASHION/ COSMET. 2-STORY
TRADE CLASSROOM 3-STORY
DILLINGHAM BOULEVARD
ALA KAMA STREET
LONG RANGE DEVELOPMENT PLAN
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS
NORTH

Figure 6

Table 3. Future Buildings

Building	Status	Programs	*GSF	No. Floors	Height (ft)
Main Campus					
Human Services/Child Care Facility	Proposed	Human Services Division, Child Care Facility	28,686	1	30
Science	Proposed	Natural Sciences	102,272	6	94
Air Conditioning	Renovation	Existing Chiller Plant	N/Available	1	N/Available
Air Conditioning	Proposed	Chiller Plant	N/Available	1	N/Available
Kokea Parking Garage	Proposed	Multi-level parking (705 stalls)	220,000	5	N/Available
Business Technologies	Proposed	Business Technologies Division	20,895	1	28
Library	Renovation	Library, Learning Center, Instructional Resource Center	103,272	6	60
Campus Center	Renovation	Bookstore, Health Center, Student Programs, Counseling, Computer Svcs., Human Resources, Administrative Offices	79,803	6	80
Humanities and Social Sciences (HAS)	Proposed	Humanities and Social Science	34,653	2	36
HAS/Public Services	Proposed	Humanities, Social Science, Public Service		2	38
Cafeteria	Proposed	Cafeteria, Food Service Technology	19,905	1	28
Business Office	Renovation	Business Office, Enrollment services	17,380	2	40
Fashion/Cosmetology	Renovation	Fashion and Cosmetology Programs	33,460	2	45
Trade Classroom Building	Proposed	Technology Divisons	55,329	3	26
Dillingham Parking Garage	Proposed	Multi-level parking (488 stalls)	158,000	4	N/Available
Operations and Maintenance	Proposed	Shop areas, Storage rooms	6,795	1	22
Educational Media Center	Proposed	Print Plant, Graphic Arts Department	30,633	3	50
Art	Proposed	Art, Comercial Art, Graphic Arts Programs	60,390	3	50
Trade	Proposed	Technology Divisons (Carpentry, Air Conditioning, Refrigeration, Advanced Technology	79,893	2	40
Trade and Industry	Renovation	Technology Divisons	80,247	2	35
Kokea Street Campus					
Automotive Mechanics Technology	Renovation	Automotive Mechanics Technology	56,448	1	30
Heavy Equipment Maintenance and Repair	Renovation	Laboratories, offices	15,924	1	32
Heavy Equipment Maintenance and Repair	Proposed	Heavy Equipment Maintenance and Repair	12,144	1	30
Heavy Equipment Maintenance and Repair	Proposed	Heavy Equipment Maintenance and Repair	18,600	1	N/Available
Auto Body Repair and Painting	Proposed	Auto Body Repair and Painting	20,514	1	32
Auto Body Repair and Painting	Proposed	Auto Body Repair and Painting	18,300	1	28
*GSF: Gross Square Feet			1,131,613		

1. Building Location

Several existing buildings will be retained because their locations are an important factor in the location of and functional relationships between existing and proposed new buildings. Central to the development of the campus plan are the existing Library, Campus Center, and Administration Building (called Business Office in the LRDP) locations. Collectively these buildings form a core area near the center of the campus and house functions that support the entire College. Proposed buildings that would complement the core and are located nearby include the Cafeteria, Educational Media Center, and Maintenance Buildings.

The existing Trade and Industry Building on the east end of the campus helped to determine the placement of the other Trade related buildings. The new Trade Buildings will be located near the existing Trade and Industry Building and Fashion/Cosmetology Building to create a trade complex on the east end of the campus. Locating the Trade Buildings in the same vicinity away from the other classroom buildings also helps to consolidate the machinery noise and dust found in some Trade programs and prevent disturbance to other campus classrooms.

The proposed Human Services/Child Care Facility will be located in the north corner of the campus. This location will provide children with a safe and secure environment away from the main student traffic areas. A drop-off area is required for the facility thus making its location the more desirable and safe design choice over busy Dillingham Boulevard.

General Education Buildings will be located on the opposite end of campus from the Trade Buildings. The Humanities and Social Sciences Building, Humanities and Social Sciences/Public Services Building, Business Building, and Science Building will be located near each other since programs in these divisions work together.

2. Pedestrian Circulation

The existing pedestrian mall will be renovated to extend the entire length of the Main Campus. It will be the primary unifying design and organizational element for the redeveloped campus. A system of walkways will connect all buildings and parking garages with the mall. Gathering spaces such as the courtyard/amphitheater, reflecting pool, and art display court that are located along the mall, should promote a variety of student/faculty interaction and activities.

Pedestrian entries to the campus will be redesigned. An entry courtyard articulated with paving and trees will be created off Kokea Street and aligned on axis with the central pedestrian mall. A drop-off/loading area will be provided in front of this entry. Entries located between the Administration Building and Cafeteria on Dillingham Boulevard and at the Waikiki end of campus near the proposed Dillingham Parking Garage also will be improved.

3. Vehicle Access

Vehicle access from Dillingham Boulevard and Kokea Street will be directed to two proposed parking garages and a small surface parking lot. Traffic on campus is generally planned to be pedestrian in nature, thereby contributing to a safer environment for students, faculty, staff, and visitors.
The existing service road at the back of the campus will be extended between Kokea Street and Robello Lane connecting both streets. The extension will provide vehicle access to

many buildings and direct service vehicle traffic away from interior areas. Buildings requiring loading areas such as the Maintenance, Educational Media Center, and some of the Trade Buildings will be located along the service road.

A short road from Kokea Street will access the rear of the Library, Campus Center, and Science Building. A small parking area will be built at the end of the road adjacent to the Campus Center. This parking area will serve administration and visitor parking for the Campus Center and Library. The road will also provide emergency and loading services to buildings in this area.

4. Parking

The existing parking arrangement will be redesigned to provide multi-level parking garages and surface parking. Most off-street parking will be consolidated into two (2) parking garages off Kokea Street and Dillingham Boulevard. A 5-story garage will be located near the General Education Buildings and a 4-story garage near the Trade and Industry Buildings. These locations on opposite ends of campus will help to minimize walking distances and provide convenient pedestrian access to all buildings.

The new parking areas will provide approximately 1,441 regular stalls and 34 accessible stalls. The two new garages contribute approximately 1,174 parking stalls plus 19 accessible parking stalls. A smaller existing surface parking lot located near the existing Administration Building provides 43 standard stalls plus 4 accessible stalls. Another at-grade parking area near the Science Building and along the new service road will provide 47 standard stalls plus 2 accessible stalls. Other smaller parking areas scattered throughout the campus will provide about 110 additional parking stalls.

Approximately 92 standard and 5 accessible stalls will be available for students and faculty at the Kokea Street Campus.

A 450 stall surface parking lot is proposed for the former Kapalama Incinerator site in the short-term. In the future, the Human Services and Child Care Facility will replace the parking lot.

5. Grading

The proposed service road between Kokea Street and the Maintenance Work Area will be raised by one to two feet. A five to ten feet wide landscaped area will be created along the mauka edge of the roadway to transition the finished grade to the existing grade. This transition area can be landscaped to screen the campus from adjoining lots. The completed service road will serve as a berm by diverting off site runoff.

The Kapalama Incinerator site will be leveled to a finished grade of approximately six feet MSL. The earth mound will be removed and existing ditches and on-site depressions will be filled. The area surrounding the existing Campus Maintenance Building also will be filled.

Raising the service road and other grading work discussed above will set the elevations within the Ewa portion of the campus at six feet MSL. The finished floors of buildings should be set a minimum of one foot above the surrounding grades to protect against flooding. The landscape areas between the Educational Media Center and Kokea Street will have localized

mounds and depressions. These grading features will break the monotony of the level terrain and serve as secondary drainage improvements.

Grades along the easterly portion of the main campus will range from six feet MSL along Dillingham Boulevard to 18-ft MSL within the service road mauka of the Trade and Industry Building. The roadway will rise from the Dillingham Boulevard vehicle entry to Robello Lane at an average slope of four percent. The service road will slope back down at an average slope of five percent to the north of the Trade Building.

6. Drainage

Existing connections to the City storm drain system and outlets into Kapalama Drainage Canal will be utilized; no off-site work will be required. Drain inlets will be located in landscape areas and low points in the parking lots to collect runoff. The terrain of the west half of the campus will not allow runoff to sheetflow off the site naturally. Because of this, drain inlets will need to be placed at localized depressions within the landscape areas. These depressions will serve as a secondary drainage improvement by allowing runoff to pond away from buildings, walkways and roadway areas when the grate inlets fail.

Off-site runoff from adjoining lots to the east will be diverted by the raised service road. A grass swale will be created on the north side of the roadway to replace the existing grass swale straddling the eastern property line. Runoff will flow north into a new drain inlet adjacent to Kokea Street that discharges into the Kapalama Drainage Canal. The service road and accompanying swale also will protect adjoining lots by providing a drainage system to handle on-site runoff that may be contributing to off-site ponding.

7. Water System

The eight-inch water main within the mall will be retained and become the foundation for two separate on-site water distribution systems. The Ewa portion of the water main will service the eight buildings between the new Cafeteria and Kokea Street. The other portion of the eight-inch water main will be used to provide water service to the remaining eight buildings on campus. The meters previously used by the vacant apartment buildings and the Kapalama Incinerator site have been abandoned.

The existing 8-inch FM meter with four-inch compound meter by-pass will be used by the Ewa water distribution system. A reduced pressure principle backflow preventer will be installed to replace the existing double check valve blackflow preventer to protect the BWS distribution system from contamination by the campus water system. A new water main loop will provide water service to the proposed buildings on the former Kapalama Incinerator site. The 8-inch water main loop will encircle the Library and Science Buildings. The water main is located primarily within landscape areas to minimize installation and maintenance costs.

The east end of the campus water distribution system's existing 4-inch water main loop will be replaced with an 8-inch water main loop. The new water main will run north of the Trade and Industry Building and pass between the new Educational Media Center and Art Buildings. The new water main will originate at the 8-inch water main within the mall and end with a connection to the 8-inch water main branch extending beyond the Trade and Industry Building. Although the new water main will be located in landscape areas where possible, over half of the water main will be under pavement areas to avoid conflicts with the proposed

buildings and utilities. Locating the water improvements under walls and buildings should be avoided.

The completed ultimate water system will provide an estimated 271,860 gallons per day of water to the campus.

Water system improvements will be constructed in accordance with BWS Water System Standards. The BWS will review all water system improvements and will evaluate the adequacy of the BWS water distribution system for the project. The BWS Planning Section has indicated that the water distribution system in the Iwilei area is currently adequate to provide service to the proposed campus.

8. Sanitary Sewer System

New buildings will utilize on-site connections to the City sewer system to eliminate construction within the City right-of-way. All sewer connections on the main campus will be made to the Dillingham Boulevard-King Street Relief Sewer or the 8-inch on-site sewer main within the mall.

Sewer laterals from the Business Building, two Humanities/Social Sciences Buildings, Cafeteria, Campus Center, Maintenance Building and Educational Media Center will be connected to the existing eight-inch sewer main within the mall. The Library and Campus Center will use their existing sewer lateral connections. The sewer main within the mall will discharge approximately 43,000 gpd[6] of sewage into the Kapalama Interceptor Sewer Line.

Approximately 1,000 feet of the Dillingham Boulevard-King Street Relief Sewer will be realigned and up-graded to ensure that no portion of the City sewer main will be located under proposed buildings. The new alignment will shift the City sewer main east under the renovated mall. The relief sewer will be in continuous use during the realignment, which is scheduled for Phase 4 of construction.

Two 6-inch sewer main branches will be connected to the realigned Dillingham Boulevard-King Street Relief Sewer. One branch will be connected to a sewer manhole near Hikina Lane. The sewer main will provide service to the Human Services/Child Care Facility and the Science Building. Sewer laterals from the Art Building, Business Offices, Fashion/Cosmetology Building and the Trade Classroom will be connected to the second branch main. This branch will be connected to a new sewer manhole north of the Trade Classroom. The estimated sewage flow entering the Dillingham Boulevard-King Street Relief Sewer is approximately 70,000 gpd.

The sewer improvements will be constructed according to City Wastewater Branch "D" standards. The "D" standards will also require HCC to dedicate a 10-ft wide sewer easement to the City for the Dillingham Boulevard-King Street Relief Sewer. The City will use the easement for maintenance purposes.

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[6] Sewage flows shown were approximated from estimated water demands and site development guidelines outlined in Practical Manual of Site Development.

9. Fire Protection System

The existing eight fire hydrants will be relocated and supplemented with an additional hydrant. The nine fire hydrants proposed under the ultimate plan will provide full coverage to the campus. Fire department vehicles will have access to the entire site through the service road, the Campus Center parking lot and the mall. The mall will be accessible through the pedestrian entry court along Kokea Street and the area *makai* of the Trade and Industry Building. All areas designated for use by fire department vehicles will conform to HFD requirements for access roadways and the Uniform Fire Code.

Additional fire protection will be provided to the two parking garages and the Trade Building by Class II standpipes. As mentioned above, the Trade and Industry Building, Campus Center and the Library have existing wet standpipe fire protection systems.

10. Solid Waste

Solid waste disposal requirements cannot be determined at this time. However, the ultimate plan gives HCC the flexibility of locating trash collection sites anywhere along the service road and within four parking lots. Every building will be adjacent to a potential trash collection site allowing trash collection sites to be incorporated into the design of each building.

11. Electrical Power

A new, primary switchgear which is fed from two (2) Hawaiian Electric Company 12.47 kV primary circuits. Two dual radial circuits are proposed which will be distributed throughout the campus by existing and new electrical handholes.

Luminaires will be provided for new parking lots, walkways, and driveways.

12. Information Technology

a. Telephone System

The main backboard of the Hawaiian Telcom system will remain in the Administration Building. The existing main infrastructure will remain and new conduits and handholes will tie into this infrastructure

b. Security and Fire Systems

The Information Technology Plan gives the College the capability of combining the security system with the fire alarm system. An expandable Command Center will be located in the Security Office. The Command Center is essentially a computer workstation with software capable of communicating with remote terminals located in each building, controlling access to buildings, and alerting campus personnel as necessary.
Each building will be equipped with either a fire alarm control panel or an "extender" fire alarm panel. The fire alarm control panels will have the capability to communicate with the command center. All fire alarm connections will tie into the main conduit system infrastructure.

New buildings will be equipped with fire sprinkler systems.

c. Campus Communication System

The standard topology (physical layout of cabling) for a telecommunication system is the star topology. The proposed campus communication system will be wired in a physical star topology with the main distribution frame at the center of the star. The center for campus communication will be located in the Administration Building.

Telecommunication closets in all buildings are currently inadequate and will be upgraded The College currently uses both copper cables and fiber optic cables and because of cost factors, both types of cabling are expected to be used in the future. Due to technological advances of computer systems and the capabilities of fiber optic cables, the Campus Communication System (audio, voice, and data) will be combined and run in the same conduits, manholes, and handholes. The raceway system will be sized to allow the College the capability of incrementally converting to a complete fiber optic system as funds are available.

13. Landscaping

Proposed landscaping is based on an analysis of the existing site conditions and the surrounding environment combined with an evaluation of the proposed campus improvements and their affects on the landscape. Given the location of the campus and its environment, the plan attempts to develop a college campus landscape that will create a sense of identity and instill pride in the users of the campus. Furthermore, the plan attempts to create a sense of unity and order for the campus while allowing for areas of interest. Plant material selection will be both functional (i.e. shade, screening, scale, etc.) and aesthetic.

The planting concept is to retain as many of the existing mature trees and palms as possible and to reuse (where possible) the existing trees and palms. The proposed planting consists primarily of large trees and palms with limited use of shrubs and ground covers except as accents at building entries or special areas and along the base of the buildings. The majority of the campus grounds will be grass. Large shade trees will provide shelter from the sun, cool the ambient heat generated by the pavement and buildings, reduce reflected glare from the structures, and create a more human scale common to most college campuses. Flowering trees will be utilized to emphasize and create interest along the pedestrian mall and in other areas of the site. Palms will be used for accent planting and to provide scale and softening of the structures.

Plants should be hardy with low maintenance and low water consuming characteristics. Native plant material will be used wherever possible.

14. Barrier Removal and Accessibility

Accessible routes are proposed throughout the campus. Barrier free access will be provided into the campus from the parking areas, passenger-loading zones, public transportation stops, and between buildings.
Accessible parking stalls will be provided on the ground level of the parking garages and accessible walkways from the garages will connect to the main walkways on campus. Other accessible stalls will be located in the other parking lots and provide access to buildings in the vicinity. Passenger loading zones will also be accessible to the disabled.

All areas of newly designed or newly constructed buildings and facilities will comply with the Americans with Disabilities Act (ADA). Existing buildings that do not comply with ADA requirements will be renovated and brought into compliance.

D. Proposed Kokea Street Campus Site Improvements

The existing parking lot and service road will be demolished. The parking will be reduced and four new buildings constructed as shown in Figure 7. A new service road will be constructed and on-site utility improvements built to City standards. The improvements to the Kokea Street campus are planned in a single construction phase.

1. Grading and Drainage

Existing grades on site will be maintained under the ultimate plan. The drainage system adjacent to Building 22 will be renovated by replacing an existing storm drain manhole with a grate inlet. The new grate inlet will be located approximately 30-ft east of the existing manhole's location.

Other sections of the existing drainage system will be replaced by two new drainage systems. One drainage system will connect two catch basins within the service road to a grate inlet that discharges into the Kapalama Drainage Canal. The grate inlet will be in an area between Building 25 and Building 26.

The second system is comprised of two catch basins and five grate inlets dispersed throughout the southern half of the campus. A new drainage connection to the Automotive Mechanics Building will also be provided by the second drainage system. The network of drainage structures will be connected to a grate inlet between Building 24 and Building 25; the grate inlet will discharge into Kapalarna Drainage Canal.

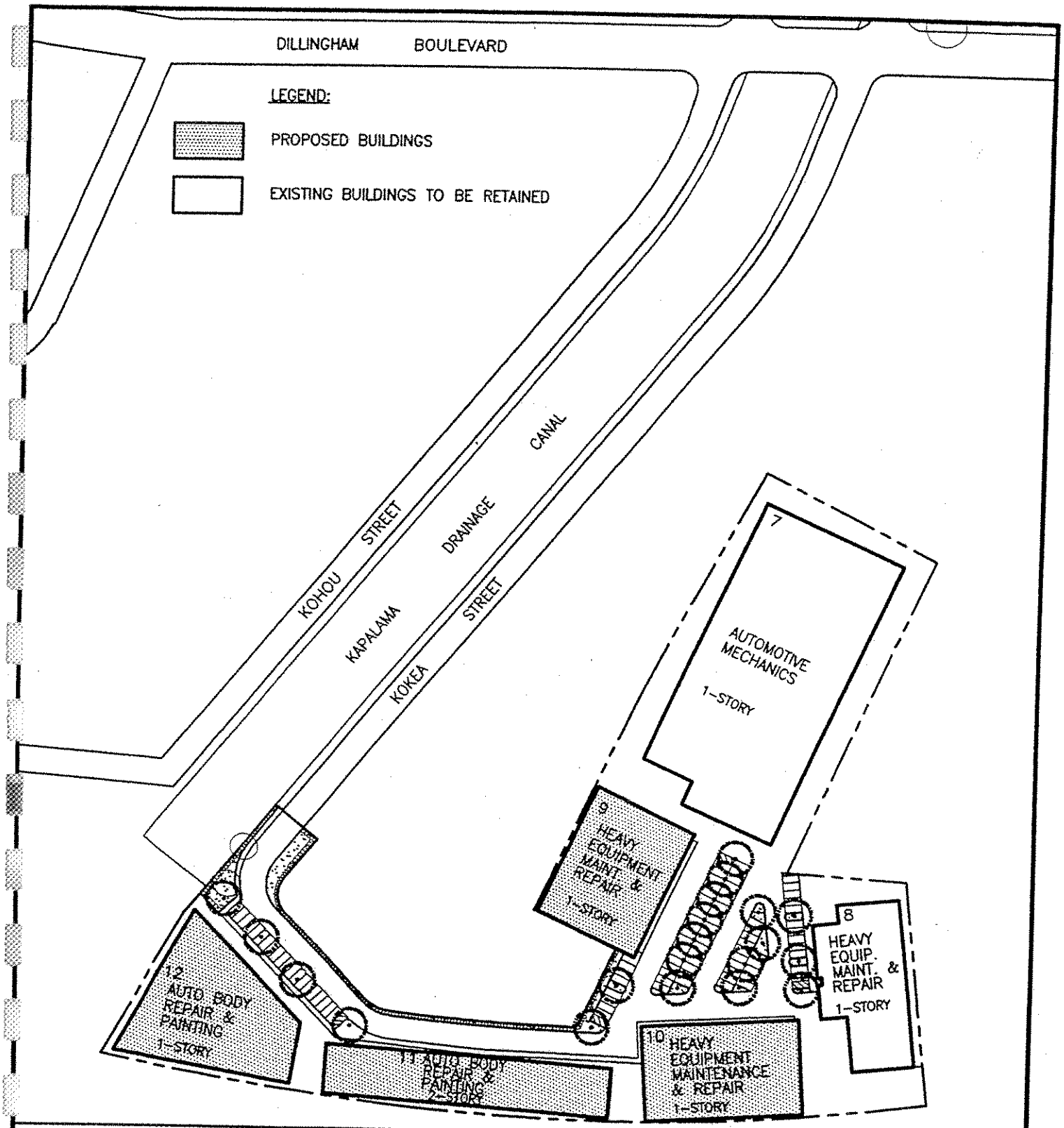
2. Water System

Approximately 500 feet of the existing 4-inch water line will be used for the system. Two new branches will service the four buildings at the end of the service road. The new water line will be located within the service road and parking areas to provide access to the water line for maintenance purposes.

Water system improvements will be constructed in accordance with BWS Water System Standards.

3. Sanitary Sewer System

The on-site sewer system will be abandoned. A new 8-inch sewer main will connect to an existing manhole in an existing sewer easement; the easement will be realigned and will require a new sewer easement from the City. Sewer laterals from the Automotive Mechanics Building and three Heavy Equipment Maintenance Buildings will connect to this eight-inch main.



LONG RANGE DEVELOPMENT PLAN

HONOLULU COMMUNITY COLLEGE
KOKEA STREET CAMPUS

Figure 7

A second 8-inch main will be installed within the service road to provide sewer service to the two Auto Body Repair & Painting Buildings. The new sewer line will parallel the water lines within the service road. The sewer line will connect to the City's eight-inch sewer main within Kokea Street. A sewer force main may be required because of the relatively level grades and the overall length of sewer line necessary to connect to the City sewer system.

All sewer improvements will be constructed according to City standards. The City will review all proposed sewer work and evaluate the adequacy of their system to provide service to the project.

4. Fire Protection System

An 8-inch fire water line will parallel the 4-inch domestic water line and the existing fire hydrants will be relocated because of the new parking lot layout. Two additional fire hydrants will be installed along the service road to provide fire protection for Building 24, Building 25 and Building 26.

The new service road and parking lot will provide access to the campus for fire department vehicles. The roadway and parking lot will conform to HFD requirements for access roadways and the Uniform Fire Code.

5. Solid Waste

Trash collection sites will be located within the parking lot and at the end of the service road. If this arrangement is inadequate to provide service to the proposed buildings, the service road layout will be revised to accommodate additional trash collection sites. The trash collection areas will need to provide enough room for collection vehicles to maneuver and turn around. The location and layout of trash collection areas along the service road should be discussed with the waste disposal contractor.

6. Landscaping

Because of the construction of additional buildings on the site, the landscape plan consists primarily of parking lot trees for shade and shrubs for screening purpose. The concept is to provide as many trees as possible to provide shade and to soften the visual effects of the new buildings on the campus. Shrubbery planted along the parking lot driveway will help to screen the parking lot and driveway and add greenery to the area.

E. Construction Phasing

The Long Range Development Plan proposes major site and facility changes to Honolulu Community College. The physical makeover is projected over a five phase schedule to allow the College to construct facilities as public funds are appropriated.

The Construction Phasing Plan presented herein, is based on programmatic priorities expressed by the HCC administration during review meetings. Each phase keeps contiguous site areas together to minimize disruption of class instruction during construction.

Construction phases are summarized below and depicted in Figures 8 and 9.

1. Phase I

Phase I consolidates areas in the *Ewa/mauka* comer of the Main Campus. HCC has expressed that the Kokea Street Training Center is top priority. Construction of the Science building is another priority item. This area of the Main Campus is currently the site of the Kapalama Incinerator which has been demolished and the site cleared. Construction of the Kokea Training Center and Science Building can commence immediately without any disruption to the rest of the campus.

1. Demolish Kapalama Incinerator and clear site (Completed by others).

2. Prepare site for new buildings.

3. Construct new buildings/renovate existing buildings.

    - New Human Services/Child Care Facility
    - New Science Building
    - New A/C Building
    - Renovate existing A/C building

4. Construct pedestrian mall and walkways.

5. Install site utilities and services including landscaping.

2. Phase II

Phase II includes areas at the comer of Kokea Street and Dillingham Boulevard and the Kokea Street Campus.

1. Demolish existing Auto Body, Portable Wooden Classrooms, Career Exploration, Commercial Art building and contiguous site areas.

2. Construct new buildings/renovate existing buildings.

    - New Kokea Parking Garage
    - New Business Building
    - Renovate existing Automotive Mechanics Building (Kokea)
    - Renovate existing Heavy Equipment Maintenance and Repair (Kokea)
    - Two (2) new Heavy Equipment Maintenance and Repair Buildings (Kokea)
    - Two (2) new Auto Body Repair and Painting Buildings (Kokea)

3. Construct new pedestrian malls and walkways.

    - Entry service roads
    - Parking areas and garage
    - Pedestrian entry

4. Install site utilities and services including landscaping.

3. Phase III

Phase III includes areas near the center of the Main Campus and Dillingham Boulevard.

1. Demolish existing Science Complex, Bakery/Cafeteria and contiguous site areas.

2. Construct new buildings/renovate existing buildings.

   - New Cafeteria
   - New Humanities and Social Sciences/Public Services
   - New Humanities and Social Sciences
   - Renovate existing Library
   - Renovate existing Campus Center

3. Construct new pedestrian mall and walkways.

   - Courtyard/Amphitheater
   - Entry, service roads and parking
   - Pedestrian entry

4. Install site utilities and services including landscaping.

4. Phase IV

Phase IV includes the remaining areas along Dillingham Boulevard.

1. Demolish existing Dillingham parking areas and contiguous site areas.

2. Construct new buildings/renovate existing buildings.

   - New Dillingham Parking Garage
   - New Trade Classroom Building
   - Renovate existing Fashion/Cosmetology Building
   - Renovate existing Administration Building (Business Office)

3. Construct new pedestrian mall and walkways.

   - Entry, service roads and parking
   - Pedestrian entry

4. Install site utilities and services including landscaping.

5. Phase V

Phase V, the final phase, will complete the Long Range Development Plan in the areas at the rear of the site.

1. Demolish existing Child Care, Sheet Metal, Maintenance, Painting, Storage, Human Services, Machine Shops, Electrical, Electronics and contiguous site areas.

2. Construct new buildings/renovate existing buildings.

   - New Maintenance Building
   - New Educational Media Center
   - New Art Building
   - New Trade Building

3. Construct new pedestrian malls and walkways.

   - Reflecting Pool and Art Display Court
   - Entry, service roads and parking

4. Install site utilities and services including landscaping.

F. Probable Construction Budget

The probable construction budget for each phase of the HCC Long Range Development Plan is shown in Table 4. Costs were calculated on a square foot basis. Since construction costs vary widely depending on a number of factors, the costs shown are initial estimates only and subject to change. It should be also noted that costs shown are in current (2006) dollars and escalation and inflation factors will need to be added in subsequent years.

Table 4. Probable Construction Budget

Construction Phase	Probable Budget
Phase I	$ 28,984,595
Phase III	47,682,319
Phase III	22,580,203
Phase IV	32,873,896
Phase V	35,810,043
TOTAL	**$ 167,931,056**

Source: Paul Louie & Associates, Inc., 2006

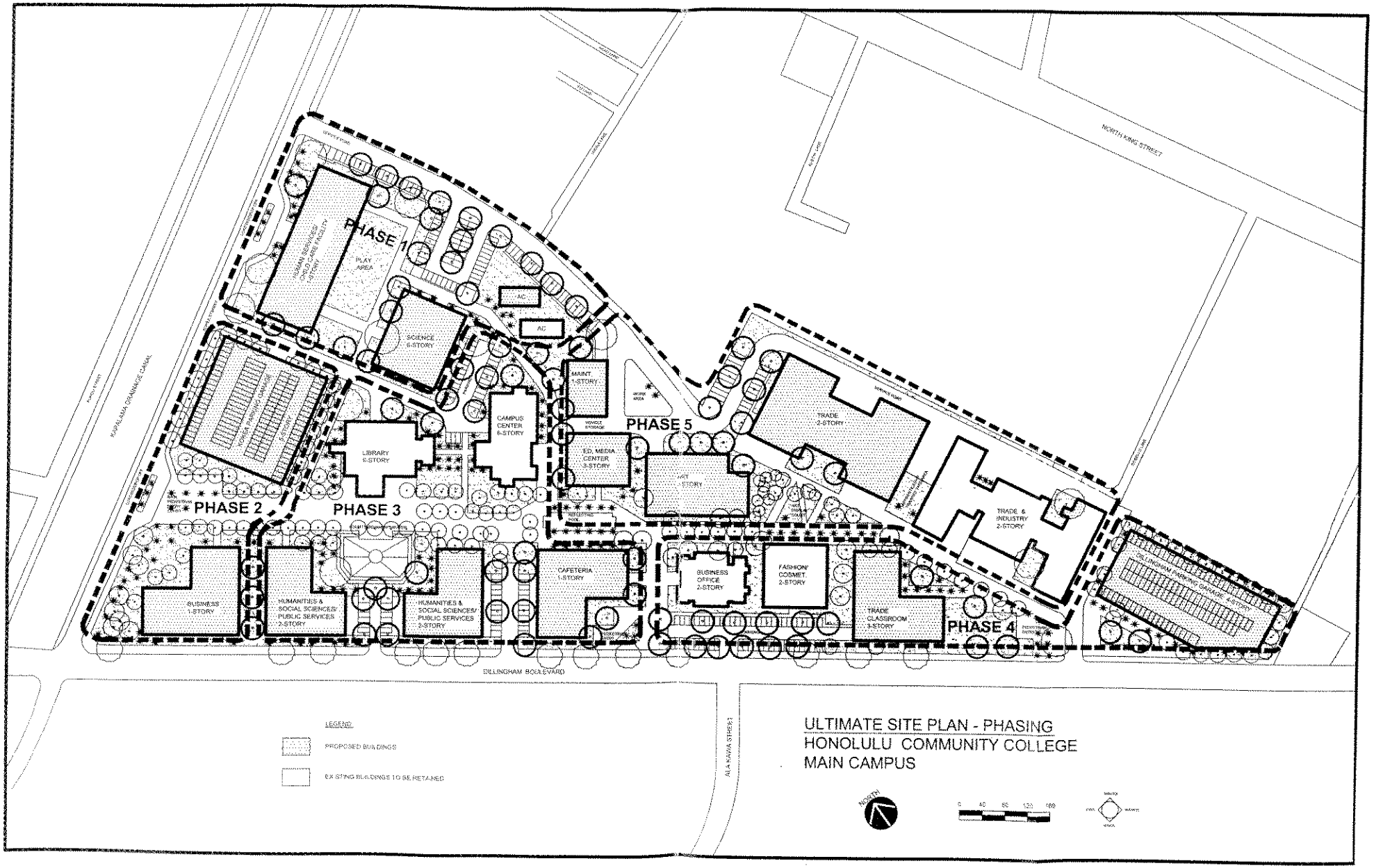
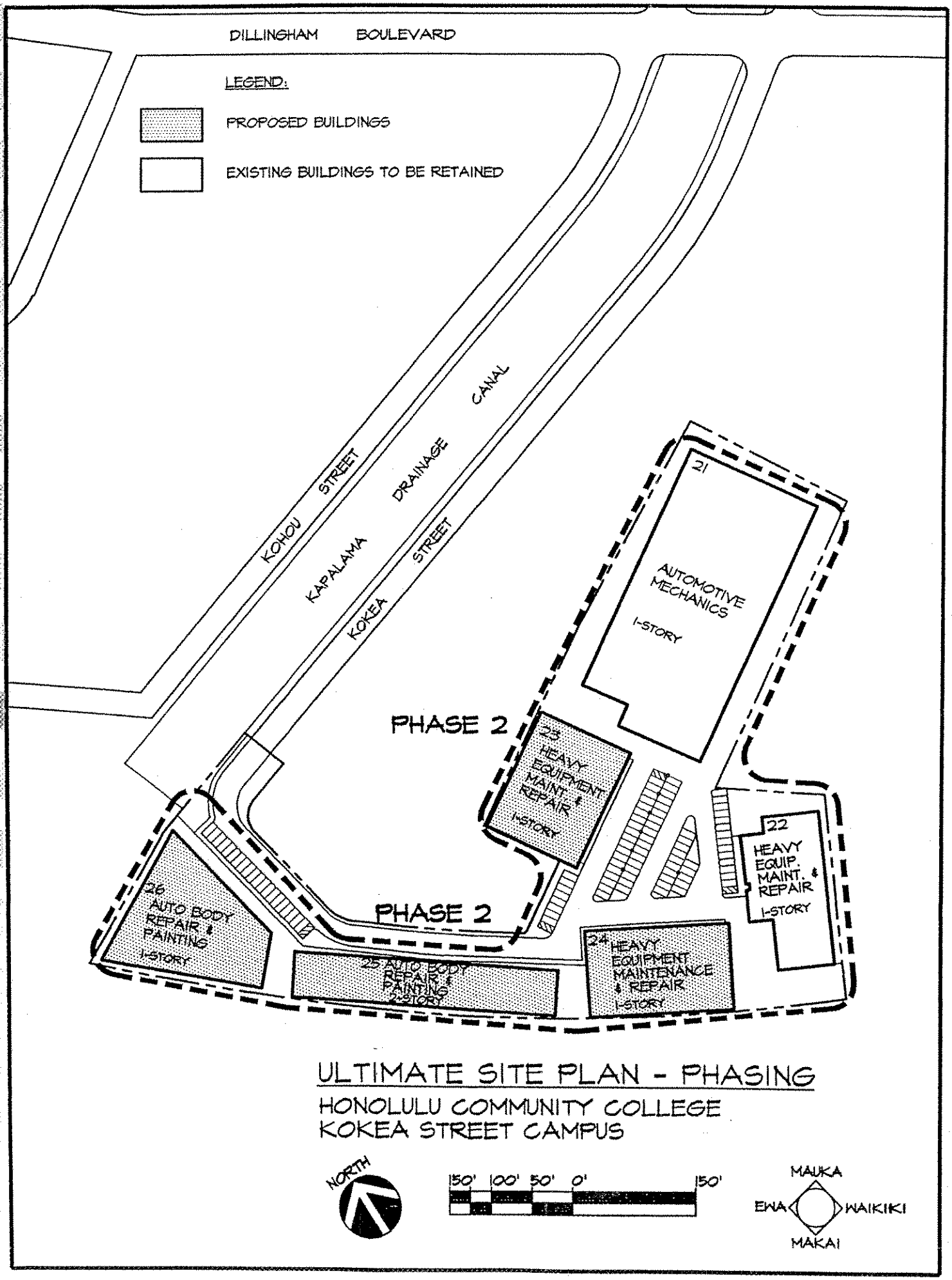

PHASE 1
PHASE 2
PHASE 3
PHASE 4
PHASE 5
NORTH KING STREET
KAPALAMA DRAINAGE CANAL
DILLINGHAM BOULEVARD
ALA KAPA STREET
PLAY AREA
SCIENCE 6-STORY
LIBRARY 6-STORY
CAMPUS CENTER 6-STORY
ED. MEDIA CENTER 3-STORY
MAINT. 1-STORY
ART 1-STORY
TRADE 2-STORY
TRADE & INDUSTRY 2-STORY
BUSINESS 1-STORY
HUMANITIES & SOCIAL SCIENCES/ PUBLIC SERVICES 2-STORY
HUMANITIES & SOCIAL SCIENCES/ PUBLIC SERVICES 3-STORY
CAFETERIA 1-STORY
BUSINESS OFFICE 2-STORY
FASHION/ COSMET. 2-STORY
TRADE CLASSROOM 1-STORY
LEGEND:
PROPOSED BUILDINGS
EXISTING BUILDINGS TO BE RETAINED
ULTIMATE SITE PLAN - PHASING
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS
NORTH

Figure 8



ULTIMATE SITE PLAN - PHASING

HONOLULU COMMUNITY COLLEGE
KOKEA STREET CAMPUS

Figure 9

RELATIONSHIP TO PLANS, OBJECTIVES, AND POLICIES 3

Honolulu Community College and the post secondary technical and non-technical courses it offers support the education objectives and policies prescribed in the Hawaii State Plan and State Higher Education Functional Plan. It is clear from the policy prescriptions that the State of Hawaii places a high value on education as the means by which its citizens can strive to fulfill their needs and aspirations.

The objectives and policies in the Hawaii State Plan and the courses of action prescribed in the State Higher Education Plan place a greater emphasis on ensuring that individuals have the opportunities, training, and skills to meet individual and community needs and that the appropriate educational curriculum is delivered. Improvements to school plants are not emphasized as much as educational programs and opportunities; however, they are no less important because facilities provide the physical spaces in which learning occurs.

A. Hawaii State Plan

Sect. 226-23. Objective and policies for the socio-cultural advancement-education

a) Planning for the State's socio-cultural advancement with regard to education shall be directed towards achievement of the objective of the provision of a variety of education opportunities to enable individuals to fulfill their needs, responsibilities, and aspirations.
b) To achieve the education objective, it shall be the policy of this State to:
    1) Support educational programs and activities that enhance personal development, physical fitness, recreation, and cultural pursuits of all groups.
    2) Ensure the provision of adequate and accessible educational services and facilities that are designed to meet individual and community needs. (Underscoring Added)
    3) Provide appropriate educational opportunities for groups with special needs.
    4) Promote educational programs which enhance understanding of Hawaii's cultural heritage.
    5) Provide higher educational opportunities that enable Hawaii's people to adapt to changing employment demands.
    6) Assist individuals, especially those experiencing critical employment problems or barriers, or undergoing employment transitions, by providing appropriate employment training programs and other related educational opportunities.
    7) Promote programs and activities that facilitate the acquisition of basic skills, such as reading, writing, computing, listening, speaking and reasoning.
    8) Emphasize quality educational programs in Hawaii's institutions to promote academic excellence.
    9) Support research programs and activities that enhance the education programs of the State.

Discussion:

The proposed physical improvements are supportive of a Hawaii State Plan policy (underscored above) that addresses the need to provide educational services and facilities. The proposed improvements are expected to provide the physical facilities and spaces for HCC to attain its mission "of developing and training the future technical work force on the island of Oahu and for selected programs in the State of Hawaii."

B. State Higher Educational Functional Plan

Discussion:

The State Higher Education Functional Plan offers no objectives and policies directed towards providing physical facilities. The plan articulates courses of action for post-secondary institutions to provide for a diverse range of programs, to sustain and strive for quality academic instruction, to provide appropriate educational opportunities for individuals to benefit from post-secondary education, and to provide financing for post-secondary education programs.

C. City and County of Honolulu General Plan

"The General Plan for the City and County of Honolulu, a requirement of the City Charter, is a written commitment by the City and County government to a future for the island of Oahu which it considers desirable and attainable. The General Plan is first "a statement of the long-range social, economic, environmental, and design objectives for the general welfare and prosperity of the people of Oahu." Second, it is "a statement of broad policies which facilitate the attainment of the objectives."

The objectives and policies are separated into eleven functional areas. Two of these functional areas apply directly to the proposed project and are discussed below.

Physical Development and Urban Design

Objective A. To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.

Policy 2: Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities.

Policy 3: Phase the construction of new developments so that they do not require more regional supporting services than are available.

Policy 5: Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.

Policy 7: Locate community facilities on sites that will be convenient to the people they are intended to serve.

Discussion:

Honolulu Community College is located in that area of Honolulu city planners identify as the Primary Urban Center. The Primary Urban Center is "the area that includes the communities from Waialae-Kahala to Pearl City. It is the most populated part of the State of Hawaii and is Oahu's largest employment center." The college is located in the Kalihi-Palama community of the Primary Urban Center and its near downtown Honolulu location is convenient and accessible to students from all parts of the island.

Section 1 of this assessment described the availability of existing on-and off-site infrastructure to accommodate the anticipated future demands on the respective facilities. Section 2 described the planned upgrades to the facilities that would accommodate the year 2030 design enrollment. Construction of buildings and infrastructure upgrades will be phased to meet the needs of the college and coordinated with the respective authorities so as to not place excessive demands on the respective system to the detriment of all served by the system.

Health and Education

Objective B. To provide a wide range of educational opportunities for the people of Oahu.

Policy 4: Encourage the construction of school facilities that are designed for flexibility and high levels of use.

Policy 5: Facilitate the appropriate location of learning institutions from the preschool through the university levels.

The proposed improvements are intended to accommodate the long-range needs of the College to the year 2030. The proposed building program and other campus improvements will enable the College to accommodate and train students at a design enrollment of 5,000 FTE by (if not prior to) the year 2030. The projected 5,000 FTE is double the current design enrollment of 2,500 FTE.

D. Primary Urban Center Development Plan

The Primary Urban Center Development Plan is not a land use plan per se but a plan that creates a vision for Honolulu in the year 2025 based on five key elements that would achieve the vision. The key elements are:

- Honolulu's natural, cultural and scenic resources are protected and enhanced.
- Livable neighborhoods have business districts, parks and plazas, and walkable streets.
- The PUC offers in-town housing choices for people of all ages and incomes.
- Honolulu is the Pacific's leading city and travel destination.
- A balanced transportation system provides excellent mobility.

The planning goal for the PUC is to enhance its livability while accommodating a moderate amount of growth. The development plan acknowledges the role of schools (in this instance the University of Hawaii) as contributing to creating livable neighborhoods and enhancing Honolulu as a major pacific destination. Applicable policies and guidelines are listed below (underscoring added for emphasis):

Policies

The Primary Urban Center hosts the State's largest concentration of public and private post-secondary institutions, including the University of Hawaii at Manoa. Other major campuses include the University of Hawaii's community colleges (Kapiolani and Honolulu), Chaminade University, Hawaii Pacific University's downtown campus and a number of smaller private colleges. The University of Hawaii also operates research and teaching facilities at Kakaako, Honolulu Harbor, Sand Island, and the Waikiki Aquarium (Section 4.7.1.1.2 Colleges and Universities).

University of Hawaii's Manoa campus enrollments are projected to remain stable over the foreseeable future, with undergraduate growth projected for the planned West Oahu campus. UH's current major facility plans within the Primary Urban Center are redevelopment around Honolulu Community College, and relocation of the Pier 41 Snug Harbor research facility and Marine Mammal Laboratory at Kewalo Basin. Also under consideration for the Kakaako Makai Area are a new medical school campus and a new aquarium that would replace the Waikiki Aquarium (Section 4.7.1.4 Trends).

The Land Use Map for the PUC Central (Map A.5) designates the main campus of Honolulu Community College Institutional College/University. Areas *mauka* of the main campus and along King Street are designated medium and high density residential mixed use. Lands *makai* of the main campus are designated for commercial and industrial uses between King Street and Nimitz Highway. The Makai Campus is within an Industrial area.

The land use designation for the Main Campus does not represent a significant change from its previous Public Facility designation. On the other hand, the land use designation for the Makai Campus could represent a major change in the desired development pattern for this area.

Discussion:

The Primary Urban Center DP does not make specific recommendations for Honolulu Community College but acknowledges the University of Hawaii's impetus to redevelop the College. The Long Range Development Plan does not conflict with the policy statements above and should help to attain the DP's vision for a future Honolulu to the year 2025.

The industrial land use designation for the Kokea Street Campus expresses what the City would like the property to be used for. Conversely, the College proposes to expand this Campus to accommodate additional classroom buildings in Heavy Equipment Repair and Automotive Body Repair and Painting. The College's plans for this area are educational rather than industrial uses.

Guidelines

Identify ways for the City and the general community to improve conditions within and near school and college campuses. For example, the City could take a lead role in enhancing street appearance, security, and traffic and pedestrian safety near campuses (Section 4.7.3 Guidelines).

Consistent with the above guideline (which supports the key elements of the Development Plan cited above), are policies for improving and enhancing the open space network and developing stream greenways and pathways through Honolulu from the mountain to the sea. Kapalama Canal to the immediate east of HCC is one such drainageway that, if improved, could help to provide safe pedestrian linkages between neighborhoods and visually link *mauka* and *maka*i open spaces.

The plan also proposes a pedestrian network to enhance and increase pedestrian mobility within neighborhoods. Rather than depending on the automobile, a network of on-road bikeways and off-road shared-use paths would provide lateral access along major thoroughfares and secondary *mauka-makai* streets. The pedestrian network would be

integrated with the open space network where possible (See Also Honolulu Bicycle Master Plan, 1999). .

E. Public Infrastructure Map

Because Honolulu Community College is not a municipal entity, there is no "symbol" for improvements at the College on the Public Infrastructure Map ("PIM). The PIM, adoptedby the Honolulu City Council in 2004 as Resolution 246, CD1, has symbols for drainage improvements (D117) at Kapalama Canal between North King Street and Nimitz Highway, an arterial roadway (R030) on North King Street between Waiakamilo Road and Liliha Street, and a transit corridor (TC026) on Dillingham Boulevard from west Oahu to Liliha Street.

F. Zoning

Land uses in Honolulu are regulated by the City and County of Honolulu's Land Use Ordinance ("LUO"). The LUO establishes zoning districts and the uses allowed within the respective zoning district (permitted or conditional) and the development standards for buildings, lot dimensions, yards, heights, lot coverage, off-street parking, and loading requirements. Zoning maps supplement the LUO and the zoning designations shown on the zoning maps are the zoning designation for all parcels shown on the zoning map.

Zoning Map No. 3, Kalihi to Pearl Harbor (Department of Planning and Permitting, 2001) includes Honolulu Community College. The zoning designation for the College is IMX-1 Industrial-Commercial Mixed-Use. Honolulu Community College is a public use and permitted in the IMX-1 zoning district. The Land Use Ordinance, however, requires that a public use such as a college or university receive Plan Review Use (PRU) approval.

G. Special Management Area

Honolulu Community College is not located within the County delineated Special Management Area. A Special Management Area Use Permit will not be required for the proposed improvements.

H. Special Districts

The Land Use Ordinance establishes Special Districts within the City and County of Honolulu. Special Districts are areas where there is a need to preserve and protect certain man-made and natural features within the district and to encourage development that is compatible with the respective feature(s). There are 7 Special District that prescribe what is to be preserved such as general historical buildings, landmarks, views, and architectural character of an area and associated design controls for each district.

Honolulu Community College is not located in a Special District.

I. Honolulu High-Capacity Transit Corridor

The City and County of Honolulu is evaluating transportation alternatives for moving people within a highly traveled and dense urban corridor between Kapolei on the west and the University of Hawaii on the east. Four alternatives are being considered: No Build, Transportation System Management, Managed Lane, and Fixed Guideway (Department of

Transportation Services, 2006). The No Build alternative would rely on the existing bus system and current bus routes, an expanded bus fleet, and construction of transportation projects proposed to the year 2030.

The Transportation Management System would provide an enhanced bus system operating on a hub and spoke routing network. The existing fleet of buses would be expanded and modifications to zipper lane operations implemented. Transportation projects to the year 2030 would be constructed.

The Managed Lane alternative proposes the construction of a grade-separated facility for use by buses, vanpool vehicles, and paratransit vehicles. High Occupancy Vehicles and toll-paying single-occupant vehicles would be allowed to use the facility if sufficient capacity is available.

The Fixed Guideway proposes the construction and operation of a fixed guideway transit system using any of a number of transit technologies. The fixed guideway is expected to be an above-grade facility utilizing existing street and highway rights-of-way as much as possible.

Three of the alternatives have a direct bearing on HCC. The No Build and Transportation Management System alternatives would continue to use the existing (and expanded) bus fleet along existing routes. Dillingham Boulevard is one of those routes served by bus in both directions. The Managed Lane alternative is proposed along Nimitz Highway and does not pass HCC.

One alternative alignment for the Middle Street to Iwilei section for the Fixed Guideway uses Dillingham Boulevard between the Keehi Interchange and Liliha Street. Four transit stations are planned along this segment with one station proposed in the vicinity of HCC between Kokea and Ala Kawa Streets.

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

4

A. Description of the Assessment Process

The scope of the project was discussed with the consulting architect and staff and consultants comprising the master planning team. Honolulu Community College administrative staff was consulted and provided information for use in this assessment. State and County agencies were contacted for information relative to their areas of expertise. Time was spent in the field noting site conditions and conditions in the vicinity of the HCC Main Campus and the Kokea Street Campus. The sum total of consultations and field investigations helped to identify existing conditions and features that could affect or be affected by the project. These influencing conditions include:

The Master Plan is a proposed physical facilities plan with a 25-year time horizon. Buildings, access and parking, and infrastructure are sized to accommodate a design enrollment of 5,000 FTE student enrollment. The facility requirements are based on the Honolulu Community College Educational Specifications, which is used to project on-campus space requirements.
Honolulu Community College is located in an urbanized area well developed with industrial and commercial activities;
Noise sensitive uses include an adjoining elementary school and residential apartment buildings;
Rare, threatened, or endangered flora or fauna are not found on either campus;
There are no recorded archaeological or cultural resources on either campus;
The Main Campus and the Kokea Street Campus are not located within a flood hazard area;
Road, water, wastewater, and power systems are available to accommodate the proposed improvements and will be upgraded as required; and
Instruction will continue during plan implementation.

Construction will proceed in phases as described and depicted in a previous section of this Assessment. All buildings slated for demolition will be vacated and salvageable equipment, furniture, supplies, and instructional materials removed and relocated to other buildings on campus. The vacated buildings will then be treated for vectors, hazardous building materials properly removed, sewer connections cut and plugged, water lines cut and rerouted (or abandoned in place), and electrical and telephone services disconnected.

Students, faculty, and staff will be notified of impending demolition and notices posted in the immediate area to alert adjoining residents, businesses, and motorists of the same. Temporary fencing will be erected around each building for safety and security purposes. Campus buildings to be demolished are one-two stories in height and can be knocked down using conventional equipment (e.g. a bulldozer) thus the use of explosives are not expected.

A section of the Campus will have to be closed for an extended period of time for use as a construction base yard. The yard would accommodate a field office, construction vehicle and equipment, building materials, and work space. Ideally, the base yard should be readily accessible to vehicles delivering construction materials and to individual building sites. Selection of a base yard site will be left to the Contractor and school administrators. One

central location is desirable but the yard may have to be moved during each construction phase. The size of the yard will also vary depending on the needs of the Contractor.

Because construction will be phased over a long period and will take place during both the school year and school hours, it is anticipated that construction related impacts described in this Assessment will recur each time a structure is demolished and a new building erected in its place. The building process can be separated into discrete phases including mobilization, demolition, site work, exterior and interior construction, and landscaping. The building process is anticipated to take up to two years for each low-rise building and longer for buildings in excess of two-stories.

Mixing construction personnel, construction vehicles, student and faculty and their vehicles, pedestrian movement throughout the campus, a growing student body, and recurring construction related impacts within a confined setting can strain students, faculty and staff, and construction workers. It is imperative that construction managers and HCC administrators strive to coordinate construction activities and educational/school functions to minimize disruptions to either activity and maximize the safety of all people on campus.

Mitigating measures in the form of public health regulations and construction techniques are anticipated to change over time. It is expected that such changes would promote public health and safety and will be incorporated into future construction plans.

B. Short-term Impacts

1. Site Work

Site work is probably the most disruptive construction activity on the environment. This activity entails demolishing existing buildings, grubbing the site of vegetation, excavating for building foundations and utility lines, and grading to desired elevations. Site work will significantly alter the appearance of each building site to accommodate the permanent improvements to be built.

Site work will expose soil thus creating opportunities for erosion and runoff. Grading will be performed in accordance with erosion control ordinances of the City and County of Honolulu and approved grading plans. Best Management Practices (BMPS) for erosion and drainage control during construction will be prepared for review and approval by the Department of Planning and Permitting.

An NPDES permit for storm water runoff associated with construction activities will be required because more than one acre of the total land area will be disturbed during construction. Any discharges related to project construction or operation activities shall comply with applicable State Water Quality Standards as specified in Hawaii Administrative Rules, Chapter 11-54 (Department of Health Comment, April 2006).

The presence of a high water table may require dewatering for the building foundations extending below the water table. If dewatering is needed, water and solids will be pumped into on-site detention basins and allowed to evaporate. Dried material will then be spread over the ground or disposed off-site. An NPDES Permit will be required from the State Department of Health for any dewatering activity pursuant to Chapter 54, Hawaii Administrative Rules.

Building sites and storage areas will be fenced for safety and security reasons. The Contractor will initiate appropriate safety measures when excavating for utility lines or when working near walkways and driveways. Disturbed areas will be restored to pre-construction conditions of better.

2. Air Quality

Site work is a persistent source of fugitive dust. Site contractors are aware that dust is a nuisance to both workers and people living or working near to work sites and it is imperative for them to maintain stringent dust controls. Frequent water sprinkling is probably the most effective dust control measure given the size of the site and the type and scale of proposed improvements. The Contractor, however, may choose to implement other measures such as erecting dust screens around the building site based on their experience with similar projects and job sites. The Contractor will be responsible for general housekeeping of the site and for keeping adjacent training areas free of mud, sediment, and construction litter and debris. Pollution control measures will comply with Chapter 60.1, Air Pollution Control, Administrative Rules, State Department of Health.

3. Noise

Construction noise, like fugitive dust, cannot be avoided. Construction work will be audible on and off campus but exposure is expected to vary in volume, frequency, and duration. Noise will also vary by construction phase, the duration of each phase, and the type of equipment used during the different activities comprising each phase. Noise will be most pronounced during the early stages when a building is demolished, the site grubbed, the building foundation poured, and utility lines excavated. Noise will diminish as buildings are framed and roofed. When the building shell is completed, the enclosed structure should help attenuate noise generated by interior work.

Construction noise will be audible at the residential apartments and Kaiulani Elementary School at the rear of the campus, and campus classrooms closest to construction sites. Because the buildings will be air conditioned, the self-enclosed structures should help to attenuate outside noise and keep dust out.

Community Noise Control regulations (Chapter 46, Administrative Rules, Department of Health) establish maximum permissible sound levels for construction activities occurring within "acoustical" zoning districts. Honolulu Community College is zoned for mixed industrial-commercial use. Maximum permissible daytime noise levels for the Class B zoning district (which includes lands zoned commercial) set by the State Department of Health is 60 dBA during daytime (7 a.m. to 10 p.m) and measured at or beyond the property line. Construction work will temporarily exceed this standard and, per the provisions of Chapter 46, the Contractor will obtain a Variance from Pollution Controls permit prior to construction. Construction generally will be limited to between the hours of 7:00 AM. to 3:30 PM., Mondays through Fridays. Weekend work may occasionally occur.

4. Archaeology

Should subsurface archaeological features be unearthed, work in the immediate area will cease and preservation authorities notified for investigation and proper disposition of the finds.

5. Circulation

Construction notices and signs will be posted alerting motorists of construction within Dillingham Boulevard and Kokea Street. Flagmen will be posted for traffic control and traffic delays can be anticipated. Open trenches will be covered with steel plates at the end of each working day and safety devices posted during night hours. Excavated road sections will be restored to pre-construction condition or better.

Construction vehicles hauling men and material will contribute to traffic on Dillingham Boulevard and Kokea Street. Material deliveries will be scheduled during non-peak traffic hours to minimize impacts on local traffic. Construction material will be off-loaded and stockpiled on-site; however, should materials need to be unloaded within the road right-of-way, flagmen will be posted for traffic control. When this occurs, traffic delays can be expected but should not last for more than a few minutes.

Pedestrian circulation will also be affected by trenching throughout the campus to install utility and communications infrastructure. Construction fencing or some type of barricade will be placed alongside the trenches to direct student traffic away from or around the trenches. The trenches also can be covered with steel plates. In some areas, the trenches will be bridged to allow access. All trenched areas will be restored to pre-construction condition or better.

6. Traffic

[The reader is referred to the "Traffic Impact Analysis Report" in Appendix A for a complete discussion of short-term traffic impacts.]

A summary of short-term traffic impacts and mitigating measures are presented below.

In several cases, the delays and levels-of-service for background plus project conditions are better than background without project conditions. This is because traffic to and from the various parking lots is redistributed to account for the new Kapalama Incinerator Parking Lot, which decreased that traffic volumes of several traffic movements. Because of this, the results of the level-of-service analysis generally imply that the short range plan has an overall positive impact of the traffic levels-of-service at the study intersections. Exceptions to this are the eastbound right turn at the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour and the eastbound left turn at the intersection of Dillngham Boulevard at Kokea Street during the afternoon peak hour.

At the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour, the eastbound right turn will operate at Level-of-Service F without and with project generated traffic. The delay increases from 183.3 seconds per vehicle to 215.8 seconds per vehicle, but there is no change in the volume-to-capacity ratio. No mitigation is recommended as the overall intersection volume-to-capacity ratio and delay decreases because of the redistribution of traffic.

At the intersection of Dillingham Boulevard at Kokea Street during the afternoon peak hour, the volume-to-capacity ratio increases from 1.12 to 1.54 and the delay increases

from 121.8 to 287.2 seconds per vehicle. No mitigation is recommended as the overall intersection will operate at Level-of-Service D, which is an acceptable level-of-service. At the intersection of Dillingham Boulevard at Kohou Street during the afternoon peak hour, the level-of-service of the southbound left turn and through movement will improve from Level-of-Service E to Level-of-Service D.

No mitigation is recommended for the intersection of Dillingham Boulevard at Alakawa Street. The overall traffic volumes decrease because of the redistribution of traffic, the volume-to-capacity ratios either decrease or do not change and volume-to-capacity ratios and delays of the overall intersection will decrease.

For the intersection of Dillingham Boulevard at Kokea Street, it is recommended that the phasing be modified to provide a protected-permissive left turn from eastbound Dillingham Boulevard to northbound Kokea Street. With this modification, the level-of-service of the left turn will improve from Level-of-Service F to Level-of-Service C. Based on the traffic projections, separate left turn lanes will be required along Kokea Street at the entrances to the parking lots. With this separate left turn lane, all movements will operate at Level-of-Service C, or better. The recommended lane configuration along Kokea Street is shown schematically in the TIAR.

HCC should appoint a Transportation Coordinator to develop and implement a Traffic Management Plan (TMP). The objective of the TMP is to reduce peak hour traffic demand. Typically, a TMP consist of one plan aimed at employees and a second plan focused on students. The TMP should provide information to students and employees about ridesharing opportunities and the availability of bus service. It is not possible to estimate how much of an impact a TMP will have on the amount of traffic generated by HCC. Early implementation of such a plan will provide data for future updates of the TIAR for future development of the HCC campus, especially as HCC starts to initiate components of the long range plan. The TMP will require continuous monitoring and updating (Office of Environmental Quality Control and Department of Planning and Permitting Comments)..

C. Long-term Impacts

1. Environmental Resources

Adverse impacts on environmental resources described in Section 1.E of this Assessment are not anticipated. On-going development and use of the Main Campus and Kokea Street Campus have altered the environment on which the campuses are located. Thus, there is no natural environment *per se* to be impacted.

2. Facilities

The Long Range Development Plans provides a more functionally efficient Main Campus. Major campus functions are organized into operating groups and generally placed in the same building or in buildings that are in close proximity to one another. In some instances, classrooms have been relocated entirely. For example, the automotive classrooms and auto body repair have been relocated to the Kokea Street Campus near the automotive mechanics and heavy equipment repair buildings. Similar clustering of educational departments is planned for the Main Campus.

3. Infrastructure

The Long Range Development Plan for Honolulu Community College prescribes a systematic plan to construct facilities for almost 1.5 times the current FTE enrollment (2,500 FTE versus 5,000 FTE) by the year 2030. The discussion of infrastructure systems cited the need to upgrade existing facilities to accommodate projected future water, wastewater, and power demands. Improvement measures proposed by the consultant team in conjunction with capital improvement projects proposed by respective utility system providers should assure that future systems can accommodate projected demand. Replacing and or upgrading the respective utility systems will be based on the phasing schedule and available public funds.

Runoff quantities have not been calculated for the Main and Kokea Street Campuses. Runoff quantities are expected to increase slightly because of the addition of impervious surfaces primarily at the site of the former Kapalama Incinerator. The buildings to be constructed are planned on existing improved building sites or areas covered with impervious surfaces (primarily asphalt concrete). Runoff from these areas already is collected and conveyed by drain lines for discharge into Kapalama Canal.

To comply with City storm water quality policies, it is proposed to direct storm water to open space areas for percolation into the ground. Other methods may be implemented pursuant to approved, site-specific Best Management Practices and criteria in Part II Water Quality Criteria, City Rules Relating to Storm Drainage Standards (Department of Planning and Permitting, 2000).

4. Land Use

The Development Plan Land Use Map envisions this area of Honolulu as a center of mixed use commercial-industrial activities and the zoning (IMX-1) reflects these types of uses. In fact, it is the only mixed use commercial-dustrial area planned for Honolulu for the next 20 years. High-density commercial development is planned for both sides of King Street from Waiakamilo Road to its intersection with King Street and low-density commercial development would be promoted along both sides of Dillingham Boulevard. The high-density commercial activities would be supported by residential (single and multi-family) uses mauka of King Street. Limited residential uses are found along Dillingham Boulevard thus the placing of less emphasis on commercial industrial uses along this corridor. While commercial development in various forms exists along King Street and Dillingham Boulevard, some of these low-intensity activities are expected to continue in their present form and use into the future (probably as result of land rents and terms of leases), and many buildings may be demolished and replaced by larger structures and new activities.

Honolulu Community College is located in the IMX-1 zoning district and will continue to be a permitted use unless the zoning code is amended to exclude public use and structures.

None of the proposed college buildings will exceed 6 stories in height which is within the 60 foot height limit prescribed by zoning. The increase in floor area (or density) proposed by the long-range plan is consistent with the allowable floor area for the IMX-1 zoning district. The scale, form, and design of the campus supports the desired urban form postulated in city plans for the area to the year 2025.

5. Visual

Honolulu Community College will project a new physical and visual appearance when the LRDP is completely implemented. Along the major public edges of the site, namely Dillingham Boulevard and Kokea Street, new 1-story, 2-story, and 3-story buildings will line Dillingham Building along with a new 4-story parking structure. At Kokea Street a new 5-story parking structure will be the dominant architectural feature. Buildings on the periphery of the site will partially obstruct some of the taller existing and proposed buildings (not more than 6-stories in height) within the interior of the Main Campus. The increase in the number of buildings and their multi-story configuration will be "softened" by landscaping around the perimeter, along the Mall, and between structures and providing formal and informal "meeting places" for students and faculty where they can site, eat, and talk story, and conduct classes in an outdoor setting.

Existing trees fronting the Main Campus on Dillingham Boulevard and supplemental tree plantings should obscure the taller buildings from motorist's views. This condition already prevails and should continue into the future.

6. Energy and Resource Efficiency

Many if not all the existing buildings were constructed before energy awareness became a byword in the design of buildings and ancillary features. Energy efficient air conditioning systems, updated electrical systems, and lighting fixtures would help to reduce energy consumption and lower energy costs.

Common areas such as restrooms can be outfitted with low gallon water fixtures or automatic cut-off valves to help reduce water consumption.

7. Traffic

Long-term traffic impacts (year 2025) ***and mitigating measures*** are ***summarized below***: [discussed in the Traffic Impact Analysis Report in Appendix A. Because of the applied methodology used in forecasting traffic without the project, trip generation from the project, changes in intersection volume, and capacity of the adjoining streets to accommodate additional traffic loading, readers of this assessment should peruse the report in its entirety rather than segmented by short and long-term impacts.]

The intersection of Dillingham Boulevard at Alakawa Street and Dillingham Boulevard at Kokea Street will operate at Level-of-Service F during both peak periods, without and with the project.

The intersection of Dillingham Boulevard at Kohou Street will operate at Level-of-Service E during the morning peak hour and Level-of-Service F during the afternoon peak hour.

The intersection of North King Street at Kokea Street will operate at Level-of-Service C during the morning peak hour and Level-of-Service F during the afternoon peak hour. The intersection of Dillingham Boulevard at the new parking garage entrance should be aligned with the entrance to Costco in order to use the existing traffic signal. The traffic signal will have to be modified and Dillingham Boulevard will have to be

improved to provide a separate left turn lane for traffic turning left from Dillingham Boulevard into the parking garage.

Because the long range plan is subject to modification, primarily because there is no timetable for the new facilities, the TIAR should be revised and updated as each new component is developed.

Continue the TMP described for the short range plan (Office of Environmental Quality Control and Department of Planning and Permitting Comments).

8. Kapalama Incinerator Remediation

The Department of Planning and Permitting ("DPP") requested additional information on the level of contamination found at the site of the former Kapalama Incinerator, remediation procedures completed, and any limitations placed on the parcel for future use. This comment raises a complex issue that has only been partially resolved by the City and County of Honolulu. Definitive responses to the DPP comments cannot be provided but a summary of remediation work that has transpired at the incinerator site over the past 12 years provides some insight into the status of the incinerator site and the surrounding area.

The Kapalama Incinerator began operating in 1944 and ceased operations in 1977. Known uses of the property after 1977 include a City and County of Honolulu Department of Parks and Recreation maintenance yard, a City and County of Honolulu Department of Transportation Services satellite shop, two Honolulu Community College temporary classrooms, and offices and activities of Pacific Preferred Contractors, Kapalama Equipment, and Paradise Roofing and Consultants. The State of Hawaii Department of Land and Natural Resources acquired ownership of the property in 1981 (Combined Preliminary Assessment and Site Inspection, Charley Langer, May 10, 1999). Demolition of the incinerator site and building began in 1997 and was completed in 1999.

Beginning in 1995, various site assessments, soil and groundwater sampling and analysis, and hazardous risk assessments were undertaken at the incinerator site. These studies included a Phase I Environmental Site Assessment (Unitek Environmental Consultants, September 1995) and Phase II Environmental Site Assessment (Professional Service Industries, Inc. August 1996), soil and subsurface soil investigations (December 1997 to May 1998 and December 2000 to April 2001), groundwater monitoring (Professional Service Industries, August 1996, October 1998, November 1998), site investigations (Department of Health, May 1999), response actions (Department of Health, 2002), and lead testing at the Honolulu Community College children's center (June 2002).

Soil sampling and analytical results collected since 1995 indicated the presence of metals, dioxins, and furans thus establishing the presence of those hazardous substances on the site. The sources for these materials associated with the site include the incinerator stack, the ash loading area, and onsite ash disposal areas. Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were detected in soil and ash samples associated with the three sources.

Following the demolition of the incinerator in 1999, soils contaminated with incinerator ash in the vicinity of the demolished incinerator were treated and remediated. Approximately 1,500 cubic yards of material were remediated through a soil washing process. This process proved to be slow and economically not feasible and was ceased.

In November 2002, the State Department of Health Hazard Evaluation and Emergency Response Office issued a Final Response Action Memorandum ("RAM"). The RAM presented the remedial alternative selected by the Department of Health for the Kapalama Incinerator property and was based on the remedial investigation (RI) and remedial alternative analysis (RA) prepared for the City and County of Honolulu (March 2002).

The RAM characterized soils at the site as containing hazardous substances at up to the following concentrations:

Contaminant	*RME concentration* (mg/kg)*
Arsenic	*21.3*
Barium	*451*
Cadmium	*14.2*
Chromium	*169*
Lead	*676*
Selenium	*1.8*
Silver	*12.7*
Mercury	*2.4*
Dioxin	*0.000667*

**Reasonable Maximum Exposure concentration, either the maximum concentration of the 95% cupper confidence limit on the mean concentration, whichever is lower.*

Of these contaminants, lead was and remains the contaminant of primary concern.

The RAM also determined that the remedy for the site should consist of excavation of soil on the incinerator property contaminated above health-based levels, onsite characterization of this soil, hauling this soil to either the PVT landfill or the Waimanalo Gulch landfill for disposal, backfilling excavated areas with clean soil, and disposal of residual or hazardous wastes (Department of Health).

In October 2004, the City and County of Honolulu suggested dividing the Kapalama Incinerator site into two distinct units. The Kapalama Incinerator Unit which would be managed by the Department of Design and Construction ("DDC") and the Kapalama Incinerator Off-Site Contamination Unit which would be managed by the Department of Environmental Services ("DES"), City and County of Honolulu. The former unit would respond to contamination on the incinerator property itself and the latter would respond to contamination from the incinerator which extends beyond the boundaries of the property. Further, it was agreed that DES remediation responsibilities would commence after DDC remediation efforts were completed. In October 2005, the State Department of Health agreed to the splitting of the site into the two proposed units.

In October 2005, the Department of Health approved with conditions, the Department of Design and Construction's "Final Closure Report" (August 2005) which

implemented the Department of Health 2003 Remedial Action Plan for Removal of Heavy Metals and Petroleum Contaminated Soil, for the Kapalama Incinerator Unit. From September 2004 through February 2005, contaminated soil within the incinerator property boundary was excavated and disposed at local landfills and replaced by uncontaminated fill. Based on this action the Department of Health determined that no further action is warranted in response to the release at the Kapalama Incinerator Unit of this site with the exception of the still contaminated areas indicated on Figure 2 of the Final Closure Report. The still contaminated areas of the Kapalama Incinerator Unit were to be addressed by the DES, the city agency responsible for the Kapalama Incinerator Off-Site Contamination Unit.

The most current document dealing with site remediation is titled "Summary Analysis Report Kapalama Incinerator Off-Site Contamination Unit" prepared for the Department of Environmental Services (March, 2007). The purpose of the Summary Analysis Report is to gather existing information pertaining to historic operation of the Kapalama Incinerator and to identify historic uses of the surrounding areas. This information will then be used to prepare a Work Plan to investigate potential off-site impacts by specific contaminants that may have originated from the incinerator operations.

The Department of Environmental Services is currently preparing a Work Plan for submittal to the Department of Health. As indicated above, the Work Plan will investigate off-site impacts by specific contaminants and further investigate "hot spots" identified by the Department of Health. Thus, in partial response to this comment, the level of off-site contamination and proposed remediation measures are yet to be determined.

9. Conservation of Resources

The Long-Range Development Plan for Honolulu Community College is a land use plan based in part on the program requirements for the College to accommodate a FTE of 5,000 students. In addition, the space program allocates floor space to different departments and programs offered by the college. None of the proposed buildings have been designed.

The Department of Planning and Permitting requested further discussion on conservation and sustainability efforts as measures for mitigating potential environmental effects. This was not done in the Draft Environmental Assessment since none of the proposed new buildings have been designed and therefore there are no sustainable design measures identified for mitigating some of the concerns raised by your comments. In addition, Honolulu Community College does not have in-place programs for waste minimization and resource conservation at this time.

In 2006, the Hawaii State Legislature passed Act 96 that was signed into law in May 2006. The underlying purpose of Act 96 is to promote and help achieve energy self-sufficiency for the state but the act includes mandates to promote green buildings and sustainability for all new state facilities. Some of these mandates include:

1) Design and construct buildings meeting the Leadership in Energy and Environmental Design silver [certification] or two green globes rating system ...;

2) Implement water and energy efficiency practices in operations to reduce waste and increase conservation;

3) Incorporate principles of waste minimization and pollution prevention, such as reducing, revising, and recycling as a standard operating procedures, including programs for waste management in construction and demolition projects ...;

4) Procure environmentally preferable products, including recycled and recycled-content, bio-based and other resource-efficient products and materials.

Act 96 requires that resource conservation and sustainability measures be implemented during planning and budget preparation and program implementation. It is anticipated that all new campus buildings will be designed to be sustainable (green and energy efficient) by incorporating sustainable architectural, engineering, and landscaping standards and guidelines. Sustainable design features in part include maximizing day lighting, providing energy efficient mechanical and building systems, efficient plumbing systems, efficient landscaping, and the use of recycled and local/regional construction materials (Department of Planning and Permitting Comment).

ALTERNATIVES TO THE PROPOSED ACTION 5

A. No Action

The No Action alternative is not a real alternative given the objective of the Honolulu Community College mission and the objective of the Long Range Development Plan. A No Action alternative would maintain the status quo thus precluding the occurrence of direct, construction-related impacts described in this Assessment. More importantly, a No Action alternative would preclude the long-term educational benefits of post-secondary training at this College and the concomitant benefits of an HCC education to residents of the State of Hawaii.

B. Alternative Site Plans

Three alternative site plans were prepared for Honolulu Community College. The three plans provide for the space needs for all programs of the College. Most of the programs are provided within new buildings to meet the requirements established in the HCC Education Specifications. Related programs (e.g. Vocational Technology, Human Services) are located in the same building or in buildings that are in close proximity to each other.

The core area of administration, student services, food services, and maintenance are located towards the center of the site allowing convenient access to all other buildings on the campus. Entrances into the campus, pedestrian and vehicular, are in suitable locations as they are near frequently visited buildings and area. Parking is provided adjacent to all major buildings.

The alternative site plans incorporate various design features to create a pleasant campus environment for students, faculty, staff, and visitors. The pedestrian mall helps to organize the various program buildings arranged along its length and it is also the key aesthetic design feature.

Major differences between the alternative plans are summarized below. Alternatives 2 and 3 proposed the construction of two parking garages (at the Waikiki and Ewa ends of the Campus) rather than three parking structures proposed for Alternative 1. Alternative 3 proposed locating the Childcare/Human Services Program in the Ewa mauka section of the Campus rather than in the Ewa makai corner (Kokea and Dillingham Boulevard) as proposed in Alternatives 1 and 2. All alternatives proposed relocating the Auto Body Repair and Painting Buildings (and Program) to the Kokea Street Campus. Alternative 1 would have retained nine (9) existing buildings and Alternatives 2 and 3 would have retained five (5) existing buildings.

The environmental impacts described in this Environmental Assessment would not be significantly different for any of the site plan alternatives. All alternatives would provide for the space needs for a FTE of 5,000 students and the educational programs and curricula to support the goals of the College. The building program to realize any of the site plans would be implemented over the same time span thus there would be no significant difference in the duration of environmental impacts resulting from on-campus construction.

PERMITS AND APPROVALS 6

Required permits and approvals are indicated below. Additional permits and approvals may be needed pending final construction plans.

State of Hawaii

Department of Health

Variance from Pollution Controls (Noise Permit)
NPDES General Permit (Various)

City and County of Honolulu

City Council

Plan Review Use (PRU)

Board of Water Supply

Water and Water System Requirements for Developments

Department of Planning and Permitting

Building Permit for Building, Electrical, Plumbing, Sidewalk/Driveway and Demolition Work
Certificate of Occupancy
Grubbing, Grading and Stockpiling
Sewer Connection
Temporary Use Approval

Department of Transportation Services

Street Usage Permit

AGENCIES AND ORGANIZATIONS CONSULTED IN PREPARING THE ENVIRONMENTAL ASSESSMENT

7

The Draft Environmental Assessment for the Long Range Development Plan for Honolulu Community College was published in the Office of Environmental Quality Control Environmental Notice of January 23, 2007 and February 8, 2007. Publication initiated a 30-day public review period ending on February 23, 2007. The Draft Environmental Assessment was mailed or delivered to the agencies and organizations identified below. An asterisk * identifies agencies and organizations that submitted written comments during the review period. All comment letters and responses are found in Appendix B.

State of Hawaii

Department of Health
    *Environmental Management Division
Department of Land and Natural Resources
    *State Historic Preservation Division
    *Land Division
Department of Transportation
*Office of Environmental Quality Control
*Office of Hawaiian Affairs
University of Hawaii
    Environmental Center

City and County of Honolulu

*Board of Water Supply
*Department of Design and Construction
Department of Environmental Services
*Department of Planning and Permitting
Department of Transportation Services

Organizations and Individuals

*Hawaiian Electric Company
*Hawaiian Telcom
Oceanic Cable
Liliha/Kapalama Neighborhood Board No. 14
Kalihi-Palama Neighborhood Board No. 15
Trade Unions
Kalihi-Palama Public Library (Placement)
Liliha Public Library (Placement)

DETERMINATION OF SIGNIFICANCE 8

Chapter 200 (Environmental Impact Statement Rules) of Title 11, Administrative Rules of the State Department of Health, establishes criteria for determining whether an action may have significant effects on the environment (§11-200-12). The relationship of the proposed project to these criteria is discussed below.

1) **Involves an irrevocable commitment to loss or destruction of any natural or cultural resource;**

   Significant natural or cultural resources are not found on the Honolulu Community College Main or Kokea Street Campuses.

2) **Curtails the range of beneficial uses of the environment;**

   The proposed improvements will not curtail the range of beneficial uses of the environment.

3) **Conflicts with the state's long-term environmental policies or goals and guidelines as expressed in chapter 344, Hawaii Revised Statutes, and any revisions thereof and amendments thereto, court decisions or executive orders;**

   The proposed improvements do not conflict with the state's long-term environmental policies and goals.

4) **Substantially affects the economic or social welfare of the community or State;**

   The construction cost for all the physical improvements are estimated at approximately $168 million ($6.7 million per year for 30 years) and is a significant public investment towards educating Hawaii's future technical work force. Money to build the improvements will purchase labor and materials during the construction period. Revenues will accrue to the State in the form of payroll taxes and excise tax on materials. Although the building program will benefit the construction industry in the short-term, without the physical facilities to accommodate existing and future HCC curriculum the College will be hindered in achieving the stated goals of the Hawaii State Higher Education Functional Plan. Falling short of public post-secondary educational goals and goals of the College can adversely affect the future economic and social welfare of the community and State.

5) **Substantially affects public health;**

   Public health will not be adversely affected during construction. Air pollution in the form of fugitive dust, noise from construction equipment, and minor erosion can be expected. These impacts can and will be mitigated by measures described in this Assessment and future measure that would be stipulated with construction plans and documents.

6) **Involves substantial secondary impacts, such as population changes or effects on public facilities;**

- The proposed project will neither induce population changes nor adversely affect public facilities. Public infrastructure serving the College has been identified and recommendations submitted for upgrading the infrastructure to meet the 2030 student population. College administrators and their consultants selected to implement the proposed improvements will collaborate with the respective public authorities for insuring that the infrastructure demands made by the College does not adversely affect the level and quality of service of the respective utility.

  Using levels-of-service analysis, the Traffic Impact Analysis summarized service conditions at the four intersections near the College. For the long-term, the analysis indicated that the intersections of Dillingham Boulevard at Ala Kawa and Dillingham Boulevard at Kokea Street will operate at Level of Service F during morning and afternoon peak hours, without and with the project. The intersection of Dillingham Boulevard at Kohou Street will operate at Level of Service E during morning peak hour, without and with the project and Level of Service F during afternoon peak hour, without and with the project. The intersection of North King Street at Kokea Street will operate at Level of Serve B during morning peak hour without the project and Level of Service C with the project. The afternoon peak hour will operate at Level of Service F, without and with the project. Level of Service F is defined as "total breakdown with stop-and-go operation."

7) Involves a substantial degradation of environmental quality;

Both the Main and Kokea Street Campuses have been developed and there is no natural environment to speak of. The proposed improvements generally will be confined to the boundaries of both campuses except for utility connections that may have to be made within adjoining roads.

8) Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions;

University of Hawaii Administrators and the Honolulu Community College Provost have accepted the Long Range Development Plan for Honolulu Community College as the guide for developing the College for the next 25-30 years. In so doing, it is a 30-year commitment to upgrade the physical plant for the College and to seek the funds to do so.

9) Substantially affects a rare, threatened or endangered species, or its habitat;

There is no rare, threatened or endangered flora or fauna on the premises.

10) Detrimentally affects air or water quality or ambient noise levels;

Ambient air quality will be affected by fugitive dust and combustion emissions during construction but can be controlled by measures stipulated in this Assessment. Construction noise may be pronounced during site preparation work but should diminish as structures are erected. All construction activities will comply with air quality and noise pollution regulations of the State Department of Health.

Erosion control measures will be prescribed in grading plans and best management practices prepared for individual projects.

Site-specific Best Management Practices and criteria in to comply with Part II Water Quality Criteria, City Rules Relating to Storm Drainage Standards will be prepared and submitted to the City for review and approval. .

11) Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion-prone area, geologically hazardous land, estuary, fresh water, or coastal waters;

The proposed improvements are not located in an environmentally sensitive area.

12) Substantially affects scenic vistas and view planes identified in county or state plans or studies, or,

The proposed improvements will not adversely affect scenic vistas or view planes. All structures will be limited in height to 6 stories, which does not exceed the height limitation established by the zoning for the area. Landscaping around the perimeter of both campuses will help to shield the buildings from nearby areas and thoroughfares.

13) Requires substantial energy consumption.

Energy consumption will increase given the additional buildings to be constructed and the net increase in assignable floor space.

REFERENCES

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APPENDIX A

TRAFFIC IMPACT ANALYSIS REPORT

TRAFFIC IMPACT ANALYSIS REPORT FOR

HONOLULU COMMUNITY COLLEGE SHORT RANGE AND LONG RANGE DEVELOPMENT PLANS

IN HONOLULU, OAHU, HAWAII

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August 1, 2006

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1. INTRODUCTION

Phillip Rowell and Associates has been retained to prepare a traffic impact analysis for the short range and long range development plans for Honolulu Community College (HCC). The approximate location of the project on the Island of Oahu is shown in Figure 1.

This introductory chapter discusses the location of the project, proposed development plan, the study methodology and order of presentation.

Purpose and Objectives of Study

1. Determine and describe the traffic characteristics of the proposed project.
2. Quantify and document the traffic related impacts of the proposed project.
3. Identify and evaluate traffic related improvements required to provide adequate access to and egress from the proposed project and to mitigate the project's traffic impacts.

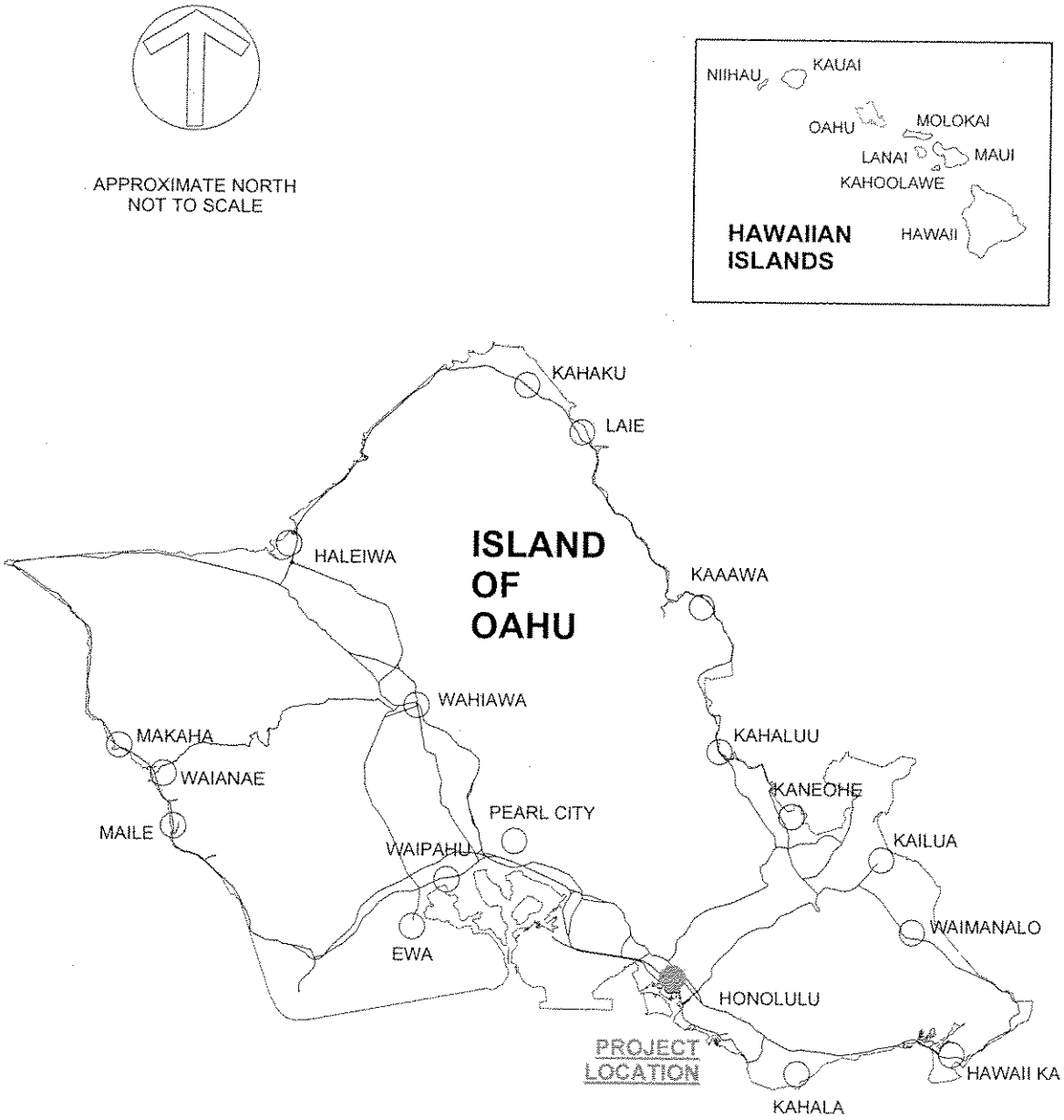


Figure 1
PROJECT LOCATION MAP

Project Location and Description

The location of the project within Honolulu is shown on Figure 2. Access to and egress from the project is via Dillingham Boulevard, North King Street and Alakawa Street. A plan indicating the adjacent streets is presented as Appendix A. This plan also indicates the locations of the existing parking facilities on campus, which are designated Parking 1 through Parking 6.

The short range and long range developments plans are also provided as Appendix A. The components of the developments are described in detail in the *Plan Review Use Application Report*.[1] The following is a summary of the components that impact the traffic characteristics of HCC.

Short Range Development Plan

The short range plan is also considered to be a five-year plan. The short range plan is also referred to as Phase 1. The elements of this plan should be in place by 2011. The components of the short range plan that affect traffic conditions are:

1. A new parking lot will be constructed at the site of the old Kapalama Incinerator. The parking lot will not generate additional traffic, but will cause a redistribution of traffic to and from the various parking lots on campus and the on-street parking along Kokea Street.

2. A new Kokea Training Center will be constructed across from the old incinerator site. Two buildings will have a total floor area of 1,490 square feet.

3. The remaining components described as part of the short range plan will not affect the number of peak hour trips generated or traffic approach and departure patterns.

Long Range Development Plan

The long range plan consists of four additional phases (Phases 2 through 5). No completion dates are available for the various phases. For purposes of this traffic study, it was assumed that this is a 20 year plan, which implies a completion data around 2025. The long range plan consists of new facilities that will generate additional traffic and new and larger parking garages to replace several of the existing surface parking lots. The elements of the long range plan that impact traffic are:

1. A total of 380,000 square feet of additional floor spaces will be constructed.

2. The parking lots along Kokea Street (Parking 1, Parking 2 and the Kapalama Incinerator Site Lot) will be replaced with a new parking garage with capacity for 705 vehicles. Access and egress will be via a new driveway at the approximate location of the existing service road between the incinerator site and existing surface parking lot referred to as Parking 1.

3. The existing administration parking lot along Dillingham Boulevard (referred to a Parking 3) with be expanded and reconfigured. The existing entrance that is located west of Alakawa Street will be relocated to align with Alakawa Street and will be converted from one-way to two-way. The existing exit along Dillingham Boulevard east of Alakawa Street will be removed.

[1] Paul Louie & Associates, Inc., *Honolulu Community College Plan Review Use Report*, June 2006

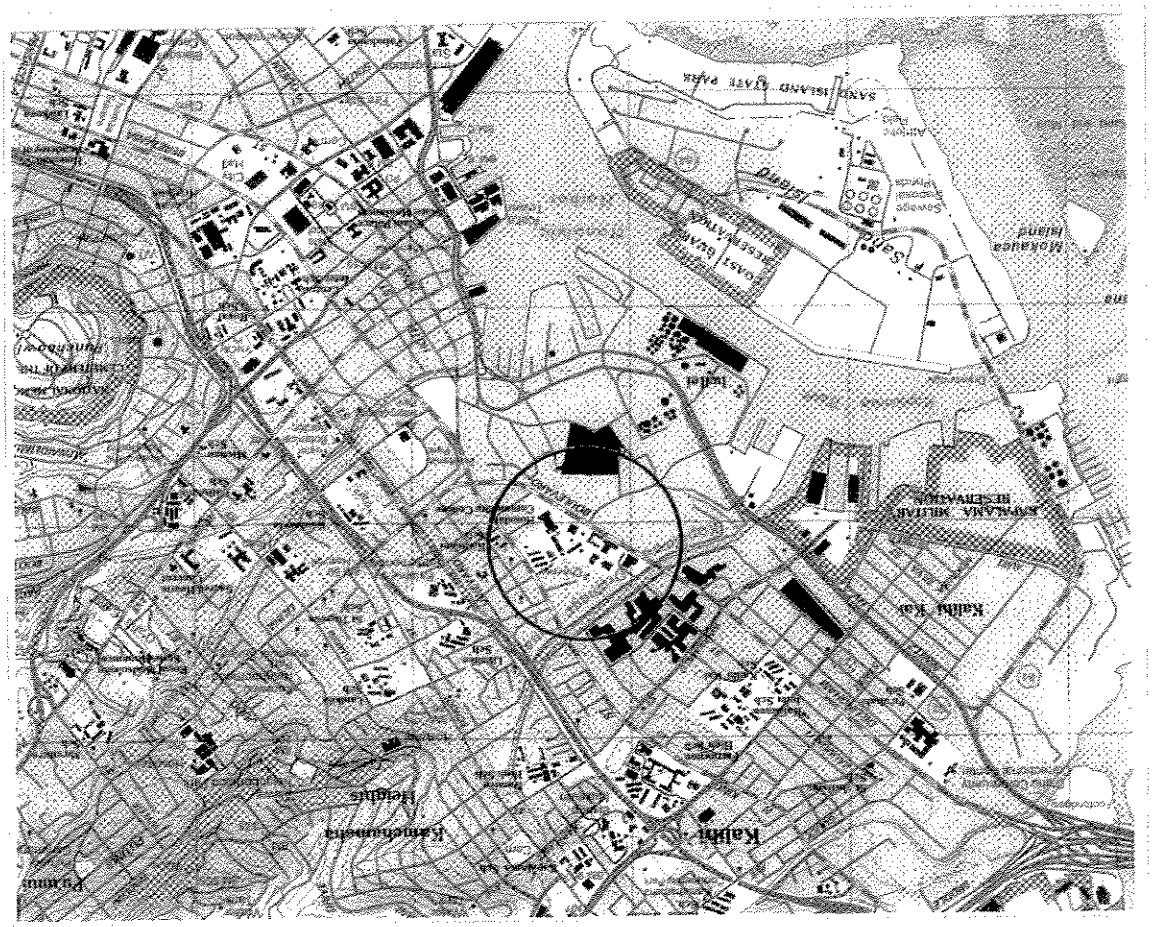
4. Parking 4 and Parking 5 will be replaced with a new parking garage with capacity for 488 vehicles on the east end of the campus. Access and egress will be via a new intersection along Dillingham Boulevard.

Design, or Horizon, Year

The design horizon year represents a date for which future background traffic projections were estimated. These projections include traffic generated by other planned projects within and adjacent to the study area and background traffic growth, for which a future year must be selected.

The year 2011 was used as the horizon year for the short range plan. This year was used because the short range plan is understood to be a five-year plan. Therefore, 2011 is the appropriate design year.

There is no planned design year for the long range plan. In order to develop background traffic forecasts, it was assumed that the design year for the long range plan would be approximately 20 years, or 2025.



SOURE OF MAP: USGS

Figure 2
PROJECT LOCATION IN HONOLULU

Study Methodology

The study methodology described below was established using criteria outlined by the Institute of Transportation Engineers[2] for small developments. See Table 1.

1. A field reconnaissance was performed to identify existing roadway cross-sections, intersection lane configurations, traffic control devices, and surrounding land uses.

2. Existing traffic volumes were obtained.

3. Existing levels-of-service of the study intersections were determined using the methodology described in the *2000 Highway Capacity Manual.*

4. A list of related development projects within and adjacent to the study area that will impact traffic conditions at the study intersections was compiled. This list included both development projects and anticipated highway improvement projects.

5. Future background traffic volumes at the study intersections without traffic generated by the study project were estimated.

6. Peak hour traffic that the proposed project will generate was estimated using trip generation analysis procedures recommended by the Institute of Transportation Engineers.

7. Project generated traffic was assigned to the adjacent roadway network for each of the four scenarios described previously.

8. A level-of-service analysis for future traffic conditions with traffic generated by the study project was performed.

9. The impacts of traffic generated by the proposed project at the study intersections was quantified and summarized.

10. Locations that project generated traffic significantly impacts traffic operating conditions were identified.

11. If required, improvements or modifications necessary to mitigate the traffic impacts of the project and to provide adequate access to and egress from the site were formulated.

12. A report documenting the conclusions of the analyses performed and recommendations was prepared.

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[2] Institute of Transportation Engineers, *Transportation and Land Development, Second Edition*, Washington, D.C., 2002, pages 3-1 thru 3-16.

Table 1 Suggested Requirements for Various Types of Traffic Impact Analyses[2]

	Trip Generation Threshold			
	Access Location & Design Review	Small Development: Traffic Impact Assessment	Medium Development: Traffic Impact Statement	Large Development: Regional Traffic Analysis
	T ≤ 100 Peak Hour Trips	100 < T ≤ 500 Peak Hour Trips	500 < T ≤ 1000 Peak Hour Trips	T > 1000 Peak Hour Trips
Pre-application meeting or discussion	✔	✔	✔	✔
Analysis of Roadway Issues				
Existing condition analysis within study area	✔	✔	✔	✔
Sight distance evaluation	✔	✔	✔	✔
Nearby driveway locations	?	✔	✔	✔
Existing traffic conditions at nearby intersections and driveways		✔	✔	✔
Future road improvements		?	✔	✔
Crash experience in proximity to site	?	✔	✔	✔
Trip generation of adjacent development		?	✔	✔
Trip distribution analysis		✔	✔	✔
Background traffic growth		?	✔	✔
Future conditions analysis at nearby intersections		?	✔	✔
Mitigation identification and evaluation		?	?	✔
Site Issues				
Traffic generation	✔	✔	✔	✔
Traffic distribution	?	✔	✔	✔
Evaluate number, location & spacing of access points	?	✔	✔	✔
Evaluate access design, queuing, etc.	✔	✔	✔	✔
Evaluate site circulation	✔	✔	✔	✔
Other Analyses				
Gap analysis for unsignalized locations		?	?	✔
TSM/TDM Mitigation measures (car- or van-pooling, transit, etc.)- transit agency participation			?	✔
Effect on traffic signal progression, analysis of proposed signal locations	(4)	(4)	?	✔

Notes:
(1) Key: ✔ = required, ? = may be appropriate on a case-by-case basis
(2) Source: Institute of Transportation Engineers, *Transportation and Land Development*, Washington, D.C., 2002, p.3-6
(3) TSM/TDM = Transportation System Management/Transportation Demand Management
(4) A traffic signal should not be permitted

Study Area

The intersections to be studied was established by the unilateral agreement. These intersections are listed in Table 2. Also shown are the right-of-way control of each intersection and the agency with jurisdiction over the intersection.

Table 2 Study Intersections

Number	Intersection	Jurisdiction	Right-of-Way Control
1	Dillingham Boulevard at Alakawa Street	County	Signalized
2	Dillingham Boulevard at Kokea Street	County	Signalized
3	Dillingham Boulevard at Kohou Street	County	Signalized
4	North King Street at Kokea Street	County	Signalized

Order of Presentation

Chapter 2 describes existing traffic conditions, the Level-of-Service (LOS) concept and the results of the Level-of-Service analysis of existing conditions.

Chapter 3 describes the process used to estimate background traffic volumes and the resulting background traffic projections. Background conditions are defined as future background traffic conditions without traffic generation by the study project.

Chapter 4 describes the methodology used to estimate the traffic characteristics of the proposed project, including background plus project traffic projections.

Chapter 5 describes the traffic impacts of the short range plan.

Chapter 6 describes the traffic impacts of the long range plan.

2. ANALYSIS OF EXISTING CONDITIONS

This chapter presents the existing traffic conditions on the roadways adjacent to the proposed project. The level-of-service (LOS) concept and the results of the Level-of-Service analysis for existing conditions are also presented. The purpose of this analysis is to establish the base conditions for the determination of the impacts of the project which are described in a subsequent chapter.

Description of Existing Streets and Intersection Controls

Figure 3 is a schematic drawing of the roadways serving the project, intersection lane configurations and right-of-way controls.

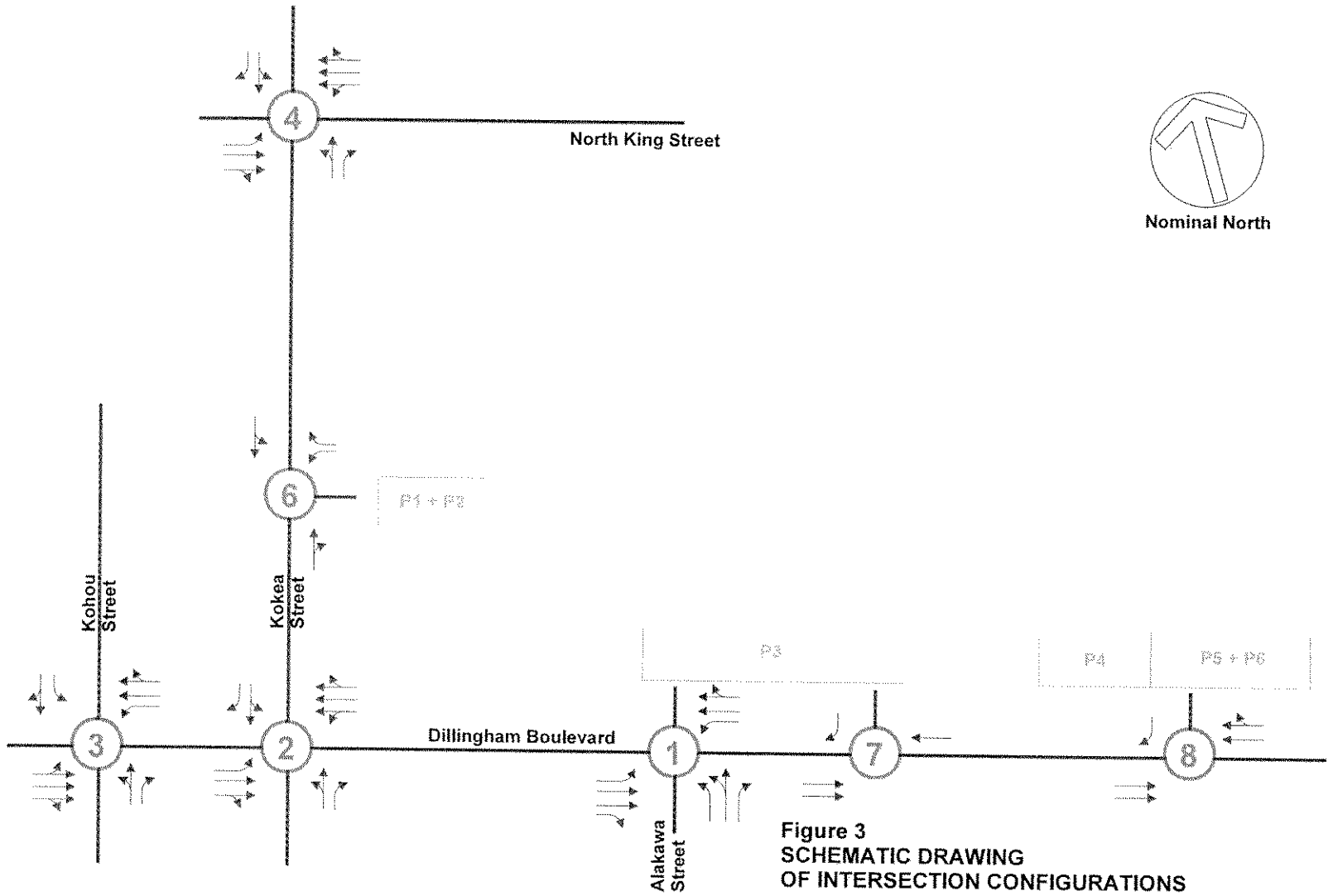


Figure 3
SCHEMATIC DRAWING OF INTERSECTION CONFIGURATIONS AND RIGHT-OF-WAY CONTROLS

Existing Peak Hour Traffic Volumes

The existing morning and afternoon peak hour traffic volumes are shown in Figures 4 and 5.

1. The traffic counts include buses, trucks and other large vehicles. Mopeds and Bicycles were not counted.

2. The counts were performed during October, 2005.

3. All intersections were counted from 6:30 AM to 9:00 AM and from 2:30 PM to 6:00 PM on weekdays.

4. The traffic volumes shown are the peak hourly volume of each movement rather than the peak sum of all approach volumes.

5. All volumes are rounded to nearest five (5). For approaches with volumes less than five, a minimum volume of five is shown.

6. The traffic volumes of adjacent intersections may not match the volumes shown for an adjacent intersection because the peak hours of the adjacent intersections may not coincide and there are driveways between the intersections.

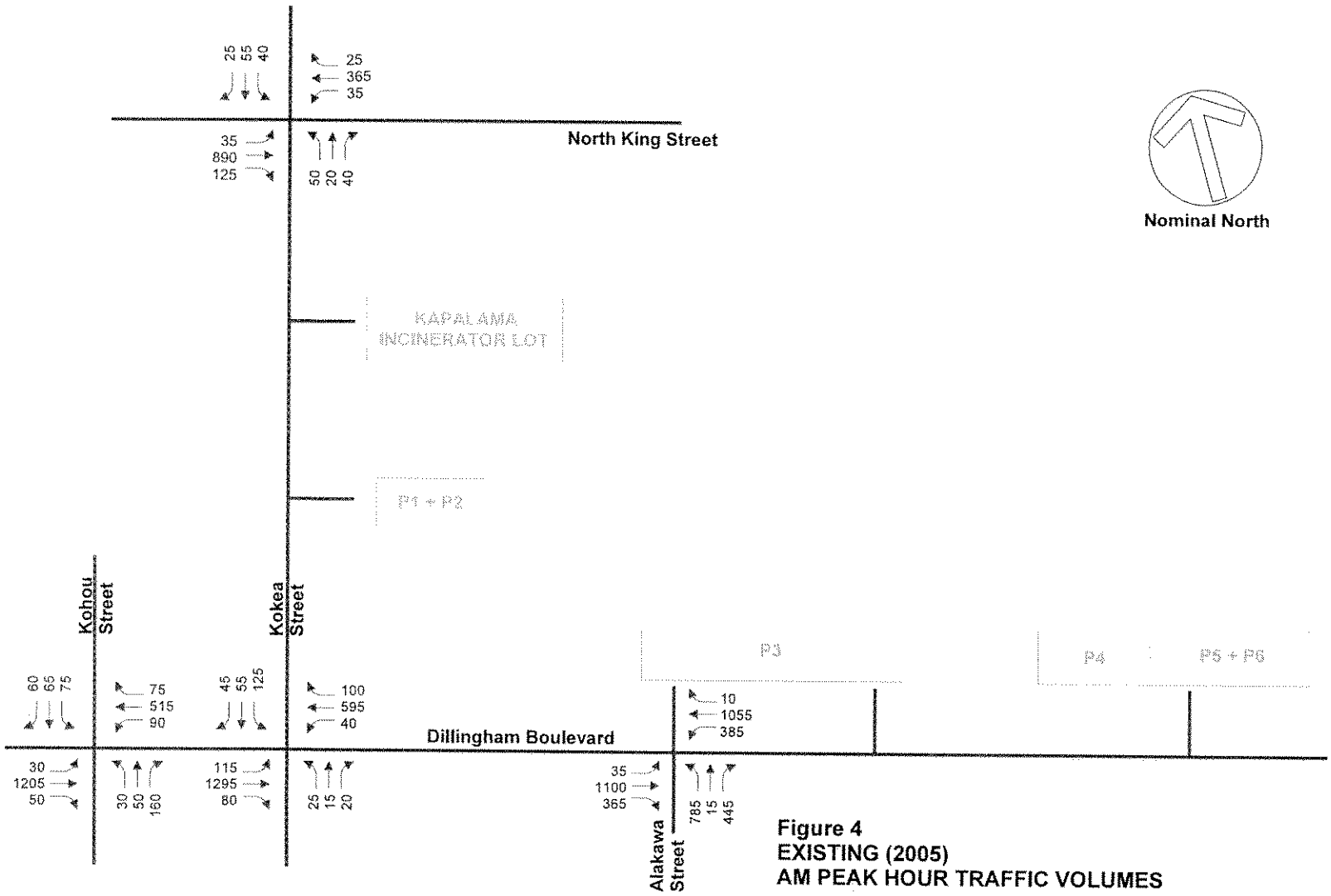


Figure 4
EXISTING (2005)
AM PEAK HOUR TRAFFIC VOLUMES

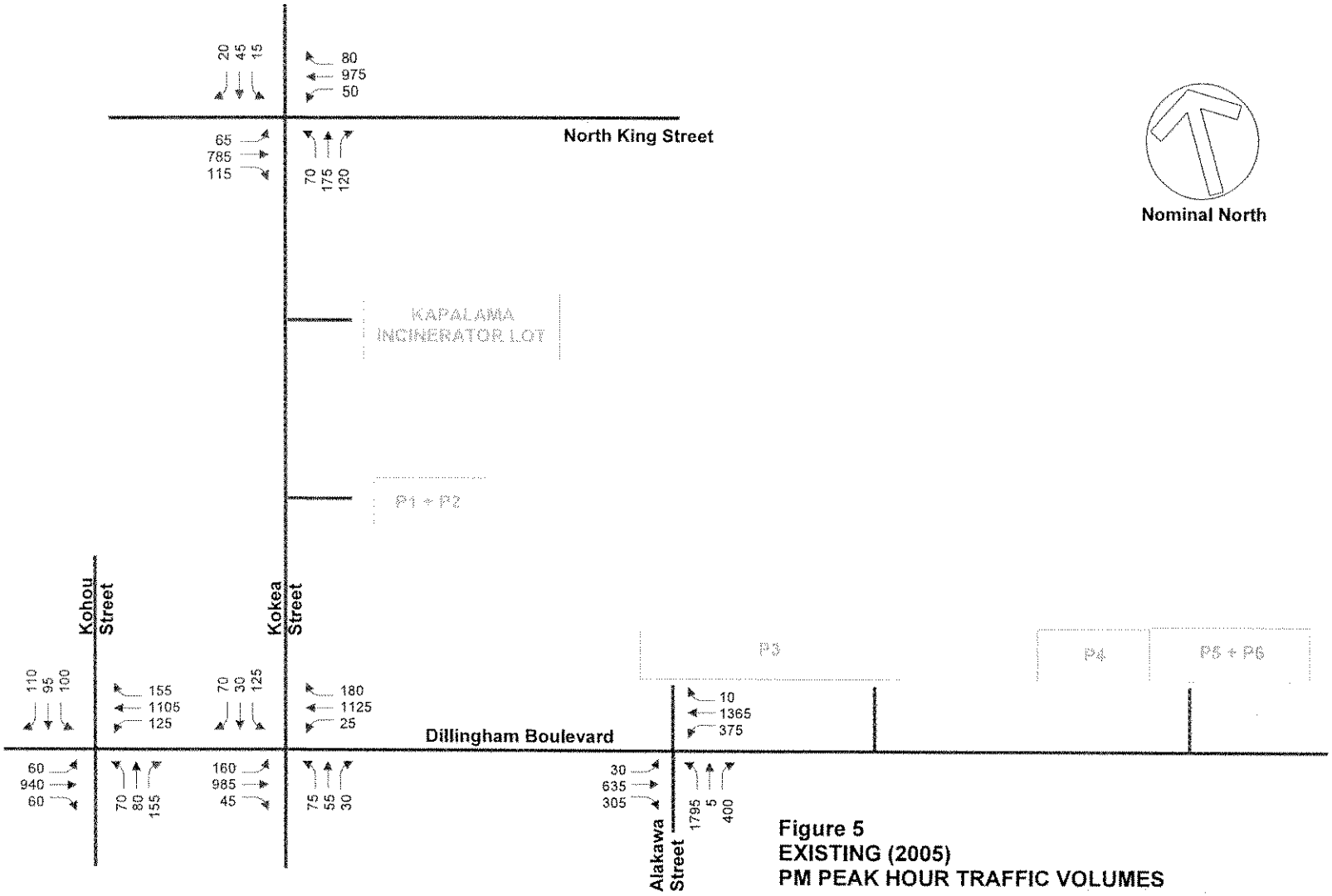


Figure 5
EXISTING (2005)
PM PEAK HOUR TRAFFIC VOLUMES

Level-of-Service Concept

Signalized Intersections

"Level-of-Service" is a term which denotes any of an infinite number of combinations of traffic operating conditions that may occur on a given lane or roadway when it is subjected to various traffic volumes. Level-of-service (Level-of-Service) is a qualitative measure of the effect of a number of factors which include space, speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

There are six levels-of-service, A through F, which relate to the driving conditions from best to worst, respectively. The characteristics of traffic operations for each level-of-service are summarized in Table 3. In general, Level-of-Service A represents free-flow conditions with no congestion. Level-of-Service F, on the other hand, represents severe congestion with stop-and-go conditions. ***Level-of-service D is typically considered acceptable for peak hour conditions in urban areas.***

Corresponding to each level-of-service shown in the table is a volume/capacity ratio. This is the ratio of either existing or projected traffic volumes to the capacity of the intersection. Capacity is defined as the maximum number of vehicles that can be accommodated by the roadway during a specified period of time. The capacity of a particular roadway is dependent upon its physical characteristics such as the number of lanes, the operational characteristics of the roadway (one-way, two-way, turn prohibitions, bus stops, etc.), the type of traffic using the roadway (trucks, buses, etc.) and turning movements.

Table 3 Level-of-Service Definitions for Signalized Intersections[1]

Level of Service	Interpretation	Volume-to-Capacity Ratio[2]	Stopped Delay (Seconds)
A, B	Uncongested operations; all vehicles clear in a single cycle.	0.000-0.700	<20.0
C	Light congestion; occasional backups on critical approaches	0.701-0.800	20.1-35.0
D	Congestion on critical approaches but intersection functional. Vehicles must wait through more than one cycle during short periods. No long standing lines formed.	0.801-0.900	35.1-55.0
E	Severe congestion with some standing lines on critical approaches. Blockage of intersection may occur if signal does not provide protected turning movements.	0.901-1.000	55.1-80.0
F	Total breakdown with stop-and-go operation	>1.001	>80.0

Notes:
(1) Source: *Highway Capacity Manual*, 2000.
(2) This is the ratio of the calculated critical volume to Level-of-Service E Capacity.

Unsignalized Intersections

Like signalized intersections, the operating conditions of intersections controlled by stop signs can be classified by a level-of-service from A to F. However, the method for determining level-of-service for unsignalized intersections is based on the use of gaps in traffic on the major street by vehicles crossing or turning through that stream. Specifically, the capacity of the controlled legs of an intersection is based on two factors: 1) the distribution of gaps in the major street traffic stream, and 2) driver judgement in selecting gaps through which to execute a desired maneuver. The criteria for level-of-service at an unsignalized intersection is therefore based on delay of each turning movement. Table 4 summarizes the definitions for level-of-service and the corresponding delay.

Table 4 Level-of-Service Definitions for Unsignalized Intersections(1)

Level-of-Service	Expected Delay to Minor Street Traffic	Delay (Seconds)
A	Little or no delay	<10.0
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	See note (2) below	>50.1

Notes:
(1) Source: *Highway Capacity Manual*, 2000.
(2) When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection. This condition usually warrants improvement of the intersection.

Level-of-Service Analysis of Existing Conditions

The existing levels-of-service of the signalized intersections are summarized in Tables 5. For signalized intersections, volume-to-capacity ratios, delays and levels-of-service of the overall intersections and each lane group as reported by the *Highway Capacity Software* are shown.

Table 5 Existing (2005) Intersection Levels-of-Service

Intersection and Movement	AM Peak Hour			PM Peak Hour		
	V/C[1]	Delay[2]	LOS[3]	V/C[1]	Delay[2]	LOS[3]
1. Dillingham Boulevard at Alakawa Street	0.94	51.5	D	1.19	118.1	F
Eastbound Left	0.39	53.0	D	0.41	54.5	D
Eastbound Thru	1.01	68.3	E	1.13	130.1	F
Eastbound Right	0.32	95.3	F	0.21	179.9	F
Westbound Left	0.90	61.4	E	1.01	91.2	F
Westbound Thru & Right	0.60	18.3	B	1.19	130.3	F
Northbound Left	0.87	56.1	E	1.18	122.6	F
Northbound Left & Thru	0.90	59.6	E	1.18	122.8	F
Northbound Right	0.37	33.2	C	0.35	18.5	B
2. Dillingham Boulevard at Kokea Street	0.66	13.4	B	0.84	16.5	B
Eastbound Left	0.33	9.7	A	0.91	58.4	E
Eastbound Thru & Right	0.71	14.2	B	0.53	10.6	B
Westbound Left, Thru & Right	0.27	3.0	A	0.93	6.4	A
Northbound Left & Thru	0.15	37.4	D	0.64	53.9	D
Northbound Right	0.01	35.4	D	0.02	35.5	D
Southbound Left & Thru	0.69	34.1	C	0.80	59.6	E
Southbound Right	0.03	51.7	D	0.05	22.5	C
3. Dillingham Boulevard at Kohou Street	0.47	12.7	B	0.60	14.6	B
Eastbound Left, Thru & Right	0.44	8.4	A	0.44	8.5	A
Westbound Left	0.49	16.3	B	0.50	11.5	B
Westbound Thru & Right	0.27	5.1	A	0.56	6.9	A
Northbound Left & Thru	0.22	34.4	C	0.56	43.9	D
Northbound Right	0.28	35.5	D	0.14	33.1	C
Southbound Left & Thru	0.42	34.7	C	0.72	51.8	D
Southbound Right	0.04	32.8	C	0.10	32.7	C
4. N. King Street at Kokea Street	0.40	12.4	B	1.48	15.7	B
Eastbound Left	0.07	8.2	A	0.35	16.2	B
Eastbound Thru & Right	0.53	10.9	B	0.45	13.2	B
Westbound Left, Thru & Right	0.19	10.5	B	0.48	13.5	B
Northbound Left & Thru	0.16	22.3	C	0.47	27.8	C
Northbound Right	0.03	15.9	B	0.08	22.2	C
Southbound Left & Thru	0.18	26.5	C	0.11	25.6	C
Southbound Right	0.02	24.4	C	0.01	24.4	C

NOTES:
1. V/C denotes ratio of volume to capacity.
2. Delay is in seconds per vehicle.
3. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.

3. PROJECTED BACKGROUND TRAFFIC CONDITIONS

The purpose of this chapter is to discuss the assumptions and data used to estimate background traffic conditions. Background traffic conditions are defined as future traffic volumes without the proposed project.

Future traffic growth consists of two components. The first is ambient background growth that is a result of regional growth and cannot be attributed to a specific project. This growth factor also considers traffic associated with minor, or small, projects for which no traffic data are available.

The second component is estimated traffic that will be generated by other development projects in the vicinity of the proposed project.

Design Year for Traffic Forecasts

The design, or horizon, year of a project is the future year for which background traffic conditions are estimated. As noted in Chapter 1, the design year for the short range plan is 2011 and the design year for the long range plan is 2025.

Background Traffic Growth

Background traffic growth was estimated from data provided by the *2020 Oahu Regional Transportation Plan*.[3] Travel estimates from the Plan concluded that traffic would increase an average of 1.6% per year until the year 2020. The growth rates for background growth were calculated using the following formula for compounded interest:

$$F = (1 + i)^n$$

where i = average annual growth rate
n = years

This growth rate was applied to all traffic movements.

Related Projects

The second component in estimating background traffic volumes is traffic resulting from other proposed projects in the vicinity. Related projects are defined as those projects that are likely to be constructed and would significantly impact traffic in the study area. Related projects may be development projects or roadway improvements.

Background Traffic Projections

Background traffic projections were calculated by expanding existing traffic volumes by the appropriate growth rates and then superimposing traffic generated by related projects. The resulting background peak hour traffic projections for 2011 are shown on Figures 6 and 7. The background peak hour traffic projections for 2025 are shown in Figures 8 and 9.

[3] Kaku Associates, Inc., *Oahu Regional Transportation Plan*, November 1995

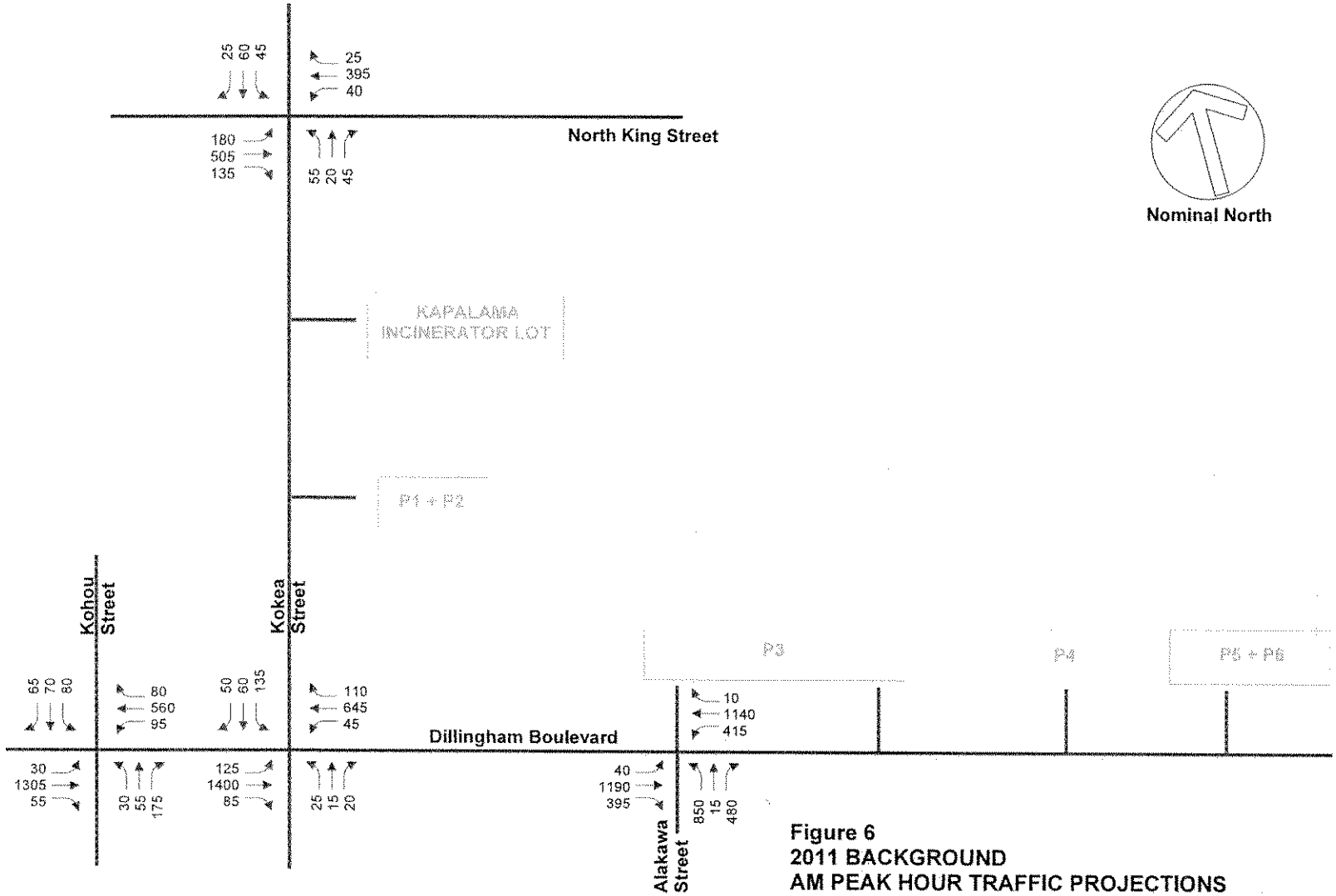


Figure 6
2011 BACKGROUND
AM PEAK HOUR TRAFFIC PROJECTIONS

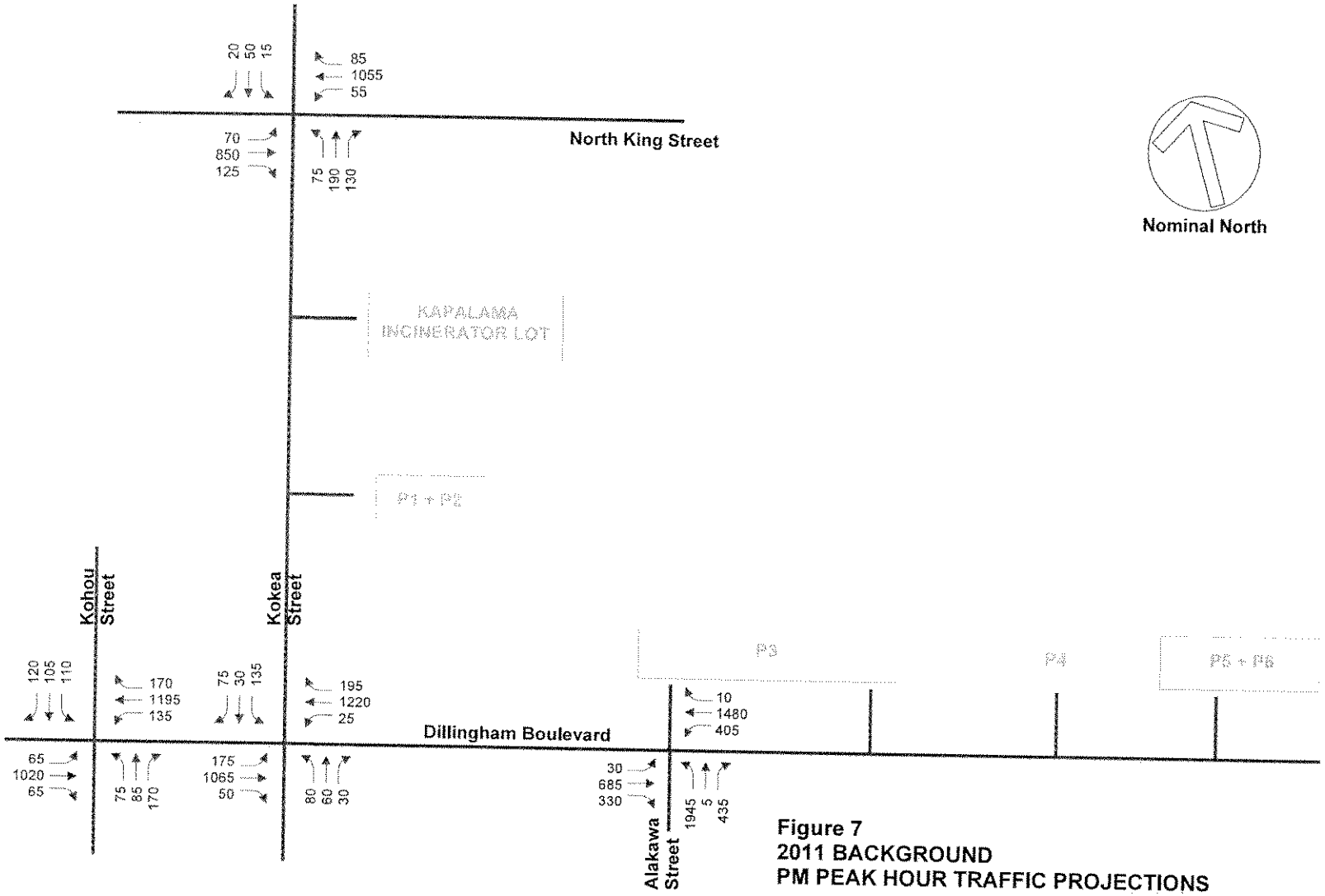


Figure 7
2011 BACKGROUND
PM PEAK HOUR TRAFFIC PROJECTIONS

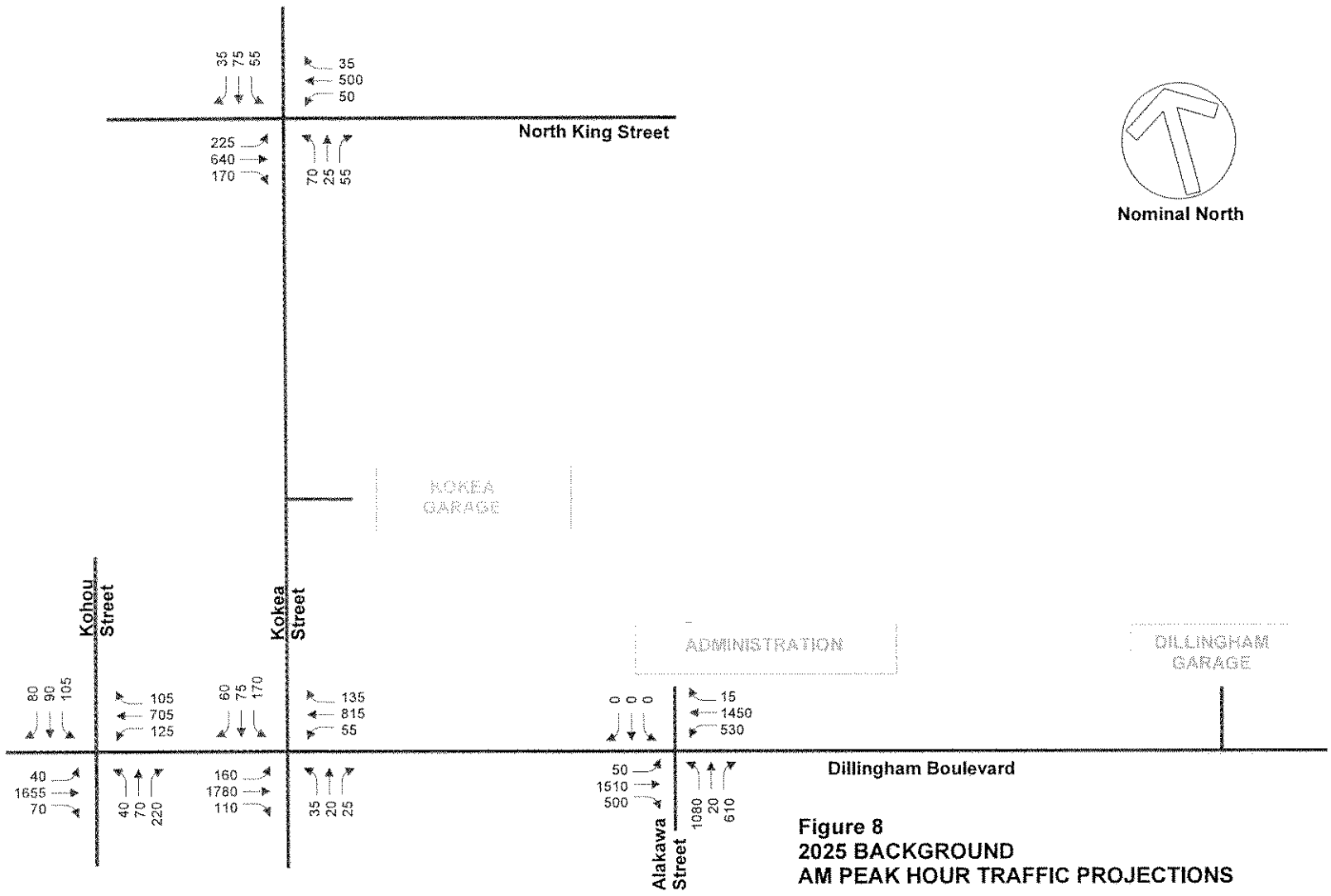


Figure 8
2025 BACKGROUND
AM PEAK HOUR TRAFFIC PROJECTIONS

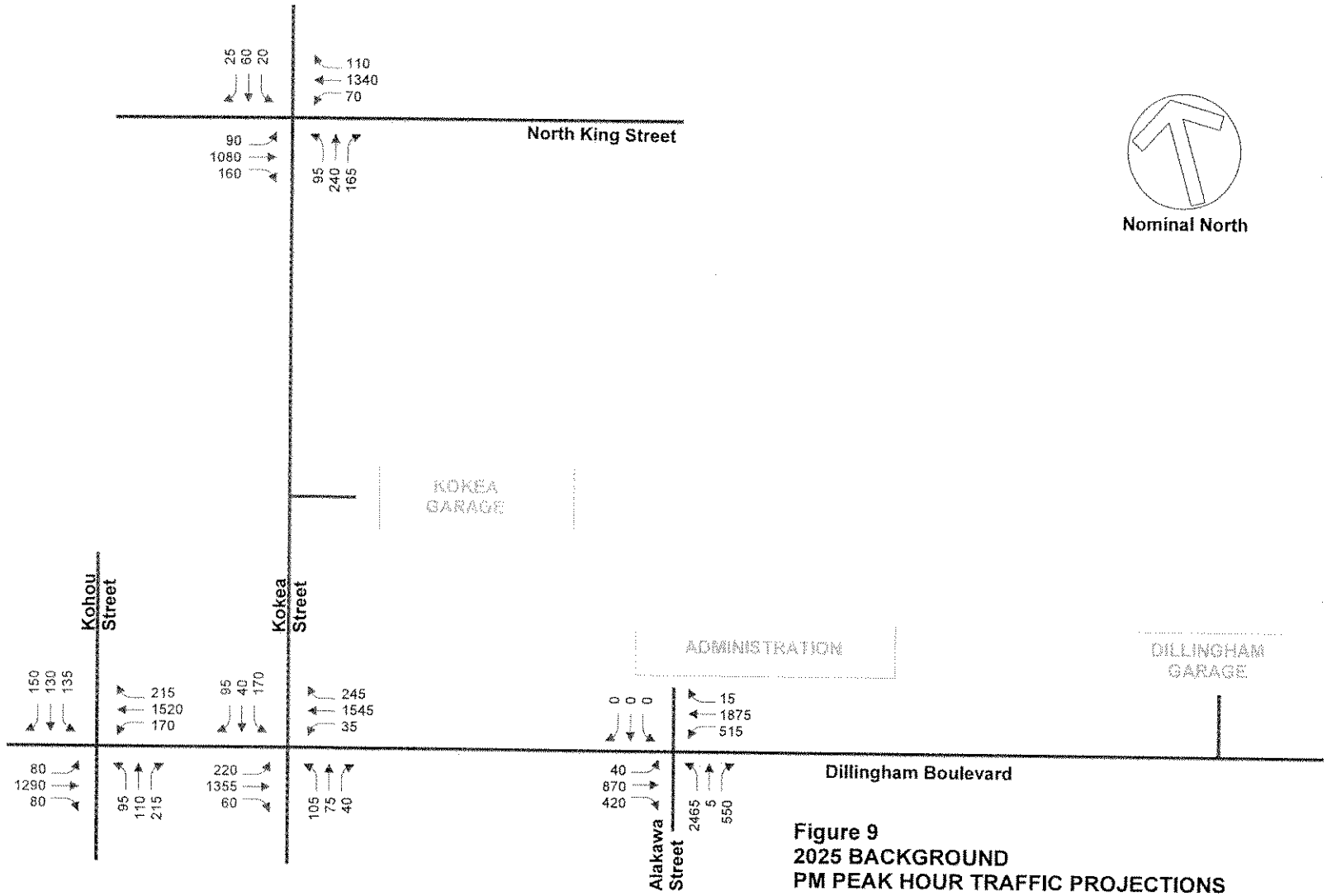


Figure 9
2025 BACKGROUND
PM PEAK HOUR TRAFFIC PROJECTIONS

4. PROJECT-RELATED TRAFFIC CONDITIONS

This chapter discusses the methodology used to estimate the amount of project generated traffic at the study intersections. Generally, the process involves the estimation of weekday peak-hour trips that would be generated by the proposed project, distribution and assignment of these trips on the approach and departure routes, and finally, determination of future background plus project traffic projections.

The results of the level-of-service analysis of background plus project conditions are presented in the following chapters.

Trip Generation Analysis Methodology and Assumptions

Trips generated by the project were estimated using the procedures described in the *Trip Generation Handbook* [4] and trip generation data presented in *Trip Generation* [5]. This method uses trip generation rates and equations to estimate the number of trips that a project will generate during the morning and afternoon peak hours. Separate trip generation analyses were performed for the short range and long range plans.

[4] Institute of Transportation Engineers, *Trip Generation Handbook*, Washington, D.C., 1998, p. 7-12

[5] Institute of Transportation Engineers, *Trip Generation, Seventh Edition*, Washington, D.C., 2003

Trip generation rates for junior and community colleges were used to estimate the number of new trips generated by future development of the HCC campus. These rates are based on the gross square footage of building area. The number of trips that each phase of the project will generate was estimated using these trip generation rates and the new square footage of building area provided in the *Plan Review Use Application Report*.[6]

Short Range Plan

The short range plan, also referred to as Phase 1, consist of the following components:

Component	Description
New Kokea Training Center	Two new buildings with a total new floor area is 1,490 square feet.
New Kapalama Incinerator Site Surface Parking Lot	The parking lot does not generate new trips but will cause redistribution of existing trip into and out of the parking lots.
New Science Building	Consolidates existing facilities into a new building. No new trips will be generated.
New A/C Building	Will not generate additional traffic.
Renovate Existing A/C Building	Will not generate additional traffic.

In summary, the only component of Phase 1 that will generate new traffic is the Kokea Training Center. The trip generation calculations are summarized in Table 6. The trips shown are the peak hourly trips generated by the Kokea Training Center during the peak hour of the adjacent street system.

Table 6 Trip Generation Analysis - Short Range Plan (Phase 1)

Period & Direction		Junior and Community Colleges (LU Code 540)		
		Trips per Unit or Percent	TSF	Trips
AM Peak Hour	Total	2.99	1,490	5
	Inbound	74%		5
	Outbound	26%		0
PM Peak Hour	Total	2.54		5
	Inbound	58%		5
	Outbound	42%		0

Notes:
(1) Source: Institute of Transportation Engineers, *Trip Generation, 7th Edition*, Washington, D.C., 2003, p. 981 - 982.
(2) All number are rounded to five (5).
(3) TSF = Thousand Square Feet.

[6] Paul Louie & Associates, Inc., *Honolulu Community College Plan Review Use Report*, June 2006

Long Range Plan

The trip generation analysis for the long range plan is summarized in Table 7. Shown are the peak hour trips generated by each phase (Phases 2 through 5) and the total for the long range plan. Also shown at the bottom of the table are the trips generated by the short range plan (Phase 1) and the total trips generated by the short and long range plans together. Detailed trip generation calculations are provided as Appendix C.

Table 7 Trip Generation Analysis - Long Range Plan (Phases 2 through 5)

		AM Peak Hour			PM Peak Hour		
	Phase	Total	In	Out	Total	In	Out
Long Range Development Plan	2 (Main Campus)	65	50	15	55	30	25
	2 (Kokea Campus)	210	155	55	175	100	75
	3	165	120	45	140	80	60
	4	165	120	45	140	80	60
	5	530	390	140	450	260	190
	Total	1,135	835	300	960	550	410
Short Range Plan	1	5	5	0	5	5	0
Project Totals		**1,140**	**840**	**300**	**965**	**555**	**410**

Trip Distribution and Assignments

Project-related trips were distributed along the anticipated approach routes to the project site based on the directional distribution of existing peak hour traffic along Dillingham Boulevard, Alakawa Street and North King Street and the locations of proposed parking lots on the campus. Existing traffic was redistributed to account for the new parking facilities. For the short range plan, this considered the new Kapalama Incinerator Parking Lot and the relocation of the on-street parking from Kokea Street to the new parking lot. For the long range plan, this considered the new parking garage at the incinerator site and the new garage along Dillingham at the east end of the campus.

The peak hour trip assignments for the short range plan are shown on Figures 10 and 11. The peak hour trip assignments for the long range plan are shown on Figures 12 and 13.

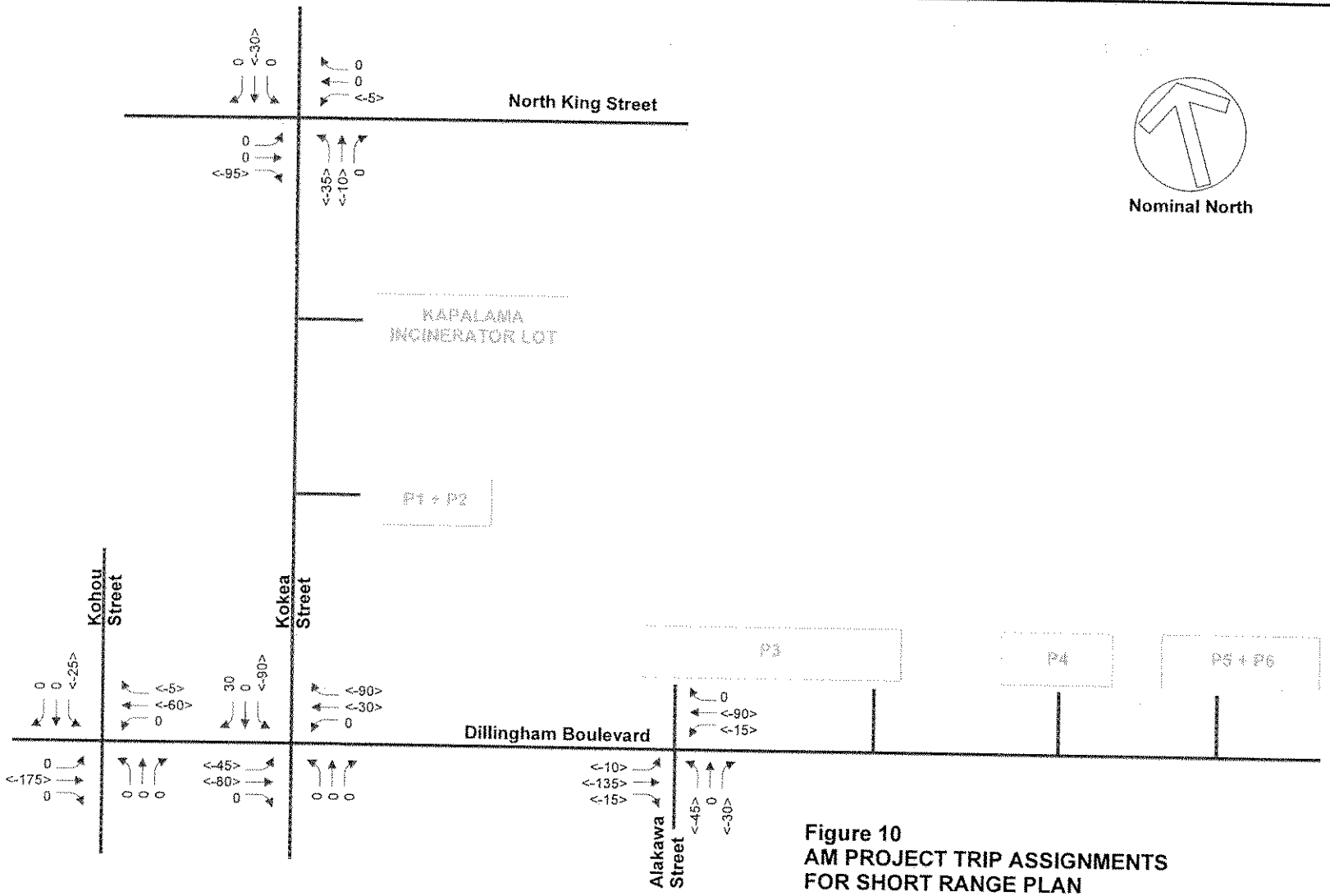


Figure 10
AM PROJECT TRIP ASSIGNMENTS FOR SHORT RANGE PLAN

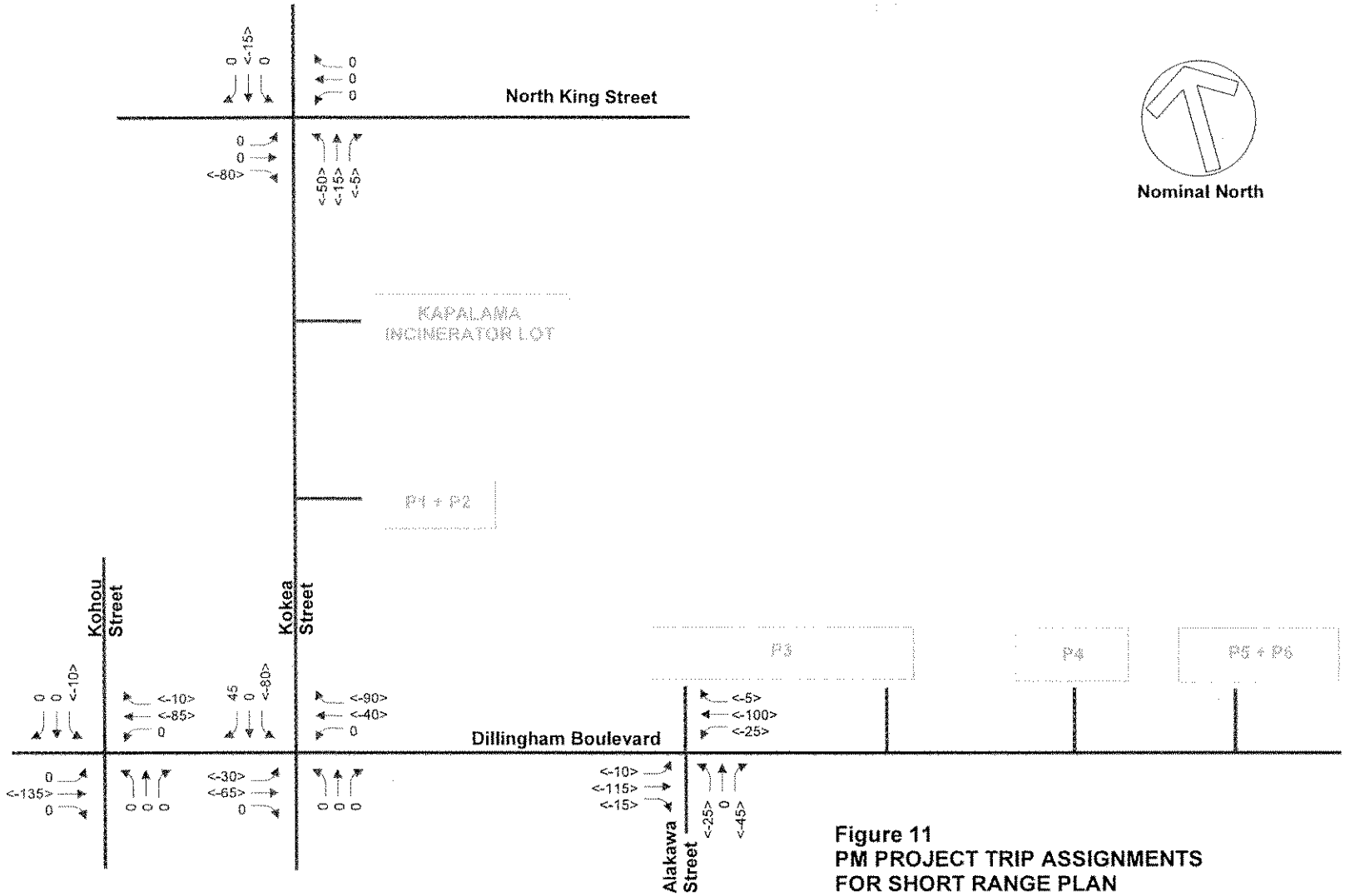


Figure 11
PM PROJECT TRIP ASSIGNMENTS FOR SHORT RANGE PLAN

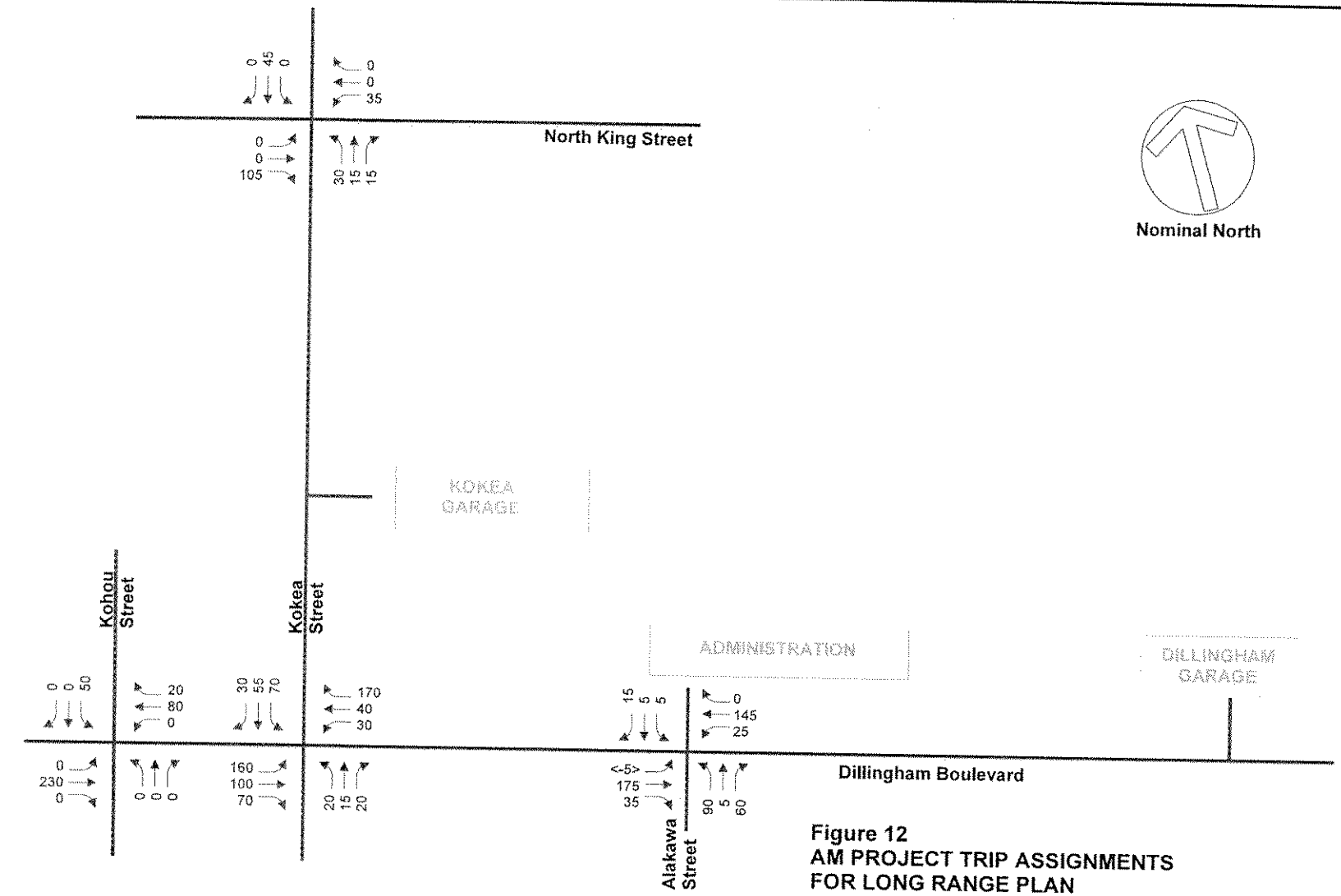


Figure 12
AM PROJECT TRIP ASSIGNMENTS FOR LONG RANGE PLAN

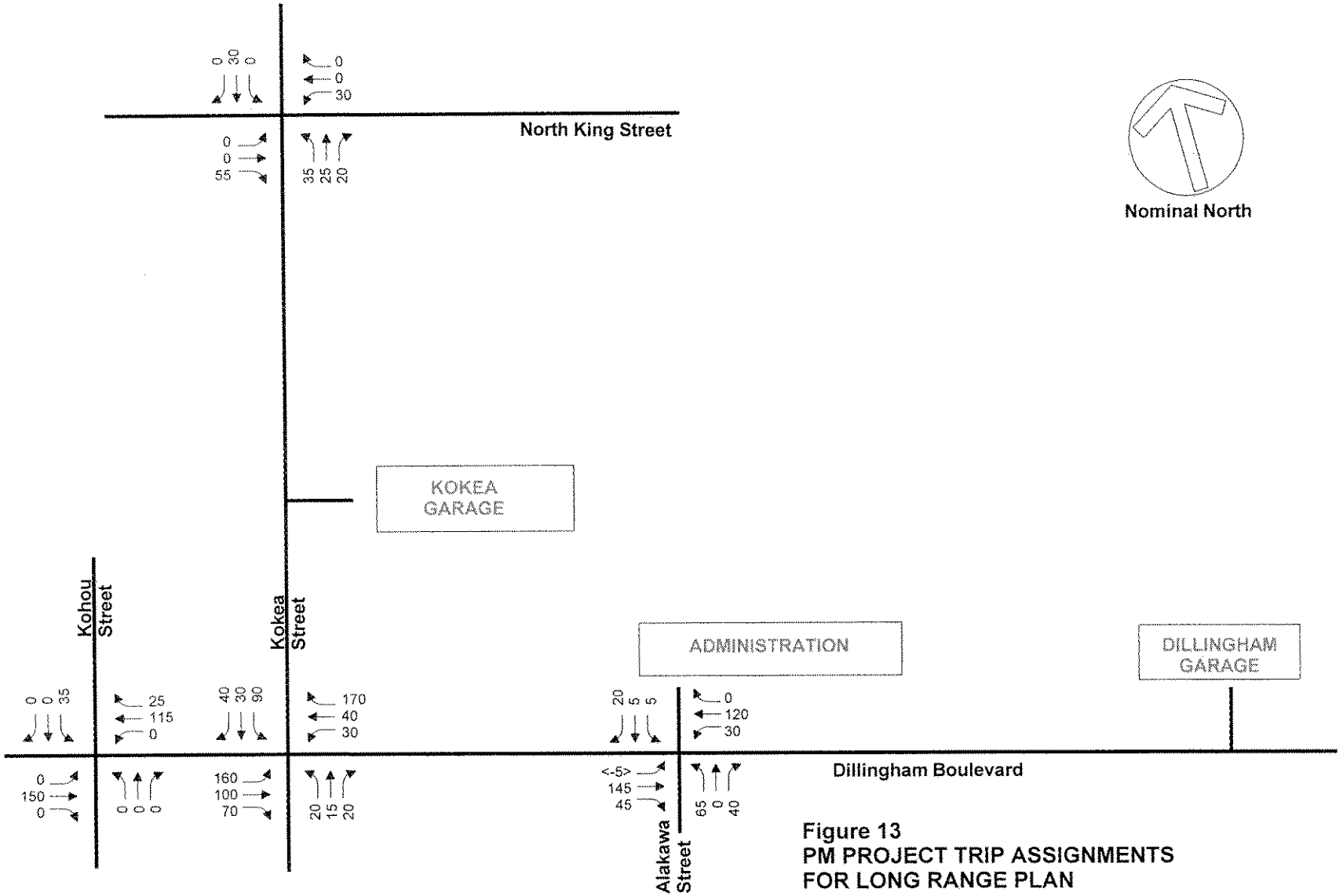


Figure 13
PM PROJECT TRIP ASSIGNMENTS
FOR LONG RANGE PLAN

Background Plus Project Projections

Background plus project traffic conditions are defined as background traffic conditions plus project related traffic. These projections were estimated by superimposing the peak hourly traffic generated by the proposed project on the background peak hour traffic volumes presented in Chapter 3. The incremental difference between background and background plus project is the traffic impact of the project under study.

Separate traffic projection calculations were performed for the short range and long range plans. The traffic projections for 2011 background plus project conditions are shown on Figures 14 and 15. The 2025 background plus project traffic projections are shown on Figures 16 and 17.

The traffic projection worksheets for the short range and long range plans are presented as Appendices D and E, respectively.

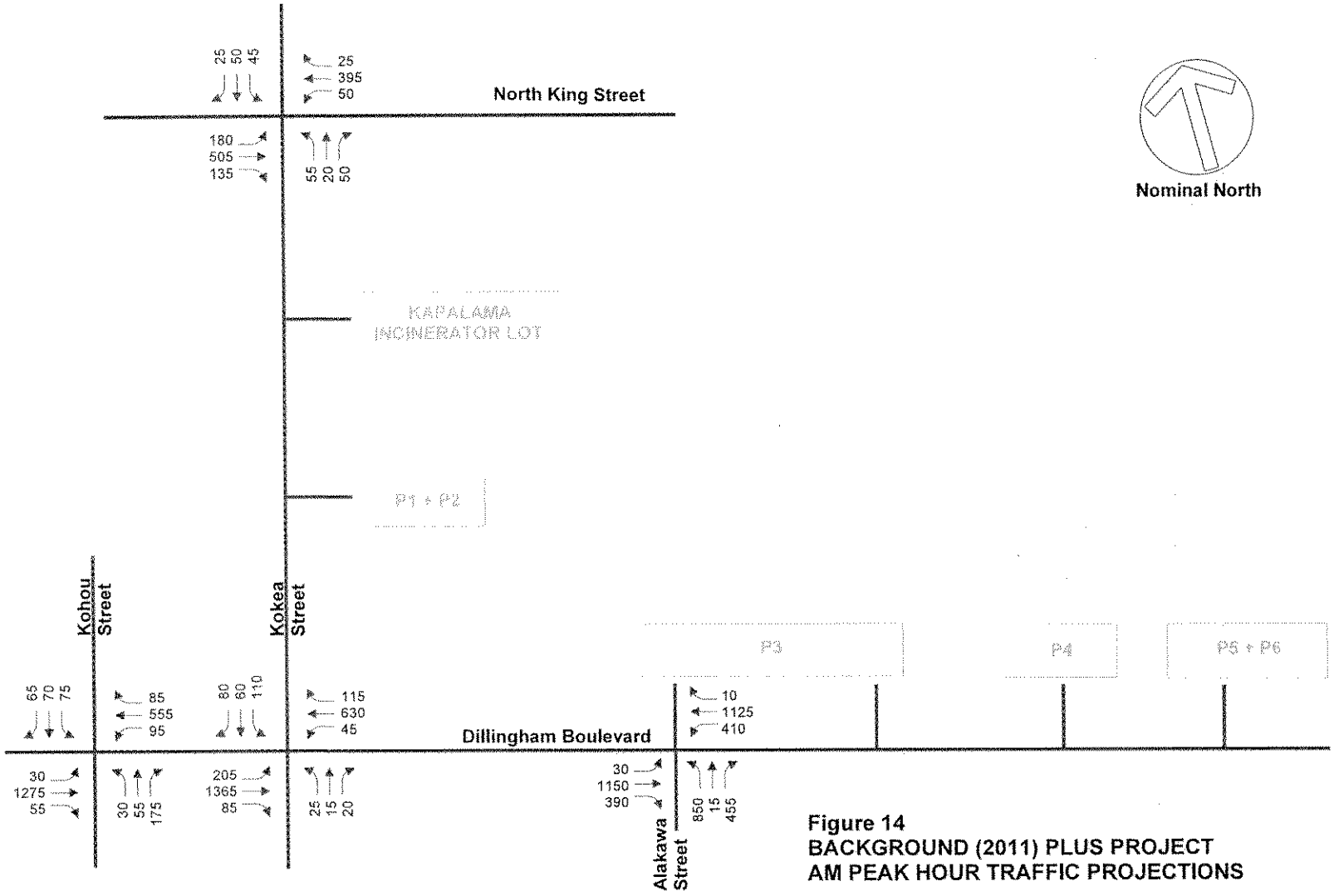


Figure 14
BACKGROUND (2011) PLUS PROJECT
AM PEAK HOUR TRAFFIC PROJECTIONS

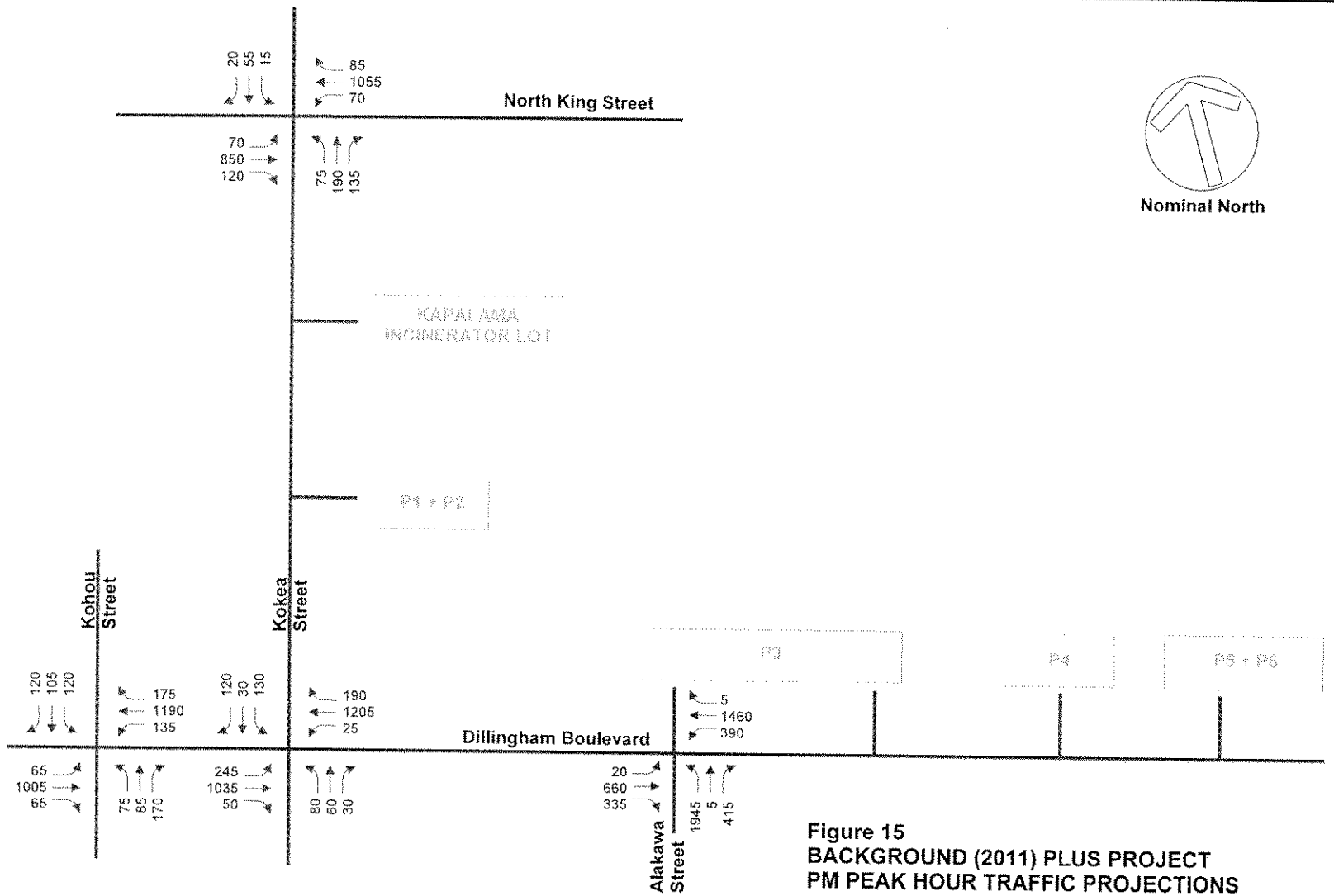


Figure 15
BACKGROUND (2011) PLUS PROJECT
PM PEAK HOUR TRAFFIC PROJECTIONS

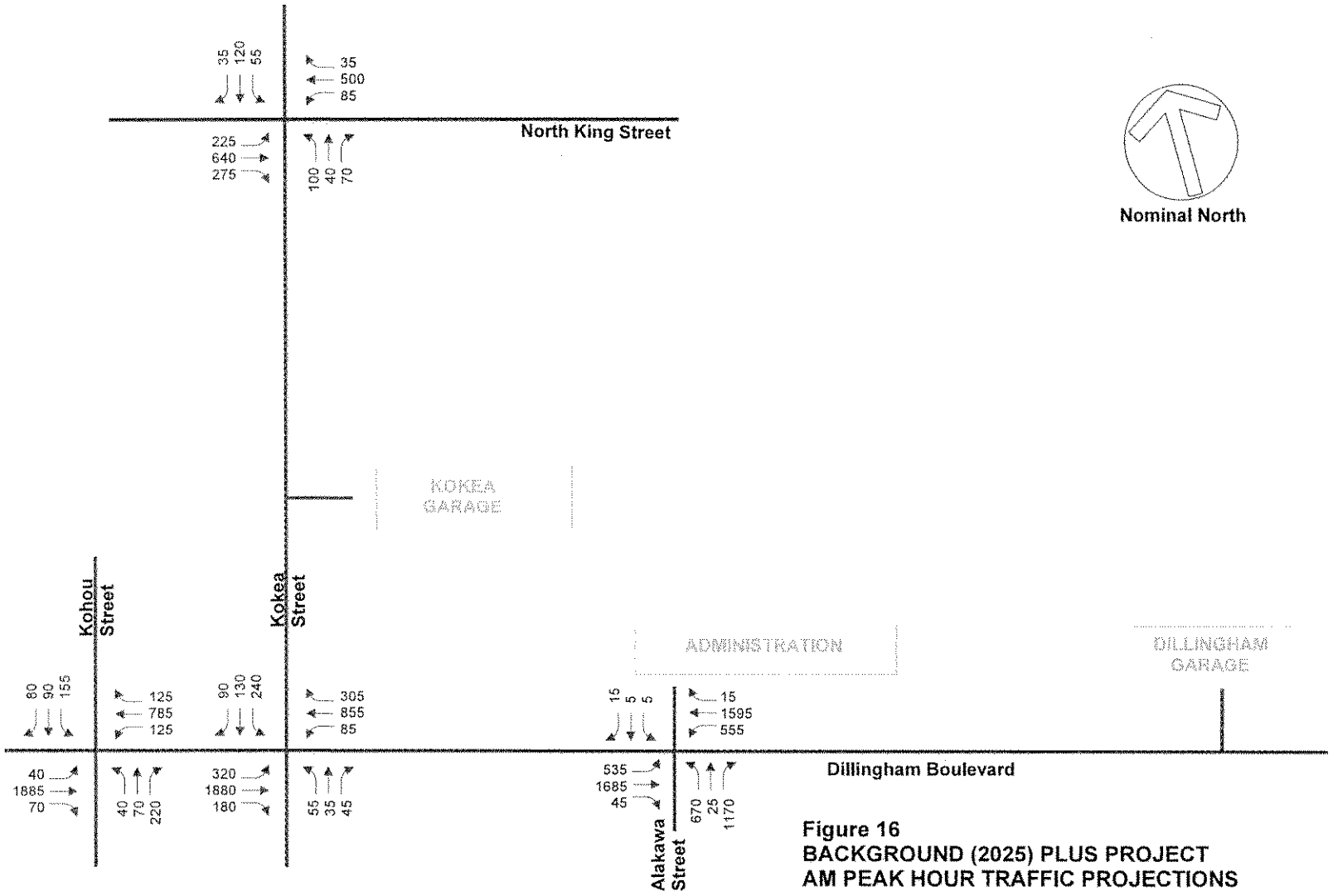


Figure 16
BACKGROUND (2025) PLUS PROJECT
AM PEAK HOUR TRAFFIC PROJECTIONS

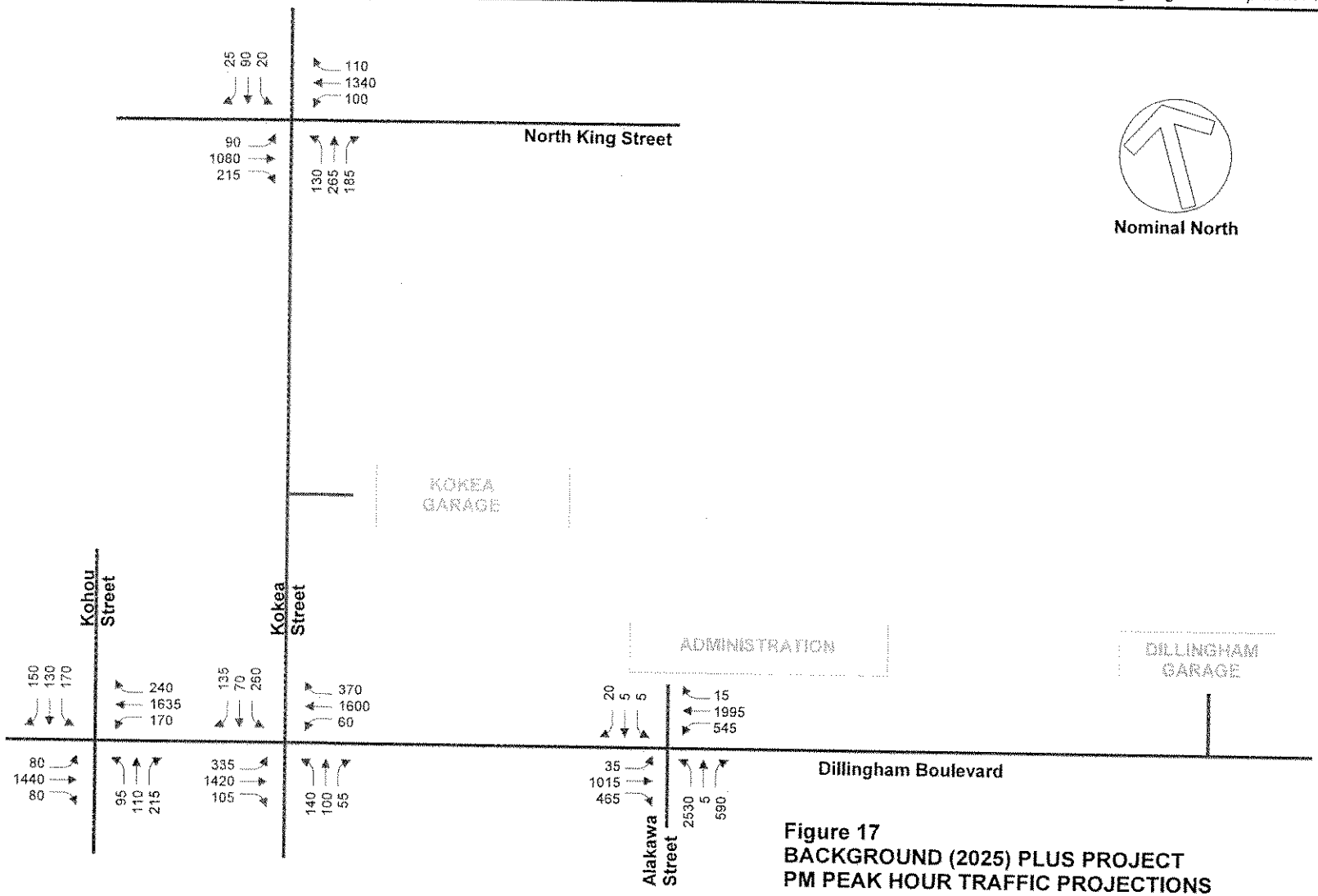


Figure 17
BACKGROUND (2025) PLUS PROJECT
PM PEAK HOUR TRAFFIC PROJECTIONS

5. TRAFFIC IMPACT ANALYSIS - SHORT RANGE

The purpose of this chapter is to summarize the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

The impact of the project was assessed by analyzing the changes in traffic volumes and levels-of-service at the study intersections.

Changes in Total Intersection Volumes

An analysis of the project's share of 2011 background plus project intersection approach volumes at the study intersections is summarized in Table 8. The table summarizes the project's share of total 2011 peak hour approach volumes at each intersection. Also shown are the percentage of 2011 background plus project traffic that is the result of background growth and traffic generated by related projects. Note that some of the percentages are negative because traffic has been redistributed because of the new parking lot, resulting in less that at some of the intersections.

An analysis of the project's pro rata share of the increase of traffic volumes between 2005 and 2011 summarized in Table 9. This table summarizes the growth between 2005 and 2011 and indicates the percentage of growth resulting from background growth and related projects and the percentage growth resulting from project generated traffic. Some of the growth percentage are negative because of the redistribution of traffic.

Table 8 Analysis of Project's Share of Total Intersection Approach Volumes [1]

Intersection	Period	Existing	2011 Background	2011 Background Plus Project	Background Growth		Project Traffic	
					Trips	Percent of Total Traffic [2]	Trips	Percent of Total Traffic [3]
Dillingham Blvd at Alakawa St	AM	4195	4535	4435	340	7.7%	-100	-2.3%
	PM	4920	5325	5235	405	7.7%	-90	-1.7%
Dillingham Blvd at Kokea St	AM	2510	2715	2755	205	7.4%	40	1.5%
	PM	2905	3140	3200	235	7.3%	60	1.9%
Dillingham Blvd at Kohou St	AM	2405	2600	2565	195	7.6%	-35	-1.4%
	PM	3055	3315	3310	260	7.9%	-5	-0.2%
N. King Street at Kokea St	AM	1410	1530	1535	120	7.8%	5	0.3%
	PM	2515	2720	2740	205	7.5%	20	0.7%

Notes:
(1) Volumes shown are total intersection approach volumes or projections.
(2) Percentage of total 2011 background plus project traffic.

Table 9 Analysis of Project's Share of Total Intersection Approach Volumes Growth [1]

Intersection	Period	Existing	2011 Background	2011 Background Plus Project	Background Growth [2]		Project Trips [3]	
					Volume	% of 2005 to 2015 Growth	Volume [4]	% of 2005 to 2015 Growth
Dillingham Blvd at Alakawa St	AM	4195	4535	4435	340	141.7%	-100	-41.7%
	PM	4920	5325	5235	405	128.6%	-90	-28.6%
Dillingham Blvd at Kokea St	AM	2510	2715	2755	205	83.7%	40	16.3%
	PM	2905	3140	3200	235	79.7%	60	20.3%
Dillingham Blvd at Kohou St	AM	2405	2600	2565	195	121.9%	-35	-21.9%
	PM	3055	3315	3310	260	102.0%	-5	-2.0%
N. King Street at Kokea St	AM	1410	1530	1535	120	96.0%	5	4.0%
	PM	2515	2720	2740	205	91.1%	20	8.9%

Notes:
(1) Volumes shown are total intersection approach volumes or projections.
(2) Background versus existing.
(3) Background plus project versus background.
(4) Project generated traffic

Methodology for Level-of-Service Analysis

We have used the Institute of Transportation Engineers standard that a Level-of-Service D is the minimum acceptable level-of-service and that the criteria is applicable to the overall intersection and each controlled lane group. If project generated traffic causes the level-of-service to drop below Level-of-Service D, then mitigation should be provided to improve the level-of-service to Level-of-Service C or better. If the Level-of-Service is E or F without project generated traffic and project generated traffic causes the delay of increase, then mitigation should be provided to improve the delay to be equal to or less than the delay for background without project conditions.

Results of Level-of-Service Analysis

The results of the level-of-service analysis for the study intersections are summarized in Table 10. As the intersections are signalized, the volume-to-capacity ratio, control delay and level-of-service for the overall intersection and each lane group is shown.

In several cases, the delays and levels-of-service for background plus project conditions are better than background without project conditions. As already noted, traffic to and from the various parking lots is redistributed to account for the new Kapalama Incinerator Parking Lot. This redistribution of traffic resulted in the decreased traffic volumes at several traffic movements. The results of the level-of-service analysis imply that the short range plan has an overall positive impact of traffic levels-of-service in the area.

The results of the level-of-service analysis implies that project generated traffic will have a significant negative impact on the eastbound right turn during the morning and afternoon peak hour at the intersection of Dillingham Boulevard at Alakawa Street and the eastbound left turn along Dillingham Boulevard at Kokea Street.

At the intersection of Dillingham Boulevard at Alakawa Street, the eastbound right turn will operate at Level-of-Service F without and with the project during both peak periods. During both peak periods, the average vehicle delay increases, but the volume-to-capacity ratio decreases or does not change. For the overall intersection, the volume-to-capacity ratio and delays decrease during the morning and afternoon peak periods.

At the intersection of Dillingham Boulevard at Kokea Street, the eastbound left turn will operate at Level-of-Service B during the morning peak hour and Level-of-Service F during the afternoon peak hour, without and with the project. There is an increase in the volume-to-capacity ratio and delay during the afternoon peak hour.

Table 10 2011 Levels-of-Service for Short Range Plan

Intersection, Approach and Movement	AM Peak Hour								PM Peak Hour							
	Without Project			With Project			Changes		Without Project			With Project			Changes	
	V/C[1]	Delay[2]	LOS[3]	V/C	Delay	LOS	V/C	Delay	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay
1. Dillingham Blvd at Alakawa St	***1.01***	***60.6***	***E***	***1.00***	***58.9***	***E***	***-0.01***	***-1.70***	***1.29***	***151.7***	***F***	***1.28***	***149.0***	***F***	***-0.01***	***-2.70***
Eastbound Left	0.44	56.6	E	0.34	52.0	D	-0.10	-4.60	0.41	53.1	D	0.28	46.5	D	-0.13	-6.60
Eastbound Thru	1.09	92.9	F	1.05	84.0	F	-0.04	-8.90	1.22	165.1	F	1.17	151.0	F	-0.05	-14.10
Eastbound Right	0.38	80.0	F	0.36	92.2	F	-0.02	12.20	0.23	183.3	F	0.23	215.8	F	0.00	32.50
Westbound Left	0.97	73.9	E	0.96	71.7	E	-0.01	-2.20	1.09	115.3	F	1.05	102.5	F	-0.04	-12.80
Westbound Thru & Right	0.65	19.3	B	0.64	19.1	B	-0.01	-0.20	1.29	172.7	F	1.27	163.2	F	-0.02	-9.50
Northbound Left	0.94	67.2	E	0.94	67.2	E	0.00	0.00	1.28	163.8	F	1.28	163.8	F	0.00	0.00
Northbound Left & Thru	0.97	73.1	E	0.97	73.1	E	0.00	0.00	1.28	164.4	F	1.28	164.4	F	0.00	0.00
Northbound Right	0.45	35.0	C	0.39	33.7	C	-0.06	-1.30	0.40	19.3	B	0.38	19.0	B	-0.02	-0.30
2. Dillingham Blvd at Kokea St	***0.72***	***15.1***	***B***	***0.68***	***15.4***	***B***	***-0.04***	***0.30***	***1.01***	***21.2***	***C***	***1.28***	***36.6***	***D***	***0.27***	***15.40***
Eastbound Left	0.39	11.2	B	0.63	19.7	B	0.24	8.50	1.12	121.8	F	1.54	287.2	F	0.42	165.40
Eastbound Thru & Right	0.76	16.2	B	0.75	15.9	B	-0.01	-0.30	0.57	11.5	B	0.56	11.8	B	-0.01	0.30
Westbound Left, Thru & Right	0.30	3.2	A	0.29	3.2	A	-0.01	0.00	1.01	6.5	A	0.99	6.5	A	-0.02	0.00
Northbound Left & Thru	0.16	37.6	D	0.15	37.3	D	-0.01	-0.30	0.73	61.8	E	0.71	59.5	E	-0.02	-2.30
Northbound Right	0.01	35.4	D	0.01	35.4	D	0.00	0.00	0.02	35.5	D	0.02	35.5	D	0.00	0.00
Southbound Left & Thru	0.74	50.1	D	0.64	48.7	D	-0.10	-1.40	0.89	72.1	E	0.86	74.5	E	-0.03	2.40
Southbound Right	0.03	20.1	C	0.05	30.7	C	0.02	10.60	0.05	20.8	C	0.14	30.0	C	0.09	9.20
3. Dillingham Blvd at Kohou St	***0.56***	***13.4***	***B***	***0.54***	***13.1***	***B***	***-0.02***	***-0.30***	***0.68***	***16.5***	***B***	***0.69***	***15.4***	***B***	***0.01***	***-1.10***
Eastbound Left, Thru & Right	0.48	8.8	A	0.47	8.7	A	-0.01	-0.10	0.49	9.1	A	0.49	9.0	A	0.00	-0.10
Westbound Left	0.60	22.2	C	0.58	20.9	C	-0.02	-1.30	0.62	16.6	B	0.60	16.0	B	-0.02	-0.60
Westbound Thru & Right	0.29	4.9	A	0.29	5.1	A	0.00	0.20	0.62	7.6	A	0.62	7.9	A	0.00	0.30
Northbound Left & Thru	0.23	34.6	C	0.23	34.6	C	0.00	0.00	0.66	49.8	D	0.69	51.7	D	0.03	1.90
Northbound Right	0.36	36.9	D	0.35	36.7	D	-0.01	-0.20	0.23	34.6	C	0.22	34.4	C	-0.01	-0.20
Southbound Left & Thru	0.45	39.1	D	0.43	34.8	C	-0.02	-4.30	0.83	63.5	E	0.88	43.0	D	0.05	-20.50
Southbound Right	0.04	31.9	C	0.04	33.1	C	0.00	1.20	0.17	33.6	C	0.16	32.5	C	-0.01	-1.10
4. N. King St at Kokea St	***0.33***	***13.6***	***B***	***0.32***	***12.1***	***B***	***-0.01***	***-1.50***	***0.53***	***16.5***	***B***	***0.55***	***15.2***	***B***	***0.02***	***-1.30***
Eastbound Left	0.39	14.3	B	0.40	10.2	B	0.01	-4.10	0.42	19.4	B	0.43	10.9	B	0.01	-8.50
Eastbound Thru & Right	0.33	11.9	B	0.33	9.3	A	0.00	-2.60	0.51	14.1	B	0.51	10.7	B	0.00	-3.40
Westbound Left, Thru & Right	0.20	10.6	B	0.21	10.7	B	0.01	0.10	0.54	14.3	B	0.57	14.9	B	0.03	0.60
Northbound Left & Thru	0.17	21.9	C	0.17	22.0	C	0.00	0.10	0.52	28.6	C	0.52	27.4	C	0.00	-1.20
Northbound Right	0.03	15.0	B	0.03	19.3	B	0.00	4.30	0.09	21.6	C	0.10	21.7	C	0.01	0.10
Southbound Left & Thru	0.21	27.0	C	0.19	26.7	C	-0.02	-0.30	0.12	25.7	C	0.13	25.8	C	0.01	0.10
Southbound Right	0.02	24.4	C	0.02	24.4	C	0.00	0.00	0.01	24.4	C	0.01	24.4	C	0.00	0.00

NOTES:
1. V/C denotes ratio of volume to capacity.
2. Delay is in seconds per vehicle.
3. LOS denotes Level-of-Service calculated using the operations method described in *Highway Capacity Manual*. LOS is based on delay.

Mitigation

No mitigation is recommended for the intersection of Dillingham Boulevard at Alakawa Street because the overall traffic volumes decrease because of the redistribution of traffic, the volume-to-capacity ratios either decrease or do not change and volume-to-capacity ratios and delays of the overall intersection will decrease.

For the intersection of Dillingham Boulevard at Kokea Street, it is recommended that the phasing be modified to provide a protected-permissive left turn from eastbound Dillingham Boulevard to northbound Kokea Street. With this modification, the level-of-service of the left turn will improve from Level-of-Service F to Level-of-Service C.

Project Driveways

A level-of-service analysis was performed to determine the access and egress requirements at the project driveway along Kokea Street and Dillingham Boulevard. Figures 18 and 19 are a schematic drawings indicating the peak hour traffic projections at these driveways. The schematic drawings also indicate the lane configurations used for the level-of-service analysis and the resulting delays and levels-of-service. Delays and levels-of-service are shown for controlled movements only since delays and levels-of-service are not calculated for uncontrolled movements. Traffic projections are shown for 2011 background plus project (Phase 1) conditions only.

Based on the traffic projections, separate left turn lanes will be required along Kokea Street at the entrances to the parking lots. With this separate left turn lane, all movements will operate at Level-of-Service C, or better. The recommended lane configuration along Kokea Street is shown schematically as Figure 20.

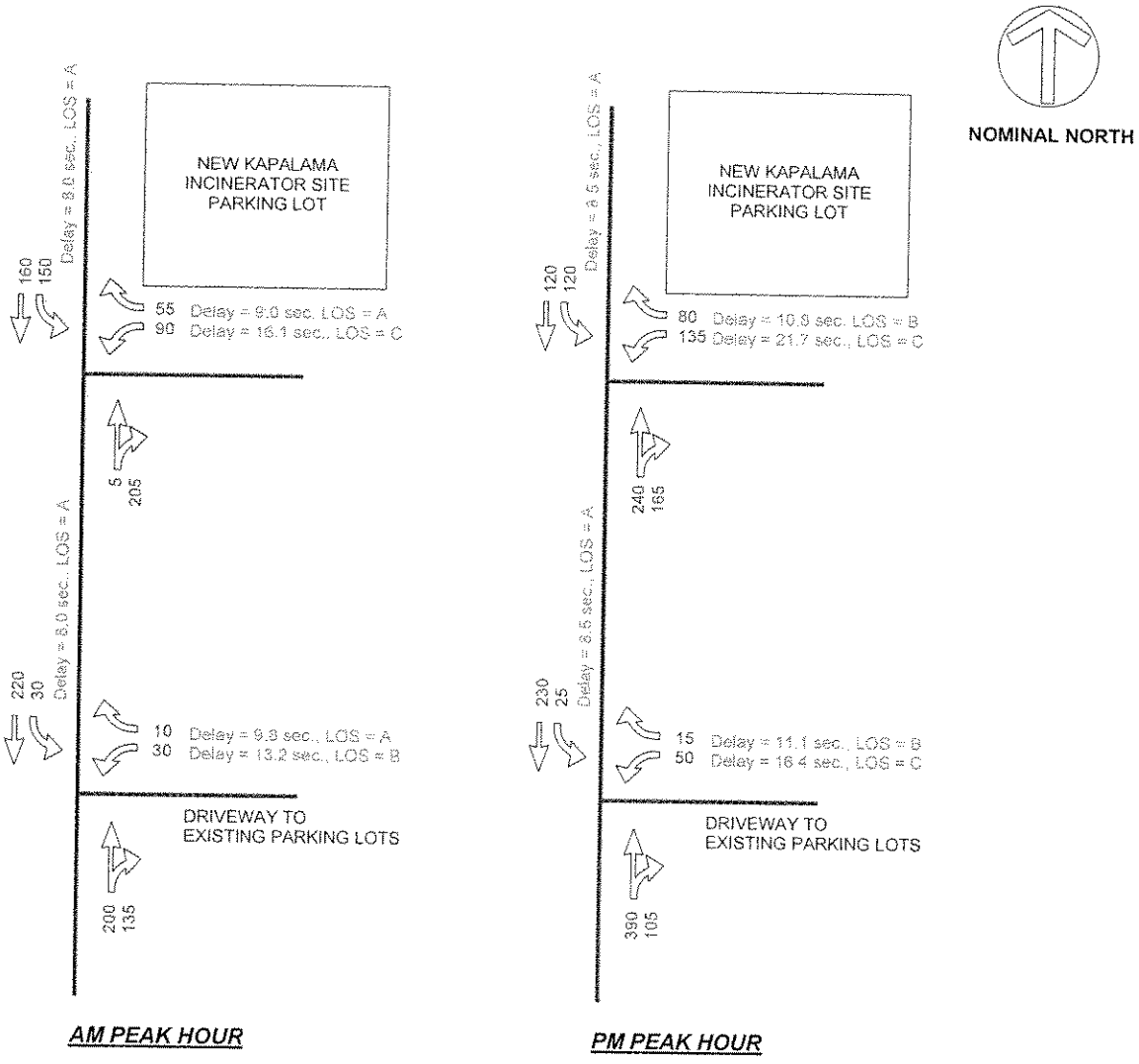


Figure 18
PEAK HOUR TRAFFIC VOLUMES AND LEVELS-OF-SERVICE AT DRIVEWAYS ALONG KOKEA STREET SHORT RANGE (PHASE 1)

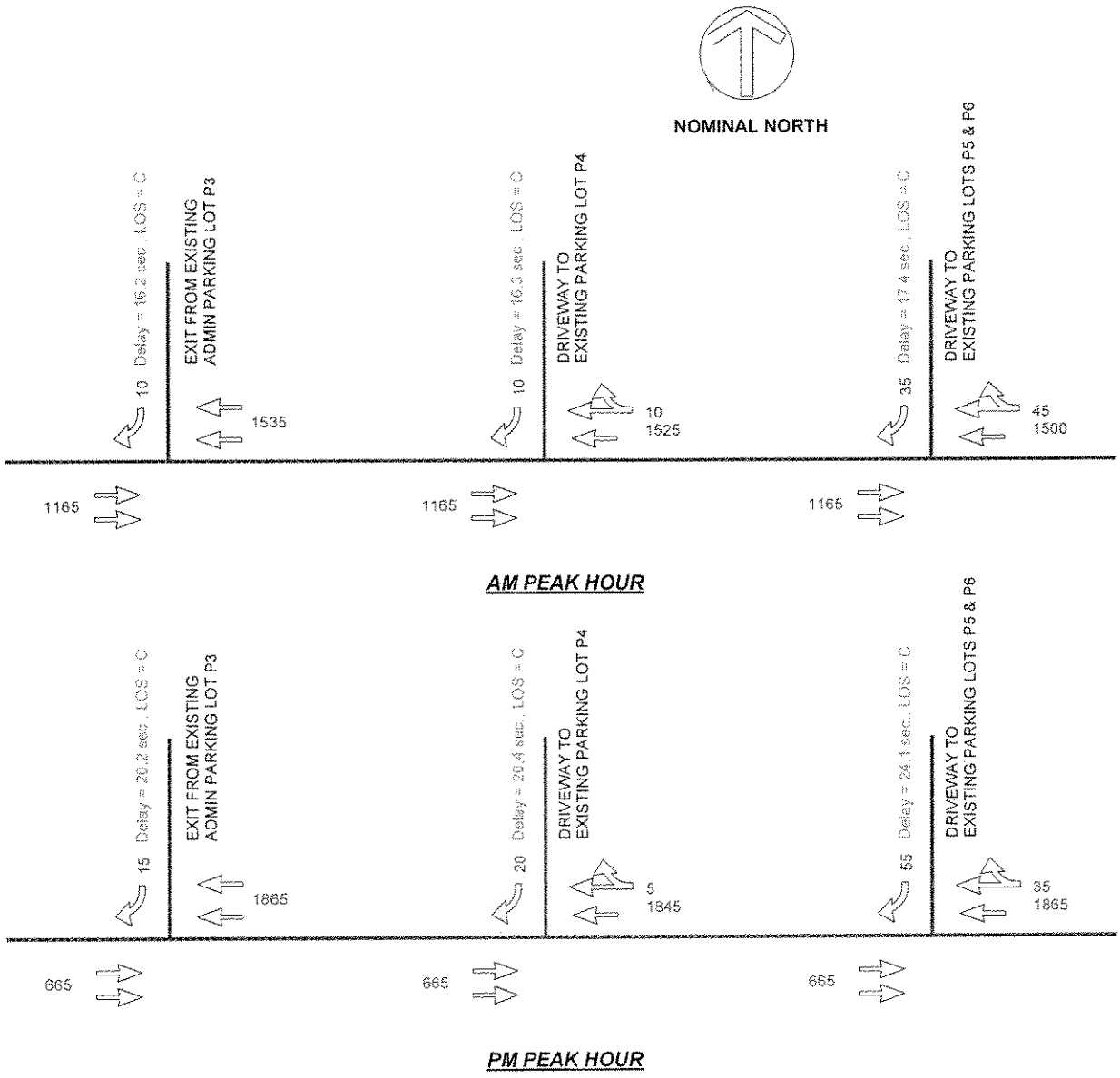


Figure 19
PEAK HOUR TRAFFIC VOLUMES AND LEVELS-OF-SERVICE AT DRIVEWAYS ALONG DILLINGHAM BOULEVARD SHORT RANGE (PHASE 1)

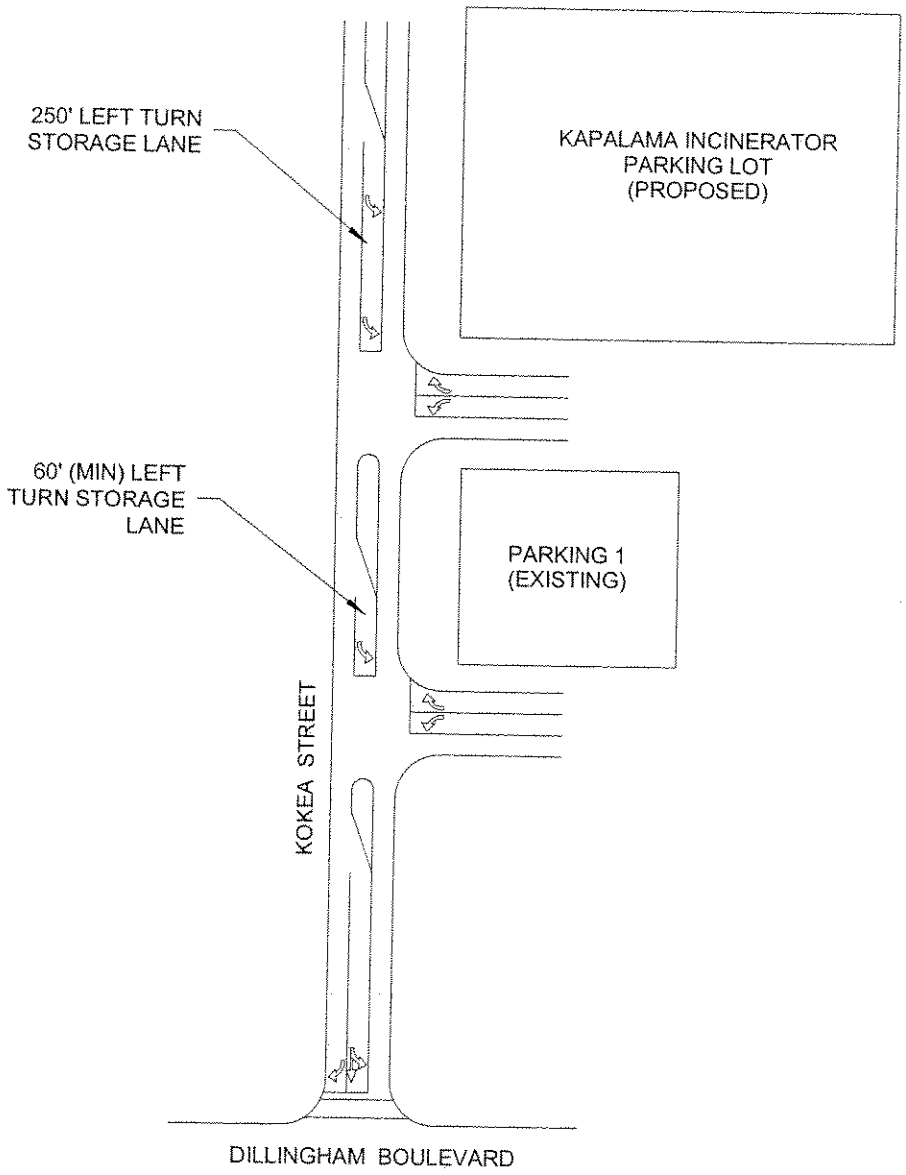


Figure 20
RECOMMENDED LANE CONIGURATIONS ALONG KOKEA STREET SHORT RANGE (PHASE 1)

6. TRAFFIC IMPACT ANALYSIS - LONG RANGE

The purpose of this chapter is to summarize the results of the level-of-service analysis, which identifies the project-related impacts. In addition, any mitigation measures necessary and feasible are identified and other access, egress and circulation issues are discussed.

The impact of the project was assessed by analyzing the changes in traffic volumes and levels-of-service at the study intersections.

Changes in Total Intersection Volumes

An analysis of the project's share of 2025 background plus project intersection approach volumes at the study intersections is summarized in Table 11. The table summarizes the project's share of total 2025 peak hour approach volumes at each intersection. Also shown are the percentage of 2025 background plus project traffic that is the result of background growth and traffic generated by related projects.

An analysis of the project's pro rata share of the increase of traffic volumes between 2005 and 2025 summarized in Table 12. This table summarizes the growth between 2005 and 2025 and indicates the percentage of growth resulting from background growth and related projects and the percentage growth resulting from project generated traffic.

Table 11 Analysis of Project's Share of Total Intersection Approach Volumes [1]

Intersection	Period	Existing	2025 Background	2025 Background Plus Project	Background Growth		Project Traffic	
					Trips	Percent of Total Traffic [2]	Trips	Percent of Total Traffic [3]
Dillingham Blvd at Alakawa St	AM	4195	5765	6320	1570	24.8%	555	8.8%
	PM	4920	6755	7225	1835	25.4%	470	6.5%
Dillingham Blvd at Kokea St	AM	2510	3440	4220	930	22.0%	780	18.5%
	PM	2905	3985	4650	1080	23.2%	665	14.3%
Dillingham Blvd at Kohou St	AM	2405	3305	3685	900	24.4%	380	10.3%
	PM	3055	4190	4515	1135	25.1%	325	7.2%
N. King Street at Kokea St	AM	1410	1935	2180	525	24.1%	245	11.2%
	PM	2515	3455	3650	940	25.8%	195	5.3%

Notes:
(1) Volumes shown are total intersection approach volumes or projections.
(2) Percentage of total 2025 background plus project traffic.

Table 12 Analysis of Project's Share of Total Intersection Approach Volumes Growth [1]

Intersection	Period	Existing	2025 Background	2025 Background Plus Project	Background Growth [2]		Project Trips [3]	
					Volume	% of 2005 to 2015 Growth	Volume [4]	% of 2005 to 2015 Growth
Dillingham Blvd at Alakawa St	AM	4195	5765	6320	1570	73.9%	555	26.1%
	PM	4920	6755	7225	1835	79.6%	470	20.4%
Dillingham Blvd at Kokea St	AM	2510	3440	4220	930	54.4%	780	45.6%
	PM	2905	3985	4650	1080	61.9%	665	38.1%
Dillingham Blvd at Kohou St	AM	2405	3305	3685	900	70.3%	380	29.7%
	PM	3055	4190	4515	1135	77.7%	325	22.3%
N. King Street at Kokea St	AM	1410	1935	2180	525	68.2%	245	31.8%
	PM	2515	3455	3650	940	82.8%	195	17.2%

Notes:
(1) Volumes shown are total intersection approach volumes or projections.
(2) Background versus existing.
(3) Background plus project versus background.
(4) Project generated traffic

Level-of-Service Analysis

The level-of-service analysis for 2025 conditions was performed using the Planning Method as described in the *Highway Capacity Manual.* This method calculates the sum of the critical movements and then determines whether the intersection is under, at or over capacity. This is also the method used in the previous traffic study for HCC completed in April 2000.

The results of the level-of-service analysis for the study intersections are summarized in Table 13. As shown, the intersection of Dillingham Boulevard at Alakawa Street and Dillingham Boulevard at Kokea Street will operate at Level-of-Service F during both peak periods, without and with the project. The intersection of Dillingham Boulevard at Kohou Street will operate at Level-of-Service E during the morning peak hour and Level-of-Service F during the afternoon peak hour. The intersection of North King Street at Kokea Street will operate at Level-of-Service C during the morning peak hour and Level-of-Service F during the afternoon peak hour.

Table 13 2025 Levels-of-Service for Long Range Plan

	AM Peak Hour				PM Peak Hour			
	Without Project		With Project		Without Project		With Project	
Intersection	V/C[1]	LOS[2]	V/C	LOS	V/C	LOS	V/C	LOS
Dillingham Boulevard at Alakawa Street	1.125	F	1.286	F	1.353	F	1.477	F
Dillingham Boulevard at Kokea Street	1.041	F	1.241	F	1.051	F	1.192	F
Dillingham Boulevard at Kohou Street	0.859	E	0.960	E	1.171	F	1.259	F
North King Street at Kokea Street	0.597	B	0.662	C	1.008	F	1.064	F

NOTES:
1. V/C denotes ratio of volume to capacity.
2. LOS denotes Level-of-Service calculated using the planning method described in *Highway Capacity Manual.* LOS is based on the volume-to-capacity ratio.

Project Driveways

A level-of-service analysis was performed to determine the access and egress requirements at the project driveway along Kokea Street and Dillingham Boulevard. Figure 21 is are a schematic drawings indicating the peak hour traffic projections at these driveways. The schematic drawings also indicate the lane configurations used for the level-of-service analysis and the resulting delays and levels-of-service. Delays and levels-of-service are shown for controlled movements only since delays and levels-of-service are not calculated for uncontrolled movements. Traffic projections are shown for 2025 background plus project (Phase 5) conditions only.

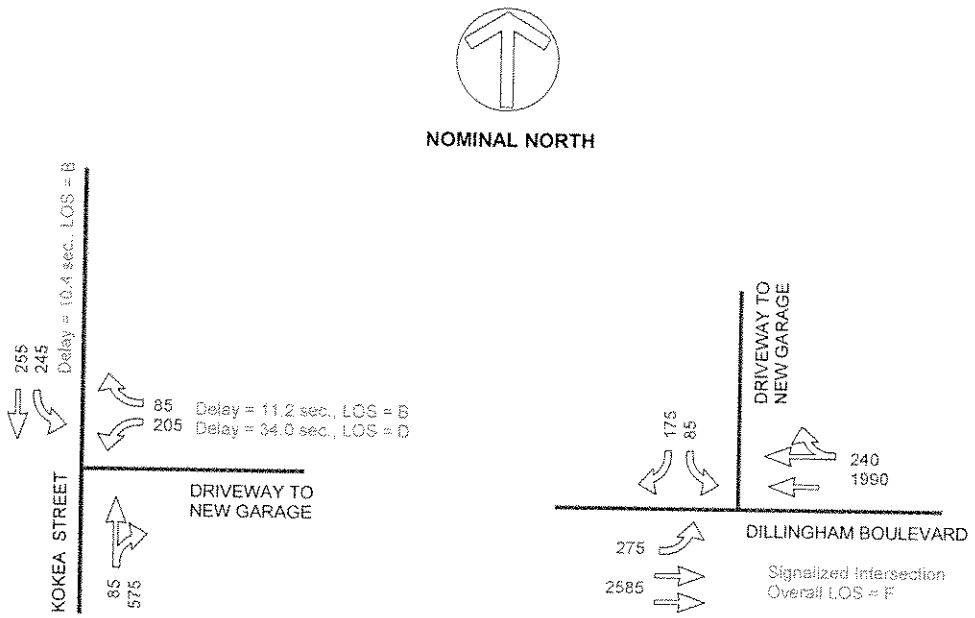
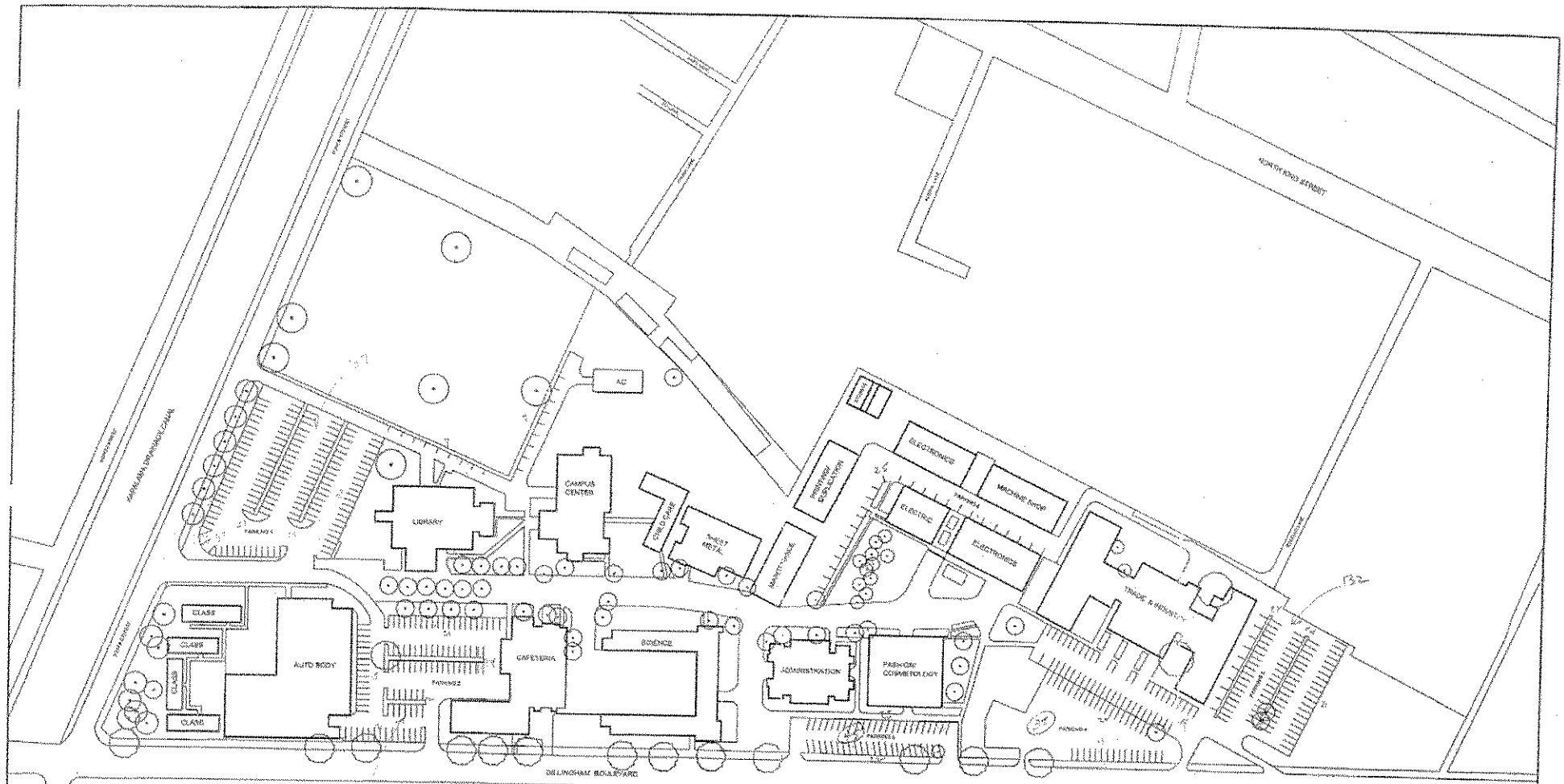


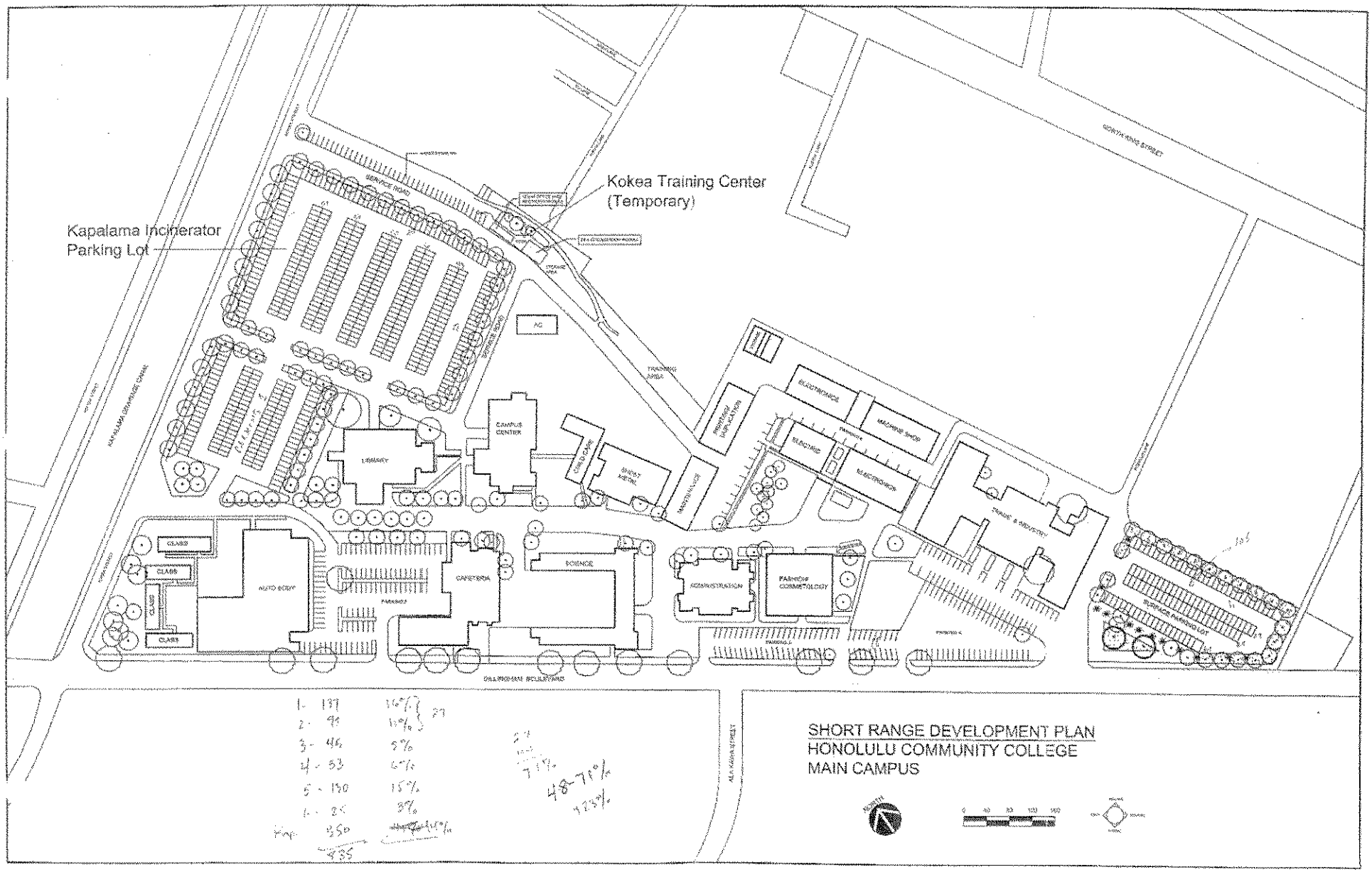
Figure 21
PEAK HOUR TRAFFIC VOLUMES AND LEVELS-OF-SERVICE AT DRIVEWAYS ALONG KOKEA STREET AND DILLINGHAM BOULEVARD LONG RANGE

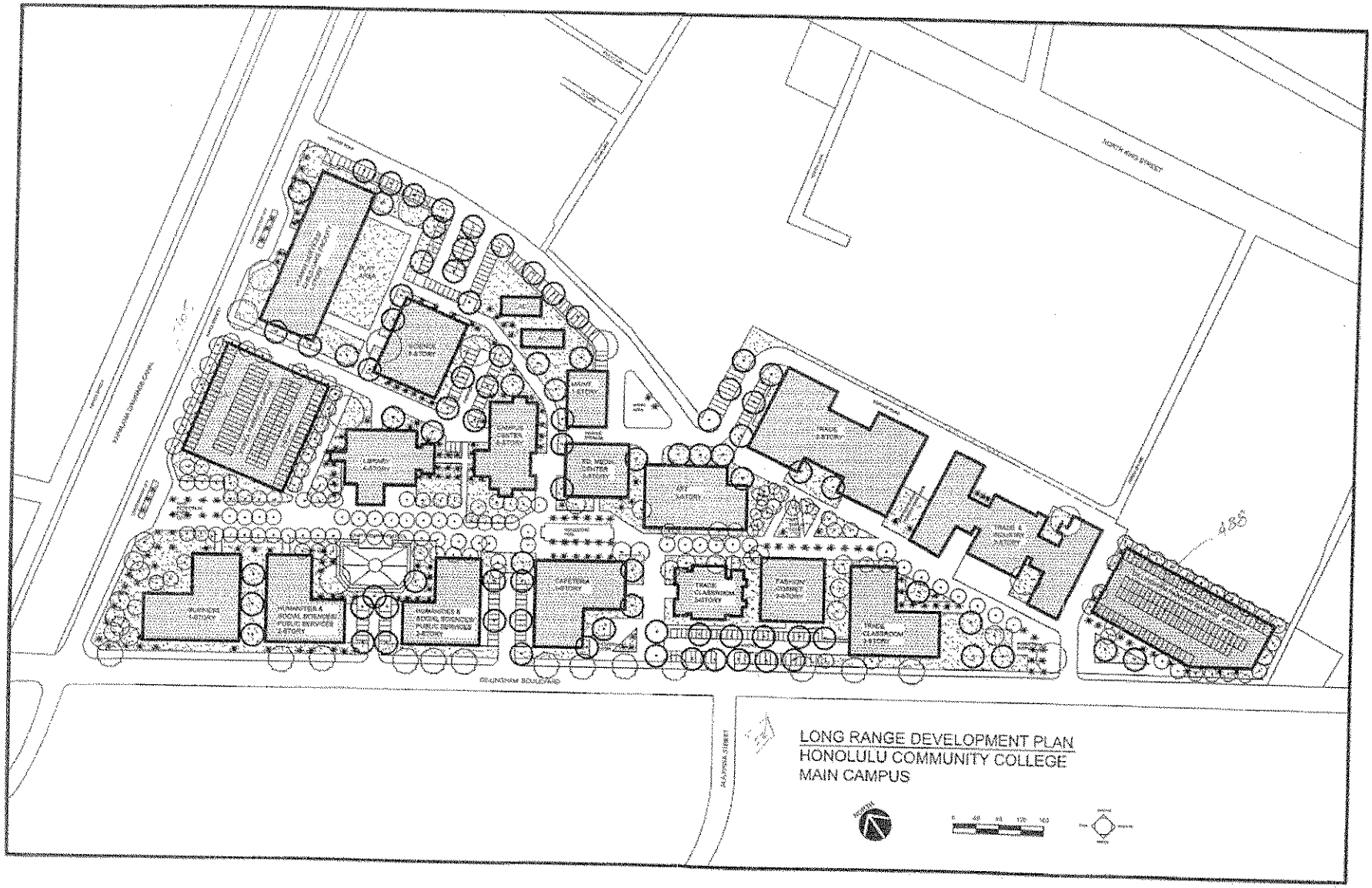
Appendix A
EXISTING, SHORT RANGE AND LONG RANGE DEVELOPMENT PLANS



1-	137	28%
2-	95	20%
3-	45	9%
4-	35	7%
5-	132	27%
6-	25	5%
Lib	8	2%
Research	8	2%

EXISTING SITE PLAN
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS


Kokea Training Center
(Temporary)
Kapalama Incinerator
Parking Lot
KAPALAMA DRAINAGE CANAL
SERVICE ROAD
MORIKAMI STREET
TRAINING AREA
LIBRARY
CAMPUS CENTER
CLASS
CLASS
CLASS
AUTO BODY
CAFETERIA
SCIENCE
ADMINISTRATION
FASHION COMMETOLOGY
ELECTRONICS
MACHINE SHOP
DRAFTING
WELDING
DILLINGHAM BOULEVARD
ALA KAWA STREET
SHORT RANGE DEVELOPMENT PLAN
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS


LONG RANGE DEVELOPMENT PLAN
HONOLULU COMMUNITY COLLEGE
MAIN CAMPUS
DILLINGHAM BOULEVARD
ALAPAINA STREET
NORTH KING STREET
485

Appendix B
SCHEMATIC DRAWINGS OF EXISTING STUDY INTERSECTIONS

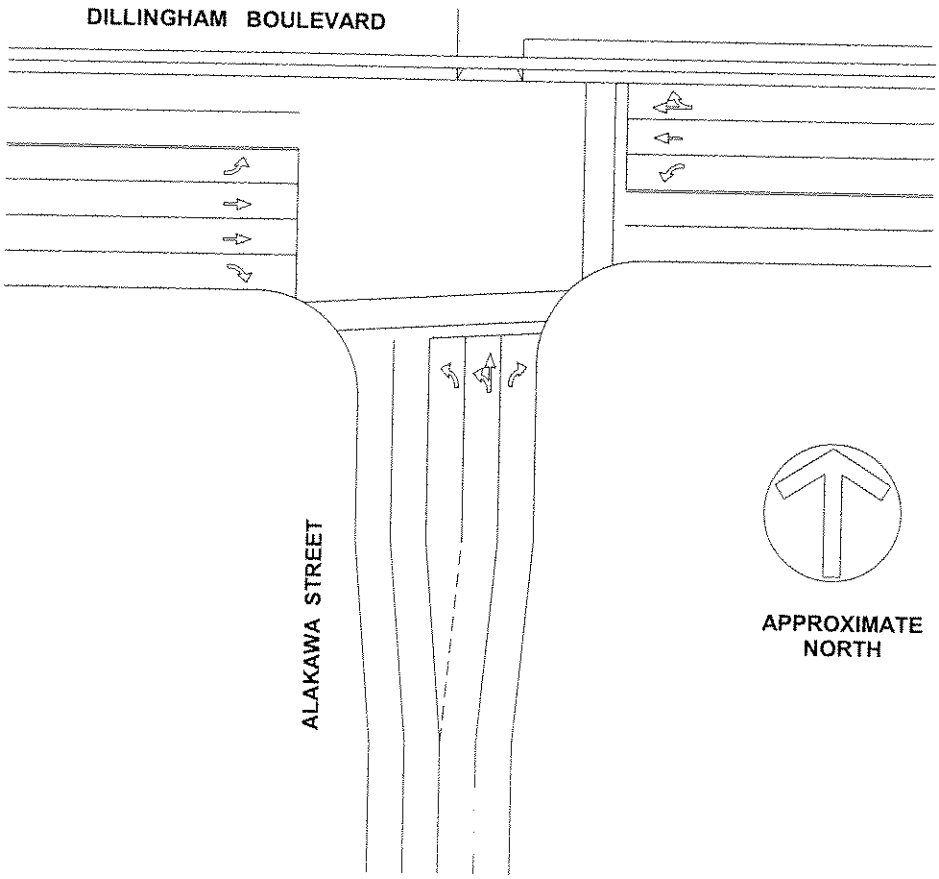
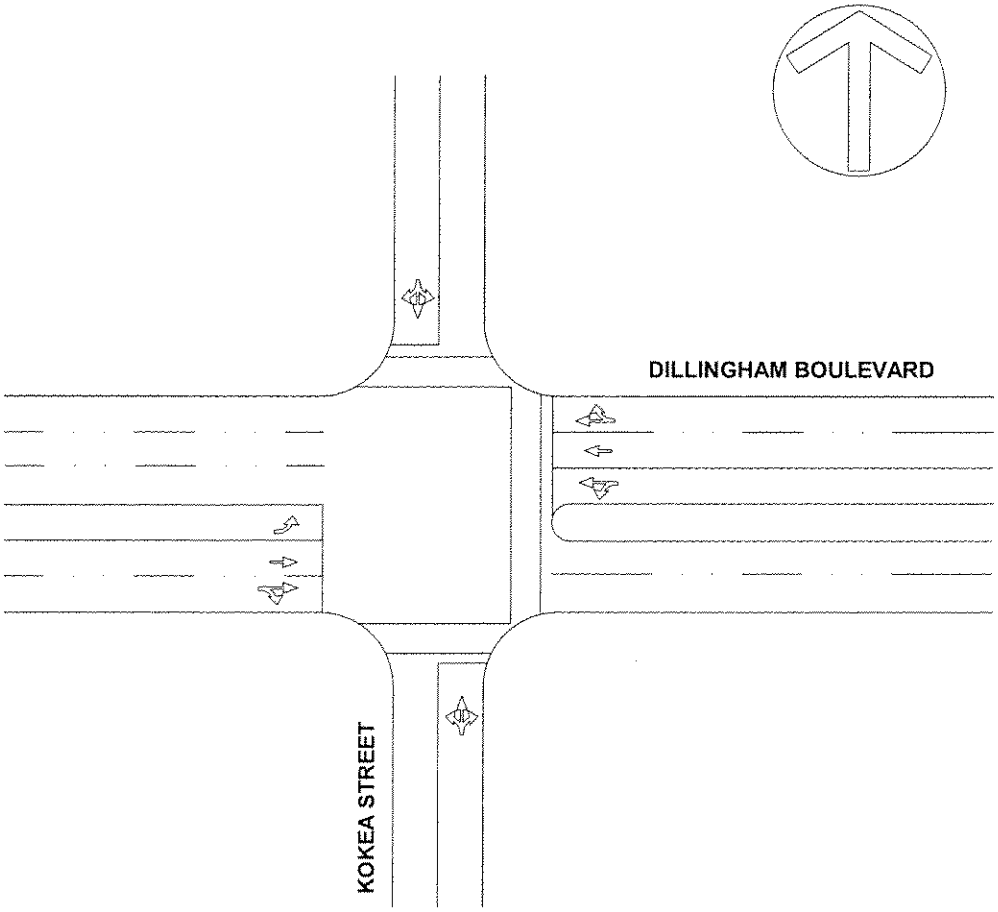


Figure B1
SCHEMATIC DIAGRAM OF EXISTING LANE CONFIGURATION
INTERSECTION 1
DILLINGHAM BOULEVARD AT ALAKAWA STREET

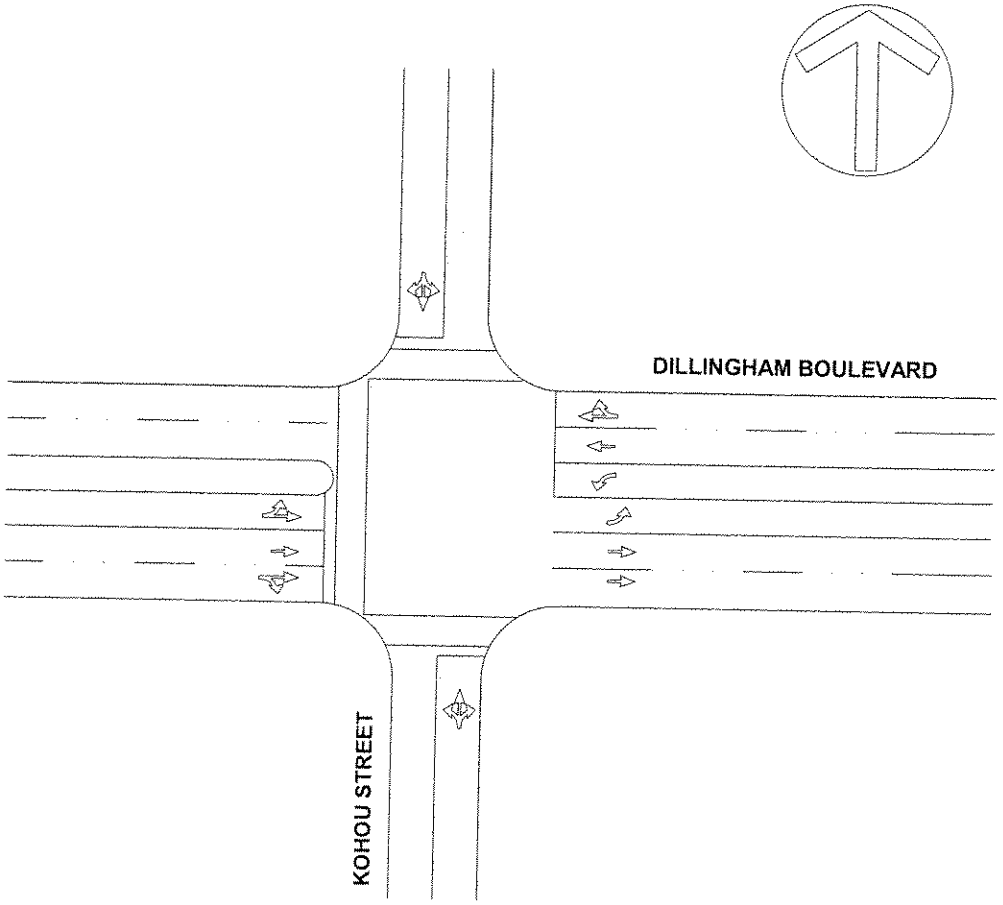
Phillip Rowell and Associates



NOTES:
1. INTERSECTION IS SIGNALIZED.

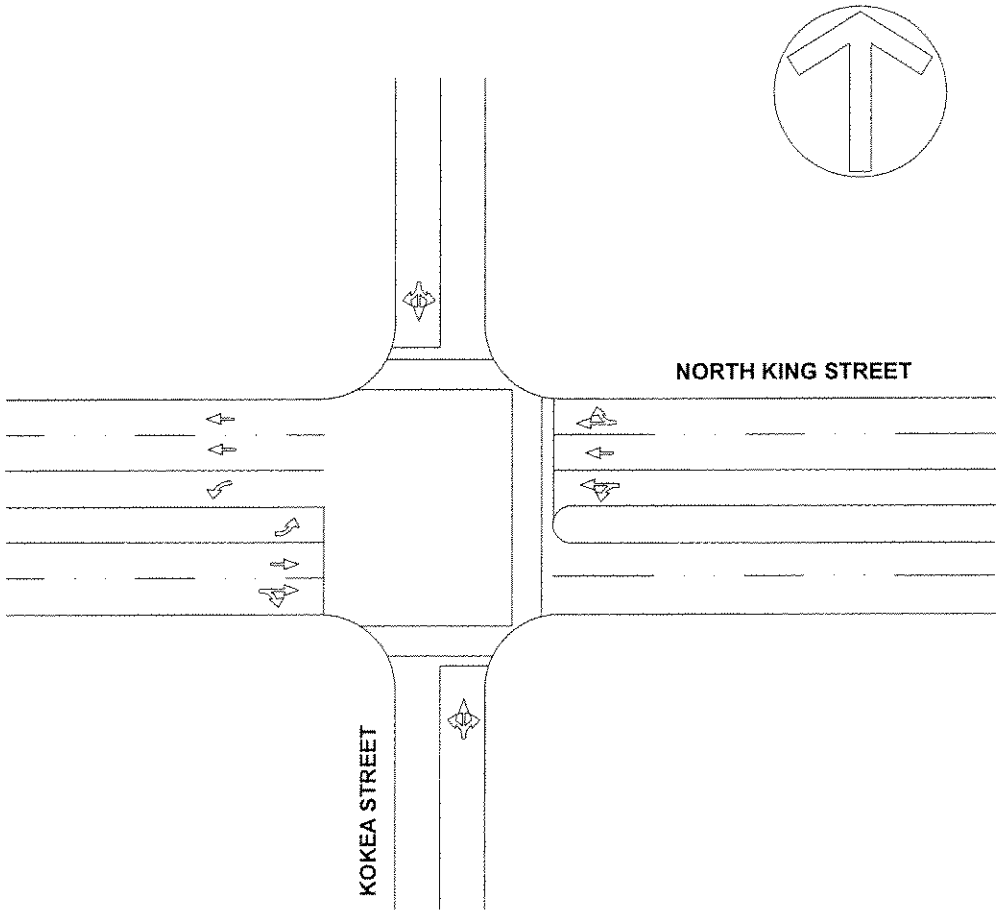
Figure B2
SCHEMATIC DIAGRAM OF EXISTING LANE CONFIGURATION
INTERSECTION NO. 2
KOKEA STREET AT DILLINGHAM BOULEVARD

Phillip Rowell and Associates



NOTES:
1. INTERSECTION IS SIGNALIZED.

Figure B3
SCHEMATIC DIAGRAM OF EXISTING LANE CONFIGURATION
INTERSECTION NO. 3
KOHOU STREET AT DILLINGHAM BOULEVARD



NOTES:
1. INTERSECTION IS SIGNALIZED.

Figure B4
SCHEMATIC DIAGRAM OF EXISTING LANE CONFIGURATION
INTERSECTION NO. 4
KOKEA STREET AT NORTH KING STREET

Appendix C
DETAILED TRIP GENERATION CALCULATIONS

EXISTING
TRIP DISTRIBUTION PLANS AND TRIP ASSIGNMENTS

HCC/PRU TIAR
July 2006

Trip Generation Rates

	AM Total	AM In	AM Out	PM Total	PM In	PM Out
ITE Rates	2.99	74%	26%	2.54	58%	42%
Adj Factor	0.7			0.82		
Adj Rates	2.09	74%	26%	2.08	58%	42%

Existing Trip Generation

Existing GSF	AM Total	AM In	AM Out	PM Total	PM In	PM Out
486,000	1,015	750	265	1,010	585	425

Existing Trip Distribution By Parking Lot

Lot No.	Spaces	Percent	AM Total	AM In	AM Out	PM Total	PM In	PM Out
1	137	24%	245	180	65	240	140	100
2	95	17%	175	130	45	170	100	70
3	45	8%	80	60	20	80	45	35
4	35	6%	60	45	15	60	35	25
5	132	23%	235	175	60	230	135	95
6	25	4%	40	30	10	40	25	15
On-Street	100	18%	185	135	50	180	105	75
Other	0	0%	0	0	0	0	0	0
Totals	569	100%	1020	755	265	1000	585	415

Totals By Lot Driveway

P1+P2	420	310	110	410	240	170
P3	80	60	20	80	45	35
P4+P5+P6	335	250	85	330	195	135
On-Street	185	135	50	180	105	75
Totals	1020	755	265	1000	585	415

SHORT-TERM (PHASE 1)
TRIP DISTRIBUTION PLANS AND TRIP ASSIGNMENTS

HCC/PRU TIAR
July 2006

Trip Generation Rates

	AM Total	AM In	AM Out	PM Total	PM In	PM Out
ITE Rates	2.99	74%	26%	2.54	58%	42%
Adj Rates	2.09	74%	26%	2.08	58%	42%

Short Term Trip Generation

	GSF	AM Total	AM In	AM Out	PM Total	PM In	PM Out
Existing	486,000	1,015	750	265	1,010	585	425
New Phase 1	1,490	5	5	0	5	5	0
	487,490	1,020	755	265	1,015	590	425

Existing Trip Distribution By Parking Lot

Lot No.	Spaces	Percent	AM Total	AM In	AM Out	PM Total	PM In	PM Out
1	137	16%	165	120	45	160	95	65
2	95	11%	110	85	25	110	65	45
3	45	5%	50	40	10	50	30	20
4	53	6%	60	45	15	60	35	25
5	130	16%	165	120	45	160	95	65
6	25	3%	30	25	5	30	20	10
Kapalama Inc Lot	350	42%	430	315	115	425	250	175
Other	0	0%	0	0	0	0	0	0
Totals	835	99%	1010	750	260	995	590	405

Totals By Lot Driveway

P1+P2	275	205	70	270	160	110
P3	50	40	10	50	30	20
P4	60	45	15	60	35	25
P5+P6	195	145	50	190	115	75
Kapalama Inc Lot	430	315	115	425	250	175
Totals	1010	750	260	995	590	405

LONG-TERM (PHASES 2 THRU 5)
TRIP DISTRIBUTION PLANS AND TRIP ASSIGNMENTS

HCC/PRU TIAR
July 2006

Trip Generation Rates

	AM Total	AM In	AM Out	PM Total	PM In	PM Out
ITE Rates	2.99	74%	26%	2.54	58%	42%
Adj Rates	2.09	74%	26%	2.08	58%	42%

Short Term Trip Generation

	GSF	AM Total	AM In	AM Out	PM Total	PM In	PM Out
Existing	486,000	1,015	750	265	1,010	585	425
New Phase 1	1,490	5	5	0	5	5	0
New Phase 2	21,000	65	50	15	55	30	25
New Phase 3	54,558	165	120	45	140	80	60
New Phase 4	55,329	165	120	45	140	80	60
New Phase 5	177,711	530	390	140	450	260	190
	796,088	1,945	1,435	510	1,800	1,040	760

Existing Trip Distribution By Parking Lot

Lot	No. Spaces	Percent	AM Total	AM In	AM Out	PM Total	PM In	PM Out
Kokea Garage	705	57%	1110	820	290	1025	595	430
Admin Parking	52	4%	80	55	25	70	40	30
Dillingham	488	39%	760	560	200	700	405	295
	0	0%	0	0	0	0	0	0
	0	0%	0	0	0	0	0	0
	0	0%	0	0	0	0	0	0
	0	0%	0	0	0	0	0	0
Other	0	0%	0	0	0	0	0	0
Totals	1245	100%	1950	1435	515	1795	1040	755

KOKEA STREET CAMPUS
TRIP GENERATION CALCULATIONS
HCC/PRU TIAR
July 2006

Trip Generation Rates

AM Total	AM In	AM Out	PM Total	PM In	PM Out
2.99	74%	26%	2.54	58%	42%

Trip Generation Kokea Street Campus

	Kokea St GSF	AM Total	AM In	AM Out	PM Total	PM In	PM Out
NEW SF	69,848	210	155	55	175	100	75

APPENDIX B

COMMENT LETTERS AND RESPONSES

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843

January 24, 2007

received
1-26-07

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Your Letter Dated January 12, 2007 Regarding the Long-Range Development Plan for Honolulu Community College Main Campus and Kokea Street Campus; Kapalama, Honolulu, Hawaii

Thank you for the opportunity to comment on the proposed project.

The existing water system is presently adequate to accommodate the proposed development. However, please be advised that this information is based upon current data and, therefore, the Board of Water Supply reserves the right to change any position or information stated herein up until the final approval of your building permit. The final decision on the availability of water will be confirmed when the building permit is submitted for approval.

When water is made available, the applicant will be required to pay our Water System Facilities Charges for resource development, transmission and daily storage.

The on-site fire protection requirement for the pump station should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

The construction drawings should be submitted for our review and approval.

The proposed project is subject to Board of Water Supply Cross-Connection Control and Backflow Prevention requirements prior to the issuance of the Building Permit Application.

If you have any questions, please contact Robert Chun at 748-5443.

Very truly yours,

KEITH S. SHIDA
Principal Executive
Customer Care Division

GERALD PARK
Urban Planner

Planning
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Research
Environmental
Studies

1221 Kapiolani Blvd.
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96814

Telephone:
(808) 596-7484
Facsimile:
(808) 596-7485
e-mail:
gparkurbanplanner
@hawaiiantel.net

August 16, 2007

Clifford P. Lum
Manager and Chief Engineer
Board of Water Supply
630 South Beretania Street
Honolulu, Hawaii 96843

Dear Mr. Lum:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank for reviewing the Draft Environmental Assessment prepared for the subject project. We offer the following response in the order your comments were presented.

1. Thank you for confirming that the Board of Water Supply system is presently adequate to accommodate the proposed development. It is understood that the final decision on the availability of water will be confirmed when the building permit is submitted for approval.

2. Honolulu Community College is aware that there is a Water System Facilities Charge associated with the proposed improvements.

3. The on-site fire protection equipment will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

4. Construction drawings for the proposed improvements will be submitted to the Board of Water Supply for review and approval.

The participation of the Board of Water Supply in the environmental assessment review process is appreciated.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA

LINDA LINGLE
GOVERNOR OF HAWAI'I

235 S BERETANIA ST. SUITE 702
HONOLULU, HAWAI'I 96813

STATE OF HAWAI'I
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

GENEVIEVE SALMONSON
DIRECTOR

Telephone (808) 586-4185
Facsimile (808) 586-4186
Email: oeqc@doh.hawaii.gov

January 31, 2007

Ramsey Pedersen, Chancellor
Honolulu Community College
874 Dillingham Boulevard
Honolulu, HI 96817

Attn: Owen Miyamoto

Dear Mr. Pedersen:

Subject: Draft environmental assessment (EA)
Honolulu Community College Long Range Development Plan

We have the following comments to offer:

Two-sided pages: HRS 342G-44 requires double-sided copying in all state and county agencies, offices and facilities. Please comply with this requirement.

Figures and tables: Figures 4 through 9 need to have numbers added to them to match their references in the text. In section 1.D.1, *Main Campus, Existing Buildings*, the last sentence refers to Table 1, but should refer to Table 2. Correct this in the final EA.

Sustainable building techniques: Please consider applying sustainable building techniques presented in the "Guidelines for Sustainable Building Design in Hawaii." In the final EA include a description of any of the techniques you will implement. Go to our website at *http://www.state.hi.us/health/oeqc/guidance/sustainable.htm* or contact our office for a paper copy of the guidelines.

Landscaping: Your landscaping plan may include invasive plant species. Before finalizing your plan consult the Division of Forestry & Wildlife of DLNR at 587-0166 or go to the Hawaii Ecosystems at Risk (HEAR) website at www.hear.org to eliminate those species that may pose a threat to the environment.

Paving: Hawaii Revised Statutes 103D-407 requires the use of recycled glass in paving materials whenever possible. In the final EA indicate if you will follow this requirement.

Timeframe: What are the anticipated start and end dates of the phases or the entire project?

Visual impacts: Include drawings or diagrams of the proposed buildings and any proposed landscaping that show the final appearance of the project.

Traffic: The increase of the student population to 5000 from 3500 will undoubtedly make traffic conditions worse than they are now. With or without this project, the TIAR reports LOS at level F for many intersections. In the final EA expand your discussion to include proposed mitigation measures to counteract impacts during both the construction and operational phases.

Contacts: In the final EA include copies of any correspondence from the pre-consultation phase of the draft EA preparation.

Cultural impacts assessment:

Act 50 was passed by the legislature in April 2000. This mandates an assessment of impacts to current cultural practices by the proposed project. In the final EA include such an assessment.

If the subject area is in a developed urban setting, cultural impacts must still be assessed. Many incorrectly assume that the presence of urban infrastructure effectively precludes consideration of current cultural factors. For example, persons are known to gather kauna'oa, 'ilima, 'uhaloa, noni or ki on the grassy slopes and ramps of the H-1 freeway and some state highways on the neighbor islands. Certain landmarks and physical features are used by Hawaiian navigators for sailing, and the lines of sight from landmarks to the coast by fisherman to locate certain fishing spots. Blocking these features by the construction of buildings or tanks may constitute an adverse cultural impact.

For assistance in the preparation refer to our *Guidelines for Assessing Cultural Impacts*, which you may find at *http://www.state.hi.us/health/oeqc/guidance/cultural.htm*. You will also find the text of Act 50 linked to this section of our homepage.

If you have any questions call Nancy Heinrich at 586-4185.

Sincerely,

Genevieve Salmonson

GENEVIEVE SALMONSON
Director

c: Gerald Park

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August 16, 2007

Laurence K. Lau, Acting Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437

Dear Mr. Lau:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank for reviewing the Draft Environmental Assessment prepared for the subject project. We offer the following response in the order your comments were presented.

Two-sided pages

Duplex printing will be considered.

Figures and Tables

Figure numbers will be added to Figures 4 through 9. The reference to Table 1 shall be corrected.

Sustainable Building Techniques

This comment will be passed on to Honolulu Community College. Sustainable building techniques to be implemented cannot be confirmed at this time because the LRDP is a planning document and not an architectural design guide for future campus buildings.

New building design will comply with the provisions of Act 96 which was passed into law in mid-2006. The underlying purpose of Act 96 is to promote and help achieve energy self-sufficiency for the state but the act also includes mandates to promote green buildings and sustainability for all new state facilities. The design of the new buildings at the HCC campus will comply with the mandate.

Landscaping

Your comment about invasive species will be passed on to Honolulu Community College. It is anticipated that this comment will be included in landscaping Request for Proposals as buildings are to be constructed or for campus beautification projects in general.

Paving

This comment will be passed on to Honolulu Community College.

Timeframe

A start date for the Long-Range Development Plan has not been determined. As indicated in the Draft Environmental Assessment the time frame for implementing the Long-Range Development Plan is over the next 25 to 30 years pending the availability of State of Hawaii funding.

Visual Impacts

The campus buildings proposed in the Long Range Development Plan have not been designed in either conceptual or schematic form. Thus at this time, the final appearance of the various buildings cannot be depicted.

The LRDP is based on HCC Educational Specifications that translate the goals, planned activities, and programs of the College into a projection of on-campus space requirements. Depending on the space projection (some programs require more space than others) was used to assign the space to either single-level or multi-level structures. The more program space required, the taller the structure and vice-versa. .

Traffic

A summary discussion of potential short and long-term traffic impacts and mitigation measures has been prepared and will be incorporated into relevant sections of the environmental assessment.

Short-Term Impacts

1. In several cases, the delays and levels-of-service for background plus project conditions are better than background without project conditions. This is because traffic to and from the various parking lots is redistributed to account for the new Kapalama Incinerator Parking Lot, which decreased that traffic volumes of several traffic movements. Because of this, the results of the level-of-service analysis generally imply that the short range plan has an overall positive impact of the traffic levels-of-service at the study intersections. Exceptions to this are the eastbound right turn at the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour and the eastbound left turn at the intersection of Dillngham Boulevard at Kokea Street during the afternoon peak hour.
2. At the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour, the eastbound right turn will operate at Level-of-Service F without and with project generated traffic. The delay increases from 183.3 seconds per vehicle to 215.8 seconds per vehicle, but there is no change in the volume-to-capacity ratio. No mitigation is recommended as the overall intersection volume-to-capacity ratio and delay decreases because of the redistribution of traffic.

3. At the intersection of Dillingham Boulevard at Kokea Street during the afternoon peak hour, the volume-to-capacity ratio increases from 1.12 to 1.54 and the delay increases from 121.8 to 287.2 seconds per vehicle. No mitigation is recommended as the overall intersection will operate at Level-of-Service D, which is an acceptable level-of-service.
4. At the intersection of Dillingham Boulevard at Kohou Street during the afternoon peak hour, the level-of-service of the southbound left turn and through movement will improve from Level-of-Service E to Level-of-Service D.

Mitigating Measures

- No mitigation is recommended for the intersection of Dillingham Boulevard at Alakawa Street. The overall traffic volumes decrease because of the redistribution of traffic, the volume-to-capacity ratios either decrease or do not change and volume-to-capacity ratios and delays of the overall intersection will decrease.
- For the intersection of Dillingham Boulevard at Kokea Street, it is recommended that the phasing be modified to provide a protected-permissive left turn from eastbound Dillingham Boulevard to northbound Kokea Street. With this modification, the level-of-service of the left turn will improve from Level-of-Service F to Level-of-Service C.
- Based on the traffic projections, separate left turn lanes will be required along Kokea Street at the entrances to the parking lots. With this separate left turn lane, all movements will operate at Level-of-Service C, or better. The recommended lane configuration along Kokea Street is shown schematically in the TIAR.
- HCC should appoint a Transportation Coordinator to develop and implement a Traffic Management Plan (TMP). The objective of the TMP is to reduce peak hour traffic demand. Typically, a TMP consist of one plan aimed at employees and a second plan focused on students. The TMP should provide information to students and employees about ridesharing opportunities and the availability of bus service. It is not possible to estimate how much of an impact a TMP will have on the amount of traffic generated by HCC. Early implementation of such a plan will provide data for future updates of the TIAR for future development of the HCC campus, especially as HCC starts to initiate components of the long range plan. The TMP will require continuous monitoring and updating.

Long-Term Impacts

1. The intersection of Dillingham Boulevard at Alakawa Street and Dillingham Boulevard at Kokea Street will operate at Level-of-Service F during both peak periods, without and with the project.
2. The intersection of Dillingham Boulevard at Kohou Street will operate at Level-of-Service E during the morning peak hour and Level-of-Service F during the afternoon peak hour.

3. The intersection of North King Street at Kokea Street will operate at Level-of-Service C during the morning peak hour and Level-of-Service F during the afternoon peak hour.

Mitigating Measures

- The intersection of Dillingham Boulevard at the new parking garage entrance should be aligned with the entrance to Costco in order to use the existing traffic signal. The traffic signal will have to be modified and Dillingham Boulevard will have to be improved to provide a separate left turn lane for traffic turning left from Dillingham Boulevard into the parking garage.
- Because the long range plan is subject to modification, primarily because there is no timetable for the new facilities, the TIAR should be revised and updated as each new component is developed.
- Continue the TMP described for the short range plan.

Contacts

There is no pre-consultation correspondence. Pre-consultation was in the form of discussions with agency staff.

10. Cultural Impacts Assessment

Impacts on cultural resources are not anticipated.

We thank the Office of Environmental Quality Control for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
K. Kato, HCC
P. Louie, PLA

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 523-4584 • Fax: (808) 523-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

EUGENE C. LEE, P.E.
DIRECTOR

CRAIG I. NISHIMURA, P.E.
DEPUTY DIRECTOR

February 12, 2007

received
2/13/07

Gerald Park Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park:

Subject: Long-Range Development Plan for Honolulu Community College
Main Campus and Kokea Street Campus
Kapalama, Honolulu, Hawaii

Thank you for giving us the opportunity to comment on the above Long-Range Development Plan for Honolulu Community College.

The Department of Design and Construction has the following comment(s):

Sewer connection applications should be submitted to the Department of Planning and Permitting, Site Development Division, Wastewater Branch for adequacy of the existing sewer lines.

Should you have any questions, please contact Jay Hamai, Assistant Chief, Wastewater Division, at 527-5037.

Very truly yours,

Eugene C. Lee, P.E.
Director

ECL:it (190597)

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@hawaiiantel.net

August 16, 2007

Eugene Lee, Director
Department of Design and Construction
City and County of Honolulu
650 South King Street, 11th Floor
Honolulu, Hawaii 96813

Dear Mr. Lee:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank for reviewing the Draft Environmental Assessment prepared for the subject project.

Sewer connection applications will be submitted to the Department of Planning and Permitting, Site Development Division, Wastewater Branch as part of the permitting process for new buildings to be constructed.

The participation of the Department of Design and Construction in the environmental assessment review process is appreciated.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA

Hawaiian Telcom

received
2.21.07

February 15, 2007

Gerald Park
Urban Planner
1221 Kapiolani Blvd, Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park,

Subject: Long-Range Development Plan for Honolulu Community College
Main Campus and Kokea Street Campus
Kapalama, Honolulu, Hawaii

Thank you for the opportunity to review your plans dated January 12th, 2007, and received on January 17th, 2007.

Our comment is for Section 2, Part A, number 12, subsection a, Telephone System. To support possible additional telephone and data requirements by Honolulu Community College, infrastructure build out by the customer may be required from the Administration building to the point of service located on Dillingham Boulevard.

If you have any questions, please call Kenwynn Goo at 840-2967.

Sincerely,

Lynette Yoshida
Section Manager - Network Engineering and Planning

c: File (Kalihi)
K. Goo
L. Matsubara
A. Toma

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August 16, 2007

Lynette Yoshida, Section Manager
Network Engineering and Planning
Hawaiian Telcom
PO Box 2200
Honolulu, Hawaii 96841

Dear Ms. Yoshida:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank for you for reviewing and commenting on the Draft Environmental Assessment prepared for the subject project.

The information you provided about infrastructure build-out to support possible additional telephone and data requirements will be passed on to Honolulu Community College.

We thank Hawaiian Telcom for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
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MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

2007/ELOG-107(cm)

February 20, 2007

received
2-21-07

Mr. Gerald Park
Urban Planner
1221 Kapiolani Blvd. Suite 211
Honolulu, Hawaii 96814

Dear Mr. Park

Subject: Draft Environmental Assessment
Honolulu Community College
Dillingham Boulevard - Kapalama
Tax Map Keys 1-5-5:3 and 39, 1-5-6:26-28, 1-5-17:1 and 4-6, 1-5-18:1-4 and 1-5-20:9

We understand that the Environmental Assessment (EA) for the proposed Honolulu Community College Long Range Development Plan is prepared as a prerequisite for a Plan Review Use (PRU) permit application. Therefore, we have provided our comments in two (2) sections: those specific to the EA, and those that merit your consideration in the PRU application.

I. **EA Comments**:

We have reviewed the Environmental Assessment (EA) for the proposed Honolulu Community College Long Range Development Plan and offer the following comments:

1. **Kapalama Incinerator Remediation**
Page 2, Section 1B, Location and **Page 19, F. Environmental Conditions, 8. Environmental Hazards**, indicates that two (2) sites formerly under the jurisdiction of Department of Land and Natural Resources (DLNR) required hazardous material remediation as a result of the former Kapalama Incinerator operation on this site. Further development of the college may warrant disturbance of the soil on this site. **Page 25, Section 2C. Proposed Main Campus Improvements, 5. Grading**, describes how the Kapalama Incinerator site will be leveled to a finished grade of approximately six (6) feet MSL. The EA states that the earth mound will be removed and existing ditches and on-site depressions, as well as the areas surrounding the existing campus maintenance building, will be filled.

   Greater detail of this matter is warranted. The EA should expand upon the level of contamination found at the site, the remediation procedures completed, possible routes

of exposure and any limitations placed on the parcel to limit possible exposure to contaminants, applicable regulatory requirements, and whether soil from that site will be used to fill surrounding areas. **Page 33, Section 2E. Construction Phasing, 1. Phase I**, presents the demolition of Kapalama Incinerator and site clearance as a completed step in Phase I. Greater detail is required prior to step 2, preparation of site for new buildings.

2. **Traffic**
Pages 10-11, Section 1D. Main Campus, 2. Vehicle Access, and **Page 15, Section 1E. Kokea Street Campus, 2. Vehicle Access and Parking,** summarize the access points and surrounding roadways. **Pages 19-20, Section 1F. Environmental Conditions, 9. Roadways and Traffic,** also summarizes the surrounding roadways and intersections, but refer the reader to Appendix A for evaluation of the conditions. **Page 47, Section 4B. Short-term Impacts, 6. Traffic, and Page 47, Section 4C. Long-term Impacts, 7. Traffic,** refers the reader to the Traffic Impact Analysis Report attached in Appendix A. The report is lengthy and mitigation recommendations are not readily presented in the appendix. Identify the essential findings of the Traffic Impact Analysis Report and clarify the impacts expected and mitigation plans for traffic and access to the college in the relevant sections of the EA. **Page 53-54, Section 8. Determination of Significance**, identifies impacts to the traffic surrounding the college, but the document does not identify mitigation efforts the college could implement to facilitate alternative transportation modes for students, faculty and employees.

3. **Water System**
Pages 11-12, Section 1D. Main Campus, 5. Infrastructure, a. Water System, and **Page 15, Section 1E. Kokea Street Campus, 3. Infrastructure, a. Water System** detail the sources of water and the delivery systems. **Pages 26-27, Section 2C. Proposed Main Campus Improvements, 7. Water System**, describes improvements planned to support an anticipated 271,860 gallon per day demand and asserts that BWS Planning Section has indicated that the water distribution system in the Iwilei area is currently adequate to provide service to the proposed campus. **Page 30, Section 2D. Site Improvements - Kokea Street Campus, 2. Water System,** asserts that improvements will be constructed in accordance with BWS Water System Standards.

   The water system discussion should be expanded to provide current water usage volumes and estimate future demands for water as the college grows and technical programs are expanded. The BWS may confirm that the current distribution system is adequate, but water distribution systems and sustainable use of water sources are different considerations. Water conservation methods to maximize efficiency of water use should be implemented.

4. **Drainage System**
Page 12, Section 1D. Main Campus, 5. Infrastructure, b. Drainage System, Page 5, Section E. Kokea Street Campus, 3. Infrastructure, b. Drainage System, detail the current drainage patterns and systems. **Page 26, Section 2C. Proposed Main**

Campus Improvements, 6. Drainage, and **Page 30, Section 2D. Site Improvements - Kokea Street Campus, 1. Grading and Drainage**, describe the addition of drain inlets and drainage basins before discharge into Kapalama Drainage Canal. The drainage system discussion should be expanded to address necessary improvements to minimize impacts to surrounding waters. Non-point source pollution prevention efforts to reduce the introduction of pollutants into Kapalama Drainage Canal should be included.

Pages 54-55, Section 8. Determination of Significance, portion 10, suggest that the project will implement Best Management Practices and comply with regulatory standards. The previous sections detailing drainage design should detail those efforts and others which will reduce or prevent introducing pollutants into surface waters.

Footnote 3 on page 12 indicates that no topographic survey was completed and that all drainage patterns were compiled from as-built drawings. No assurances can be made that these conditions actually exist in the field. Is this an appropriate approach for an EA intended to identify environmental impacts of development?

5. **Sanitary Sewer System**
Page 13, Section 1D. Main Campus, 5. Infrastructure, c. Sanitary Sewer System, and **Page 15, Section 1E. Kokea Street Campus, 3. Infrastructure, c. Sanitary Sewer System** describe the current sewage system and average flows. **Page 27, Section 2C. Proposed Main Campus Improvements, 8. Sanitary Sewer System,** describes the proposed improvements to accommodate increased sewage generation. **Page 30, Section 2D. Site Improvements - Kokea Street Campus, 1. Sanitary Sewer System,** describes two new 8-inch sewer mains for use when the on-site sewer system is abandoned.

The sanitary sewer system discussion should be corrected to present current infrastructure analysis, which includes an accurate description of current systems, estimates of future capacity demands and sewage flows, and pollution prevention practices to minimize detrimental impact as the college grows and technical programs are expanded. Automotive, science, machine shop and trade courses may generate wastewater that should not enter the sanitary sewer system. Expand the discussion to describe possible contaminants from different buildings and schools and the necessary technology to prevent their disposal in the sanitary sewer system.

Paragraph 4 of Page 13 describes that the college anticipates connecting to the Palama Area Relief Sewer once it is completed. The document provides December 2000 as the planned completion date for the relief sewer. City records indicate that the Palama Area Relief Sewer was not completed. The EA references December 2000 as a time in the future and must be revised. Indicate whether the entire discussion of sewer system capacity is in need of an update to reflect the infrastructure and use demands for 2007 or if this statement is the only portion left in the EA from an earlier document. Address whether the college will have adequate sewer system capacity if the construction of the relief sewer is not completed.

6. **Solid Waste**
Page 14, Section 1D. Main Campus, 5. Infrastructure, e. Solid Waste, and **Page 17, Section E. Kokea Street Campus, 3. Infrastructure, e. Solid Waste** detail the current collection areas and timetable. **Page 28, Section 2C. Proposed Main Campus Improvements, 10. Solid Waste**, and **Page 32, Section 2D. Site Improvements - Kokea Street Campus, 5. Solid Waste,** discuss flexibility of trash collection sites as the college grows.

The solid waste discussion should be expanded to address recycling, waste minimization and composting opportunities on campus. A discussion that focuses on waste generation and disposal only is inadequate. As a state facility, the Honolulu Community College is required to institute comprehensive waste minimization and recycling practices. The EA should include a waste composition analysis and identify opportunities for recycling and diversion of different elements of the waste stream. The college should examine incorporation of recycled content building materials such as locally produced mulch and soil amendments and plastic lumber.

Demolition plans and budgets for the phases presented **Pages 33-35, Section 2E. Construction Phasing,** should reflect city and state policies which encourage waste minimization. A demolition plan can achieve diversion of construction and demolition debris from traditional landfilling.

7. **Electrical Power**
Page 14, Section 1D. Main Campus, 5. Infrastructure, f. Electrical Power, and **Page 17, Section 1E. Kokea Street Campus, 4. Electrical Power and Telephone Systems** detail the current power uses and delivery systems to the college. **Page 28, Section 2C. Proposed Main Campus Improvements, 6. Electrical Power,** states that Luminaries will be provided for new parking lots, walkways and driveways. **Page 55, Section 8. Determination of Significance, portion 13,** indicates that when additional buildings are constructed, electrical use increases.

The electrical power discussion should be expanded to estimate energy demand as the student body increases and as newer technical schools come on line, and address conservation and alternative energy opportunities on campus. A discussion that focuses on usage estimates and equipment only is inadequate. The college should explore conservation technologies that will reduce demand for electricity. The Plan Review Use permit process provides the applicant with flexibility from strict land use design and development standards. The college can implement innovative design and orientation of buildings to minimize energy demand.

8. **Topography**
Page 17, Section 1F. Environmental Conditions, 1. Topography, identifies the area as fill land and cites a higher grade than the grades that existed during the time of Honolulu Technical School. A topographic survey is necessary to ensure that future development of the parcel is appropriately designed to mitigate environmental impacts.

9. **Archaeological/Historical Resources**
Page 17, Section 1F. Environmental Conditions, 2. Archaeological/Historical Resources, identifies the current development of the college as justification that no archeological resources are present. Current excavations in long-populated and previously developed areas frequently encounter iwi and archeological resources. An archeological survey is recommended.

10. **Page 18, Section 1F. Environmental Conditions, 5, Land Use Controls,** states that the PUC DP Land Use Map designation for the main campus is "Campus and Civic Center." This is incorrect and should be corrected in the Final EA. The proposed project site is consistent with the PUC DP Land Use Map (Central). The HCC main campus is located within an institutional area, and the Kokea Street campus is within an industrial area. It should be noted in the Final EA that the project site's current DP land use designation is not a site-specific designation, but rather an illustration of text policies.

11. **Acoustical Environment**
Page 18, Section 1F. Environmental Conditions, 6. Acoustical Environment describes the current sounds in the vicinity of the campus. Landscaping choices and building orientation can significantly reduce acoustical impacts from the college on the surrounding uses and such elements are appropriate for inclusion in an EA. DPP will consider acoustical impacts during the Plan Review Use Permit process.

12. **Environmental Hazards**
Page 19, Section 1F. Environmental Conditions, 8. Environmental Hazards states that hazardous material remediation has been completed at the former Kapalama Incinerator site. The EA should expand on the remediation required, conducted, and any development limitations on the site to reduce possible routes of exposure to contaminants.

13. **Transit Alternatives**
Page 42, Section 3I. Honolulu High-Capacity Transit Corridor, identifies four (4) transportation alternatives within the urban corridor of Honolulu. The EA should be revised to reflect the proposal identified in December 2006 and assess potential impacts to the College. The location of a possible future rapid transit station on Dillingham Boulevard near the Kokea Street intersection should be coordinated with campus entry points, both vehicular and pedestrian.

14. **Conservation Methods**
Page 47, Section 4C. Long-Term Impacts, 1. Environmental Resources, limits the analysis of environmental impacts to the resources identified in Section 1E of the EA. It is unclear which Section 1E is referenced, but the analysis of impacts does not address conservation options to reduce impacts on the larger environment. For example, **Page 49, Section 4C. Long-Term Impacts, 6. Energy and Resource Efficiency,** describes conservation of electricity and water in a very general manner. Identify specific methods to reduce resource use as the college expands and present them in the specific sections addressing water and electricity demands. Expand concept of resource efficiency to include waste minimization and diversion efforts. **Page 53, Section 8. Determination of Significance**, portions 1, 7 and 8, also limit the analysis of the impacts of growth on environmental resources in examining the loss or destruction of any natural or cultural resources.

II. <u>PRU Application Comments</u>:

We have reviewed the Environmental Assessment (EA) for the proposed Honolulu Community College Long Range Development Plan and we offer the following comments for your consideration in preparing the PRU permit application and supporting documents:

1. **Parking**
Page 11, Section 1D. Main Campus, 4. Parking, presents various subtotals of parking stalls provided in each area. The document indicates that five (5) parking areas provide 510 parking stalls for faculty, student and staff use. The sum of the parking areas provided is greater than 510. **Page 15, Section E. Kokea Street Campus, 2. Vehicle Access and Parking**, identifies a parking lot that provides 328 stalls. **Page 26, Section 2C. Proposed Main Campus Improvements, 4. Parking,** describes 1475 additional stalls to be created by new parking areas and present several totals available at various parking areas currently and planned. Consolidate the parking information into a concise format. Illustrate the available stalls and locations on all campuses with a parking plan and corresponding table. Number each stall for clarity and code for reference on the parking plan and present within the EA. Address transportation alternatives to reduce traffic impact and parking demand on campus.

2. **Fire Protection System**
Page 13, Section 1D. Main Campus, 5. Infrastructure, d. Fire Protection System indicates that the service road for the A/C building does not meet Honolulu Fire Department requirements for access since parallel parking is allowed along the eastern edge. **Page 15, Section E. Kokea Street Campus, 3. Infrastructure, c. Fire Protection System** and **Page 28, Section 2C. Proposed Main Campus Improvements, 9. Fire Protection System,** describe the existing hydrants, access, and wet standpipe systems. DPP will request comments on the proposed development from HFD during the review of the Plan Review Use Application for the college.

3. **Landscaping**
Page 18, Section 1F. Environmental Conditions, 4. Landscaping provides a brief summary of some landscaped areas. **Page 29, Section 2C. Proposed Main Campus Improvements, 13. Landscaping, and Page 32, Section 2D. Site Improvements - Kokea Street Campus, 6. Landscaping,** provide a general description of how the future landscaping choices will provide shelter from the sun, cool ambient heat, reduce reflected glare from structures and improve aesthetics. A detailed landscape plan will be required and reviewed during the Plan Review Use Permit process.

4. **Primary Urban Center Development Plan**
Page 40, Section 3D. Primary Urban Center Development Plan, addresses how the proposed campus improvements align with the vision established within the Primary Urban Center Development Plan (PUC DP). The PUC DP states that regional pedestrian networks are appropriate for the central Honolulu area (Section 3.5.1.4 of the PUC DP). As shown in Figure 3-14 in the PUC DP (Pedestrian Network Concept for Honolulu), the Honolulu pedestrian network concept includes a shared-use path along the Kapalama Canal, which runs parallel to Kokea Street. This shared-use path, along the Kokea Street segment fronting the campus, should be incorporated in the Long-Range Development Plan for HCC. The location of a possible future rapid transit station on Dillingham Boulevard near the Kokea Street intersection should be coordinated with whatever campus entry points are planned. Therefore, the function and locations of a main campus pedestrian entry, any future vehicular drop-offs, and the potential transit station stop should be coordinated as the plan is refined.

The long-range development plan should support the neighborhood planning policy pertaining to making streets "pedestrian-friendly," specifically relating to widening sidewalks and planting trees to provide shade and buffer pedestrians from vehicular traffic (Section 3.2.2.1 of the PUC DP).

The PUC DP states that regional pedestrian networks are appropriate for the central Honolulu area (Section 3.5.1.4 of the PUC DP). As shown in Figure 3-14 in the PUC DP (Pedestrian Network Concept for Honolulu), the Honolulu pedestrian network concept includes a shared-use path along the Kapalama Canal which runs parallel to Kokea Street. This shared-use path, along the Kokea Street segment fronting the campus, should be considered for incorporation or, at the least, recognition in the Long-Range Development Plan for HCC.

The proposed action should support the relevant policies and guidelines pertaining to transportation, specifically relating to implementing land use strategies to achieve a balanced transportation system, implementing the Honolulu Bicycle Master Plan, and enhancing and improving pedestrian mobility (Sections 3.5.2 and 3.5.3 of the PUC DP).

5. **Page 42, Section 3F. Zoning, and Page 48, Section 4C. Long-Term Impacts, 4. Land Use,** references the applicable zoning designation for the college and that, as a public use, it is a permitted use within the zoning district. It should be noted that the PRU provides flexibility from the development standards for the applicant. If the college chooses, they may propose for the institution variations, such as greater densities and heights, from the development standards established by ordinance for the zoning district.

Should you have any questions, please contact Carrie McCabe of our staff at 527-5349.

Very truly yours,

for Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:cs

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August 16, 2007

Henry Eng, FAICP, Director
Department of Planning and Permitting
City and County of Honolulu
650 South King Street
Honolulu, Hawaii 96813

Dear Mr. Eng:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank for reviewing the Draft Environmental Assessment prepared for the subject project. The comments provided by your staff were thoughtful and insightful. We offer the following responses in the order that they were presented.

1. Kapalama Incinerator Remediation

This comment raises a complex issue that has only been partially resolved by the City and County of Honolulu. Definitive responses to your comments cannot be provided but a summary of remediation work that has transpired at the incinerator site over the past 12 years provides some insight into the status of the incinerator site and the surrounding area.

The Kapalama Incinerator began operating in 1944 and ceased operations in 1977. Known uses of the property after 1977 include a City and County of Honolulu Department of Parks and Recreation maintenance yard, a City and County of Honolulu Department of Transportation Services satellite shop, two Honolulu Community College temporary classrooms, and offices and activities of Pacific Preferred Contractors, Kapalama Equipment, and Paradise Roofing and Consultants. The State of Hawaii Department of Land and Natural Resources acquired ownership of the property in 1981 (Combined Preliminary Assessment and Site Inspection, Charley Langer, May 10, 1999). Demolition of the incinerator site and building began in 1997 and was completed in 1999.

Beginning in 1995, various site assessments, soil and groundwater sampling and analysis, and hazardous risk assessments were undertaken at the incinerator site. These studies included a Phase I Environmental Site Assessment (Unitek Environmental Consultants, September 1995) and Phase II Environmental Site Assessment (Professional Service Industries, Inc. August 1996), soil and subsurface soil investigations (December 1997 to May 1998 and December 2000 to April 2001), groundwater monitoring (Professional Service Industries, August 1996, October 1998, November 1998), site investigations (Department of Health, May 1999), response actions (Department of Health, 2002), and lead testing at the Honolulu Community College children's center (June 2002).

Soil sampling and analytical results collected since 1995 indicated the presence of metals, dioxins, and furans thus establishing the presence of those hazardous substances on the site. The sources for these materials associated with the site include the incinerator stack, the ash loading area, and onsite ash disposal areas. Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were detected in soil and ash samples associated with the three sources.

Following the demolition of the incinerator in 1999, soils contaminated with incinerator ash in the vicinity of the demolished incinerator were treated and remediated. Approximately 1,500 cubic yards of material were remediated through a soil washing process. This process proved to be slow and economically not feasible and was ceased.

In November 2002, the State Department of Health Hazard Evaluation and Emergency Response Office issued a Final Response Action Memorandum ("RAM"). The RAM presented the remedial alternative selected by the Department of Health for the Kapalama Incinerator property and was based on the remedial investigation (RI) and remedial alternative analysis (RA) prepared for the City and County of Honolulu (March 2002).

The RAM characterized soils at the site as containing hazardous substances at up to the following concentrations:

Contaminant	RME concentration* (mg/kg)
Arsenic	21.3
Barium	451
Cadmium	14.2
Chromium	169
Lead	676
Selenium	1.8
Silver	12.7
Mercury	2.4
Dioxin	0.000667

*Reasonable Maximum Exposure concentration, either the maximum concentration of the 95% cupper confidence limit on the mean concentration, whichever is lower.

Of these contaminants, lead was and remains the contaminant of primary concern.

The RAM also determined that the remedy for the site should consist of excavation of soil on the incinerator property contaminated above health-based levels, onsite characterization of this soil, hauling this soil to either the PVT landfill or the Waimanalo Gulch landfill for disposal, backfilling excavated areas with clean soil, and disposal of residual or hazardous wastes (Department of Health).

In October 2004, the City and County of Honolulu suggested dividing the Kapalama Incinerator site into two distinct units. The Kapalama Incinerator Unit which would be managed by the Department of Design and Construction ("DDC") and the Kapalama Incinerator Off-Site Contamination Unit which would be managed by the Department of Environmental Services (("DES"), City and County of Honolulu. The former unit would respond to contamination on the incinerator property itself and the latter would respond to contamination from the incinerator which extends beyond the boundaries of the property. Further, it was agreed that DES remediation responsibilities would commence

after DDC remediation efforts were completed. In October 2005, the State Department of Health agreed to the splitting of the site into the two proposed units.

In October 2005, the Department of Health approved with conditions, the Department of Design and Construction's "Final Closure Report" (August 2005) which implemented the Department of Health 2003 Remedial Action Plan for Removal of Heavy Metals and Petroleum Contaminated Soil, for the Kapalama Incinerator Unit. From September 2004 through February 2005, contaminated soil within the incinerator property boundary was excavated and disposed at local landfills and replaced by uncontaminated fill. Based on this action the Department of Health determined that *no further action is warranted in response to the release at the Kapalama Incinerator Unit of this site with the exception of the still contaminated areas indicated on Figure 2 of the Final Closure Report.* The still contaminated areas of the Kapalama Incinerator Unit were to be addressed by the DES, the city agency responsible for the Kapalama Incinerator Off-Site Contamination Unit.

The most current document dealing with site remediation is titled "Summary Analysis Report Kapalama Incinerator Off-Site Contamination Unit" prepared for the Department of Environmental Services (March, 2007). The purpose of the Summary Analysis Report is to gather existing information pertaining to historic operation of the Kapalama Incinerator and to identify historic uses of the surrounding areas. This information will then be used to prepare a Work Plan to investigate potential off-site impacts by specific contaminants that may have originated from the incinerator operations.

The Department of Environmental Services is currently preparing a Work Plan for submittal to the Department of Health. As indicated above, the Work Plan will investigate off-site impacts by specific contaminants and further investigate "hot spots" identified by the Department of Health. Thus, in partial response to your comment, the level of off-site contamination and proposed remediation measures are yet to be determined.

2. Traffic

A summary discussion of potential short and long-term traffic impacts and mitigation measures has been prepared and will be incorporated into relevant sections of the environmental assessment.

Short-Term Impacts

1. In several cases, the delays and levels-of-service for background plus project conditions are better than background without project conditions. This is because traffic to and from the various parking lots is redistributed to account for the new Kapalama Incinerator Parking Lot, which decreased that traffic volumes of several traffic movements. Because of this, the results of the level-of-service analysis generally imply that the short range plan has an overall positive impact of the traffic levels-of-service at the study intersections. Exceptions to this are the eastbound right turn at the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour and the eastbound left turn at the intersection of Dillngham Boulevard at Kokea Street during the afternoon peak hour.

2. At the intersection of Dillingham Boulevard at Alakawa Street during the afternoon peak hour, the eastbound right turn will operate at Level-of-Service F without and with project generated traffic. The delay increases from 183.3 seconds per vehicle to 215.8 seconds per vehicle, but there is no change in the volume-to-capacity ratio. No mitigation is recommended as the overall intersection volume-to-capacity ratio and delay decreases because of the redistribution of traffic.
3. At the intersection of Dillingham Boulevard at Kokea Street during the afternoon peak hour, the volume-to-capacity ratio increases from 1.12 to 1.54 and the delay increases from 121.8 to 287.2 seconds per vehicle. No mitigation is recommended as the overall intersection will operate at Level-of-Service D, which is an acceptable level-of-service.
4. At the intersection of Dillingham Boulevard at Kohou Street during the afternoon peak hour, the level-of-service of the southbound left turn and through movement will improve from Level-of-Service E to Level-of-Service D.

Mitigating Measures

- No mitigation is recommended for the intersection of Dillingham Boulevard at Alakawa Street. The overall traffic volumes decrease because of the redistribution of traffic, the volume-to-capacity ratios either decrease or do not change and volume-to-capacity ratios and delays of the overall intersection will decrease.
- For the intersection of Dillingham Boulevard at Kokea Street, it is recommended that the phasing be modified to provide a protected-permissive left turn from eastbound Dillingham Boulevard to northbound Kokea Street. With this modification, the level-of-service of the left turn will improve from Level-of-Service F to Level-of-Service C.
- Based on the traffic projections, separate left turn lanes will be required along Kokea Street at the entrances to the parking lots. With this separate left turn lane, all movements will operate at Level-of-Service C, or better. The recommended lane configuration along Kokea Street is shown schematically in the TIAR.
- HCC should appoint a Transportation Coordinator to develop and implement a Traffic Management Plan (TMP). The objective of the TMP is to reduce peak hour traffic demand. Typically, a TMP consist of one plan aimed at employees and a second plan focused on students. The TMP should provide information to students and employees about ridesharing opportunities and the availability of bus service. It is not possible to estimate how much of an impact a TMP will have on the amount of traffic generated by HCC. Early implementation of such a plan will provide data for future updates of the TIAR for future development of the HCC campus, especially as HCC starts to initiate components of the long range plan. The TMP will require continuous monitoring and updating.

Long-Term Impacts

1. The intersection of Dillingham Boulevard at Alakawa Street and Dillingham Boulevard at Kokea Street will operate at Level-of-Service F during both peak periods, without and with the project.

2. The intersection of Dillingham Boulevard at Kohou Street will operate at Level-of-Service E during the morning peak hour and Level-of-Service F during the afternoon peak hour.
3. The intersection of North King Street at Kokea Street will operate at Level-of-Service C during the morning peak hour and Level-of-Service F during the afternoon peak hour.

Mitigating Measures

- The intersection of Dillingham Boulevard at the new parking garage entrance should be aligned with the entrance to Costco in order to use the existing traffic signal. The traffic signal will have to be modified and Dillingham Boulevard will have to be improved to provide a separate left turn lane for traffic turning left from Dillingham Boulevard into the parking garage.
- Because the long range plan is subject to modification, primarily because there is no timetable for the new facilities, the TIAR should be revised and updated as each new component is developed.
- Continue the TMP described for the short range plan.

3. Water System

The Board of Water Supply has confirmed that the existing municipal system serving the Honolulu Community College campus and in the vicinity of the campus is adequate to meet the projected water demand.

Water demand estimates were not prepared for milestone dates or levels of FTE students. Only an end-state demand projection based on a FTE of 5,000 enrollment was used to estimate the end-state water distribution system sizing.

Water conservation methods will be considered during the design development stages for all new buildings.

4. Drainage System

A master drainage system for the campus has not been designed. Drainage plans will be prepared during the design process for each building. As pointed out in the Draft Environmental Assessment runoff will be collected via the existing drainage system (and improvements thereto) for discharge into Kapalama Canal.

Measures for reducing runoff discharge and the introduction of pollutants into Kapalama Canal were not identified in the Long-Range Development Plan but will be specified as part of the earthwork plans for projects. New developments on campus will adhere to the City and County of Honolulu's Rules Relating to Storm Drainage Standards (Department of Planning and Permitting, 2000). Section II Storm Water Quality of those rules establishes criteria for water quality control of storm runoff and treatment measures to minimize the introduction of pollutants in the runoff stream. Those criteria and treatment measures (and modifications that may ensue over the next 25-30 years) will be followed.

5. Sanitary Sewer System

Improvements to the existing sanitary sewer system based on incremental increases in FTE were not considered in projecting future wastewater flow. Only an end-state demand projection based on an FTE of 5,000 students was used to estimate the wastewater distribution system sizing.

Domestic wastewater will be discharged into the sanitary sewer system. Non-wastewater flows that may be generated by technical trade programs such as automotive, machine shop and trade courses and science programs will be discharged into systems designed for the respective waste stream. For example, waste petroleum products and fluids can be accommodated in drums for removal and proper discharge. Chemicals and acids from science programs will be disposed through systems designed for science laboratories.

6. Solid Waste

The principal means of solid waste collection is proposed as dumpsters and disposal as trucking to an approved land fill. Your suggestions for waste minimization, recycling, and composting opportunities will be considered through solid waste management programs to be developed for individual buildings or through a campus wide solid waste management plan.

A waste composition analysis and recommendations for recycling and diverting different elements of the waste stream is beyond the scope of this environmental assessment.

7. Electrical Power

Electrical power requirements will be calculated during the design stage of each of the new buildings. At that time, the consulting architects and engineers can design a structure for energy efficiency by applying design and sustainable building materials and technologies. For example, buildings can be designed to use natural lighting to light interior areas, using insulated materials for walls, low-E double glazed glass, and high-efficiency air conditioning systems to reduce energy consumption and enhance sustainability.

8. Topography

Topographical surveys will be performed on a case by case basis at sites where new buildings are proposed. There are no plans at this time to prepare a comprehensive topographical survey of the two campuses prior to construction of new buildings.

9. Archaeological/Historical Resources

The current development of the college is indicative that no surface archaeological resources are present. In addition, the college is built on fill land and the possibility of finding subsurface features is believed to be remote. There are no plans to perform an archaeological survey for the entire campus; however, archaeological monitoring can be performed during construction involving excavation activities for new buildings. Archaeological monitoring will require preparation of a monitoring plan, State Historic

Preservation Division approval of the monitoring plan, and either on-site or on-call requirements.

10. Land Use Controls

The Development Plan Land Use designation for the main campus will be revised to College/University.

11. Acoustical Environment

A response is not required.

12. Environmental Hazards

See response to Kapalama Incinerator Remediation comment.

13. Transit Alternatives

The discussion on transportation alternatives will stand. The Environmental Impact Statement to be prepared for the selected transit alternative and alignment and future transit station near Honolulu Community College should address potential impacts to the college.

14. Conservation Methods

The Long-Range Development Plan for Honolulu Community College is a land use plan based in part on the program requirements for the College to accommodate a FTE of 5,000 students. In addition, the space program allocates floor space to different departments and programs offered by the college. None of the proposed buildings have been designed.

Many of your comments requested further discussion on conservation and sustainability efforts as measures for mitigating potential environmental effects. This was not done in the Draft Environmental Assessment since none of the proposed new buildings have been designed and therefore there are no sustainable design measures identified for mitigating some of the concerns raised by your comments. In addition, Honolulu Community College does not have in-place programs for waste minimization and resource conservation at this time.

In 2006, the Hawaii State Legislature passed Act 96 that was signed into law in May 2006. The underlying purpose of Act 96 is to promote and help achieve energy self-sufficiency for the state but the act includes mandates to promote green buildings and sustainability for all new state facilities. Some of these mandates include:

1) Design and construct buildings meeting the Leadership in Energy and Environmental Design silver [certification] or two green globes rating system …;

2) Implement water and energy efficiency practices in operations to reduce waste and increase conservation;

3) Incorporate principles of waste minimization and pollution prevention, such as reducing, revising, and recycling as a standard operating procedures, including programs for waste management in construction and demolition projects …;

4) Procure environmentally preferable products, including recycled and recycled-content, bio-based and other resource-efficient products and materials.

Act 96 requires that resource conservation and sustainability measures be implemented during planning and budget preparation and program implementation. It is anticipated that all new campus buildings will be designed to be sustainable (green and energy efficient) by incorporating sustainable architectural, engineering, and landscaping standards and guidelines. Sustainable design features in part include maximizing day lighting, providing energy efficient mechanical and building systems, efficient plumbing systems, efficient landscaping, and the use of recycled and local/regional construction materials.

The participation of the Department of Planning and Permitting in the environmental assessment review process is appreciated.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
K. Kato, HCC
P. Louie, PLA

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CONSERVATION AND RESOURCES ENFORCEMENT
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February 23, 2007

Gerald Park Urban Planner
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Gentlemen:

Subject: Long Range Development Plan for Honolulu Community College Main Campus and Kokea Street Campus, Honolulu, Oahu, Tax Map Key: (1) 1-5-5:3,39; 1-5-6:26-28; 1-5-17:1,4,5,6; 1-5-18:1-4; 1-5-20:9

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Land Division-Oahu District, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Russell Y. Tsuji
Administrator

Cc: Central Files
Molokai Properties Limited
OEQC
County of Maui

LINDA LINGLE
GOVERNOR OF HAWAII

PETER T. YOUNG
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

ROBERT K. MASUDA
DEPUTY DIRECTOR

DEAN NAKANO
ACTING DEPUTY DIRECTOR - WATER

AQUATIC RESOURCES
BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT
ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION
LAND
STATE PARKS

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

January 18, 2007

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
__Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Div. of Water Resource Management
__Office of Conservation & Coastal Lands
_x_Land Division – Oahu District/Gary

FROM: Russell Y. Tsuji
SUBJECT: Long-Range Development Plan for Honolulu Community College Main Campus and Kokea Street Campus
LOCATION: Honolulu, Oahu, TMK: (1) 1-5-5:3,39; 1-5-6:26-28; 1-5-17: 1,4-6; 1-5-18:1-4; 1-5-20:9
APPLICANT: Gerald Park Urban Planner on behalf of the Honolulu Community College

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by February 21, 2007.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
(✓) We have no comments.
( ) Comments are attached.

Signed: Cecil Lanton
Date: 1/30/07

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

received
2.28.07

HRD06/2874

February 26, 2007

Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Blvd.
Honolulu, HI 96814

RE: Draft Environmental Assessment for the Long-Range Development Plan for Honolulu Community College Main Campus and Kokea Street Campus, Kapalama, O'ahu.

Dear Mr. Park,

The Office of Hawaiian Affairs (OHA) is in receipt of your January 12, 2007 submission and offers the following comments:

Our staff has no comment specific to the above-listed Draft Environmental Assessment at this time. Thank you for your continued correspondence.

OHA asks that, in accordance with Section 6E-46.6, Hawaii Revised Statutes and Chapter 13-300, Hawaii Administrative Rules, if the project moves forward, and if any significant cultural deposits or human skeletal remains are encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division (SHPD/DLNR) shall be contacted.

Thank you for the opportunity to comment. If you have further questions or concerns, please contact Jesse Yorck, Native Rights Policy Advocate, at (808) 594-0239 or jessey@oha.org.

Aloha,

Clyde W. Nāmu'o
Administrator

GERALD PARK
Urban Planner

Planning
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Research
Environmental
Studies

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96814

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@hawaiiantel.net

August 16, 2007

Jesse Yorck
Native Rights Policy Advocate
Office of Hawaii Affairs
State of Hawaii
711 Kapiolani Boulevard, Suite 500
Honolulu, Hawaii 96813

Dear Mr. Yorck:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii
HRD06/2874

Thank for reviewing the Draft Environmental Assessment prepared for the subject project.

As the Office of Hawaiian Affairs requested, should any archaeological or cultural deposits or human skeletal remains be unearthed, work will stop in the immediate area and the State Historic Preservation Division contacted for disposition of the finds.

We thank the Office of Hawaiian Affairs for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA

LINDA LINGLE
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

February 28, 2007

LOG NO: 2007.0195
DOC NO: 0702amj14
Archaeology

Mr. Gerald Park
Urban Planner
1221 Kapiolani Boulevard, Suite 211
Honolulu, Hawai'i 96814

Dear Mr. Park:

SUBJECT: **Chapter 6E-8 Historic Preservation Review –**
Draft Environmental Assessment for Long-Range Development Plan for Honolulu Community College, Main Campus and Kokea Street Campus
Kapalama Ahupua'a, Kona District, Island of O'ahu
TMK: (1) 1-5-005, 006, 017, 018, and 020:various parcels

Thank you for the opportunity to review the aforementioned document, which we received on January 18, 2007. We apologize for the delay in responding. According to your documents, the Long Range Development Plan features a large number of projects, including the construction of eighteen (18) new buildings, the renovation of eight (8) other buildings, and numerous associated infrastructure improvements over the next 25 to 30 years.

According to your analysis (p. 17), "[n]o archaeological or cultural features are present on the ground surface. Features that may have existed in the area were removed long ago by the gradual development of the College and the surrounding neighborhood." Thus, you believe that no historic properties will be affected by the proposed undertaking.

We do not concur with your analysis, and recommend completion of an archaeological inventory survey, in accordance with §13-275, HAR, and satisfying the requirements of §13-276, HAR. The potential for subsurface deposits containing historically-significant resources, including human burials, needs to be addressed by the proposing agency (University of Hawai'i). As you may be aware, numerous subsurface sites, from both historic as well as pre-Contact times, have been documented in downtown Honolulu, including the Iwilei area. Particularly in view of the large-scale impact of the proposed project, we believe testing (excavation) in the form of archaeological inventory survey is warranted.

Please contact Mr. Adam Johnson (O'ahu Assistant Archaeologist) at (808) 692-8015 if you have any questions or concerns regarding this letter.

Aloha,

Melanie Chinen, Administrator
State Historic Preservation Division

amj:

GERALD PARK
Urban Planner

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August 16, 2007

Melanie A. Chinen, Administrator
Historic Preservation Division
Department of Land and Natural Resources
State of Hawaii
555 Kakuhihewa Building
601 Kamokila Boulevard
Kapolei, Hawaii 96707

Dear Ms. Chinen:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii
LOG NO: 2007.0195
DOC NO: 0702amj14

Thank you for reviewing the Draft Environmental Assessment prepared for the subject project. We offer the following response to your comments.

The widespread development of the college campus and the absence of archaeological discoveries is adequate justification that no archaeological resources are present on the ground surface. In addition, the college is built on fill land and the possibility of finding subsurface features is believed to be quite remote.

An archaeological inventory survey will not be performed for the entire campus as you recommend. However, archaeological monitoring will be performed during excavation activities for new buildings. Archaeological monitoring plans will be prepared for new building construction and submitted to SHPD for review and approval.

During the course of campus revitalization, should any archaeological or cultural deposits or human skeletal remains be unearthed, work will stop in the immediate area and the State Historic Preservation Division ("SHPD") contacted for disposition of the finds.

We thank the State Historic Preservation Division for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. Box 3378
HONOLULU, HAWAII 96801-3378

In reply, please refer to:
EPO-7-013

February 26, 2007

received
3-5-07

Mr. Gerald Park
Gerald Park Urban Planner
1221 Kapiolani Boulevard
Honolulu, Hawaii 96814

Dear Mr. Park:

SUBJECT: Draft Environmental Assessment for Long-Range Development Plan for Honolulu Community College, Honolulu, Hawaii
TMK: (1) 1-5-005: 003, 039
(1) 1-5-006: 026, 027, 028
(1) 1-5-017: 001, 004, 005, 006
(1) 1-5-018: 001, 002, 003, 004
(1) 1-5-020: 009

Thank you for allowing us to review and comment on the subject documents. The documents were routed to the various branches of the Environmental Health Administration. We have the following Clean Water Branch and Hazard Evaluation & Emergency Response Office comments.

Clean Water Branch

The Department of Health (DOH), Clean Water Branch (CWB) has reviewed the limited information contained in the subject document and offers the following comments:

1. The Army Corps of Engineers should be contacted at (808) 438-9258 for this project. Pursuant to Federal Water Pollution Control Act (commonly known as the "Clean Water Act" (CWA) Paragraph 401(a)(1), a Section 401 Water Quality Certification (WQC) is required for "[a]ny applicant for Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may **result** in any discharge into the navigable waters..." (emphasis added). The term "discharge" is defined in CWA, Subsections 502(16), 502(12), and 502(6); Title 40, Code of Federal Regulations (CFR), Section 122.2; and Hawaii Administrative Rules (HAR), Chapter 11-54.

2. In accordance with HAR, Sections 11-55-04 and 11-55-34.05, the Director of Health may require the submittal of an individual permit application or a Notice of Intent (NOI) for

general permit coverage authorized under the National Pollutant Discharge Elimination System (NPDES).

a. An application for an NPDES individual permit is to be submitted at least 180 days before the commencement of the respective activities. The NPDES application forms may also be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

b. An NOI to be covered by an NPDES general permit is to be submitted at least 30 days before the commencement of the respective activity. A separate NOI is needed for coverage under each NPDES general permit. The NOI forms may be picked up at our office or downloaded from our website at: http://www.hawaii.gov/health/environmental/water/cleanwater/forms/genl-index.html.

   i. Storm water associated with industrial activities, as defined in Title 40, CFR, Sections 122.26(b)(14)(i) through 122.26(b)(14)(ix) and 122.26(b)(14)(xi). [HAR, Chapter 11-55, Appendix B]

   ii. Construction activities, including clearing, grading, and excavation, that result in the disturbance of equal to or greater than one (1) acre of total land area. The total land area includes a contiguous area where multiple separate and distinct construction activities may be taking place at different times on different schedules under a larger common plan of development or sale. **An NPDES permit is required before the commencement of the construction activities.** [HAR, Chapter 11-55, Appendix C]

   iii. Discharges of treated effluent from leaking underground storage tank remedial activities. [HAR, Chapter 11-55, Appendix D]

   iv. Discharges of once through cooling water less than one (1) million gallons per day. [HAR, Chapter 11-55, Appendix E]

   v. Discharges of hydrotesting water. [HAR, Chapter 11-55, Appendix F]

   vi. Discharges of construction dewatering effluent. [HAR, Chapter 11-55, Appendix G]

   vii. Discharges of treated effluent from petroleum bulk stations and terminals. [HAR, Chapter 11-55, Appendix H]

   viii. Discharges of treated effluent from well drilling activities. [HAR, Chapter 11-55, Appendix I]

ix. Discharges of treated effluent from recycled water distribution systems. [HAR, Chapter 11-55, Appendix J]

x. Discharges of storm water from a small municipal separate storm sewer system. [HAR, Chapter 11-55, Appendix K]

xi. Discharges of circulation water from decorative ponds or tanks. [HAR, Chapter 11-55, Appendix L]

3. In accordance with HAR, Section 11-55-38, the applicant for an NPDES permit is required to either submit a copy of the new NOI or NPDES permit application to the State Department of Land and Natural Resources, State Historic Preservation Division (SHPD), or demonstrate to the satisfaction of the DOH that the project, activity, or site covered by the NOI or application has been or is being reviewed by SHPD. If applicable, please submit a copy of the request for review by SHPD or SHPD's determination letter for the project.

4. Any discharges related to project construction or operation activities, with or without a Section 401 WQC or NPDES permit coverage, shall comply with the applicable State Water Quality Standards as specified in HAR, Chapter 11-54.

The Hawaii Revised Statutes, Subsection 342D-50(a), requires that "[n]o person, including any public body, shall discharge any water pollutants into state waters, or cause or allow any water pollutant to enter state waters except in compliance with this chapter, rules adopted pursuant to this Chapter, or a permit or variance issued by the director."

If you have any questions, please contact Mr. Alec Wong, Supervisor of the Engineering Section, CWB, at (808) 586-4309.

Hazard Evaluation & Emergency Response Office (HEER)

1. Parcel 1-5-018: 003 is described as being a former railroad right-of-way. The railroad easements or right-of-ways were also used as subsurface petroleum pipeline easements in the Iwilei area. There is a possibility of abandoned pipelines with petroleum product being present. The area could be assessed using review of available literature, utility maps, pipeline maps, site inspections and geophysical surveying. If an abandoned pipeline is present an investigation should be conducted to determine the contents. This may involve excavating and tapping the pipeline and sampling and analyzing the contents. If petroleum or any hazardous substance is present it should be removed from the pipeline and disposed of properly.

2. A single pipeline was observed at the southeastern edge of TMK parcel 1-5-020:009. The pipeline is attached to a bridge that crosses the waterway adjacent to the parcel. The pipeline continues subsurface onto the parcel. The pipeline should be investigated to determine if it is an abandoned petroleum pipeline and if it contains petroleum products. The pipeline could be assessed using utility maps, pipeline maps, site inspections and geophysical surveys. If the current or former use of the pipeline cannot be determined an investigation should be conducted to determine the contents. This may involve excavating and tapping the pipeline, sampling and analyzing the contents. If petroleum or any hazardous substance is present it should be removed from the pipeline and disposed of properly

3. Remedial work conducted on the former Kapalama Incinerator parcels (TMK: 1-5-018: 002, 004) has been completed. However, parcels surrounding the incinerator still require an investigation to determine the impact the incinerator had on surrounding parcels and the Kapalama Canal. Parcels will be assessed to determine the human health and ecological risks associated with contaminants. The outcomes may range from no further action to removal of the contaminant soil from the site.

4. If the land has a history of previous releases of petroleum, hazardous substances, pollutants, or contaminants, we recommend that the applicant request a "no further action" (NFA) letter from the Hawaii State Department of Health (DOH) HEER Office as a condition of approval of the land use change or permit approval.

Should you have any questions regarding these comments, please contact Harold Lao at 586-4250.

We strongly recommend that you review all of the Standard Comments on our website: www.state.hi.us/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this application should be adhered to.

If there are any questions about these comments please contact Jiacai Liu with the Environmental Planning Office at 586-4346.

Sincerely,

KELVIN H. SUNADA, MANAGER
Environmental Planning Office

c: EPO
CWB
HEER, Harold Lao

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April 16, 2007

Kelvin H. Sunada, Manager
Environmental Planning Office
919 Ala Moana Boulevard, Room 312
Honolulu, Hawaii 96814-3378

Dear Mr. Sunada:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii
EPO-7-013

Thank for reviewing the Draft Environmental Assessment prepared for the subject project. We offer the following response in the order your comments were presented.

Clean Water Branch

1. The Army Corps of Engineers will be consulted if any discharge into waters of the United States is proposed. Honolulu Community College will comply with federal and State of Hawaii permitting requirements associated with the Clean Water Act.

2. Individual permit applications or a Notice of Intent will be submitted to the Department of Health for the activities identified in b.2b. i. through xi. and associated with the redevelopment of the Honolulu Community College Campus.

3. Honolulu Community College will adhere to the procedural guidelines provided by this comment.

4. Discharges associated with construction and operations activities will comply with applicable State Water Quality Standards.

Hazard Evaluation and Emergency Response Office

1. The possibility of abandoned pipelines containing petroleum product within the former railroad right-of-way can be investigated during the design stage for improvements proposed for this lot.

2. Honolulu Community College does not own or operate any pipelines on or in the vicinity of Tax Map Key 1-5-020: 009. It is beyond the scope of this environmental assessment to investigate the use and possible contents of the observed pipeline.

3. The Department of Environmental Services, City and County of Honolulu, is currently preparing a Work Plan to investigate contaminants that may have originated from the Kapalama Incinerator operations and routes of exposure to adjoining areas. The Work Plan will investigate areas adjoining the former Kapalama Incinerator for evidence of potential contamination and assess human and environmental health risks associated with those contaminants.

4. This recommendation will be passed on to Honolulu Community College.

The participation of the Environmental Health Office in the environmental assessment review process is appreciated.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

C: O. Miyamoto, HCC
P. Louie, PLA

Hawaiian Electric Company, Inc. • PO Box 2750 • Honolulu, HI 96840-0001

received
4.3.07

March 29, 2007

Mr. Gerald Park
Geraid Park Urban Planner
1221 Kapiolani Boulevard - Ste. 211
Honolulu, HI 96814-3506

Dear Mr. Park:

Re: Honolulu Community College
Long Range Development Plan
Kapalama, Honolulu, Oahu

Thank you for the opportunity to comment on the above-referenced project. Hawaiian Electric Company, Inc. (HECO) has no objections at this time. The following comments were received from our Engineering Department:

(1) HECO has existing overhead facilities within and supplying the area of the subject property and will require continued access for maintenance purposes. In particular, we have overhead fiber optic cable facilities along Dillingham Boulevard. We appreciate your efforts to keep us apprised of the planning process. As the project progresses, please continue to keep us informed. We will be better able to evaluate any effects on our system facilities further along in the project's development. We request that development plans show all affected HECO facilities and address any conflicts between the proposed plans and HECO's existing facilities. Please forward the pre-final development plans to HECO for review.

(2) Should it become necessary to relocate HECO's facilities, please submit a request in writing and we will work with you so that construction of the project may proceed as smoothly as possible. Please note that there may be costs associated with any relocation work, and that such costs may be borne by the requestor. Because any redesign or relocation of HECO's facilities may cause lengthy delays, upon determination that HECO facilities will need to be relocated, HECO should be notified immediately in order to minimize any delays in or impacts on the project schedule.

To coordinate HECO's continuing input, I suggest dealing directly with Scott Bonilla, Transmission & Distribution Division (543-7536) on general matters regarding our overhead facilities, and with Terrene Uehira, Substations, Protection & Telecommunications Division (543-7084) on matters associated with our overhead fiber optic cable facilities.

Sincerely,

Kirk S. Tomita
Senior Environmental Scientist

cc: S.Bonilla/P.Nakagawa/M.Lum
T.Uehira/R.Shiroma/D.Lau

GERALD PARK
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August 16, 2007

Kirk S. Tomita
Senior Environmental Scientist
Hawaiian Electric Company, Inc.
PO Box 2750
Honolulu, Hawaii 96840-0001

Dear Mr. Tomita:

Subject: Honolulu Community College Long-Range Development Plan
Kapalama, District of Honolulu, Oahu, Hawaii

Thank you for reviewing the Draft Environmental Assessment prepared for the subject project. Responses to your comments are offered in the order they were presented.

1) The consultants selected for the design of individual buildings will consult with HECO during the schematic and design development stages of each project. It is recognized that HECO facilities will be affected by development over the long-term and the provision of primary electrical power is a necessity. The design consultants will consult early-on with HECO engineers and coordinate building plans and on-site construction services with HECO field crews.

2) Requests to relocate HECO's facilities will be submitted to HECO to assure the continued provision of primary power to the HCC campus and a seamless transition between old and new facilities.

We thank Hawaiian Electric Company for participating in the environmental assessment review process.

Sincerely,

GERALD PARK URBAN PLANNER

Gerald Park

c: O. Miyamoto, HCC
P. Louie, PLA