FILM AND DIGITAL MEDIA CENTER

TMK (1) 3-1-042: portion of 009 & 033
Kaimukī, O'ahu, Hawai'i

Final ~~Draft~~ Environmental Assessment/Finding of No Significant Impact (FONSI)

~~Applicant~~ Proposing Agency:
State of Hawai'i
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, HI 96804

Prepared by:
Group 70 International, Inc.
Architecture • Planning & Environmental Services • Interior Design • Assets Management
Honolulu, Hawai'i

April 2009

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STATE OF HAWAII
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
P.O. BOX 119, HONOLULU, HAWAII 96810

APR 2 8 2009

MEMORANDUM

TO: Ms. Katherine Puana Kealoha, Director
Office of Environmental Quality Control (OEQC)

FROM: Ernest Y. W. Lau
Public Works Administrator

SUBJECT: Finding of No Significant Impact for
Film and Digital Media Center at the Hawaii Film Facility
Honolulu, Oahu, Hawaii
TMK: (1) 3-1-042: portion of 9 and 33

The Department of Accounting and General Services has reviewed the comments received during the 30-day public comment period which began on February 23, 2009. This agency has determined that the project will not have significant environmental effects and has issued a Finding of No Significant Impact. Please publish this notice in the May 8, 2009 OEQC Environmental Notice.

We have enclosed the following items:

1. Four (4) hard copies of the Final Environmental Assessment (EA) and one electronic copy (PDF) on a compact disk.
2. A completed OEQC Publication Form.
3. The project summary on a compact disk.
4. The Final EA distribution list.
5. The Final EA distribution cover letter to the participants.

If you have any questions, please have your staff call Mr. Brian Isa of the Planning Branch at 586-0484.

BI:mo
Attachments

FILM AND DIGITAL MEDIA CENTER

TMK (1) 3-1-042: portion of 009 & 033
Kaimukī, O'ahu, Hawai'i

Final ~~Draft~~ Environmental Assessment/Finding of No Significant Impact (FONSI)

This environmental document is prepared in accordance with the requirements of Chapter 343, HRS and Hawai'i Administrative Rules, Title 11, Department of Health.

~~Applicant~~ Proposing Agency:
State of Hawai'i
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, HI 96804

~~Approving~~ Determining Authority:
State of Hawai'i
Department of Accounting and General Services
Kalanimoku Building
1151 Punchbowl Street
Honolulu, HI 96813

Prepared by:
Group 70 International, Inc.
Architecture • Planning & Environmental Services • Interior Design • Assets Management
Honolulu, Hawai'i

April 2009

TABLE OF CONTENTS

SECTION **PAGE**

List of Figures iii
List of Tables iv
List of Appendices iv

1.0 INTRODUCTION 1-1
1.1 Project Information Summary 1-1
1.2 Project Site 1-2
1.3 Overview of Proposed Project 1-2
1.4 Purpose of Environmental Assessment 1-3
1.5 Permits and Approvals Required 1-3
1.5.1 Other Permits Required for Construction 1-3
1.6 Agencies, Organizations and Individuals Contacted during the Pre-Consultation Period 1-4

2.0 DESCRIPTION OF THE PROPOSED ACTION 2-1
2.1 Project Location and Characteristics 2-1
2.2 Purpose of the Proposed Project 2-3
2.3 Description of the Proposed Project 2-5
2.3.1 Proposed Design Elements and Themes of the Film and Digital Media Center 2-9
2.3.1.1 Sustainable Design 2-10
2.4 Project Utilities and Infrastructure 2-10
2.4.1 Water 2-10
2.4.2 Wastewater 2-10
2.4.3 Drainage System 2-11
2.4.4 Solid Waste Disposal 2-11
2.4.5 Other Utilities 2-11
2.4.6 Access, Roadways, and Parking 2-11
2.5 Construction Characteristics 2-12
2.5.1 Landscape Management 2-12
2.5.2 Excavations 2-12
2.5.3 General Construction 2-13
2.6 Summary of Projected Costs 2-13

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES 3-1
3.1 Topography 3-1
3.2 Soils & Geological Conditions 3-1
3.3 Climate 3-5
3.4 Natural Hazards 3-5
3.5 Flora and Fauna 3-6
3.6 Air Quality 3-6
3.7 Noise 3-7
3.8 Utilities and Infrastructure 3-8

3.8.1 Water System 3-8
3.8.2 Wastewater System 3-10
3.8.3 Storm Drainage 3-10
3.9 Hazardous Waste 3-13
3.10 Electrical Communications 3-14
3.11 Traffic and Roadways 3-14
3.12 Parking & Loading 3-18
3.13 Socio-Economic Characteristics 3-20
3.14 Public Facilities Services 3-21
3.14.1 Educational Facilities 3-21
3.14.2 Police 3-21
3.14.3 Fire 3-21
3.14.4 Medical Emergencies 3-22
3.14.5 Solid Waste Management 3-22
3.14.6 Accessibility for Persons with Disabilities 3-22
3.14.7 Public Transportation Services 3-23
3.15 Archaeological Resources 3-23
3.16 Cultural Practices and Resources 3-27
3.17 Visual Resources 3-29
3.18 Potential Cumulative and Secondary Impacts 3-31

4.0 ALTERNATIVES TO THE PROPOSED PROJECT 4-1
4.1 Alternative A - No-Action Alternative 4-1
4.2 Alternatives B – Alternative Locations for the Proposed Project 4-1
4.3 Alternative C – Ultimate Program 4-1
4.4 Alternative D – 50% Reduced Program 4-2

5.0 APPLICABLE LAND USE PLANS AND POLICIES 5-1
5.1 Americans with Disabilities Act of 1991 5-1
5.2 Hawai'i State Plan 5-1
5.3 Hawai'i State Land Use District Boundaries 5-3
5.4 Hawai'i Coastal Zone Management Program 5-3
5.5 2050 Sustainable Plan 5-8
5.6 City and County of Honolulu General Plan 5-9
5.7 City and County of Honolulu Primary Urban Center Development Plan 5-11
5.8 City and County of Honolulu Land Use Ordinance Guidelines 5-13
5.9 Diamond Head Special District 5-13
5.10 Special Management Area 5-14

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION 6-1
6.1 Anticipated Determination 6-1
6.2 Reasons Supporting the Anticipated Determination 6-1
6.3 Summary 6-4

7.0 LIST OF REFERENCES 7-1

8.0 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING COPIES OF THE EA 8-1

LIST OF FIGURES

FIGURE		PAGE
1-1	Project Location	1-5
1-2	Tax Map Key (3-1-042: portion of 009 & 033)	1-6
1-3	State Land Use Designation Map	1-7
1-4	City and County of Honolulu Zoning Map	1-8
1-5	City and County of Honolulu Diamond Head Special District Map	1-9
1-6	City and County of Honolulu Special Management Area Map	1-10
1-7	Flood Insurance Rate Map	1-11
1-8	Existing Site Conditions of the Proposed Film and Digital Media Center	1-12
1-9	Conceptual Rendering of Proposed Film and Digital Media Center Project	1-12
2-1	Ahupua'a Boundary Map	2-2
2-2	Existing Site Plan	2-4
2-3	Proposed Film and Digital Media Center Site Plan	2-6
3-1	Topography	3-3
3-2	USDA NRCS Soils Map	3-4
3-3	Potable Water system	3-9
3-4	Wastewater Collection System	3-11
3-5	Drainage Systems	3-12
3-6	U. S. Geographic Survey Map, Showing Location of Previous Archaeological Projects	3-25
3-7	View Analysis Photo Key	3-32
3-7a	View from Kapi'olani Community College	3-33
3-7b	View from Diamond Head Road towards the Project Site	3-33
3-7c	View Near Diamond Head Road Looking North	3-33
3-7d	View from Diamond Head Road and 18th Avenue	3-34
3-7e	View from 18th Avenue Looking West	3-34
3-7f	View from Diamond Head Mortuary Looking West	3-34
3-7g	View from Diamond Head Mortuary to the Project Site	3-35
3-7h	View from 18th Avenue Looking West Towards the Hawai'i Film Studio	3-35
3-7i	View from Residential Areas Off of 18th Avenue	3-36
3-7j	View from Residential Areas Off of 18th Avenue Looking West	3-36
3-7k	View from 18th Avenue Looking Southwest	3-37
3-7l	View from Residential Areas near 18th Avenue and Kilauea Avenue	3-37
3-7m	View from 18th Avenue and Kilauea Avenue to Diamond Head Road	3-37
3-7n	View from Kilauea Avenue Southwest to Diamond Head Road	3-38
3-8	Perspective Rendering – View A from Diamond Head Road	3-39
3-9	Perspective Rendering – View B from Diamond Head Road	3-40
3-10	Film and Digital Media Center Site Sections	3-41
5-1	Primary Urban Center Development Map, Department of Planning and Permitting City and County of Honolulu, June 2004	5-12

LIST OF TABLES

TABLE		PAGE
2-1	Proposed Site Space Program for the Film and Digital Media Center	2-7
3-1	Proposed Parking for the Film and Digital Media Center	3-19
3-2	Archaeological Research near Diamond Head	3-26
4-1	Ultimate Space Program for the Film and Digital Media Center	4-3

LIST OF APPENDICES

A	Comment Letters and Responses
B	Preliminary Engineering Report
C	Traffic Impact Analysis Report
D	Archaeological Assessment
E	Final Report Cultural Impact Assessment

1.0 INTRODUCTION

1.0 INTRODUCTION

This Draft Environmental Assessment (EA) has been prepared in accordance with the requirements of Chapter 343, HRS and Hawai'i Administrative Rules, Title 11, Department of Health, which set forth the requirements for the preparation of environmental assessments.

1.1 PROJECT INFORMATION SUMMARY

Type of Document: Environmental Assessment (EA)

Project Name: Film and Digital Media Center

~~Applicant~~ Proposing Agency: State of Hawai'i
Department of Business, Economic Development & Tourism
P.O. Box 2359
Honolulu, HI 96804

~~Accepting~~ Determining Authority: State of Hawai'i
Department of Accounting and General Services
Kalanimoku Building
1151 Punchbowl Street
Honolulu, HI 96813

CH. 343, HRS Trigger: Use of State Lands and State Funds

Project Location: Kaimukī, O'ahu, Hawai'i *(Figure 1-1)*

Tax Map Key: (1) 3-1-042: portion of 009 & 033 *(Figure 1-2)*

Landowner: State of Hawai'i

Project Area: 1.9 Acres

State Land Use District: Urban District *(Figure 1-3)*

City & County of Honolulu Zoning: R-10 Residential *(Figure 1-4)*

City & County of Honolulu Development Plan: Institutional

Special Design District: Diamond Head *(Figure 1-5)*

Special Management Area: Within SMA *(Figure 1-6)*

Flood Zone:	Zone X (500 Year Flood) *(Figure 1-7)*
Existing Approvals:	2003/SDD-80 & 89/SMA-43 (Minor Modification) Diamond Head Special District Permit No. 90/DH-19 & 2007/SDD-26
Anticipated Determination:	Finding of No Significant Impact (FONSI)

1.2 PROJECT SITE

The project site is owned by the State of Hawai'i and is located on a portion of the existing Hawai'i Film Studio near Diamond Head, Honolulu (TMK: 3-1-042:009) (*Figure 1-1*). On January 2005, Executive Order No. 4097 was signed by Governor Linda Lingle for the setting aside of 7.422 acres of this site to Department of Business, Economic Development and Tourism (DBEDT) for film and studio related purposes. A portion of this site is located ~~with the~~ on land set aside for Kapi'olani Community College (TMK: 3-1-042:009). Diamond Head Memorial Park and Mortuary is located across 18th Avenue from the Film Facility.

The Film and Digital Media Center will be situated on the southwest portion of the Hawai'i Film Studio, which is located on ~~7.477~~ 7.422 acres near the ma uka/'ewa corner of 18th Avenue and Diamond Head Road. The area being master planned is approximately 1.9 acres located west of the recently constructed Technical and Production Office Buildings. The Film and Digital Media Center will replace the existing Soundstage No. 1 at the southwest corner of the Hawai'i Film Studio site (*Figure 1-8 and 1-9*). Although the existing lower parking lot and portions of the existing secondary access road extends beyond the property line towards Diamond Head Road, the proposed building and parking lots that will replace these facilities and other existing structures within the project area will be contained within the Film Studio site.

1.3 OVERVIEW OF THE PLANNED PROJECT

The Film and Digital Media Center will be a high-tech center which will function as a digital media incubator for early stage digital media startups and as an educational resource for the University of Hawai'i and the film industry community. The Film and Digital Media Center's main thrust will be for instructional and academic ~~cinematography~~ programs in film, cinematic arts, and new media ~~and other media~~ such as 2D and 3D animation, ~~creative~~ computer generated special effects, ~~programs and the~~ computer software design, game design, interactive, mobile and new media applications ~~creative industry~~. As a digital media incubator for private companies, the State of Hawai'i will encourage entrepreneurial opportunities and expand the state's creative industry sector. The Film and Digital Media Center will include soundstages (filming), a stage mill/production facility (for constructing film sets), classrooms offices, incubator facilities, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a cafe with a small kitchen. The facility will be three stories tall and will take up approximately ~~47,730~~ 47,729 square feet of floor area.

The project also proposes to demolish the Existing Soundstage No. 1 and four existing office buildings (A, B, C, and D) in the project area. The Film and Digital Media Center will replace the existing Soundstage No. 1, and the area where the four office buildings are currently located will be landscaped with grasscrete and kept as open space for overflow parking. Users of the Film and Digital Media Center will be primarily start up and established digital media companies and executives, and students and faculty of the University. The expected occupancy will be around 300 to 350 people, varying in amount throughout the day and night. Night-time occupancy, however, is expected to be at a low of about 100 people.

1.4 PURPOSE OF THE ENVIRONMENTAL ASSESSMENT

In accordance with the requirements of Chapter 343, Hawai'i Revised Statutes, a Draft EA is being prepared as the proposed project utilizes state funds and is located on state lands. The Draft EA will be published in the Office of Environmental Quality Control Environmental Notice, which will commence a 30-day public review period.

The Draft EA is presented in eight sections and includes the following: a detailed summary and project description; a list of necessary approvals; a description of the environmental setting; a section that identifies potential impacts and proposed mitigative measures on identified natural, cultural, and socioeconomic resources as well as existing infrastructure; a description and analysis of alternatives; a discussion of the project's relationship to State and County land use designations and regulations; the anticipated determination and reasons for its believed outcome; an updated list of agencies, organizations, and individuals that participated in the pre-consultation phase of the Draft EA; and a list of references cited or used in developing the Draft EA.

After the 30-day review period of the Draft EA has concluded, public comments received will be considered and addressed to the extent feasible within the project scope and evaluation. A Final EA will then be prepared, highlighting key areas of the document that were revised, updated, or modified based upon information received during the public comment period.

Upon acceptance of the Final EA, a Finding of No Significant Impact (FONSI) is anticipated.

1.5 PERMITS AND APPROVALS REQUIRED

In addition to the acceptance of the Final EA/FONSI by the State Department of Accounting and General Services, a City and County of Honolulu Special Management Area approval and Diamond Head Special District permit is needed for the project. These processes are discussed in *Section 5.8 and 5.9* respectively.

1.5.1 Other Permits Required for Construction

Several other approvals will be required from the County and State to implement the proposed action, some of which will include:

- Building Permits (Buildings, Electrical, Plumbing), and Sidewalk/Driveway Work (DPP)
- Grading, Grubbing, Trenching and Stockpiling Permits (DPP)
- Sewer Connection Permits (DPP)

- Broadband Wireless Infrastructure (DCCA)
- National Pollutant Discharge Elimination System (NPDES) Permit – Construction Storm Water (State Department of Health)
- Sign Permits (DPP)

1.6 AGENCIES, ORGANIZATIONS AND INDIVIDUALS CONTACTED DURING THE PRE-CONSULTATION PROCESS

A Pre-Consultation Memo and Participant Letter were sent in December 2008 to initiate the environmental review process. These are included as *Appendix A.*

A list of agencies and other parties that were presented notice of the proposed project or were contacted during the pre-consultation period of the ~~Draft~~ EA is provided in *Section 8.0* of this document. Additionally, a listing of those agencies that ~~will be~~ have been provided an opportunity to review the Draft and Final EA is also provided in *Section 8.0*.

Figure 1-1 Project Location

Figure 1-2 Tax Map Key (3-1-042: portion of 009 & 033)

Figure 1-3 State Land Use Designation Map

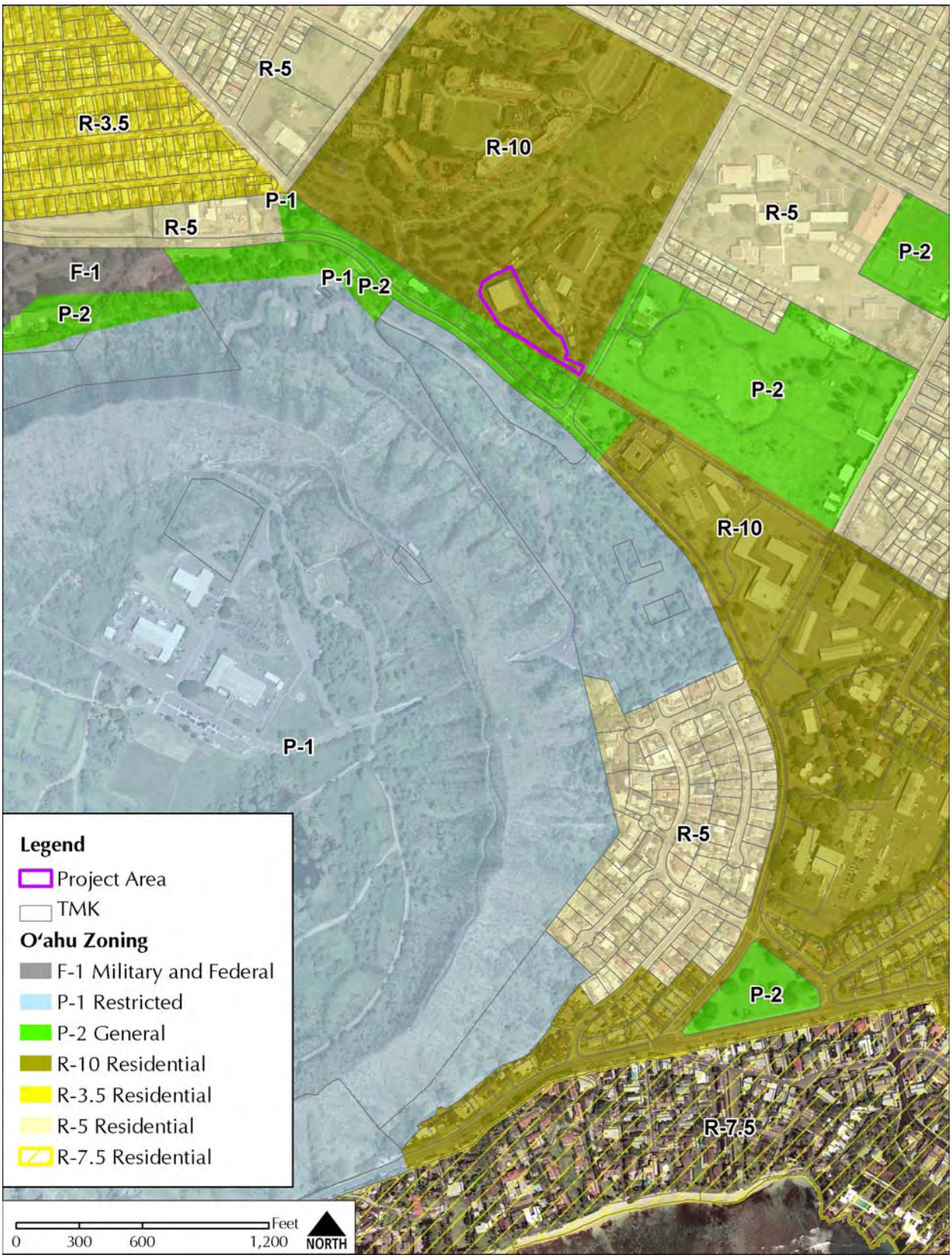

Figure 1-4 City and County of Honolulu Zoning Map

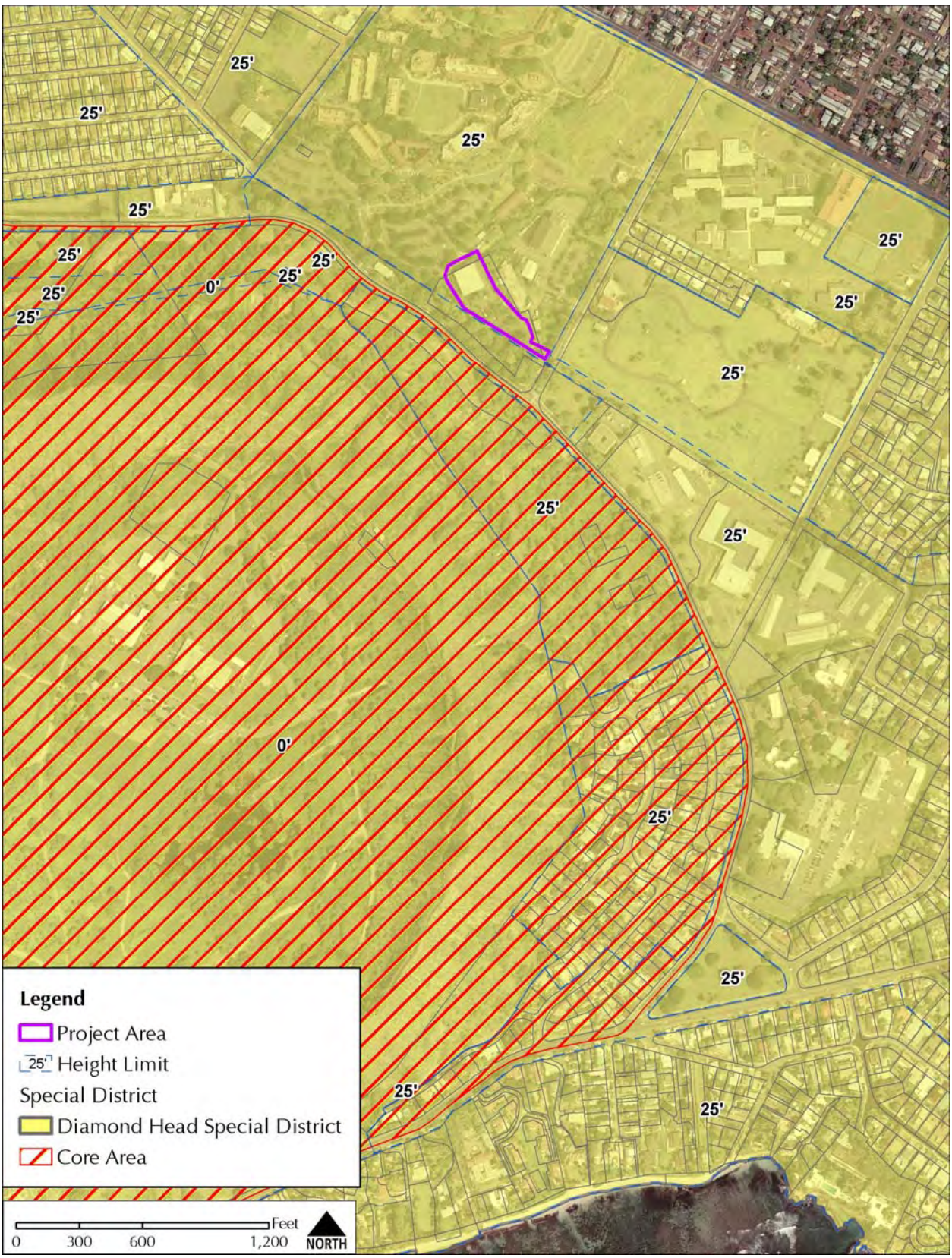

Figure 1-5 City and County of Honolulu Diamond Head Special District Map

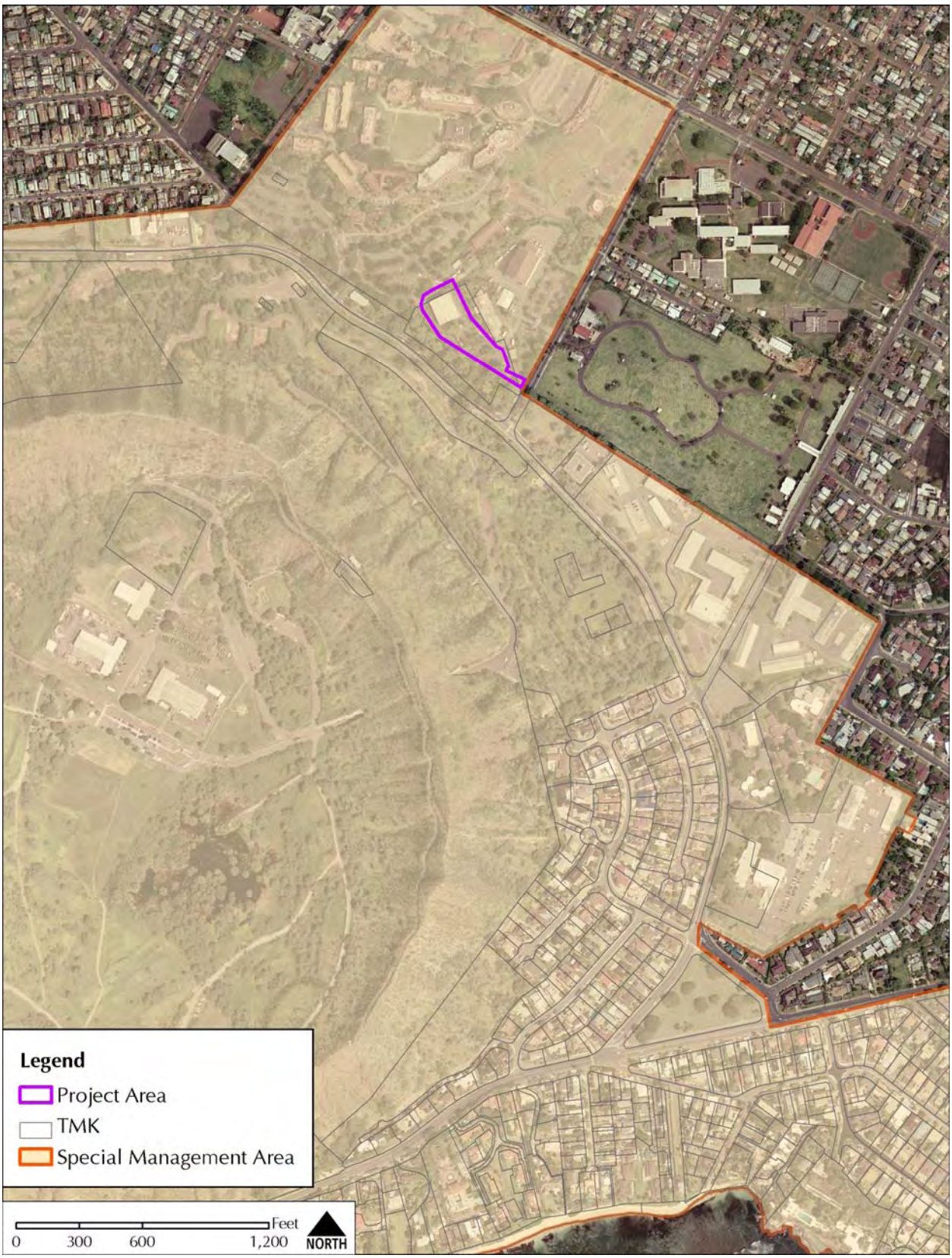

Figure 1-6 City and County of Honolulu Special Management Area Map

Figure 1-7 Flood Insurance Rate Map

Figure 1-8 Existing Site Conditions of the Proposed Film and Digital Media Center

Figure 1-9 Conceptual Rendering of Proposed Film and Digital Media Center Project

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.0 DESCRIPTION OF THE PROPOSED ACTION

A previous Environmental Impact Statement (EIS) (DHM Planners, August 1989) addressed environmental impacts and mitigative actions associated with the then-proposed improvements to the Hawai'i Film Studio site, including the presently proposed project area. With the exception of the planned utilization of the parking structure proposed in the 1989 EIS, but not yet constructed, the proposed Film and Digital Media Center project will not significantly impact the existing Film Studio site beyond the boundaries of the actual project area. Accordingly, this Environmental Assessment (EA) focuses discussion of the project setting and impacts to the Film and Digital Media Center site.

2.1 PROJECT LOCATION AND CHARACTERISTICS

Location
The Hawai'i Film Studio lot is located in the traditional moku of Kona and the ahupua'a of Waikiki (*Figure 2-1*). The project site is contained within a portion of ~~7.477~~ 7.422 acre Hawai'i Film Studio (TMK 3-1-042:033), which in turn was a portion of the 46.752-acre parcel encompassing the entirety of Kapi'olani Community College (KCC) (TMK: 3-1-042:009). Location and TMK maps are provided in *Figures 1-1* and *1-2*. The 1.9 acre project site is located on the ma uka/'ewa corner of 18th Avenue and Diamond Head Road in Kaimukī, on the Island of O'ahu in the State of Hawai'i. Diamond Head Memorial Park and Mortuary is located across 18th Avenue from the site.

Ownership
The project site is owned by the State of Hawai'i. On January 2005, Executive Order No. 4097 was signed by Governor Linda Lingle for the setting aside of 7.422 acres (TMK: 3-1-042:0033) of this site to Department of Business, Economic Development and Tourism (DBEDT) for film and studio related purposes.

Previously, TMK parcel 3-1-042:033 was set aside pursuant to a 1989 Executive Order to the ~~Department of Business, Economic Development and Tourism (~~DBEDT~~)~~ for the purpose of expanding the film facility that had been previously used by studio and ~~past local~~ production companies for various film and television series such as Hawai'i 5-0 and Magnum P.I. Prior to 1989, this parcel was part of the 46+ acre KCC parcel leased in 1975 to the University of Hawai'i by the State, but used as a film studio since 1978. The University subleased a portion of its KCC parcel to Universal Studios for the filming of Magnum P.I. That sublease expired in 1988, and the University released the 7+ acre site back to the State in 1989.

When the lands set aside ~~of lands was~~ were recorded in 1989 as TMK parcel 3-1-042:033, the maps incorrectly depicted the orientation of the parcel, which is why the parcel appears anomalous to the surrounding parcels and the layout of the Film Studio for which it was designated. This also explains why the Film Studio and the subject Film and Digital Media Center extend onto the KCC parcel (TMK: 3-1-042:009).

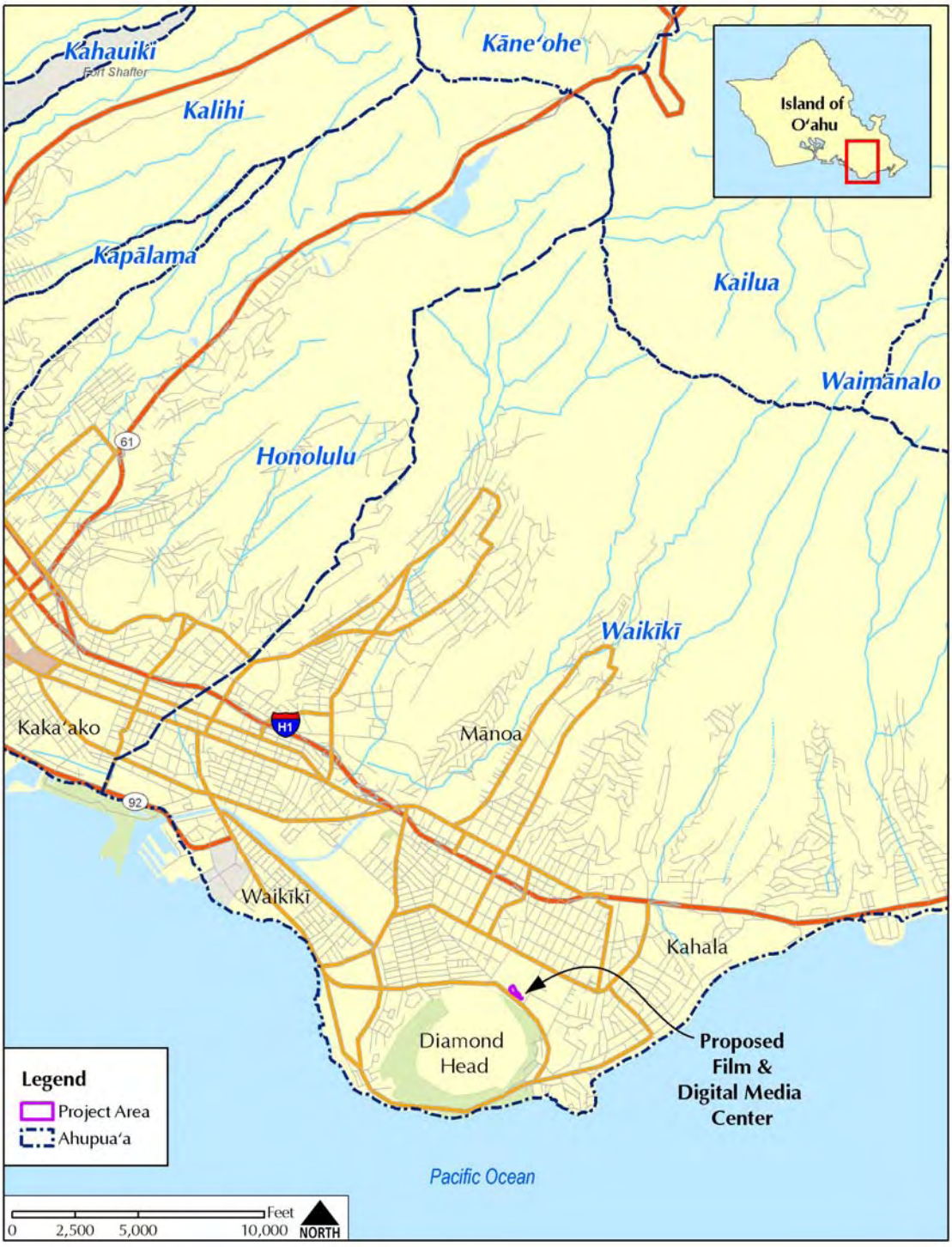

Figure 2-1 Ahupuaʻa Boundary Map

Existing On-Site Land Uses
Currently, the entire site is utilized by the "Lost" production company through a lease/rental agreement. The ~~7.477~~ 7.422 acre Film Studio lot has eight buildings which ~~was~~ were constructed after 1975. The various facilities include a soundstage, production offices in two separate areas, a mill/tech building for the construction of film sets, toilets, a sunken water tank/pool building, set storage, a guard shack, and parking and loading areas throughout the site (*Figure 2-2*). The site is also landscaped with shrubs and trees. The portion of the Film Studio site appropriated to the Film and Digital Media Center is approximately 1.9 acres and located on the southwestern (Diamond Head Road) corner of the site. The actual project area is also located south of the recently constructed Technical and Production Office Buildings of the Hawai'i Film Studio as shown on *Figure 2-2.* The area currently houses ~~one of~~ the production office complex comprised of four portable buildings (A, B, C, and D) and the Film Studio Manager's office (trailer), a wardrobe container, and the Existing Soundstage No. 1. The Existing Soundstage No. 1 is currently used mostly for storage, and which will be removed as part of the proposed project.

The existing lower parking lot within the project area and portion of the secondary access road extends beyond the property line into TMK: 3-1-042:020. Therefore, the proposed project would realign the existing parking lot which would be contained within the Film Studio parcel. Additional parking required by the development of the Film and Digital Media Center will be accommodated through the planned construction of a 2-story parking structure at the site of the existing 100-stall parking lot on the Film Studio. The 2-story parking structure was proposed in the accepted 1989 Environmental Impact Statement for The Proposed Improvements to the Hawai'i Film Facility, and has been awaiting construction funding. Parking requirements were addressed through an approved Master Plan and Special Management Area (SMA) Permit (2003/SDD-80 & 89/SMA-43 (Minor Modification) Diamond Head Special District Permit No. 90/DH-19 & 2007/SDD-26). In the SMA permit, a two-story tiered parking structure is included in the approval and will be utilized for the increase in parking caused by the Film and Digital Media Center.

2.2 PURPOSE OF THE PROPOSED PROJECT

The Film and Digital Media Center will be a high-tech center that will be used by the State of Hawai'i and the University of Hawai'i. The Film and Digital Media Center's main thrusts will be to (1) provide an integrated environment for traditional and new media business incubation and development in the region forming a "creative industries zone" and (2) for the University's instructional and academic ~~cinematography~~ programs in film, cinematic arts, and new media ~~and other media~~ such as 2D and 3D animation, ~~other creative~~ computer generated special effects, ~~programs and~~ computer software design, game design, interactive, mobile and new media applications ~~creative industry incubation~~. A goal of the University and DBEDT has been to serve as an academic catalyst for Hawai'i's digital media industry in changing the paradigm from being a "location shooting based" industry to an indigenous one with global reach encompassing traditional film, ~~and~~ television, and digital media production, animation, visual effects ~~and~~ post production, design and creation of video game~~s~~ for different gaming platforms, including internet-accessed massively multi-player online games. The state's goal is to attract new film and media production opportunities to support the economic development of Hawai'i's creative industry sector.

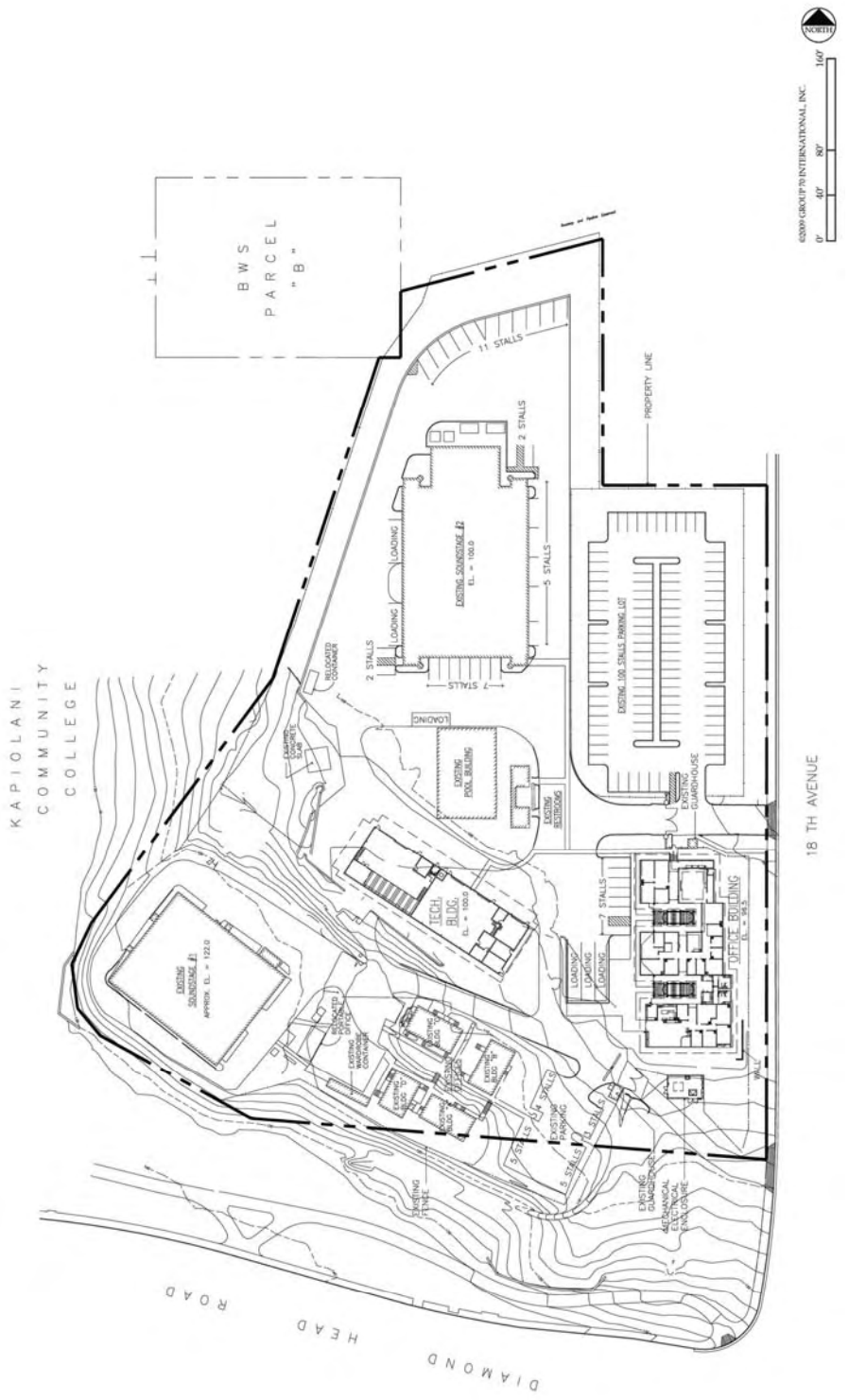

Figure 2-2 Existing Site Plan

A necessary and integral utility component for this project is the inclusion of broadband wireless technology to support the Center's digital media production and potential activities. The inclusion of broadband wireless will be one means of providing the tools for the Center to create interactive, high-definition, multiple platform and delivery systems for its incubator sector. As necessary, agreements for the management and operations of the Center will be submitted to the State of Hawai'i Department of Commerce and Consumer Affairs, Cable Television Division (CATV) for their review and approval.

2.3 DESCRIPTION OF PROPOSED PROJECT

The Film and Digital Media Center is intended to serve as an incubator for the film and digital arts industries (*Figure 2-3*), designed to address the needs of early stage digital media startups as they endeavor to grow in Hawai'i and beyond. The incubator will hasten the growth of innovative, early-stage companies by providing a facility equipped with the infrastructure and resources for media production, thereby supporting entrepreneurial endeavors that result in the successful investment in the economic development of the state's creative industry. The Film and Digital Media Center is also envisioned as an educational/resource offering classes towards baccalaureate degrees in cinema and digital media animation.

The Film and Media Center will include soundstages (filming), a stage mill/production facility (for constructing ~~film~~ sets), classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a café. Users of the Film and Digital Media Center will primarily be film production companies, students and faculty. The expected occupancy will be around 300 to 350 people, varying in amount throughout the day and night. The night occupancy, however, is expected to be at a low of about 100.

The proposed Film and Digital Media Center will be three stories tall and will take up approximately ~~47,730~~ 47,729 square feet of floor area. Placement of the Film and Digital Media Center on the site will be governed by development requirements such as lot coverage, setbacks and height restrictions, as well as Special Management Area and Diamond Head Special District Permit requirements. The proposed building is designed to visually maintain an appropriate sense of scale within the surrounding area and will not exceed beyond 25 feet in height. Layouts for each level of the facility has been planned to provide a space that accommodates the needs for the Film and Digital Media Center and is complementary to its goals and objectives. *Table 2-1* provides a detailed breakdown of the various components of the selected site program for the Film and Digital Media Center~~, along with an accounting of parking and loading requirements~~.

Figure 2-3 Proposed Film and Digital Media Center Site Plan

Table 2-1 Proposed Site Space Program for the Film and Digital Media Center

	Approx	Site Program		
	Size	Area	Amnt	Total Area
Lobby	40 x 60	2,400	1	2,400
Soundstage (large)	50 x 100	5,000	1	5,000
Soundstage (small)	25 x 100	2,500	1	2,500
Gallery/Exhibit	40 x 20	800	1	800
Digital Intermediate Room	20 x 10	200	1	200
Café / Kitchen	20 x 20	400	1	400
Screening Room (small)	50 x 25	1,250	2	2,500
Projector Room	12 x 30	360	1	360
Modular Classroom(s)	30 x 40	1,200	5	6,000
Toilets/Shower Facilities	24 x40	960	3	2,880
Lanais	10 x 40	400	2	800
Dubbing/Editing Rooms	8 x 10	80	10	800
Dubbing/Editing Room (large)	25 x 40	1,000	1	1,000
Foley Stage & Recording room	30 x 40	1,200	1	1,200
Computer Hub	24 x 40	960	1	960
Equipment Storage	40 x 50	2,000	1	2,000
Loading Area	20 x 40	800	1	800
Offices (Academics)	24 x 16	384	1	384
Offices (Academics)	10 x 12	120	10	1,200
Offices (Academics)	12 x 15	180	5	900
Reception (Academics)	12 x 20	240	1	240
Faculty Lounge	20 x 12	240	1	240
Offices (Incubation)	20 x 25	500	2	1,000
Conference Room(s)	15 x 15	225	2	450
Conference Room	24 x 40	960	1	960
Mill/Production	40 x 40	1,600	1	1,600
Set Dressing Storage	25 x 40	1,000	1	1,000
Dressing/Make-up Room	30 x 15	450	1	450
Production Management Suite	25 x 30	750	1	750
Subtotal				39,774
Circulation (15%)				5,966
General Storage/copy rm (5%)				1,989
Total				**47,729**

Ground Floor Plan
The ground floor is the welcoming area of the Film and Digital Media Center. The lobby, café, and gallery/exhibit/lounge are located here. The lobby serves as the main entry to the building and as a gathering place for visitors and students. The café will serve as an accessory use for the Film and Digital Media Center. It will serve occupants and visitors of the Center with a limited refreshment menu and will provide seating and lounging furniture. The gallery and exhibit space will showcase the works of the students, faculty and the digital industry.

The ground floor will also consist of soundstages for filming ~~around props or stage sets~~ in an enclosed environment with lighting and cameras capturing the action and a foley stage and recording room ~~for the production and recording of various sounds~~ for integration and dubbing into soundtracks. The southern portion of the floor houses the mill/production area and set dressing and equipment storage, and a loading area. The mill/production and set dressing storage space is for the construction of set ~~dressings~~ and props for filming. The space is equivalent to a small carpentry shop and would contain a paint spray booth and sinks for washing of equipment and utensils. The equipment storage is primarily for digital, camera, lighting and other equipment for use by the students and faculty and the loading area serves as a space for loading and unloading of equipment and access to the soundstages and equipment storage areas.

Second Floor Plan
The second floor consists of mostly dubbing/editing rooms for sound dubbing, mixing and video editing; screening rooms to review films in production; offices/incubation for production executives/staff and University faculty/staff; and storage for digital, camera, lighting and other equipment for use by the students and faculty. At the northwest corner of the floor, there is also a production management suite for office space, production or other designated team uses, and a modular classroom for lectures and instructional purposes. The second floor houses the computer and broadband wireless connection hub which is the central location for the computer servers, routing equipment, processing units, etc. and the projector room which is used to (types of) projection and sound equipment. The projector room is a shared room for two screening rooms and conference room is located in the west side of floor. Another small conference room is also located on the southwest corner of the second floor and is used as a flexible space for small meetings and classroom instructional purposes.

Third Floor Plan
Office space and modular classrooms are primarily located on this floor. There are 16 offices and one reception area which will be used for production executives/staff and for the school Director and faculty/staff. There are four modular classrooms which will be used for instructional purposes and lectures. The modular classrooms make up most of the total area (6,000 sf) on the third floor. The north and south sides of the third floor include lanai space and will be used as outdoor gathering space.

Roof Plan
The roof area will not be a usable space for the Film and Digital Media Center. However, future considerations may include the use of this space as a landscaped green roof to support the projects goals towards achieving a Leadership in Energy and Environmental Design (LEED) certified facility.

Demolition of Existing Facilities and Realignment of Parking
In addition to replacing the Existing Soundstage No. 1 with the Film and Digital Media Center, the project also proposes to demolish the existing office buildings located below the Existing Soundstage No.1. These buildings comprise of approximately 4,477 square feet and are labeled as A, B, C, and D on *Figure 2-2*. This area will be graded and made into an open space, and used as overflow parking. The existing parking lots located below the existing office buildings will also be realigned to fit within the project area. The realignment will result in a loss of a few parking stalls which will be absorbed and provided for in a new parking area right below the new Film and Digital Media Center.

2.3.1 Proposed Design Elements and Themes of the Film and Digital Media Center

As the proposed project will replace the Existing Soundstage No. 1 proposed design elements were established to incorporate the many aspects and goals that the Film and Digital Media Center want to reflect. Four planning segments were identified and included into the overall design of the proposed project, specifically Lifestyle, Program/Space Needs, Site/Location Influences, and Theme(s).

The desired lifestyle of people who would study, work, teach, and visit the Film and Digital Media Center was an important aspect to the design of the project. Understanding the needs, expectations, and lifestyles of students, faculty, and industry helped to create a Film and Digital Media Center that would be useful to those who would utilize it the most. Program/Space needs was also a critical consideration in the proposed project design. Particularly with respect to functionality and space relationships, it was important to look at proposed layouts and adjacencies diagrams in order ensure spaces were used efficiently. Issues related to Site/Location Influences included how the building would impact the site, the opportunities, and the constraints of the site. This segment considered the existing conditions and inadequacies in terms of space and other issues related to drainage, American with Disabilities Act (ADA) accessibility, and security of the site so they could be addressed in the proposed design of the Film and Digital Media Center project.

Six themes were established to provide a focus and direction for the Film and Digital Media Center. These themes included:

- Sustainability
  - *Renewable Energy*
  - *LEED certified facility*
  - *Education (film, digital media, industry, etc.)*
  - *Economic viability for the state of Hawaii*
  - *Incubator for new industry*
  - *Hawaiian Sense of Place*
- Openness/Creativity/Flexibility (no walls; adaptive spaces, etc.)
- Interactive
  - *Community*
  - *Related industry, vendors, other creative media*
  - *Gathering Place*
- International/Global

- Ubiquitous Technology (constantly changing, evolving, etc.)
- Beautiful/Inspiring

Through incorporating the four segments and six themes discussed above the proposed design for the Film and Digital Media Center encompasses the necessary goals to provide comprehensive, digital high tech center.

2.3.1.1 Sustainable Design

The Film and Digital Media Center building design and construction will meet sustainable building design standards and practices. Design strategies may include incorporating natural lighting to illuminate interior spaces, installing energy-efficient mechanical and electrical systems to maximize energy savings, installing efficient plumbing systems to save water, installing Volatile Organic Compound (VOC)-free building materials and finishes to provide healthy working environments, and incorporating architectural design features such as shading fins, sun shelves, and energy-efficient windows to decrease cooling loads on the building and increase interior thermal comfort levels. Design strategies will be measured against the United States Green Building Council's sustainable design guidelines to attain the State-mandated minimum Leadership in Energy and Environmental Design (LEED) rating of "Silver".

2.4 PROJECT UTILITIES AND INFRASTRUCTURE

A Preliminary Engineering Report for the Film and Digital Media Center project was completed by Engineering Concepts, Inc. and is provided as *Appendix B*. Overall existing conditions, impacts, and mitigation measures for utilities are discussed in *Section 3.0* of this document.

The existing project site has water and electric services, sewer connections, and solid waste collection services. The following section describes the physical characteristics of these site utilities with the addition of the new facility.

2.4.1 Water

Existing potable water service is provided by the Board of Water Supply (BWS). The existing 4-inch water line to the Existing Soundstage No. 1 will be removed and a new 4-inch water line will be constructed in the access road to the Film and Digital Media Center due to the changes in road elevations (See *Section 3.8.1* for additional information). This water line will provide domestic water to the Film and Digital Media Center. A new 8-inch water line will be constructed in the access road to service on-site fire hydrants and the proposed fire sprinkler systems within the buildings. Hydrant spacing and fire flow requirements will conform to BWS standards. A mechanical engineer will specify the appropriate capacity and size of the fire protection system for the buildings during the design phase of this project.

2.4.2 Wastewater

The existing 8-inch sewer from KCC will be removed to accommodate construction of the Film and Digital Media Center. The existing sewer will be cut and plugged near the sewer manhole located below the lower parking lot. A new 8-inch sewer will be constructed in the access road

to replace the existing KCC sewer and to serve the Film and Digital Media Center. *Section 3.8.2* presents a wastewater analysis for the project. The design of the sewer system will be in accordance with design standards of the City and County of Honolulu Department of Wastewater Management.

2.4.3 Drainage System

Onsite runoff generated near the proposed Film and Digital Media Center will be collected in onsite inlets, slotted drains, and a catch basin. Onsite runoff generated from the proposed parking lot located below the existing office buildings which are planned for removal will be captured by a catch basin. The City and County of Honolulu's drainage system on 18th Avenue handles the runoff that is generated near the Production Office Building. The remaining runoff discharges into the offsite detention basin located north of the project site. Overflow from the offsite detention basin enters the City's drainage system through an existing 36-inch drain. The proposed drainage system will connect to the existing drainage system, as described in more detail in *Section 3.8.3*.

2.4.4 Solid Waste Disposal

Solid waste from the project site will be disposed of at an approved City and County of Honolulu refuse disposal site by a private refuse collection company. The proposed project will generate a significant amount of solid waste with the demolition of the four existing buildings (A, B, C and D). To the extent possible, the construction solid waste will be distributed within the immediate project area for possible reuse within film studio property or adjacent KCC campus. Recycling programs will also be encouraged on the proposed project site.

2.4.5 Other Utilities

The project will require other standard utility provisions such as gas, telephone, cable and internet. Regarding the latter, the project will incorporate broadband high-speed data cable and wireless technologies to support the Center's production activities, which must ensure that its users have a constant and secured connection for their operations. Broadband high-speed data as an access option provides higher rates and capacity for data transfer as well as more efficient and secure means for remote use of the network.

2.4.6 Access, Roadways, and Parking

Access to the Hawai'i Film Studio is from the main entrance off of 18th Avenue. The new Film and Digital Media Center will be accessed via a northerly relocation of the existing "secondary access" to the Film Studio. The new driveway will be wholly contained within TMK: 3-1-042:009. The roadway width will be 20-ft. to accommodate fire trucks.

Parking lots located below the existing portable offices, which are planned for removal as part of the project, are accessible through the existing driveway ("secondary access") located in the southern corner of the site. These parking lots will be reconstructed and realigned as part of the proposed project. A parking area is also provided next to the existing Production Office Building and will be reconstructed as a two-story parking structure to provide additional

parking required by the development of the Film and Digital Media Center. The planned parking structure was proposed in the accepted 1989 Environmental Impact Statement for The Proposed Improvements to the Hawai'i Film Facility and is included in the approved Master Plan and Special Management Area (SMA) Permit. The parking lot is accessible through the main entrance off of 18th Avenue.

An additional parking area will also be provided where the existing four office buildings (A, B, C and D) will be demolished. The area will be kept as open space and landscaped with grasscrete for use as overflow parking, thereby diminishing the need to park on surrounding street areas.

The proposed project will include new concrete walkways leading to the entrance of the Film and Digital Media Center facility. Pedestrian walkways will be located on all sides of the facility and will connect to the rest of the Film Studio site.

2.5 CONSTRUCTION CHARACTERISTICS

The proposed project requires that the existing soundstage and four office buildings below be demolished for the new project. The project site will require some vegetation clearing, grubbing, minor grading and excavation (cut and fill), general construction, and planning and landscaping.

2.5.1 Landscape Management

Minor clearing, grubbing and grading will be needed on the project site to develop the new Film and Digital Media Center facility. The Existing Soundstage No. 1 will be removed and replaced by the new Film and Digital Media Center, which will require additional grading and excavation. Planned demolition of the four existing office buildings will result in an open space landscaped with grasscrete to be used for overflow parking as needed for special events at the Film Studio site. Only minor impacts to the site are anticipated during the construction of the project. Sidewalks will be relocated requiring some removal of the existing asphalt.

The project will maintain the landscaping surrounding the Existing Soundstage No. 1 and will require minimal removal of existing trees and shrubs. The new Film and Digital Media Center will fit almost directly into the existing building footprint and surrounding terrace. A landscaping plan will be prepared in the future, as impacts to existing planting and landscaping of the site is anticipated as being relatively minor. Additional landscaping may be used to provide additional screening of the project area. These plants may include the use of native and non-invasive, drought-tolerant species to minimize irrigation requirements and water needs. As appropriate, the proposed project will comply with design control landscaping requirements of the Diamond Head Special District.

2.5.2 Excavations

The project site is generally level as the facility will be a replacement of the existing soundstage. Modification to the topography will minimal consisting of fine adjustments to site grades to allow for the appropriate fit of the new building. Only minor excavation activity is anticipated.

The approximate earthwork quantity for the Film and Digital Media Center is 21,000 cy excavation. Excess material will be hauled offsite.

2.5.3 General Construction

The construction of the facility will include the formation and placement of concrete foundations, the installation of mechanical equipment and electrical wiring and equipment, general carpentry work, painting and many other trades and work associated with typical construction activities.

2.6 SUMMARY OF PROJECTED COSTS

Costs for the Film and Digital Media Center project are estimated at $50 million. The costs will likely be met through a combination of State funding and other grants. Since the project is at the master planning phase at this time, a specific funding program has not yet been developed.

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS AND MITIGATION MEASURES

3.0 DESCRIPTION OF THE ENVIRONMENTAL SETTING, POTENTIAL IMPACTS, AND MITIGATION MEASURES

This section describes the existing environmental setting and identifies possible impacts of the proposed project. Strategies to mitigate those potential impacts are also identified.

3.1 TOPOGRAPHY

Existing Conditions
The site slopes moderately in an easterly direction at approximately 10 percent. Ground elevations range from 100 ft. above mean sea level near the Production Office Building to 130 feet towards the Kapi'olani Community College (KCC) campus. The area around the original Soundstage 1 (the location of the proposed Film and Digital Media Center) rises to approximately 120 feet above MSL. A 6 to 9 foot artificial cut was made into the slope to create a level building pad for Soundstage 1. Directly beyond the northwest boundary (i.e., towards KCC campus), the slope steepens and rises to 136 feet above MSL at the lower KCC parking lot and continues to 180 feet above MSL at the closest KCC building (*Figure 3-1*).

Anticipated Impacts and Mitigation Measures
No substantial changes to the site's topography will be made, although some excavation and grading will be required during the construction process. Best Management Practices will be implemented pursuant to the required Grading Permit to mitigate any potential impacts of soil erosion and fugitive dust during any grading or excavation.

3.2 SOILS & GEOLOGICAL CONDITIONS

Existing Conditions
Soil types within the project site are identified in the U.S. Department of Agriculture, Natural Resources Conservation Service (formerly known as the Soil Conservation Service), Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Lanai, State of Hawai'i, (August 1972). As depicted in *Figure 3-2*, the site consists of Moloka'i silty clay loam, 15 to 25 percent slopes and ~~Moloka'i silty~~ Makalapa clay loam, ~~7 to 15~~ 12 to 20 percent slopes located near 18th Avenue. This is a well-drained soil that occurs in the uplands. Runoff is medium and the erosion hazard is moderate (for 7 to 15 percent slopes) to severe (for 15 to 25 percent slopes).

The Hawaiian Ridge is a chain of volcanoes that extends northwestward across the central Pacific Ocean. The volcanoes are youngest in the southeast and become progressively older to the northwest. The volcanoes of the Hawaiian Ridge have formed as a plate of the Earth's crust beneath the Pacific Ocean moves northward and westward relative to an area of anomalously high temperature, called a hot spot, in the Earth's mantle. As a volcano moves northwestward away from the hot spot, eruptions become less frequent, and a new volcano begins to form above the hot spot. Many of the younger volcanoes have grown above sea level, forming islands. As islands age, they erode and subside, eventually becoming atolls and then seamounts.

The island of O'ahu consists of two volcanoes-the older Wai'anae Volcano in the west and the larger Ko'olau Volcano in the east. The Pliocene-age (5.3 to 1.8 million years Before Present (BP))

Wai‘anae Volcanics is divided into four members: the Lualualei (shield-stage) and the Kamaile‘unu (shield- and postshield-stage), the upper Pāalehua, and Kolekole Members, which consist largely of alkalic basalt. The shield-stage tholeiitic rocks of the younger Ko‘olau Volcano are named the Ko‘olau Basalt. The Pliocene-age Ko‘olau Basalt is the most widespread geologic unit exposed on Oahu. Rejuvenated-stage eruptions from about 50 vents scattered on the southeastern part of Ko‘olau Volcano form the Honolulu Volcanics, which ranges in age from Pleistocene (between 1.8 million and 10,000 years BP) to Holocene (10,000 years BP to present). The largest rift zones in the Ko‘olau and Wai‘anae Volcanoes are on a nearly parallel northwest-southeast trend: other rift zones trend north and northeast. O‘ahu has larger areas of sedimentary deposits than any other island, and these deposits contain coralline limestone in coastal areas.

During the Pleistocene Period, these two series of volcanic eruptions formed a singular mass and caused a submergence to occur. The island then re-emerged due to the formation of ice-caps that lowered ocean levels. Lateral craters erupted along the southeast portion of the island forming Le‘ahi and Pu‘owaina Craters, sometime within the last 150,000 years. When the icecaps melted, the shorelines receded inward, allowing the shallow basin between the Ko‘olau and Wai‘anae mountain ranges to be infiltrated by saltwater, forming areas like Pu‘uloa (Pearl Harbor) and the marsh lagoon of Waikīkī.

The Land Study Bureau classifies the project area as Urban and does not assign an overall Productivity rating.

Anticipated Impacts and Mitigation Measures

The Hawai‘i Film Studio site has been previously developed. Prior to the start of detailed design and construction of the Film and Digital Media Center, information regarding sub-surface soils and geotechnical conditions will be further evaluated based upon findings from previous construction projects. Projected construction estimates reasonably account for the necessary activities to occur during excavation.

The proposed project will not change the overall soil composition at the site. However, due to grading and leveling, some soil will be redistributed on the site. Earth moving activities during construction (e.g., grading, clearing, excavation) have potential to impact air quality through fugitive dust and water quality through storm water runoff. These impacts are addressed in *Section 3.6 Air Quality* and *Section 3.8.3 Storm Drainage*. Best management practices will be implemented as described in these sections to mitigate potential adverse impacts.

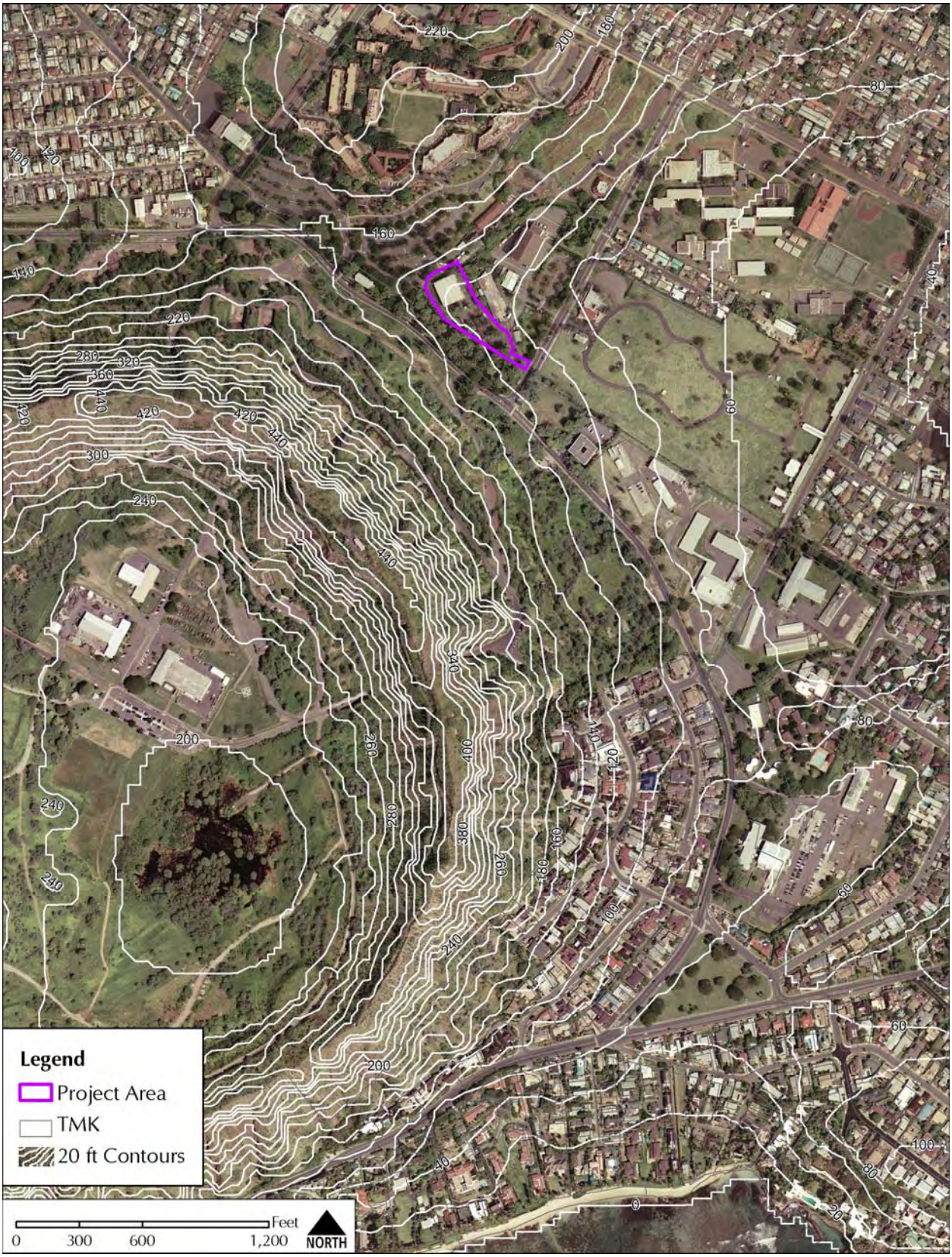

Figure 3-1 Topography

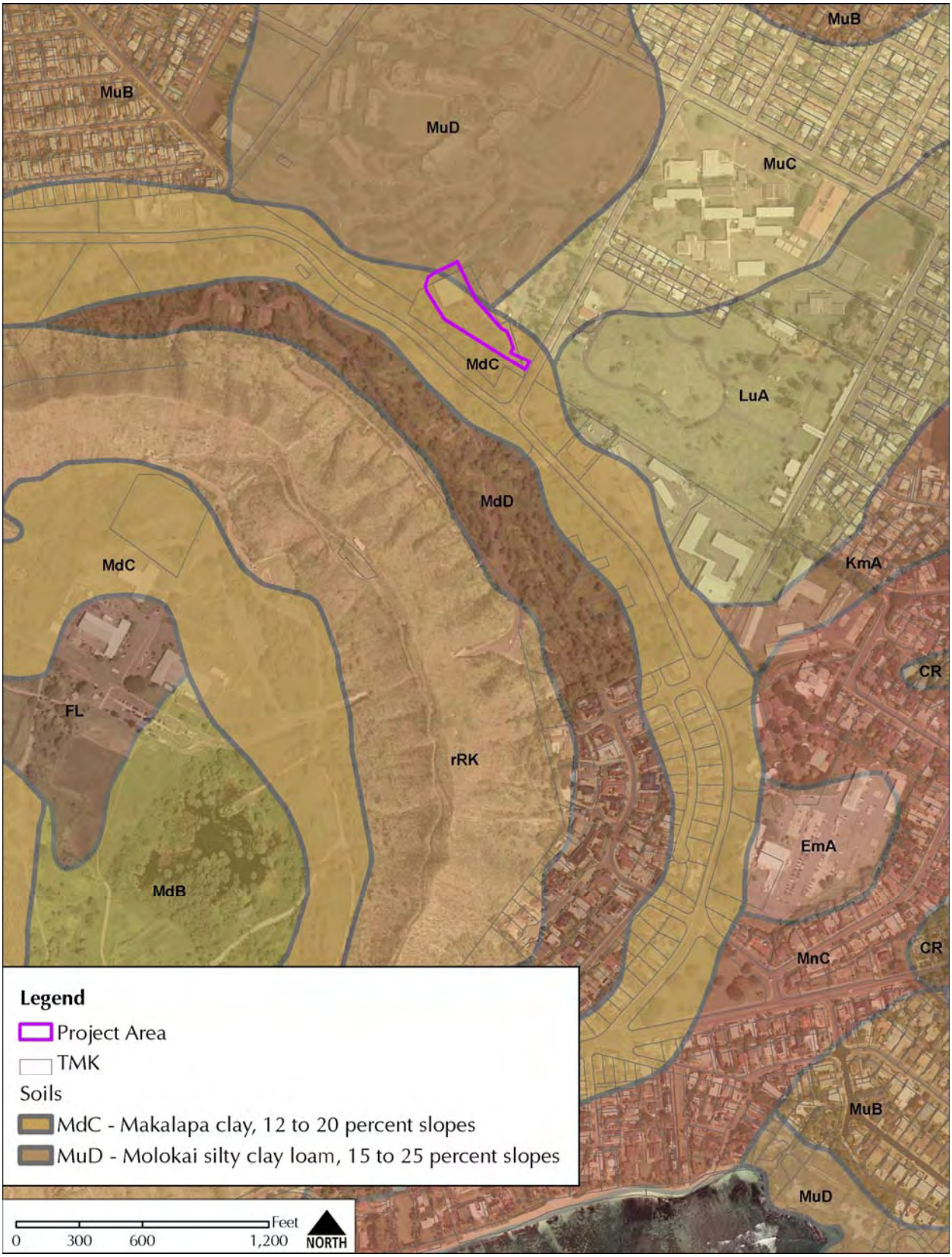

Figure 3-2 USDA NRCS Soils Map

3.3 CLIMATE

Existing Conditions
Climate on O'ahu can be characterized as having low day-to-day and month-to-month variability. Differences in the climates of various areas are generally attributable to the island's geologic formation and topography creating miniature ecosystems ranging from tropical rain forests to dryer plains along with corresponding differences in temperature, humidity, wind, and rainfall over short distances (Dept. of Geography, 1998). Annual and daily variation in temperature depends to a large degree on elevation above sea level, distance inland, and exposure to trade winds.

Winds are predominantly "trade winds" from the east-northeast except for occasional periods when "Kona" storms may generate strong winds from the south, or when the trade winds are weak and land breeze to sea breeze circulations develop. Wind speeds typically vary between about 5 and 20 miles per hour providing relatively good ventilation much of the time. Lower velocities (less than 10 mph) occur frequently and the usual northeasterly trade winds tend to break down in the Fall giving way to more light, variable wind conditions through the Winter and on into early Spring.

The project area's temperatures generally have small seasonal variations between the warmest months (August and September) and the coolest months (January and February). Daily maximum temperatures usually run from the low-80's in winter to the low-90's in summer, while daily minimum temperatures run from the mid-60's to the low-70's, respectively. Average monthly temperatures in nearby Waikiki were between 72 and 81 degrees Fahrenheit.

Rainfall in general is highly variable depending upon elevation and location with respect to the tradewinds. The Diamond Head area is one of the drier areas on O'ahu, with an average annual rainfall of about 25 inches. Most of the rainfall occurs during winter storms usually taking place from October through April.

Anticipated Impacts and Mitigation Measures
The proposed action will have no effect on climatic conditions, and therefore no mitigation measures are required.

3.4 NATURAL HAZARDS

Existing Conditions
Based on the Federal Emergency Management Agency's *Flood Insurance Rate Map, FIRM Community Panel No. 15003C0370F*, effective November 30, 2004, the project area is located in "Zone X". As depicted in *Figure 1-7*, the flood Zone X designation indicates the area is outside of the 500-year floodplain. No hurricanes have significantly impacted the project area in recent history, however the potential for tropical storms to cause future damage cannot be dismissed.

The majority of earthquakes in Hawai'i are directly related to volcanic activity on the Island of Hawai'i. The entire City and County of Honolulu lies in a seismic zone designated as 2A. Under the International Building Code (IBC) seismic provision, a Zone 2A area could experience seismic activity between .75 and .10 of the earth's gravitational acceleration (g-force).

Anticipated Impacts and Mitigation Measures
Because the project area is located well away from the coastal area and the stream courses, the project area is secure from stream flooding, as well as coastal inundation. To prevent ponding or localized flooding resulting from storm run-off, existing drainage infrastructure will be maintained, while new infrastructure will be designed and constructed to meet applicable standards.

All construction will necessarily conform to relevant building codes to mitigate the risk of wind and seismic damage.

3.5 FLORA AND FAUNA

Existing Conditions
A botanical survey was conducted on the entire KCC area in 1981 for the KCC Master Plan EIS. That survey included the project area for the proposed Film and Digital Media Center. Most of the ground surface of the project area has been completely disturbed with development and structures for many decades. The vegetation includes a number of common species of trees, some cultivated plants, weeds and shrubs. The vegetation at the project area has not changed since the 1981 study, and no new study was conducted.

While no rare or endangered species were found in the project area, a 40 by 50 foot area of an officially listed endangered plant species, *Schiedea adamantis*, is located off the site on the upper, outer slope of Diamond Head Crater. The species is a small white-flowered shrub with dry capsule seed pods approximately 1-2 feet in height and is deciduous during the dry season.

The 1981 survey concluded that no significant fauna was present, primarily due to the urban nature of the area. A ~~probable~~ list of known introduced species that traverse the property includes mongoose, rats, mice, and feral cats. A 1989 EIS for an expansion of the Film Facility that adjoins the Film and Digital Media Center project area noted that no endemic insects are at this site. A 1979 count of birds in the entire Fort Ruger area indicated a number of introduced songbirds, but no endemic or endangered species. No new studies were conducted for the proposed Film and Digital Media Center.

Anticipated Impacts and Mitigation Measures
The development and operation of the proposed improvements are not expected to result in any adverse impacts to plant species. The project landscaping may include future placement of indigenous vegetation and could incorporate non-invasive, drought-tolerant species to minimize irrigation requirements and water needs. Mature trees will be retained.

There are no anticipated adverse impacts to the area's wildlife or habitat.

3.6 AIR QUALITY

Existing Conditions
As required by the Clean Air Act of 1970 (as amended in 1977 and 1990), National Ambient Air Quality Standards (NAAQS) were established by the U.S. Environmental Protection Agency (USEPA) for six criteria pollutants: carbon monoxide (CO), nitrogen dioxide, sulfur dioxide (SO_2), lead, ozone (O_3), particulate matter smaller than 10 microns (PM_{10}), and particulate matter

smaller than 2.5 microns ($PM_{2.5}$). Ambient air is defined as the "general outdoor atmosphere, external to buildings, to which the general public has access." These standards then define the maximum levels of these pollutants allowed with an adequate margin of safety in order to ensure and to protect the public's health and welfare.

The State Department of Health (DOH), Clean Air Branch (CAB) has established the State Ambient Air Quality Standards (SAAQS). The DOH-CAB regularly samples ambient air quality at monitoring stations throughout the State and annually publishes this information. On Oahu, there are six monitoring stations. The closest station to the project site is located in Downtown Honolulu on the roof of the DOH (Kīnaʻu Hale) building (1250 Punchbowl Street), which measures SO_2, O_3, PM_{10}, $PM_{2.5}$.

Consistent trade winds regularly blow from a northeasterly direction, creating conditions for excellent air quality over the islands because the prevalent wind directions moves generated air pollutants on land to the southwest out to the open ocean. Present air quality in the project area is mostly affected by motor vehicles, with carbon monoxide being the most abundant of the pollutants emitted. Carbon monoxide is a colorless, odorless, tasteless gas under atmospheric conditions and is produced by the incomplete combustion of carbon fuel.

The State and Federal standards for carbon monoxide are set at 9 parts per million (ppm) and 35 ppm in one hour, respectively. Past studies during morning peak hour periods in the vicinity of Diamond Head Road and 18th Avenue and near the project area have shown that the concentrations of carbon monoxide are below the State and Federal standards, ranging between 4.9 and 5.0 mg/m^3 which equates to approximately 4.29 ppm in one hour.

Anticipated Impacts and Mitigation Measures
There will be two types of short-term air quality impacts that will result from the proposed construction project: 1) fugitive dust generation and 2) on-site/off-site emissions from moving construction equipment and commuting construction workers. Air quality monitoring can be implemented if needed to ensure compliance with State Ambient Air Quality Standards. Strict compliance with State and County pollution control requirements, such as dust-watering programs and covering dirt-hauling trucks will mitigate fugitive dust from construction activities. On- and off-site emissions from construction equipment and workers can be controlled, as appropriate, by the use of proper equipment and restricting working hours.

3.7 NOISE

Existing Conditions
The primary source of existing noise levels at the project site is traffic on 18th Avenue and Diamond Head Road. Along 18th Avenue and Diamond Head Road to the east of the project site, the existing noise environment is in the "Moderate Exposure, Acceptable" category, pursuant to Federal and State standards. The ambient noise levels around the Film Studio lot and Diamond Head area are typically consistent with noise levels found in urbanized residential areas. A 1989 Noise Impact Study (DHM Planners, August 1989) discussed existing and anticipated noise issues for the expansion to the then-existing film studio facilities and found ambient noise levels did not exceed guidelines set by the Department of Health.

Anticipated Impacts and Mitigation Measures

The proposed Film and Digital Media Center facility is not likely to result in an increase in ambient noise levels on the Film Studio site. While significant amounts of noise will be generated during the construction period, the project is not expected to impact the distant residential neighbors, or the KCC facilities above the extensive lower parking lots. However, the construction noise may impact existing tenants using the Film Studio site. Construction activities will be coordinated with Film Studio management and tenants on the site to ensure scheduling and timing of construction activities have a minimal impact. No additional extraordinary mitigation measures are proposed at this time since the noise generated by current and proposed activities is not expected to exceed allowable levels. Construction activities will be monitored by the State to comply with the provisions of the regulations for community noise control. The contractor will be required to obtain a noise permit if the noise levels from construction activities are expected to exceed the allowable levels. Heavy vehicles traveling to and from project sites will comply with the State's administrative rules for vehicular noise control.

3.8 UTILITIES AND INFRASTRUCTURE

Engineering Concepts, Inc. (ECI) prepared a preliminary engineering report for the proposed project in January 2009 *(Appendix B)*.

3.8.1 Water System

Existing Conditions

The Hawai'i Film Studio is presently served by the Honolulu Board of Water Supply (BWS) 405 system. All reservoirs with spillway elevation of 405 feet from Kalihi to Kaimukī are interconnected, providing the storage capacity for this system. Wilhelmina Rise Reservoir No. 1 (2.0 MG storage capacity) is the closest 405 reservoir to the project site.

Water system improvements described in the report, Water System for the Proposed Hawai'i Film Facility (ECI., December 1988), have been constructed. These improvements include construction of a 12-inch water line in 18th Avenue, installation of water meters (domestic and fire), and construction of two water lines within the project site, one for domestic use and irrigation and the second for fire flow *(Figure 3-3)*. There are existing onsite fire hydrants that were installed under previous construction projects. However, there are no fire hydrants near existing Soundstage No. 1 in the project area.

Probable Impacts and Mitigation Measures

The Film and Digital Media Center is considered as a school for the purpose of calculating potable water demand. According to the BWS "Water System Standards", 2002, the average domestic water demand for schools is 4,000 gallons per acre per day (gpad) or 60 gpd/student. ~~Based on the proposed area of approximately 2.0 acres, the estimated average domestic water demand for the project is 8,000 gpd.~~ Based on the estimated occupancy of 300 to 350 people, the estimated average domestic water demand is 18,000 to 21,000 gpd. Fire flow requirements are similar to those described in the report, Water System for the Proposed Hawai'i Film Facility (ECI, December 1988).

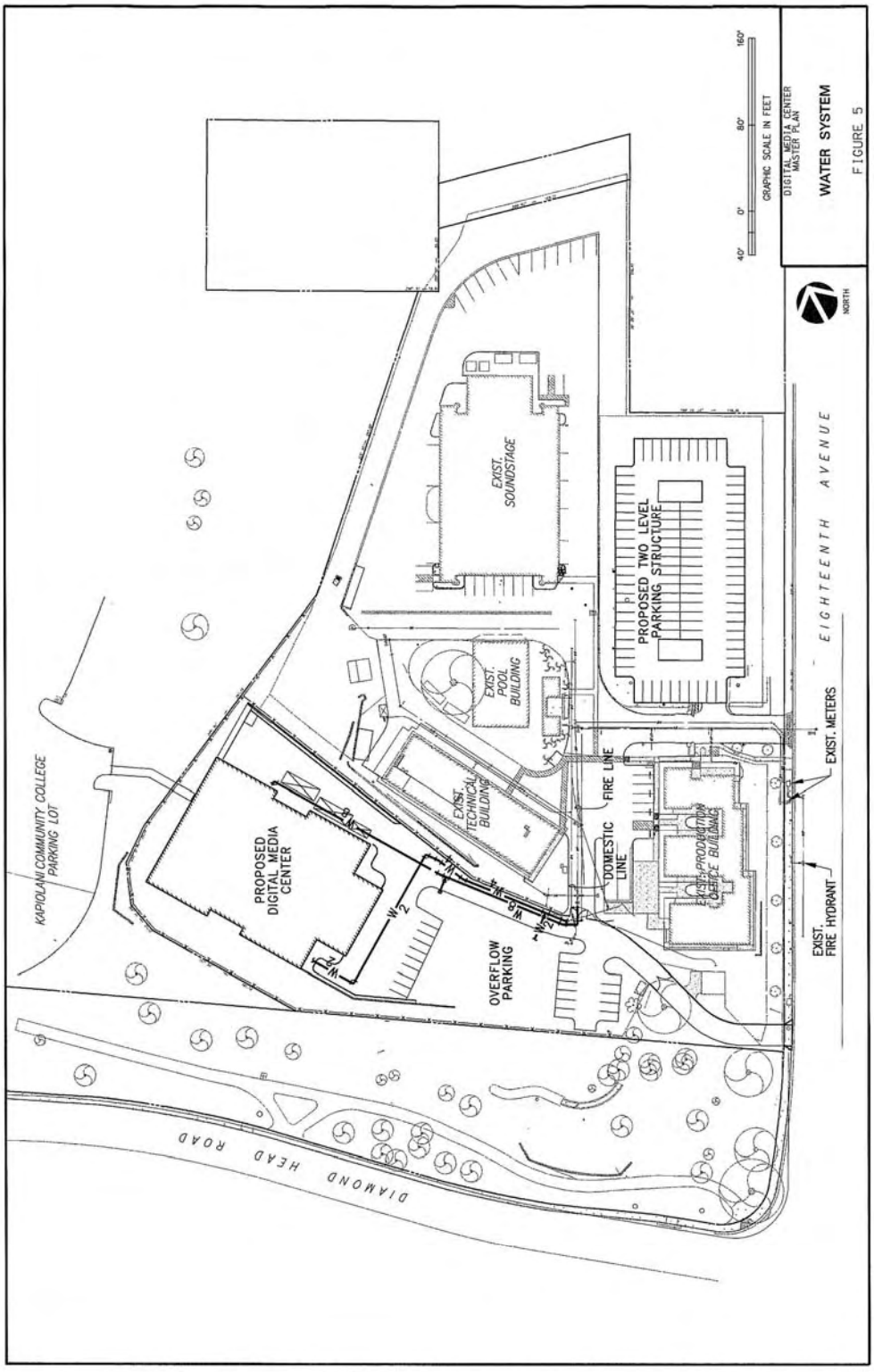

Figure 3-3 Potable Water System

Due to proposed grading for the new facilities, the existing 4-inch water line to Soundstage No. 1 will be removed and a new 4-inch water line will be constructed in the access road to the Film and Digital Media Center *(Figure 3-3)*. This water line will provide domestic water to the Film and Digital Media Center and any future improvements within the project site. A new 8-inch water line will be constructed in the access road to service onsite fire hydrants and the proposed fire sprinkler systems within the buildings. A mechanical engineer will specify the appropriate size and demand of the fire protection system for the buildings during the design phase of this project. Fire apparatus access roads and fire hydrants will be provided in accordance with the Uniform Fire Code. Plans will be submitted to the Board of Water Supply for review and approval of the domestic water system. Plans will also be submitted to the Honolulu Fire Department for review and approval of the fire water system. Low flow fixtures will be considered during the design phase of the project. This would lessen water demands and system operating pressures as well. A more comprehensive hydraulic analysis of the proposed system will be done by a mechanical engineer during the design phase of this project.

3.8.2 Wastewater

Existing Conditions
The existing sanitary sewer system within the project site is comprised of 6-inch and 8-inch sewers and is connected to the 8-inch City and County sewer in 18th Avenue *(Figure 3-4)*. An existing 8-inch sewer that transports wastewater from the KCC campus traverses the ma kai portion of the project site and connects to the City and County sewer in 18th Avenue.

Probable Impacts and Mitigation Measures
The estimated wastewater flow from the project site is approximately 9,000 to 10,500 gpd based on 30 gallons/capita/day. The design of the sewer system will be in accordance with the "Design Standards of the City and County of Honolulu's Department of Wastewater Management. The existing 8-inch sewer from the KCC campus will be removed to accommodate construction of the Film and Digital Media Center. The existing sewer will be cut and plugged near the sewer manhole located below the lower parking lot. A new 8-inch sewer will be constructed in the access road to replace the existing KCC sewer and to serve the Film and Digital Media Center and any future improvements *(Figure 3-4)*. Connection of the new sewer to the existing KCC sewer is proposed by modifying the existing SMH near the Film and Digital Media Center within KCC. The new sewer will connect to the existing 8-inch sewer stub located in the roadway between the Technical Building and Production Office Building.

Implementation of the proposed improvements is subject to approval from the City and County of Honolulu, Department of Planning and Permitting, Wastewater Branch. An Application for Sewer Connection is required when the Film and Digital Media Center is developed. While no significant wastewater impacts are anticipated, compliance with permit conditions will assure mitigation of potential wastewater management concerns.

3.8.3 Storm Drainage

Existing Conditions
Runoff generated within the film facility site is collected by existing onsite inlets, slotted drains, and catch basins. Approximately 6.5 cfs of runoff that is generated near the Production Office Building discharges to the City's drainage system in 18th Avenue *(Figure 3-5)*. The remaining runoff discharges into the offsite detention basin located north of the project site.

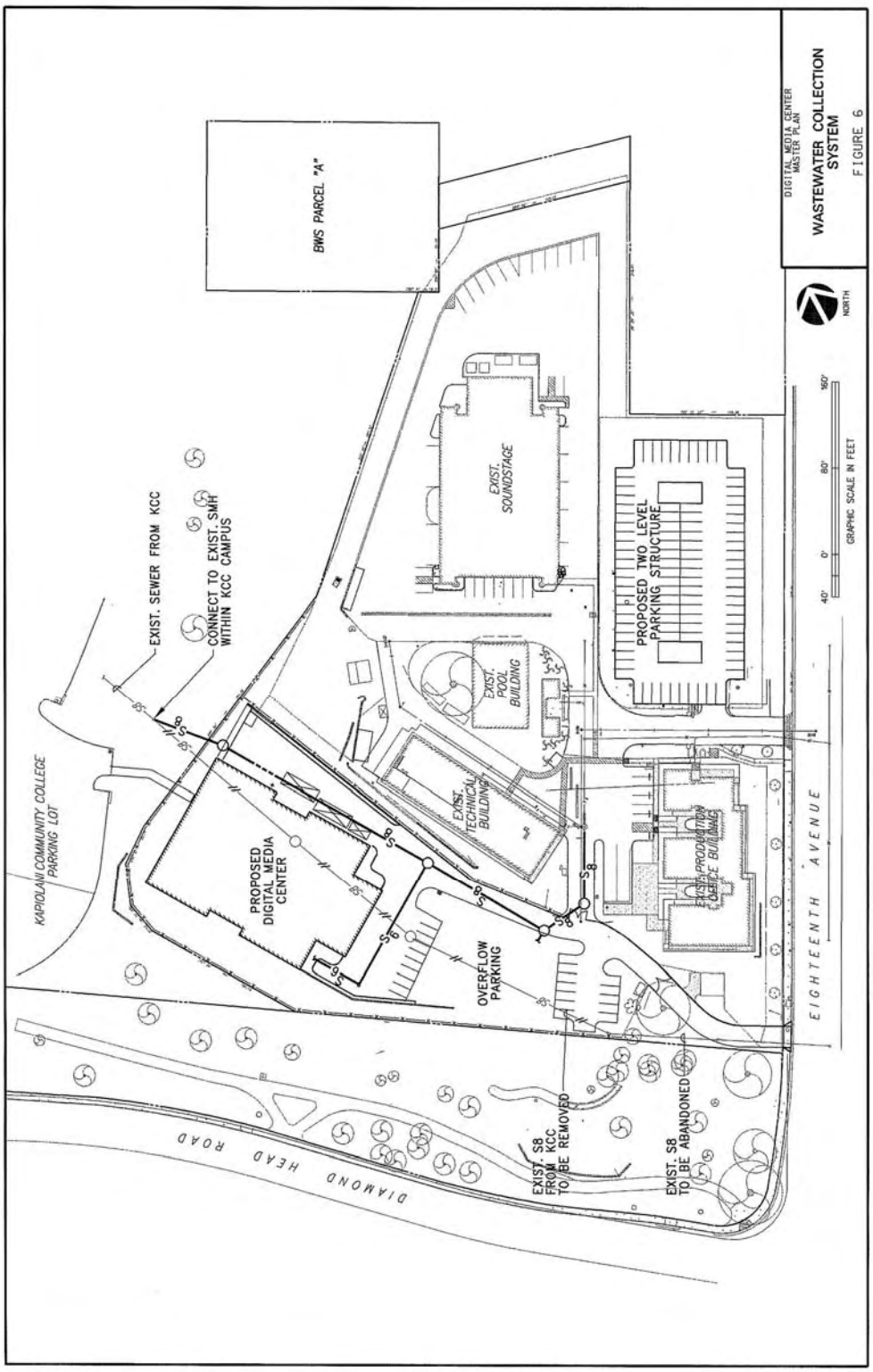

Figure 3-4 Wastewater Collection System

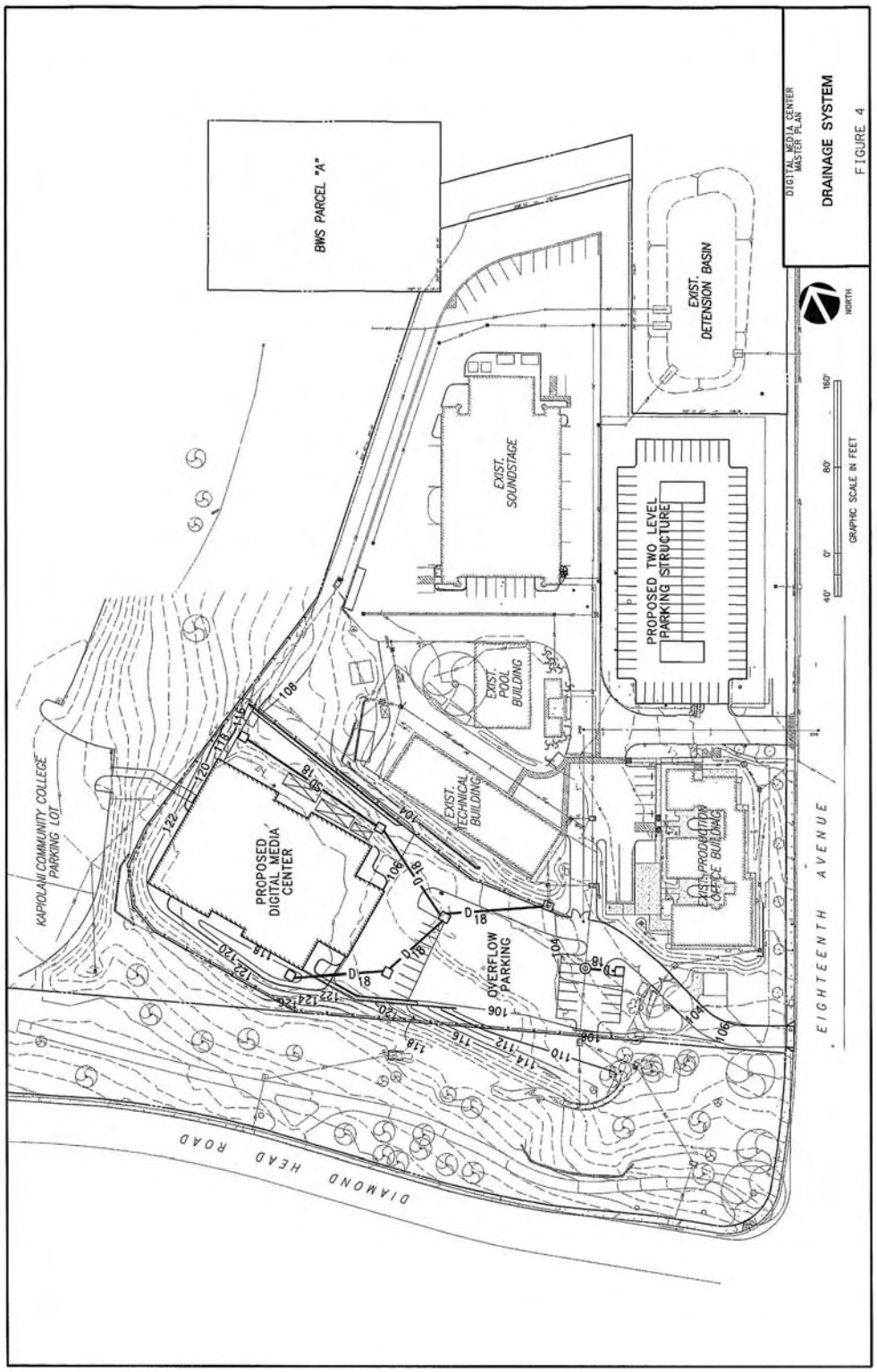

Figure 3-5 Drainage System

Offsite runoff from Diamond Head Road and a portion of Diamond Head (approximately 22.7 acres) discharges into the state-owned lands between the project site and Diamond Head Road. Drainage improvements described in the approved Drainage Report for the Proposed Hawai'i Film Studio, Renovations & Improvements (ECI, November 2004) have been constructed. Much of the offsite runoff has been captured through a pipe-inlet system and directed to the offsite detention basin via the drainage system in the film facility site. The remaining offsite runoff generated within the state-owned lands between the project site and Diamond Head Road flows overland into the project site and eventually enters the drainage system through existing inlets and catchbasins.

Probable Impacts and Mitigation Measures

The proposed improvements to accommodate the offsite runoff generated in the state-owned lands between the project site and Diamond Head Road include diverting the runoff to onsite inlets located south of the Film and Digital Media Center *(Figure 3-5).* Onsite runoff generated near the proposed Film and Digital Media Center will be collected in onsite inlets, slotted drain, and a catch basin. Onsite runoff generated from the proposed parking lot will be captured by a catch basin. The proposed drainage system will connect to the existing drainage system.

The onsite storm drainage system will be designed in accordance with the "Rules Relating to Storm Drainage Standards" of the Department of Planning and Permitting, City and County of Honolulu, January 2000. Based on the approved Drainage Report for Kapi'olani Community College Master Plan (Imata and Associates, Inc., April 1991), the offsite detention basin has sufficient capacity to accommodate the development of the project area.

No significant storm drainage impacts are anticipated.

3.9 HAZARDOUS WASTE

Existing Conditions

Hazardous waste is defined as having a chemical composition or containing other properties that make it capable of causing illness, death, or some other harm to humans and other life forms when mismanaged or released into the environment (EPA, 2005).

Hazardous materials are currently used on the project site in relationship to ongoing film operations, such as fluorescents, ballasts, latex paint, solvents, gas, oil, lubricants. These materials are appropriately stored in designated areas on the property and disposed of in accordance with applicable regulatory controls.

Anticipated Impacts and Mitigation Measures

No significant impacts related to hazardous waste from the construction of the project are anticipated. The existing Soundstage No. 1 was previously tested for asbestos. There was no evidence of asbestos in the building materials. However, prior to demolition of the soundstage, additional testing may be conducted for the project to identify any other possible recognized environmental conditions (RECs) within the building materials of the existing building. The term "REC" as defined by the American Society for Testing and Materials (ASTM) is the "presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or the material threat of a release of any hazardous substances or petroleum products into structures on the property or into the

ground, groundwater, or surface water of the property." As necessary, any additional studies will be prepared in conformance with procedural guidelines provided in ASTM E 1527-00, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment.

3.10 ELECTRICAL AND COMMUNICATIONS

Existing Conditions
Electrical service for the project area is provided by Hawaiian Electric Company (HECO). Hawaiian Telcom and Sprint provides telephone and long distance service.

Anticipated Impacts and Mitigation Measures
The proposed project will impact the demand for electrical and communication services, since the Existing Soundstage No. 1 is currently not being utilized. However, there is adequate capacity to support the project with building service improvements by the service providers.

Any necessary off-site improvements required to provide the additional services will be the responsibility of each service providers respectively. Required project connections to the services systems will be coordinated with the respective service providers to minimize any potential disruption of service on ~~campus~~ the Film Studio site or in adjacent areas to the campus.

3.11 TRAFFIC AND ROADWAYS

Access to the Hawai'i Film Studio is from the main entrance on 18th Avenue. A secondary access is provided by an existing driveway located in the southern corner of the site. This driveway to Soundstage No. 1 is approximately 15 ft. wide. A *Traffic Impact Assessment Report (TIAR)* for the proposed Film and Digital Media Center project was prepared by the Traffic Management Consultant (TMC) in February 2009 *(Appendix C)* to evaluate the potential impacts of the proposed project on existing roadways and traffic conditions.

The highway capacity analysis performed for the TIAR is based upon procedures presented in the Highway Capacity Manual (HCM) (2000), which is published by the Transportation Research Board. HCM defines Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream". Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. LOS's "A", "B", and "C" are considered satisfactory Levels of Service. LOS "D" is generally considered a minimum "acceptable" operating level of service. LOS "E" is an undesirable condition, and LOS "F" is an unacceptable condition.

"Volume-to-capacity" (v/c) ratio is another measure of effectiveness (MOE) indicating the relative traffic demand to the roadway's capacity. HCM defines capacity as "the maximum number of vehicles that can pass a given point during a specified period under prevailing roadway, traffic flow, and traffic control conditions." A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50 percent of the roadway's capacity.

The trip generation methodology is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in Trip Generation, 7th Edition. ITE trip rates for a junior/community college are developed by correlating the total vehicle trip

generation data with various activity/land use characteristics, such as the vehicle trips per hour (vph) per student.

Existing Conditions
The primary roadways that were evaluated in the study included the following:

- 18th Avenue is a two-way, two- to four-lane collector street between Diamond Head Road and Pahoa Avenue. The posted speed limit on 18th Avenue is 25 miles per hour (mph). 18th Avenue is stop-controlled at its Tee-intersection with Diamond Head Road. 18th Avenue is signalized at its intersection with Kīlauea Avenue.

- Diamond Head Road is a two-lane collector street on the ma uka (north) side of Diamond Head Crater. A left-turn lane is provided on eastbound Diamond Head Road at 18th Avenue.

- Kīlauea Avenue is a two-way two- to four-lane collector street between 6th Avenue and Wai'alae Avenue.

Manual traffic count surveys were conducted on 18th Avenue at its intersections with Kīlauea Avenue, Hawai'i Film Studio Driveway, and Diamond Head Road on Thursday, January 22, 2009, during the AM and PM peak periods of traffic from 6:30 AM to 8:30 AM and from 3:30 PM to 5:30 PM.

Existing A.M Peak Periods
The AM peak hour of traffic occurred between 7:15 AM and 8:15 AM. 18th Avenue carried between 700 vehicles per hour (vph) at Diamond Head Road, and 900 vph at Kīlauea Avenue, total for both directions. The existing Hawaii Film Studio Driveway carried a total of 26 vph, during the existing AM peak hour of traffic.

During the existing AM peak hour of traffic, the intersection of 18th Avenue and Kīlauea Avenue operated at LOS "C" with a v/c ratio of 0.92. Ma kai bound 18th Avenue operated at LOS "E". The other traffic movements at the intersection operated at satisfactory Levels of Service, i.e., LOS "C" or better.

18th Avenue operated at LOS "D" at Diamond Head Road, during the existing AM peak hour of traffic. The other traffic movements at the intersection operated at satisfactory Levels of Service.

The Hawaii Film Studio Driveway operated at LOS "C", during the existing AM peak hour of traffic.

Existing P.M. Peak Periods
The existing PM peak hour of traffic occurred between 4:15 PM and 5:15 PM. 18th Avenue carried between 600 vph and 700 vph, total for both directions. The existing Hawaii Film Studio Driveway carried a total of 28 vph, during the existing PM peak hour of traffic.

The intersection of 18th Avenue and Kīlauea Avenue operated at LOS "B" with a v/c ratio of 0.67, during the existing PM peak hour of traffic. All traffic movements at the intersection operated at satisfactory Levels of Service.

The left turn movement from 18th Avenue onto Diamond Head Road operated at LOS "E", during the existing PM peak hour of traffic. The other traffic movements at the intersection operated at satisfactory Levels of Service.

During the existing PM peak hour of traffic, the Hawaii Film Studio Driveway operated at LOS "B".

Anticipated Impacts and Mitigation Measures
Future primary access to the Film and Digital Media Center will be from the secondary access road. This driveway will be relocated slightly north so that it will be wholly contained within TMK: 3-1-042:009. Presently, the entrance of the driveway encroaches slightly into the adjacent parcel. The roadway width will be 20 feet to accommodate fire trucks. Curbs will be provided. The existing chain link fence enclosing the Production Office Building will be relocated to accommodate the new roadway and the affected portion of the wrought iron fence along 18th Avenue will be removed. The planning for this project will accommodate the proposed road widening of 18th Avenue.

For the projections of future traffic conditions, background growth in traffic was derived from the population forecast for Central O'ahu, which was published in the O'ahu Transportation Regional Plan 2030, prepared for the O'ahu Metropolitan Planning Organization (OMPO) in April 2006, and amended in May 2007. The population and employment of the Primary Urban Center of O'ahu are expected to increase by 15 percent and 12 percent over a 25-year period. For the purpose of this analysis, a background growth in traffic of 1.0 percent per year was assumed. A growth factor of 1.03 was uniformly applied to the existing peak hour traffic demands to estimate the Year 2012 peak hour traffic demands without the proposed project.

Year 2012 A.M. Peak Hour Traffic Analysis Without Project
The intersection of 18th Avenue and Kīlauea Avenue is expected to operate at LOS "C" with a v/c ratio of 0.91, during the AM peak hour of traffic without the proposed project. Ma kai bound 18th Avenue is expected to continue to operate at LOS "E". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the AM peak hour of traffic without the proposed project, the left-turn and right-turn movements from 18th Avenue onto Diamond Head Road are expected to operate at LOS "E" and LOS "D", respectively. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The Hawai'i Film Studio Driveway is expected to operate at LOS "C", during the AM peak hour of traffic without the proposed project.

Year 2012 P.M. Peak Hour Traffic Analysis Without Project
During the PM peak hour without the proposed project, the intersection of 18th Avenue and Kīlauea Avenue is expected to operate at LOS "B" with a v/c ratio of 0.69. All traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The left turn movement from 18th Avenue onto Diamond Head Road is expected to operate at LOS "E", during the PM peak hour of traffic without the proposed project. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the PM peak hour of traffic without the proposed project, the Hawaii Film Studio Driveway is expected to operate at LOS "B".

A.M. Peak Hour Traffic Analysis With Project
The trip generation characteristics of the proposed projects are based upon ITE trip rates typical for a junior/community college. Since the Film and Digital Media Center would have a high occupancy of 350 persons, the trip generation rates are considered to be conservative. The proposed Film and Digital Media Center is expected to generate a total of 143 vph, during the AM peak hour of traffic, 106 vph entering the site and 37 vph exiting the site. During the PM peak hour of traffic, the proposed development is expected to generate a total of 121 vph, 70 vph entering the site and 51 vph exiting the site.

During the AM peak hour of traffic with the proposed project, the intersection of 18th Avenue and Kīlauea Avenue is expected to operate at LOS "C" with a v/c ratio of 0.94. Ma kai bound 18th Avenue is expected to continue to operate at LOS "E". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

18th Avenue is expected to operate at LOS "E" at Diamond Head Road, during the AM peak hour of traffic with the proposed project. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service. The Hawai'i Film Studio Driveway and the Film and Digital Media Driveway are expected to operate at LOS "C", during the AM peak hour of traffic with the proposed project.

P.M. Peak Hour Traffic Analysis With Project
The intersection of 18th Avenue and Kīlauea Avenue is expected to operate at LOS "B" with a v/c ratio of 0.79, during the PM peak hour with the proposed project. All traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the PM peak hour of traffic with the proposed project, the left turn movement from 18th Avenue onto Diamond Head Road is expected to operate at LOS "F". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The Hawaii Film Studio and the Film and Digital Media Center Driveways are expected to operate at LOS "B".

Recommendations
The left turn movement from 18th Avenue onto Diamond Head Road currently operates at peak periods at minimal acceptable level (LOS "D") to an undesirable level (LOS "E"). Future projections of this intersection without the project anticipate that the intersection with operate at an undesirable level (LOS "E"). Future projections with the project without improvements made anticipate that the intersection would operation between an undesirable level (LOS "E") to an unacceptable level ("F").

The TIAR provides for two recommended improvements to address the anticipated impact:

1. The east leg of Diamond Head Road should be restriped to provide a median shelter lane to facilitate the left-turn movement from 18th Avenue.

2. The sight distance to the right of the proposed Film and Digital Media Center driveway at 18th Avenue is limited by the distance between the driveway and Diamond Head Road. The proposed Driveway should be located a minimum of 155 feet from Diamond Head Road to provide adequate stopping sight distance at 25 miles per hour posted speed.

The proposed median shelter lane on Diamond Head Road is expected to improve the traffic operations of the left-turn movement on ma kai bound 18th Avenue to LOS "C" and LOS "D", during the AM and PM peak hours of traffic with the proposed project, respectively.

With the implementation of the traffic improvements recommended, the trips generated by the proposed Film and Digital Media Center are not expected to significantly impact traffic in the study area.

3.12 PARKING & LOADING

Existing Conditions

The Hawai'i Film Studio lot currently has 151 parking stalls on-site. Parking is located in various areas around Studio lot. The parking structure located at the northeast end of the Film Studio lot provides the most parking for the area. Other stalls are located in areas surrounding the Existing Soundstage No. 2, below the existing office buildings labeled A, B, C and D, and near the office building at the southeast corner of the lot. There are 17 parking stalls currently located within the proposed project area. This existing lower parking lot extends beyond the property line onto adjoining State lands not under DBEDT.

The encroaching existing lower parking lot will be removed and additional parking required by the development of the Film and Digital Media Center will be accommodated through the planned construction of a 2-story parking structure at the site of the existing 100-stall parking lot on the Film Studio lot. Additionally, the realignment of the upper and lower parking lots ~~will also ensure adequate~~ near the portable buildings, which are scheduled for demolition and removal, will ensure adequate parking is provided on the site.

During high peak usage of the Studio lot, there are situations of overflow parking that require the use of off-site areas. For example, production operations for LOST currently have a Special Use Permit from DLNR-Division of State Parks for overflow parking, which is provided on the outside of Diamond Head Monument. This overflow parking is a temporary parking situation until the State Parks begins work on its Linear Park.

As available, on-site parking on the Studio lot is made available to the operations of Diamond Head Mortuary when large funerals result in an overflow demand for their operations.

Loading spaces are currently provided in two areas on the Studio lot. The first area provides 3 loading stalls between the Office Building and the Technical Building. The second area provides 2 stalls next to Soundstage No. 2 and adjacent to the existing Pool Building.

Probable Impacts and Mitigation Measures

The Film and Digital Media Center will require additional parking to be provided on-site. Plans call for the realignment of the lower parking lot to ensure the future lot is within the property. The realignment will result in the loss of space for parking. However, there will be new additional parking provided near the Film and Digital Media Center.

Remaining parking needs will be absorbed by the planned construction of the two-level parking structure, which was part of an approved environmental review for proposed improvements for the Film Studio in 1989. Overall, the total number of stalls provided (~~259~~ 250 stalls) will exceed the total number of stalls required ~~(212)~~ (176), yielding a net of ~~47~~ 74 stalls over the necessary amount required. *Table 3-1* provides a detailed breakdown of the parking for the proposed project.

While the proposed project design currently meets parking required by the Land Use Ordinance, an additional parking area will also be provided where existing buildings A, B, C and D will be demolished. The area will be kept as open space and landscaped with grasscrete for use as overflow parking. This will help to diminish future needs ~~to use~~ for off-site areas ~~for~~ to meet overflow demand. The additional parking in the Film Studio lot will also be provided for the continued use of Diamond Head Mortuary when needed and available.

ADA stalls for handicapped users is and will continue to be provided on the project site. ADA parking will be provided for the new Film and Digital Media Center facility.

During construction, there will be minor impacts to parking. However, appropriate mitigation measures will be carried out to minimize any disruption to parking and traffic flow within the project site. No mitigation measures are required for the parking related to the Film and Digital Media Center project once construction of the project is completed.

Table 3-1 (REVISED)
Proposed Parking for the Film and Digital Media Center

	Required Parking for Existing Site (LUO)	Provided Parking for Existing Site	Required Parking with Proposed Project (LUO)	Provided Parking with Proposed Project
Hawai'i Film Studio Lot	123	151	82	139
Proposed Film and Digital Media Center	0	0	94	111
Total	**123**	**151**	**176**	**250**

~~Table 3-1 DELETED~~
~~Proposed Parking for the Film and Digital Media Center~~

	~~Required Parking~~	~~Provided Parking~~
~~Hawai'i Film Studio Lot~~	~~123 stalls~~	~~151 stalls~~
~~Film and Digital Media Center~~	~~89 stalls~~	~~108 stalls (Proposed)~~
~~**Total**~~	~~**212**~~	~~**259**~~

Future loading demand will be maintained by existing areas and will include additional space adjacent to the new Film and Digital Media Center.

3.13 SOCIO-ECONOMIC CHARACTERISTICS

Existing Conditions
The project site is located in the Kaimukī community at the foot of Diamond Head State monument. The adjacent residential communities are stable neighborhoods and large single-family residences. The area is generally considered a very desirable place to live, and home values are above market averages. Diamond Head is considered an affluent neighborhood where residents living near – to Waikiki, a world-renowned visitor destination.

The existing Film Studio has been a major economic force for the City and County of Honolulu and the State as a whole. According to the State Department of Business, Economic Development, and Tourism report, The Creative Industry in Hawai'i (2007), the motion picture and sound recording industries had an output of approximately $180 million and earnings of approximately $55 million in 2005. In addition to generating revenues that benefit and diversify the State's economic base, the motion picture and sound recording industry also provides over 2,000 jobs.

The most recent film productions that have taken place within the State of Hawai'i are Lost (Touchstone TV), Tropic Thunder (Dreamworks), Forgetting Sarah Marshall (Universal), ~~and~~ Pirates of the Caribbean: At World's End (Disney), and Indiana Jones and the Kingdom of the Crystal Skull (Paramount). These productions contributed to a record year of revenue in 2003 with $229 million in direct expenditures in Hawai'i.

Anticipated Impacts and Mitigation Measures
Development of the Film Studio lot with the Film and Digital Media Center project is not expected to adversely impact property values in the area. Past developments have had no measurable negative impact on property values.

The proposed project may have some impacts on the existing use of the Hawai'i Film Studio. The Hawai'i Film Studio is the only one of its kind in the State, there are no alternative studios located elsewhere. Existing and future users of the Studio may be impacted by the development of the proposed project. The Existing Soundstage No. 1 is currently utilized for scenic prop storage for film and production crews. The development of the Film and Digital Media Center would eliminate the use of this area as storage space and may impact the State's ability to market the Hawai'i Film Studio and attract production.

However, this potential negative impact may be offset by the positive impacts the proposed project would bring to the State and its creative industry sector. The Film and Digital Media Center will attract new business opportunities as an incubator and thereby provide increased and new employment opportunities in Hawai'i's digital media and film industry. With state-of-the-art technology, a focus on business development, and providing an educational venue, the Film and Digital Media Center will encourage new entrepreneurial ventures and investment in the development of the State's creative industry.

The project also will create short-term economic benefits as a result of design and construction employment. Upon completion, the proposed improvement will have beneficial long-term social and economic impacts including increased opportunities for the University to provide an enhanced educational opportunity through a digital high-tech media program. ~~In addition, the~~

~~project will provide increased employment opportunities in the creative industry division by enabling entrepreneurial ventures in media. No specific socio-economic mitigation actions are recommended.~~

As the proposed project proceeds, anticipated impacts and uses of the Film Studio will be discussed and coordinated with existing tenants and the Department of Business, Economic Development and Tourism, Hawai'i Film Studio Office.

3.14 PUBLIC FACILITIES AND SERVICES

This section discusses the project's probable impact on public facilities and services of the project site and surrounding area.

3.14.1 Educational Facilities

Existing Conditions
KCC, an element of the University of Hawai'i (UH) System, is located immediately adjacent to the project site. Mānoa Campus is the flagship of UH and is located approximately 2 miles away from the project site. A number of other public and private elementary, middle and high schools are located throughout the neighboring communities.

Anticipated Impacts and Mitigation Measures
The Film and Digital Media Center would include an affiliated program for the University, providing college level educational opportunities to students interested in pursuing various programs in film and digital media. While no adverse educational impacts are anticipated, numerous beneficial impacts including a trained local workforce and increased employment opportunities are expected to result from the project.

3.14.2 Police

Existing Conditions
The project site is located in District 7 of the Honolulu Police Department, and is served from the main police station on Beretania Street. A security guard service provides additional protection to the Film Studio when required by tenant use of the site.

Anticipated Impacts and Mitigation Measures
This project should have only a limited and minimal impact on the police department's operations or ability to provide adequate protection services to the surrounding community. District 7 police protection, combined with on-site private security guards, should be adequate for the proposed project. No adverse impacts or mitigation have been specified.

3.14.3 Fire

Existing Conditions
Primary fire protection to the Film Studio is provided by fire stations located in both Waikīkī and Kaimukī, each approximately 3 – 5 minutes away from the site.

Anticipated Impacts and Mitigation Measures
This project is expected to have minimal impact on the Fire Department's operations or ability to provide fire protection services to the project area and surrounding community. The planned structures will be designed to meet fire and building code requirements. This will include providing necessary hydrants and meeting fire flow requirements for water system improvements. Appropriate design plans will also be coordinated with the Fire Department for their review during the project's design phase.

3.14.4 Medical Emergencies

Existing Conditions
Numerous major hospitals and clinics are in relative proximity to the Film Studio site. Prompt attention is available to patients in medical emergencies. The nearest emergency hospital, Kapiʻolani Medical Center is located approximately 3.9 miles from the project site taking an average response time of 8-10 minutes.

Anticipated Impacts and Mitigation Measures
The proposed project will not impact the handling of medical emergencies. The Kapiʻolani Medical Center will continue to function in its present locations and will be accessible to the Film Studio site. No mitigation is proposed.

3.14.5 Solid Waste Management

Existing Conditions
Solid waste is collected in a standard commercial bin that is hauled away by private contractors one time per week. The Film and Digital Media Center project will generate additional solid waste; however, recycling efforts will be made as programs have been implemented on the project site.

Anticipated Impacts and Mitigation Measures
Additional trash bins will be provided for the Film and Digital Media Center to accommodate increased use. No mitigation is proposed but recycling programs should reduce overall levels of generation.

3.14.6 Accessibility for Persons with Disabilities

Existing Conditions
The project site currently complies with existing Americans with Disability of Act (ADA) standards. The project will create accessible routes that connect to all parts of the new Film and Digital Media Center.

Anticipated Impacts and Mitigation Measures
During construction, temporary ADA accessibility will not be required as the project area is not located near other buildings that require accessibility. Existing ADA parking stalls in the project site will be minimally impacted during construction; however, the remaining ADA stalls located on the Hawaiʻi Film Studio lot will be maintained. The project will be in conformance with the provisions of the ADA Act, which been incorporated into the City's Building Code. Project design will include parking and elevators for individuals requiring assistance to access the building.

3.14.7 Public Transportation Services

Existing Conditions
The only existing public transportation system accessible to the project site is the City's The Bus system. Bus routes that service this area are Route No. 3, 22, and 23.

Anticipated Impacts and Mitigation Measures
Impacts to public transportation services are not anticipated or very minimal since it is likely that most users of the Film and Digital Media Center, including students and digital media companies, will be driving to the site.

The Film and Digital Media Center will not be used by all students enrolled with the University. Use of the facility will be dependent upon a student's focus within applicable programs. Digital media companies and executives who will be using the Film and Digital Media Center as a digital media incubator will likely use large size of vehicles to transport equipment and other materials required for production and film projects. It would be difficult to transport this type of equipment using public transportation.

There are no anticipated adverse impacts, therefore no mitigation is proposed.

3.15 ARCHAEOLOGICAL RESOURCES

Existing Conditions
As the proposed Film and Digital Media Center project is classified as a "state project", it is subject to a historic preservation review process under the auspices of Hawai'i Revised Statutes, §6E-8. Under §6E-8(a), before the state can commence with this project, it needs to afford the State of Hawai'i, Department of Land and Natural Resources, State Historic Preservation Division (SHPD) an opportunity to review the effect of Film and Digital Media Center project on known or potential historic properties.

In December 2008, an ~~*Archaeological Literature Review and Field Inspection*~~ *Archaeological Assessment Report for the Proposed Diamond Head Media Center* project was completed by Cultural Surveys Hawai'i (CSH). This study was designed to address archaeological site types and locations and to provide for future recommendations for archaeological work to be completed. The goal was to identify, if possible, a comprehensive report of known cultural resources and historic properties and to provide recommendations as related to the State of Hawai'i's historic review process. The submittal and study are included as *Appendix D* in this EA.

The findings of this study identified several past studies around and within the boundaries of the Film Studio Site.

Previous Archaeological Research in the Vicinity
Previous archaeological projects around Diamond Head are shown on *Figure 3-6* and summarized in *Table 3-2*. Numerous pre-contact and post-contact burials have been found in sand deposits along the Waikīkī and Wai'alae coasts. However, no pre-contact Hawaiian structures, subsurface remains, or burials have been found during modern archaeological surveys within Diamond Head Crater or on the northern slope, facing the study parcel.

Archaeological surveys have been carried out within the Fort Ruger Historic District and the Diamond Head Monument. These surveys have found numerous structures and artifacts associated with the Fort Ruger Military Reservation, which was established in 1901. Although the Kapiʻolani Community College parcel, including the subject property, was once a part of Fort Ruger, used for soldier's barracks and officer's quarters, it is outside the boundary of the Fort Ruger Historic District and the boundary of Diamond Head Monument Park.

Previous Study in the Project Area

The issue of potential cultural resources in the project area has been addressed in two prior Environmental Impact Statements (for the Kapiʻolani Community College Master Plan in 1981 and for the Hawaiʻi Film Facility Expansion in 1989). A *Hawaiʻi Film Facility Environmental Impact Statement* prepared by the State of Hawaiʻi Department of Accounting & General Services (Hawaiʻi DAGS) in August 1989 asserted the following:

An historic sites survey was conducted in 1981 on the entire KCC area for the KCC Master Plan EIS. The project site was included in this survey. The only historical sites were 5 existing wooden buildings being considered at that time for the Hawaiʻi Register of Historical Places but were never registered. The buildings are all on the KCC site and no sites of historical or archaeological significance are indicated for the proposed film facility project site. (Hawaiʻi DAGS 1989:58, 62). Like the earlier (1981 KCC) EIS, the 1989 film facility project site EIS concluded that: The proposed film facility is not likely to impact any historical or archaeological resources in the project site since it is not probable that any archaeological remains have survived in this area. (Hawaiʻi DAGS 1989:62)

Results of Archaeological Assessment ~~Field Inspection~~

A field inspection was conducted by archaeologist David W. Shideler, M.A., under the general supervision of Dr. Hallett H. Hammatt, on December 22, 2008. The field inspection consisted of a walk-through of open areas around the existing buildings on the project site, accompanied by Ms. Tammy Hasegawa of the State of Hawaiʻi, Hawaiʻi Film Studio.

The Existing Soundstage No. 1 has the appearance of a large pre-fabricated warehouse that covers as much as one-third of the project area. In walking around the northeast and northwest sides of this structure, there is a marked two to three meter deep artificial cut in the natural slope to create a level area for the development of the soundstage. This substantial cut was observed to continue to the southeast of the project area. The southern portion of the project area is dominated by small wooden structures (referred to as houses) that were transported to the facility from elsewhere circa 1990. No traditional Hawaiian structures or historic (pre-1958) buildings were noted or are believed to be present, as the original soundstage was built around 1975. The project area was noted to have been largely graded, to as much as three meters or more in some areas, to create level areas for construction.

Figure 3-6 U. S. Geographic Survey Map, Showing Location of Previous Archaeological Projects

Table 3-2
Archaeological Research near Diamond Head

Source	Type of Investigation	General Location	Findings
McAllister 1933	Island Survey	O'ahu Island	Identifies Site 58: Papa'ena'ena Heiau
Griffin and Yent 1978	Archaeological Reconnaissance Survey	Diamond Head (comfort station and trail)	No traditional Hawaiian sites were located; two concrete foundations of probable World War II origin were found downslope of the trail.
McMahon 1988	Archaeological Reconnaissance Survey	Diamond Head (northeastern base)	Only the remains of military activity related to Fort Ruger Military Reservation were documented.
Bordner 1990	Archaeological Monitoring	Diamond Head Road	No archaeological deposits documented.
Mullins et al. 1992	Archaeological Monitoring	Diamond Head Lighthouse	No evidence of pre-contact occupation on the parcel. Sparse artifacts dating from the late 1800s to early 1900s was documented.
Allen & Shideler 1996	Literature Research	Battery Harlow	Report summarizes environmental data, discusses pre- and post-contact land uses in the Diamond head area, and outlines construction history of Fort Ruger; with limited field inspection.
Tomonari-Tuggle & Blankfein 1997	Archaeological and Historical Assessment	Diamond Head	Report indicated that there is little likelihood of any cultural remains on the parcel.
Tomonari-Tuggle & Blankfein 1998	Historical Research and Archaeological Assessment	Diamond Head State Monument	Report documents a thorough literature review of Diamond Head, as well as a reconnaissance survey of the area.
Jones and Hammatt 2003	Archaeological Monitoring	Black Point	No cultural remains found, but excavations indicating that strata of undisturbed sand may be present below fill layers

Anticipated Impacts and Mitigation Measures
No archaeological sites are within or near the vicinity to the proposed Film and Digital Media Center project. Further, there are no surface archaeological features or sites within the property.

The project area is within a section of Waikīkī, inland of the coastal area, separated from the many fishponds and other coastal resources, and distant from the densely inhabited coastal areas. The lack of water and the dry conditions did not make the project area a favorable area for habitation or cultivation. The parcel was developed into a support area for the U.S. Military Reservation Fort Ruger where tents and temporary structures were replaced with barracks, officer's quarters, warehouses, and other structures. Many of these structures were demolished

after World War II, when the base became the headquarters for the Hawai'i National Guard. In 1975, the army turned over the 52-acre barracks area for the establishment Kapi'olani Community College campus. In the mid-1970s, a 7.5 acre portion of the lot was developed into a film studio, where such television shows such as Hawai'i Five-O, Magnum P.I., and Lost have been produced.

A historic sites survey was conducted in 1981 on the 52-acre Kapi'olani Community College Campus as part of the Master Plan of the Environment Impact Statement (Hawai'i. DAGS 1981). Five buildings related to Fort Ruger were reported on the campus; none of these buildings is on the Hawai'i Film Studio portion of the lot. The five buildings are not included in the description for the Fort Ruger Historic District, which was listed on the National Register of Historic Places in 1983. Two of the buildings have subsequently been demolished.

A 1981 surface survey was also previously completed for the study area and a recent field inspection was completed in December 2008. Additionally, in 1989, the Environmental Impact Statement for the Hawai'i Film Facility Expansion (Hawai'i DAGS 1989) was completed. The report stated that: "The proposed facility is not likely to impact any historical or archaeological resources in the project site since it is not probable that any archaeological remains have survived in this area."

Much of the land surface has been graded to a depth as much as three meters in the west corner of the project area to create a level surface for the soundstage. No traditional Hawaiian or military structures were found. The probability for sub-surface remains, such as pre-contact Hawaiian habitation cultural deposits, agricultural soils, and /or burials is very low. Scattered artifacts associated with Fort Ruger may be present, but significant concentrations of artifacts are unlikely.

In 2005, SHPD was consulted and concurrence given to conduct a photo documentation as a way to mitigate the impacts of the demolition and renovation of Soundstage No. 1. It is recommended that no additional archaeological field work is necessary for the Film and Digital Media Center Project and that the proposed re-development of the area where the existing building is located will have "no effect" on cultural resources. However, the possibility always exists that archaeological or historical remains will be found during the construction phase. As a standard contracting procedure, contractors working in the project area will be advised that, should any significant cultural deposits or human skeletal remain area be encountered, work shall stop in the immediate vicinity and the State Historic Preservation Division of DLNR shall be promptly contacted to determine the appropriate course of action.

3.16 CULTURAL PRACTICES AND RESOURCES

Existing Conditions

An ~~*Interim*~~ *Final Report Cultural Impact Assessment for the Proposed Diamond Head Digital Media Center* was completed by Cultural Surveys Hawai'i, Inc. (CSH, ~~February~~ March 2009) for the proposed project area and is included as *Appendix E*. For this study, the Area of Potential Effect (APE) consisted of the project area in the context of the Pālolo Ahupua'a and other places on O'ahu that may be traditionally associated or connected with Pālolo and/or the project area.

The project requires compliance with the State of Hawai'i environmental review process under Chapter 343, HRS, which requires consideration of a proposed project's effect on traditional

cultural practices. Through document research and cultural consultation efforts, the report provided preliminary information that was applicable to the assessment of the Film and Digital Media Center project and its potential impacts to cultural practices.

Hawaiian organizations, agencies and community members have been and continue to be contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the vicinity. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the O'ahu Island Burial Council (OIBC), Hui Mālama I Na Kūpuna 'O Hawai'i Nei, and community and cultural organizations in the Kaimukī/ Kapahulu area.

As pertinent to the Film and Digital Media Center project area and planned programmatic objectives and outreach outcomes, the noteworthy findings and applicable recommendations from this study include the following:

(1) The project area is within a section of Waikīkī, inland of the coastal area with its extensive swamp land used to grow wetland taro, separated from the many fishponds and other coastal resources, and distant from the densely inhabited areas near the coast. The lack of water and the dry conditions did not make the project area a favorable area for habitation or cultivation.

(2) Several burial sites have been identified in the Kāhala area, east of Black Point and the current study area. Most of these have been inadvertent discoveries during construction activities in sand deposits. Numerous burials have also been recorded during archaeological surveys and monitoring projects in Waikīkī shore, as the beach dunes were a common place for Hawaiians to bury their dead. The use of sand areas for cemeteries continued into the twentieth century. There are some early documents that claim the victims of the sacrificial heiau on Diamond Head were buried or discarded within or near the Crater, but there has never been any archaeological confirmation for this claim. There are no indications that the present study area was ever used for pre-Contact or post-Contact burials.

(3) Five heiau (temples) are associated with Diamond Head and are located within and along the base of the Crater: Papa'ena'ena, (also called Lē'ahi Heiau), Kapua, Kūpalaha, Makahuna and Ahi. All of these heiau are believed to have been completely destroyed. No heiau were located on the southern slope of Diamond Head. Kukuionapeha Heiau was located on Pu'u o Kaimukī (the site of the old signal station).

(4) The study area is rich in place names, wahi pana (legendary or storied places) and associated mo'olelo (oral histories). Mo'olelo, 'ōlelo no'eau (proverbs) and oli (chants) focus on the exploits of Pele, the goddess of volcanoes and her beloved sister, Hi'iaka, the pig-god Kamapua'a in relation to Lē'ahi Crater, origin stories about the names of Kaimukī, Kapahulu and more. Many stories are associated with heiau in proximity to the project area, some of which are luakini or sacrificial sites, one heiau is dedicated to the gods Kāne and Kanaloa.

(5) In the mid-nineteenth century, the study area was used mainly as cattle pasture. In 1906, the study parcel was developed into a support area for the U.S. military Fort Ruger. Many of the Fort Ruger structures were demolished after World War II, when the base

became the headquarters for the Hawai'i National Guard. The army turned over the former barracks 52-acre area in 1975 for the establishment of the KCC campus.

(6) Community consultation conducted for the study included a total of 14 community contacts (government agency or Hawaiian cultural community organization representatives, or individuals such as long-time area residents and cultural practitioners) for commentary or an interview. Six people responded; and 2 kūpuna (elders) and/or kama'āina (native born) were interviewed for a more in-depth contribution.

The results of the cultural consultation found 2 respondents (SHPD and one community consultant) were concerned about the possibility of inadvertent discoveries of Hawaiian artifacts or iwi (human remains) during the construction phase of the proposed Film and Digital Media Center project. However, this concern that is one common to any proposed development on the island as the potential for unknown discoveries always exist. The history of the project area does suggest that the potential for such discoveries in this area is minimal.

Anticipated Impacts and Mitigation Measures

~~Based on available information, including~~ Background research and ~~preliminary~~ community consultation, ~~research~~ indicates that the proposed project will have minimal to no impacts to Hawaiian ~~culture~~ cultural beliefs, practices, resources (historic and/or cultural properties) sites, and traditions. ~~No mitigation is required.~~ It is recommended that project personnel be alerted as to the potential for inadvertent cultural finds. If iwi or cultural resources are found during the ground disturbance and construction phases of this proposed project, cultural and lineal descendants of the area and appropriate agencies (e.g., , OHA, OIBC) will be notified and consulted in regard to preparation of appropriate mitigation plans, including a burial treatment plan.

~~The findings of the ongoing community consultation effort as well as an assessment of potential cultural impacts and recommended mitigation measures will be presented in the final Cultural Impact Assessment and the Final EA.~~

3.17 VISUAL RESOURCES

Existing Conditions

The project site is located in Kaimukī, on the north/back side of Diamond Head Crater. Public Facility uses are located adjacent to the site on two sides, including KCC to the west and the Hawai'i Film Studio to the north. Open space exists to the south and east of the proposed location of the Film and Digital Media Center. *Figure 1-1* provides an aerial perspective of the general area.

The project site is located within the Diamond Head Special District, which was established to preserve existing prominent public views and the natural appearance of Diamond Head by modifying construction projects that would diminish these resources, and to preserve and enhance the park-like character of the immediate slopes of the Diamond Head monument that includes Kapi'olani Park.

The site of the proposed Film and Digital Media Center, which presently is occupied by Soundstage No. 1 of the Hawai'i Film Studio, is visible between trees and landscaping on the ma uka side of Diamond Head Road, when the viewer is looking away from Diamond Head itself. This site is shielded from view by either topography, vegetation or other structures when seen from the various prominent public vantage points identified in the City and County of Honolulu's Land Use Ordinance that establishes the Diamond Head Special District (Section 21-9.40). The accompanying view analysis provides visual perspectives of the existing conditions of the project site, and particularly from the prominent vantage point of 18th Avenue from Kīlauea Avenue to Diamond Head Road.

Figure 3-7 is an aerial photo with a key to photos that show views and existing land uses. The existing uses surrounding the site consist of the KCC campus, Diamond Head Memorial Park and Mortuary, residential areas, and roadways (*Figure 3-7a through 3-7n*). Views from KCC campus located north of the project site show grassy areas, roadways, and the Existing Soundstage No. 1 on the Film Studio site (*Figure 3-7a*). The Diamond Head Memorial Park and Mortuary located to the east of the project site display views of the Hawai'i Film Studio, 18th Avenue, and Diamond Head Crater (*Figure 3-7g and 3-7h*). From residential areas off of 18th Avenue located east of the project existing views are mostly of open space with the Hawai'i Film Studio lot in the distant background (*Figure 3-j*). Some views of Diamond Head can also be seen from this area. Views from residential areas off of Kīlauea Avenue located to the southeast of the project site consist of the Diamond Head Crater, KCC campus, roadways and grassy open areas (*Figure 3-7l and 3-7m*).

The roadways located in the surrounding area of the project site are considered public streets having prominent public vantage points. Diamond Head Special District has designated 18th Avenue from Kīlauea Avenue to Diamond Head Avenue as providing significant views of Diamond Head. Most of the photos used for the view analysis provide views of the project site from these roadways (*Figure 3-7a through 3-7n*). Views from 18th Avenue towards Diamond Head Road display Diamond Head Crater and vegetated streetscapes. Views from 18th Avenue directed west and southwest reveal the existing project site and the KCC campus among large trees and surrounding vegetation. From Kīlauea Avenue, towards Diamond Head Road, views consist of the KCC campus, Diamond Head Crater, and grassy roadway areas. Southern views from Diamond Head Road display the large Diamond Head Crater and grassy open space areas. Views from Diamond Head Road towards Kīlauea Avenue and 18th Avenue display the project site, KCC campus, and neighboring residential areas.

Views of the existing project site and Hawai'i Film Studio lot from the adjacent land uses described above are minimal. The project area is located at the foot of Diamond Head Crater and is surrounded by landscaping and lush vegetated buffers that minimize its visual appearance in the area. Ocean views are not available from the project site or its surrounding areas.

Anticipated Impacts and Mitigation Measures

As indicated above, the project site is largely shielded from public view, and is visible from selected vicinities from Diamond Head Road. Additionally, the existing blocky steel shed structure occupying the site would be removed to make way for the proposed Film and Digital Media Center structure. *Figure 3-8 and 3-9* presents two digital renderings of how the proposed structure will look from Diamond Head Road once constructed. The conceptual renderings show that proposed Film and Digital Media Center will appropriately replace the Existing

Soundstage No. 1 and will not impact existing views. In fact, the center design proposes to use a flat roof line instead of a pitched roof line like the existing soundstage, and may improve scenic views in the overall area.

Figure 3-10 provides Site Sections showing that much of the proposed structure will be located ~~underground or~~ below ~~ground~~ grade and thus not visible from any public perspective. In this figure, the outline of the Existing Soundstage No.1 has been superimposed by shading upon the proposed structure. The height of the proposed structure is similar to the existing soundstage. While the actual width of the proposed structure may be slightly larger, no prominent views will be impacted.

The proposed Film and Digital Media Center will conform to the 25 foot height limit of the Diamond Head Special Design district, and as depicted in Site Section B, its maximum height will be slightly lower than the existing Soundstage from certain perspectives. Landscaping will be used to improve the visual character of the project site from pedestrian and roadway perspectives along Diamond Head Road. Additionally, the closest distance between the sidewalk path fronting Diamond Head Road and the proposed structure is approximately 100 feet, with much of the intervening area landscaped with large trees. The new parking structure will be effectively screened using landscaping and building enclosures. The proposed Film and Digital Media Center and parking garage facilities will not be visible to viewers looking at Diamond Head.

The proposed Film and Digital Media Center project will meet the design controls established by the Diamond Head Special District. Prominent public vantage points will be maintained and the natural appearance of Diamond Head will be preserved. Specifically, impacts to the vantage point from 18th Avenue and Kīlauea Avenue to Diamond Head will be minimal and not significant. Accordingly, significant adverse impacts on visual resources are not anticipated.

3.18 POTENTIAL CUMULATIVE AND SECONDARY IMPACTS

Cumulative effects are impacts, which result from the incremental effects of an activity when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertake such other actions. The existing master plan and SMA approved for the site shows a major building for the site and is largely consistent with prior approvals for the site.

The Film and Digital Media Center will help to improve the State's available digital high-tech resources by providing an incubation space to be used as a venue for business media production, thereby supporting free enterprise and the expansion of existing creative media industries in the state. The project will also support the educational resources available to the University and will provide increased opportunities for students to prepare careers in film and creative media.

Construction activity during the proposed project may generate direct employment as well as indirect and induced employment in construction-related industries. For long-term operations, the new building may require additional employees, including faculty and staff, as well as additional goods and services from related businesses.

Figure 3-7 View Analysis Photo Key

Figure 3-7a View from Kapi'olani Community College

Figure 3-7b View from Diamond Head Road towards the Project Site

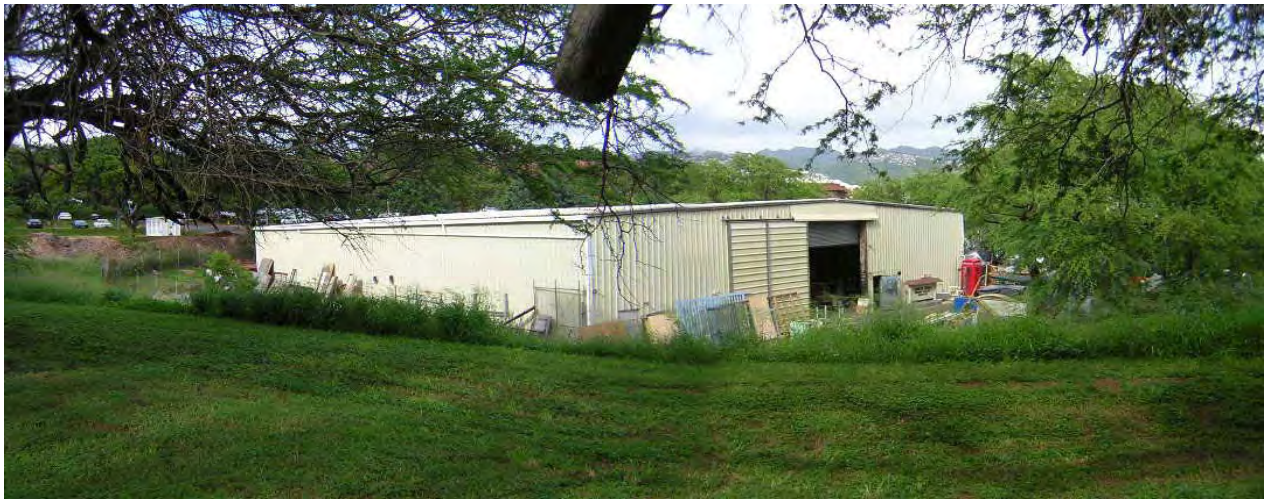

Figure 3-7c View Near Diamond Head Road Looking North

Figure 3-7d View from Diamond Head Road and 18th Avenue

Figure 3-7e View from 18th Avenue Looking West

Figure 3-7f View from Diamond Head Mortuary Looking West

Figure 3-7g View from Diamond Head Mortuary to the Project Site

Figure 3-7h View from 18th Avenue Looking West Towards the Hawai'i Film Studio

Figure 3-7i View from Residential Areas Off of 18th Avenue

Figure 3-7j View from Residential Areas Off of 18th Avenue Looking West

Figure 3-7k View from 18th Avenue Looking Southwest

Figure 3-7l View from Residential Areas near 18th Avenue and Kīlauea Avenue

Figure 3-7m View from 18th Avenue and Kīlauea Avenue to Diamond Head Road

Figure 3-7n View from Kīlauea Avenue Southwest to Diamond Head Road

Figure 3-8 Existing and Proposed Perspective Rendering – View A from Diamond Head Road

Figure 3-9 Existing and Proposed Perspective Rendering – View B from Diamond Head Road

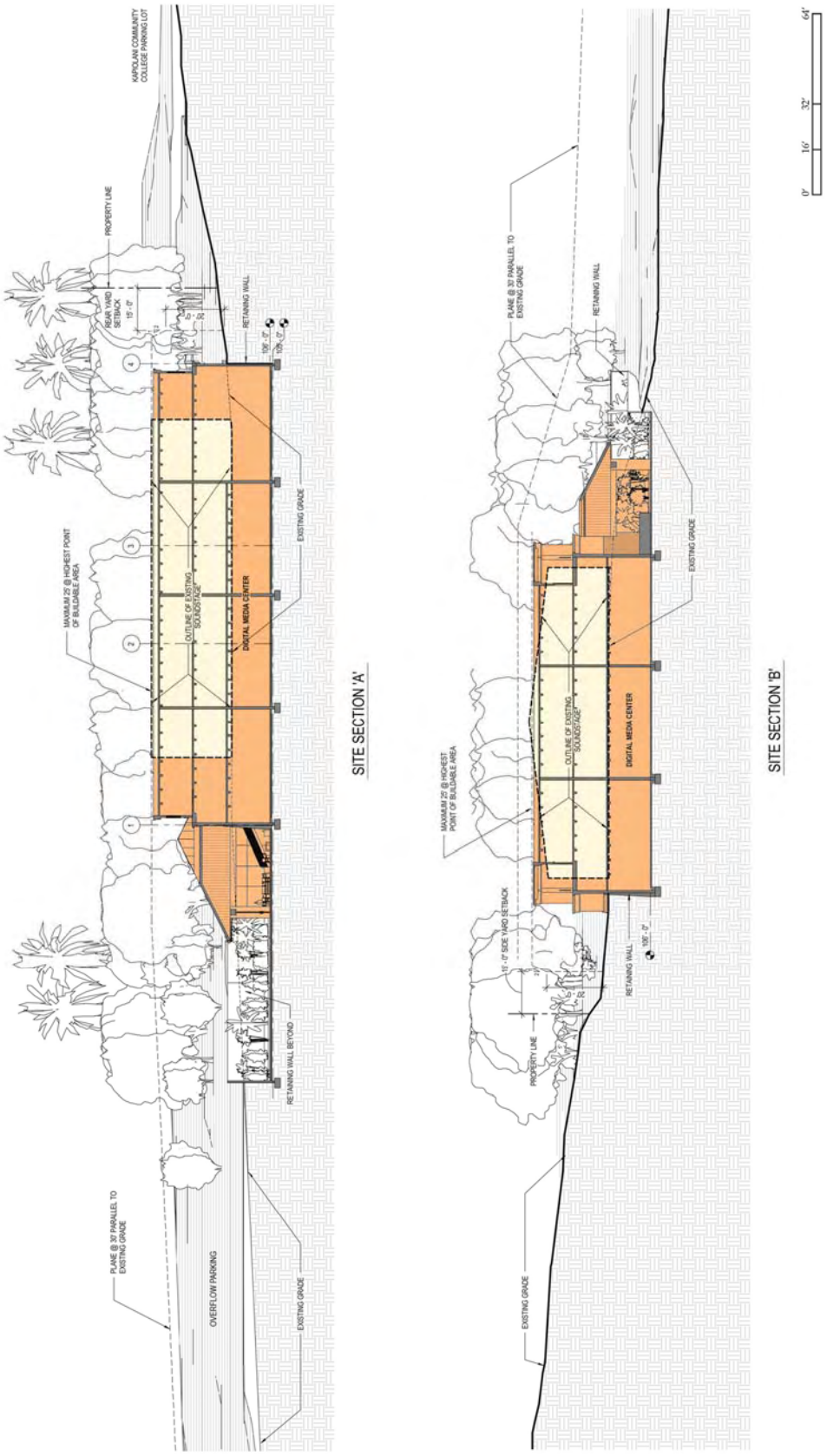

Figure 3-10 Film and Digital Media Center Site Sections

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

4.0 ALTERNATIVES TO THE PROPOSED PROJECT

This ~~Draft~~ Environmental Assessment evaluates alternatives to the proposed project described in *Section 2.0*. The following provides discussion of the alternatives to the proposed project.

4.1 ALTERNATIVE A – NO-ACTION ALTERNATIVE

The "no-action" is the baseline against which all other alternatives are measured. "No-action" refers to the future site and program conditions that will likely result should the proposed project not proceed.

This alternative will result in keeping the original Soundstage No. 1 structure on the site, in its present capacity as primarily storage space for the Hawai'i Film Studio. Construction of the proposed Film and Digital Media Center facility would not occur and the anticipated improvements to the area would be foregone. While the selection of this alternative would mean that State lands and funds, and federal funds would not be expended on the project, it would also mean that the numerous, substantial educational and economic benefits expected to accrue from the project would not be realized since the project would not be implemented.

Due to the many potential benefits of the proposed site redevelopment, the "no-action" alternative was not considered.

4.2 ALTERNATIVE B – ALTERNATIVE LOCATIONS FOR THE PROPOSED PROJECT

A specific requirement of the project's federal funding was to assess the potential environmental impacts of locating the proposed Film and Digital Media Center on this one and only site; accordingly, alternative project sites were not considered.

4.3 ALTERNATIVE C – ULTIMATE PROGRAM

The master planning process employed to develop a program of space needs for the Film and Digital Media Center and designed two programs, the selected Site Program and an Ultimate Program. The Ultimate Program calls for ~~68,886~~ 68,885 square feet (sf), a substantial increase of 21,156 sf or 44% larger than the proposed Site Program which is comprised of ~~47,730~~ 47,729 sf. A full program vision would not be able to be accommodated at the Film Studio site due to area limitations of the site. *Table 4-1* contains a breakdown of the various area requirements of the separate components of the programs. The most significant distinction between the two programs is the screening theater, which would be contained in a separate structure from the rest of the Film and Digital Media Center; other additions that the Ultimate Program would provide include an additional projector room, an additional large soundstage, an additional computer hub, a motion capture room, a larger gallery, more toilets and shower facilities and more lanais.

In the early stage of project design the proposed project did consider the inclusion of a screening theater. However, as the project design progressed, it was no longer a viable option due to the limits set by the size of the site.

Although the Ultimate Program alternative could provide an "ideal facility," the size limitations of the actual site does not make it a feasible alternative. In addition, State funds used to support the project are directly tied to the use of this project site within the Film Studio Lot. Further analysis and consideration is required for this alternative and its full implementation is not being pursued at this time.

4.4 ALTERNATIVE D – 50% REDUCED PROGRAM

The development of a smaller scale program was considered for the Film and Digital Media Center project. The smaller program calls for approximately half of the area (sf) proposed for the selected Site Program described in *Section 2.0*. While this alternative seemed to fit with design standards and visions of the Diamond Head Special District, a smaller program would not be able to fully accommodate desired program for the project. The space needs of the Film and Digital Media Center would have to reflect the uses of the project as both an educational resource for the University and as an incubator for the film and digital arts industries, designed to address the needs of early stage digital media startups.

This alternative was viewed as less than ideal because it would not provide adequate space to support the current program of proposed uses of the project.

Table 4-1 Ultimate Space Program for the Film and Digital Media Center

Media Center Program/Space Needs				
	Approx	Ultimate Program		
	Size	Area	Amnt	Total Area
Lobby	40 x 60	2,400	1	2,400
Soundstage (large)	50 x 100	5,000	2	10,000
Soundstage (small)	25 x 100	2,500	1	2,500
Gallery/Exhibit	40 x 30	1,200	1	1,200
Motion Capture Room at Soundstage	20 x 30	600	1	600
Digital Intermediate Room	20 x 10	200	1	200
Café / Kitchen	20 x 20	400	1	400
Screening Room (small)	50 x 25	1,250	2	2,500
Screening Theater (large)	80 x 100	8,000	1	8,000
Projector Room	12 x 30	360	1	360
Projector Room at Theater	15 x 20	300	1	300
Modular Classroom(s)	30 x 40	1,200	5	6,000
Toilets/Shower Facilities	24 x40	960	4	3,840
Lanais	10 x 40	400	4	1,600
Dubbing/Editing Rooms	8 x 10	80	10	800
Dubbing/Editing Room (lge)	25 x 40	1,000	1	1,000
Foley Stage & Recording room	30 x 40	1,200	1	1,200
Computer Hub	24 x 40	960	2	1,920
Equipment Storage	40 x 50	2,000	1	2,000
Loading Area	20 x 40	800	1	800
Offices (Academics)	24 x 16	384	1	384
Offices (Academics)	10 x 12	120	10	1,200
Offices (Academics)	12 x 15	180	5	900
Reception (Academics)	12 x 20	240	1	240
Faculty Lounge	20 x 20	400	1	400
Offices (Incubation)	20 x 25	500	2	1,000
Conference Room(s)	15 x 15	225	2	450
Conference Room	24 x 40	960	1	960
Mill/Production	40 x 40	1,600	1	1,600
Set Dressing Storage	25 x 40	1,000	1	1,000
Dressing/Make-up Room	20 x 30	600	1	600
Production Management Suite	35 x 30	1,050	1	1,050
Subtotal				57,404
Circulation (15%)				8,611
General Storage/copy rm (5%)				2,870
Total				**68,885**

5.0 APPLICABLE LAND USE PLANS AND POLICIES

5.0 PLANS AND POLICIES

In this chapter, the project's consistency with applicable land use policies set forth in the Americans with Disabilities Act, Hawai'i State Plan, State Land Use Law, State Coastal Zone Management Program, State 2050 Sustainable Plan, City and County of Honolulu General Plan, Primary Urban Center Development Plan, Land Use Ordinance, Diamond Head Special District, and Special Management Area and are discussed.

5.1 AMERICANS WITH DISABILITIES ACT OF 1991

In 1991, the Federal government enacted the American with Disabilities Act (ADA) to provide equal accessibility for persons with disabilities. Part of this statue is having building design consider the needs of persons with disabilities. Chapter 103-50 of the HRS states, "…all plans and specifications for the construction of public buildings, facilities, and sites shall be prepared so that the buildings, facilities, and sites are accessible to and usable by persons with disabilities." The disability and communication access board shall adopt rules for the design of buildings, facilities, and site, by or on behalf of the State and counties.

Discussion:
The intent of the proposed Media Center is to serve as a public facility; accordingly the building design will comply with ADA requirements.

5.2 HAWAI'I STATE PLAN

The Hawai'i State Plan establishes a statewide planning system that provides goals, objectives, and policies that detail priority directions and concerns of the State of Hawai'i; these will be discussed as they relate to the proposed project.

It is the goal of the State, under the Hawai'i State Planning Act (Chapter 226, HRS), to achieve the following:

- A strong, viable economy, characterized by stability, diversity, and growth, that enables the fulfillment of the needs and expectations of Hawai'i present and future generations.
- A desired physical environment, characterized by beauty, cleanliness, quiet, stable natural systems, and uniqueness, that enhances the mental and physical well-being of the people.
- Physical, social, and economic well-being, for individuals and families in Hawai'i, that nourishes a sense of community responsibility, of caring, and of participation in community life (Chapter 226-4, HRS).

Specific objectives and policies of the State Plan that pertain to the project are as follows:

Section 226-5 Objective and policies for population.

(a) It shall be the objective in planning for the State's population to guide population growth to be consistent with the achievement of physical, economic, and social objectives in the chapter.

(b) To achieve the population objective, it shall be the policy of this State to:
(3) Promote increase opportunities for Hawai'i's people to pursue their socio-economic aspirations throughout the islands.

Section 226-6 Objective and policies for the economy--in general.

(a) Planning for the State's economy in general shall be directed towards achievement of the following objectives:
(1) Increased and diversified employment opportunities to achieve full employment, increased income and job choice, and improved living standards for Hawai'i's people.
(2) A steady growing and diversified economic base that is not overly dependant on a few industries.
(b) To achieve the general economic objectives, it shall be the policy of this State to:
(6) Strive to achieve a level of construction activity responsive to, and consistent with, state growth objectives.
(7) Encourage the formation of cooperatives and other favorable marketing arrangements at the local or regional level to assist Hawai'i's small scale producers, manufacturers and distributors.

Section 226-10 Objectives and policies for the economy—potential growth activities.

(a) Planning for the State's economy with regard to potential growth activities shall be directed toward achievement of the objective of development and expansion of potential growth activities that serve to increase and diversify Hawai'i's economic base.
(b) ... To achieve the potential growth activity objective, it shall be the policy of this State to:
(1) Facilitate investment and employment in economic activities that have the potential for growth such as … film and television production;
(5) Promote Hawai'i's geographic, environmental, social and technical advantages to attract new economic activities into the State;

Section 226-10.5 Objectives and policies for the economy--information industry.

(b) Planning for the State's economy with regard to the information industry shall be directed toward the achievement of the objective of positioning Hawai'i as the leading dealer in information businesses and services in the Pacific Rim.
(b) .....To achieve the information industry objective, it shall be the policy of this State to:
(2) Facilitate the development of new business and service ventures in the information industry which will provide employment opportunities for the people of Hawai'i;
(3) Encourage greater cooperation between the public and private sectors in developing and maintaining a well- designed information industry;

Discussion:
The proposed Media Center project is consistent with the objectives and policies of the State Plan. The project will offer increased and diversified opportunities to Hawai'i's people for the technical training and pursuit of creative, highly skilled employment within the State of Hawai'i.

5.3 HAWAI'I STATE LAND USE DISTRICT BOUNDARIES

The State of Hawai'i Land Use Law regulates the classification and uses of lands in the State to accommodate growth and development, and to retain the natural resources in the area. All State lands are classified by the State Land Use Commission, as Urban, Rural, Agricultural, or Conservation, with consideration given to the General Plan of the County.

Discussion:
The proposed project site lands are designated Urban District. The Hawai'i State Plan, Chapter 205-2 (b) Hawai'i Revised Statutes, states that:

"Urban districts shall include activities or uses as provided by ordinances or regulations of the county within which the urban district is situated."

Discussion:
The proposed project is consistent with this Statute, as the proposed land uses are consistent with City and County of Honolulu General Plan, Primary Urban Center Development Plan, and Land Use Ordinance, as discussed below.

5.4 HAWAI'I COASTAL ZONE MANAGEMENT PROGRAM

The Coastal Zone Management Act of 1972 (16 USC Section 1451), as amended through Public Law 104-150, created the coastal management program and the National Estuarine Research Reserve system. The coastal states are authorized to develop and implement a state coastal zone management program. Hawai'i Coastal Zone Management (CZM) Program received federal approval in the late 1970's. The objectives of the State's Hawai'i Coastal Zone Management (CZM) Program, Section 205A-2, HRS, are to protect valuable and vulnerable coastal resources such as coastal ecosystems, special scenic and cultural values and recreational opportunities. The objectives of the program are also to reduce coastal hazards and to improve the review process for activities proposed within the coastal zone. Each county is responsible for designating a Special Management Area (SMA) that extends inland from the shoreline. Development within this SMA is subject to County approval to ensure the proposal is consistent with the policies and objectives of the Hawai'i CZM Program

The entire Film and Digital Media Center project area is within the SMA as delineated by the City and County of Honolulu. However, the project site is located .5 miles away from the coastal area and is fronted by the coastline by Diamond Head. Therefore, there are no impacts anticipated within the coastal zone areas.

Described below are the seven objectives of the Hawai'i CZM Program and an assessment of the project impacts relative to the State's CZM objectives and policies. The specific City and County SMA policies are also discussed in *Section 5.10*.

Recreational Resources

Objective: Provide Coastal Recreational Opportunities Accessible to the Public

(A) Improve coordination and funding of coastal recreation planning and management.

(B) Provide adequate, accessible, and diverse recreational opportunities in the coastal zone management area by:

- *Protecting coastal resources uniquely suited for recreational activities that cannot be provided in other areas;*
- *Requiring replacement of coastal resources having significant recreational value, including but not limited to surfing sites and sandy beaches, when such resources will be unavoidably damaged by development; or requiring reasonable monetary compensation to the State for recreation when replacement is not feasible or desirable;*
- *Providing and managing adequate public access, consistent with conservation of natural resources, to and along shorelines with recreational value;*
- *Providing an adequate supply of shoreline parks and other recreational facilities suitable for public recreation;*
- *Encouraging expanded public recreational use of county, state, and federally owned or controlled shoreline lands and waters having recreational value;*
- *Adopting water quality standards and regulating point and non-point sources of pollution to protect and where feasible, restore the recreational value of coastal waters;*
- *Developing new shoreline recreational opportunities, where appropriate, such as artificial lagoons, artificial beaches, artificial reefs for surfing and fishing; and*
- *Encouraging reasonable dedication of shoreline areas with recreational value for public use as part of discretionary approvals or permits by the land use Commissions, board of land and natural resources, county planning commissions; and crediting such dedication against the requirements of section 46-6.*

The project would have no impact on coordination and funding of coastal recreation planning and management.

Although the project itself is a public facility, its use is aimed specifically for film and digital media production and related activities. The project site is located well away from coastal and shoreline areas, therefore the project does not directly provide for or directly affect coastal recreation and access to the public. The nearest recreation activity is the Diamond Head Crater which will be maintained and will not be affected by the project. No coastal resources of significant value, such as surf sites or sandy beaches will be impacted by this project. Also, no shoreline improvements are proposed, such as artificial reefs or beaches.

The project will be constructed and operate in accordance with State and federal water quality regulations. Storm water and sewer management systems will be maintained and new infrastructure will be constructed to meet applicable standards. The sewer systems have adequate capacity to address the anticipated load from the project. There are no septic tanks, leach fields, or injection wells proposed. There will be no discharge points into coastal waters.

Historic Resources

Objective: Protect, Preserve and, Where Desirable, Restore Those Natural and Man-Made Historic and Pre-Historic Resources in the Coastal Zone Management Area that are Significant in Hawaiian and American History and Culture

(A) Identify and analyze significant archaeological resources.
(B) Maximize information retention through preservation of remains and artifacts or salvage operations; and
(C) Support state goals for protection, restoration, interpretation and display of historic resources.

An ~~*Archaeological Literature Review and Field Inspection*~~ *Archaeological Assessment Report for the Proposed Diamond Head Media Center* (CSH, December 2008) was conducted for the project site to address archaeological site types and locations and to provide for future recommendations for archaeological work to be completed. The study did not identify evidence of archaeological remains at the project site. The investigations determined that significant surface remains do not exist and subsurface remains are not likely to be present. The project area has undergone extensive disturbances from previous development. Consistent with the archeological investigation, the cultural assessment (CSH, February 2009) determined the site does not possess culturally significant resources. It is recommended that no additional archaeological work is necessary for the Film and Digital Media Center project and the proposed re-development will have "no effect" on cultural resources.

Scenic and Open Space Resources

Objective: Protect, Preserve and, Where Desirable, Restore or Improve the Quality of Coastal Scenic and Open Space Resources

(A) Identify valued scenic resources in the coastal zone management area;
(B) Insure that new developments are compatible with their visual environment by designing and locating such developments to minimize the alteration of natural landforms and existing public views to and along the shoreline;
(C) Preserve, maintain and where desirable, improve and restore shoreline open space and scenic resources; and
(D) Encourage those developments which are not coastal dependent to locate in inland areas.

Scenic view sheds in the project area are identified in the City and County of Honolulu Diamond Head Special District. As described in *Section 3.17*, the project will not affect vistas and scenic resources identified.

The Film and Digital Media Center project is consistent with the County General Plan, Primary Urban Center Development Plan, and Zoning regulations. The Film and Digital Media Center facility will blend into the surrounding Hawai'i Film Studio site. The project proposes to demolish the existing blocky steel shed structure occupying the site and replace it with a more aesthetically pleasing high-tech facility (*Figure 1-8 and 1-9*). The scale and size of the project are appropriate to the site meet the design controls established in the Diamond Head Special

District. The facility will not exceed 25 feet in height and will maintain the existing prominent public vantage points from which significant public views of Diamond Head exists. Perimeter landscaping of the project and Hawai'i Film Studio site will serve as a visual buffer to surrounding residential areas.

The project site is located at the foot of Diamond Head Crater. Coastal scenic view sheds are not accessible from this area. Therefore, the proposed project will not have any impacts on existing ocean views and scenic resources.

Coastal Ecosystems

Objective: Protect Valuable Coastal Ecosystems from Disruption and Minimize Adverse Impacts on all Coastal Ecosystems

(A) Improve the technical basis for natural resource management;
(B) Preserve valuable coastal ecosystems of significant biological or economic importance;
(C) Minimize disruption or degradation of coastal water ecosystems by effective regulation of stream diversions, channelization, and similar land and water uses, recognizing competing water needs; and
(D) Promote water quantity and quality planning and management practices which reflect the tolerance of fresh water and marine ecosystems and prohibit land and water uses which violate state water quality standards.

The project will not affect coastal ecosystems or natural resource management. The project will use low-water consumption fixtures to minimize potable water use. During construction and operation, all storm water will be retained onsite. Onsite runoff generated near the proposed Film and Digital Media Center will be collected in onsite inlets, slotted drain, and a catchbasin. Onsite runoff generated from the proposed parking lot will be captured by a catchbasin. Underground storm water and wastewater infrastructure will not result in pollutant discharge into coastal water. Operations will comply with State and federal water quality standards.

Economic Uses

Objective: Provide Public or Private Facilities and Improvements Important to the State's Economy in Suitable Locations

(A) Concentrate in appropriate areas the location of coastal dependent development necessary to the state's economy;
(B) Ensure that coastal dependent development such as harbors and ports, visitor industry facilities, and energy generating facilities are located, designed, and constructed to minimize adverse social, visual, and environmental impacts in the coastal zone management area; and
(C) Direct the location and expansion of coastal dependent development to areas presently designated and used for such developments and permit reasonable long-term growth at such areas, and permit coastal dependent development outside of presently designated areas when:
- *Utilization of presently designated locations is not feasible;*
- *Adverse environmental effects are minimized; and*
- *Important to the State's economy.*

The project is consistent with State and County plans and land regulations. The location is ideal for the project because it offers a quiet, secure shooting environment for film and digital media production. The proposed Film and Digital Media Center is located in the Hawai'i Film Studio site at the foot of Diamond Head Crater and provides a central and convenient location to private production companies.

The project site is located .5 miles away from the coastal area and is not considered a coastal dependent development. Therefore, the project will not result in any adverse social, visual, and environmental impacts in the coastal zone management area.

Coastal Hazards

Objective: Reduce Hazard to Life and Property From Tsunami, Storm Waves, Stream Flooding, Erosion and Subsidence.

(A) Develop and communicate adequate information on storm wave, tsunami, flood, erosion, and subsidence hazard;
(B) Control development in areas subject to storm wave, tsunami, flood, erosion, and subsidence hazard;
(C) Ensure that developments comply with requirements of the Federal Flood Insurance Program; and
(D) Prevent coastal flooding from inland projects.

The project site is within the 500-year flood hazard zone *(Figure 1-7)* and is not in the tsunami inundation zone. Because the project area is located well away from the coastal area and the stream courses, the project area is secure from stream flooding, as well as coastal inundation. To prevent ponding or localized flooding resulting from storm run-off, existing drainage infrastructure will be maintained and new infrastructure will be constructed to meet applicable standards.

Managing Development

Objective: Improve the Development Review Process, Communication, and Public Participation in the Management of Coastal Resources and Hazards

(A) Effectively utilize and implement existing law to the maximum extent possible in managing present and future coastal zone development;
(B) Facilitate timely processing of application for development permits and resolve overlapping or conflicting permit requirements; and
(C) Communicate the potential short and long-term impacts of proposed significant coastal developments early in their lifecycle and in terms understandable to the general public to facilitate public participation in the planning and review process.

This EA communicates the potential short and long-term impacts of the project on the environment. Procedurally, this EA conforms to HRS Chapter 343. The Office of Environmental Quality Control (OEQC) publishes notice of the EA availability for public review. The public is

allowed 30-days to submit comments on the EA. During pre-scoping, agencies, organizations and persons were consulted and will continue to be informed throughout the planning process. In addition, the project development and planning process will include presentations to key community groups such as the Diamond Head Citizen's Advisory Committee and the ~~Diamond Head/Kapahulu/St. Louis Heights Neighborhood Board No. 5~~ Kaimukī Neighborhood Board No. 4.

There are numerous County approvals and permits required and processing will be conducted to facilitate timely processing.

5.5 2050 SUSTAINABLE PLAN

The Hawai'i 2050 Sustainability Plan as a long-term strategy has as its main goals and objectives respect for culture, character, beauty, and history of the state's island communities; balance among economic, community, and environmental priorities; and an effort to meet the needs of the present without compromising the ability of future generations to meet their own needs.

The 2050 Plan delineates five goals toward a sustainable Hawai'i accompanied by strategic actions for implementation and indicators to measure success or failure. The goals and strategic actions that are pertinent to the Film and Digital Media Center project are as follows.

Goal One: Living sustainably is part of our daily practice in Hawai'i.

Strategic Actions:

- *Develop a sustainability ethic.*
- *Conduct ongoing forums and cross-sector dialogue to promote collaboration and progress on achieving Hawai'i's sustainability goals.*

Goal Two: Our Diversified and globally competitive economy enables us to meaningfully live, work, and play in Hawai'i.

Strategic Actions:

- *Develop a more diverse and resilient economy.*
- *Increase the competitiveness of Hawai'i's workforce.*

Goal Three: Our natural resources are responsibly and respectfully used, replenished, and preserved for future generations.

Strategic Actions:

- *Conserve water and ensure adequate water supply.*
- *Increase recycling, reuse and waste reduction strategies.*

Goal Four: Our community is strong, healthy, vibrant and nurturing, providing safety nets for those in need.

Strategic Actions:

- *Strengthen public education.*

Goal Five: Our Kanaka Maoli and island cultures and values are thriving and perpetuated.

Strategic Actions:

- *Celebrate our cultural diversity and island way of life.*

Discussion:

The Film and Digital Media Center Project addresses sustainability and protects our natural resources through meeting sustainable building design standards and practices. Design strategies may include incorporating natural lighting, energy-efficient mechanical and electrical systems, efficient plumbing systems, and architectural design features such as energy-efficient windows to decrease cooling loads on the building and increase interior thermal comfort levels. The project is expected to be designed to achieve LEED certification.

The proposed project will help the state to further invest in its creative industry, promoting diversity and creating new developments in this economy. The project will also help to strengthen public education by providing new opportunities and resources for students who want to pursue creative media arts thereby increasing the competitiveness of Hawai'i's workforce.

The Academy of Creative Media (ACM) is committed to perpetuating Hawai'i's cultural diversity and way of life while furthering educational and economic development. ACM emphasizes story telling, theories, skills and application across multiple platforms of digital media and within a context of cultural and aesthetic values. The program seeks to empower students to tell their own stories of Hawaii, the Pacific and Asia. It is one of the few programs developing a unique program in Indigenous Filmmaking.

5.6 CITY AND COUNTY OF HONOLULU GENERAL PLAN

Adopted by resolution in 1977, the 1992 revised edition of the General Plan for the City and County of Honolulu sets forth the long-range objectives for the general welfare and prosperity of the people of O'ahu and broad policies to attain those objectives. The General Plan provides objectives and policies intended to guide and coordinate City land use planning and regulation, and budgeting for operations and capital improvements.

The Digital Media Center will be consistent with the objectives and policies of the City and County of Honolulu General Plan.

Population

Objective C: To establish a pattern of population distribution that will allow the people of O'ahu to live and work in harmony.

Policy 1: Facilitate the full development of the primary urban center.

Economic Activity

Objective A: To promote employment opportunities that will enable all the people of O'ahu to attain a decent standard of living.

Policy 1: Encourage the growth and diversification of O'ahu's economic base.
Policy 2: Encourage the development of small businesses and larger industries ~~that~~ which will contribute to the economic and social well-being of O'ahu residents.
Policy 3: Encourage the development ~~of Honolulu as a Pacific headquarters for~~ in appropriate locations on O'ahu of trade, communications and other industries of a nonpolluting nature.

Objective E: To prevent the occurrence of large-scale unemployment.

Policy 1: ~~Encourage the training and employment of present residents for currently available and future jobs.~~ Direct major economic activity and government services to the primary urban center and the secondary urban center at Kapolei.

Objective G: To bring about orderly economic growth on O'ahu

Policy 1: Direct economic activity primarily to Honolulu, Aiea and Pearl City, and secondarily to 'Ewa.
Policy 2: Permit the moderate growth of business centers in the urban-fringe areas.

Physical Development

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

Policy 1: Plan for the construction of new public facilities and utilities in the various parts of the island according to the following order of priority: first, in the primary urban center; second, in ~~'Ewa~~ the secondary urban center at Kapolei; and third, in the urban-fringe and rural areas.
Policy 7: Locate new industries and new commercial areas so that they will be well related to their markets and suppliers, and to residential areas and transportation facilities.

Health and Education

Objective B: To provide a wide range of educational opportunities for the people of O'ahu.

Policy 1: Support education programs that encourage the development of employable skills.

Discussion:
The proposed project promotes the objectives of the General Plan in numerous ways. The project site, which has been established as a public/institutional facility, is an in-fill within the fringe of the primary urban center that supports the largest population on the island. The Media Center will not only offer employment opportunities close to employees' residences, but will also serve as a technical training facility for students interested in pursuing a satisfying and creative career in the film and digital media industry. The project offers a positive

diversification to O'ahu's economic base. While not directly related to tourism, the State's largest industry, the project can have a beneficial impact on that sector, since the film and digital media industry is non-polluting and relies heavily on the maintenance of Hawai'i's natural resources and beauty.

5.7 CITY AND COUNTY OF HONOLULU - PRIMARY URBAN CENTER DEVELOPMENT PLAN

The Primary Urban Center Development Plan (PUCDP) by the City and County of Honolulu Department of Planning and Permitting establishes policy to shape the growth and development of the PUC over the next 20 years. The planning goal of the PUCDP is to enhance the livability of the PUC while accommodating a moderate amount of growth. The PUCDP establishes the region's role in O'ahu's development pattern by establishing policies in the following areas:

- Natural, historic, cultural and scenic resources
- Parks and recreation areas
- Lower- and higher-density residential neighborhoods
- Commercial and visitor industry facilities
- Military installations, transportation centers and industrial areas
- Design of streets and buildings
- Neighborhood planning
- Transportation networks and systems

A relevant policy is included in *Section 4.7.2*

- Support the development of a high quality education system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work

Discussion:
The project site is designated Institutional on the PUCDP Land Use Map *(Figure 5-1)*. The institutional designation includes facilities for public use or benefit, including schools, churches, hospitals, group living establishments, utilities and infrastructure production or support facilities, civic, public, and social services facilities, and government facilities. The replacement of the aging and monolithic existing soundstage building with the proposed, aesthetically and sustainably designed Media Center will increase the attractiveness of the site, the neighborhood and the Primary Urban Center.

The proposed project is consistent with key elements, policies, and visions of the PUCDP. The Film and Digital Media Center supports Honolulu as the Pacific's leading city and travel destination by attracting off-shore production in film and digital media and stimulating development of high technology and knowledge-based industries in the State. The Film and Digital Media Center also supports the development of a high quality educational system by providing a high-tech resource for the University thereby increasing attractiveness of the Primary Urban Center as a place to live and work.

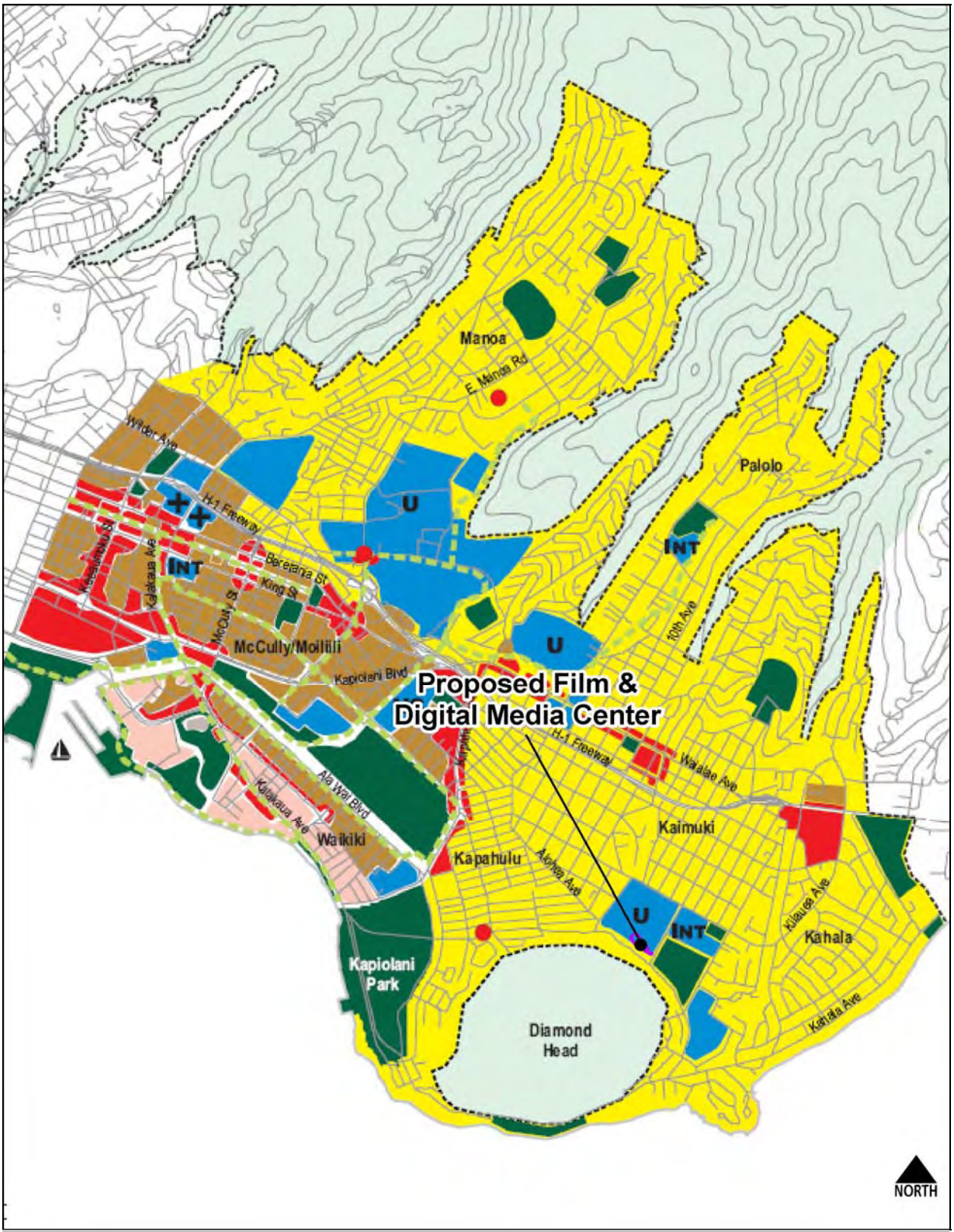

Figure 5-1 (REVISED) - Primary Urban Center Development Plan Map Department of Planning and Permitting City and County of Honolulu, June 2004.

5.8 CITY AND COUNTY OF HONOLULU LAND USE ORDINANCE GUIDELINES

The purpose of the LUO is to regulate land use in a manner that will encourage orderly development in accordance with adopted land use policies, including the County General Plan and development plans. The LUO is also intended to provide reasonable development and design standards. These standards are applicable to the location, height, bulk and size of structures, yard areas, off-street parking facilities, and open spaces, and the use of structures and land for agriculture, industry, business, residences or other purposes (Revised Ordinance for the City and County of Honolulu, Chapter 21).

Discussion:
The subject property is designated as "R-10: Residential" by the City and County of Honolulu's Land Use Ordinance *(Figure 1-3)*. The intent of R-10 zoning is to allow for areas of large lot developments and are typically located in transitional districts between preservation, agricultural or country districts and urban districts.

5.9 DIAMOND HEAD SPECIAL DISTRICT

Within the LUO, there are special designation standards outlines for the development of Diamond Head. The project is located within the Diamond Head Special District *(Figure 1-5)*, and a Special District Permit will be required for the proposed project. The objectives of the Diamond Head Special District are to preserve the existing prominent public views and the natural appearance of Diamond Head by modifying construction projects that would diminish these resources and to enhance the park-like character of the immediate slopes of the Diamond Head monument, which includes Kapiolani Park. Prominent public vantage points from which significant public views of Diamond Head exists are detailed in Section 21-9.40-4 of the Land Use Ordinance. Design controls are provided to guide aesthetic and architectural aspects of project development. Implementation of the district's objectives consists primarily of landscaping requirements, height limitations and architectural appearance and character.

Landscaping Requirements
The physical development of Diamond Head is dependent upon integrating the natural and built environment together. Key elements in this integration are the appropriate design, context, and materials used in developing the overall landscaping and exterior features of the area. Exterior features include but are not limited to the use of palm trees since they convey the tropical characteristics of Hawai'i, and provide vertical accents in counterpoint to the high Crater behind them. Appropriate landscaping and exterior features should incorporate measures to have a minimal aesthetic and visual impact on the Diamond Head and the surrounding park-like setting. In addition, plant species should be chosen from an approved tree list on file with the Department of Parks and Recreation and should incorporate elements that are representative of the natural and cultural landscape.

Height Limitations
Within a development, height limits are critical to preserving the natural appearances and public views having special value and significance. To preserve and enhance the park-like character of the immediate slopes of the Diamond Head monument, design priority should

include height precincts for the district which are specifically identified in the Land Use Ordinance, Diamond Head Special District.

Architectural Appearance and Character
In developing the District Design Guidelines, the key elements incorporated into building design are the exterior facades of structures and structural forms are designed to have architectural scale, exterior finish, material, colors, components and features that relate in a compatible manner to nearby existing structures, and particularly small-scale development. Additionally, materials, finishes and colors, including roofs, should be nonreflective and subdued within the overall surrounding environment.

Discussion:
The continuity of the project design with the surrounding area will enhance the existing Hawai'i Film Studio site while maintaining a sense of balance between the built and natural forms of Diamond Head. The proposed Film and Digital Media Center project seeks to preserve and maintain prominent public vantage view points. Project design meets the 25 foot height limitations established by the Diamond Head Special District and will not impact existing views as shown in ~~discussed in~~ *Section 3.17*. The project will unify the property by replacing the aging, monolithic soundstage with the aesthetically designed Media Center building. The Film and Digital Media Center is aimed at strengthening the educational/school base experience through the development of a new facility in the Film Studio site enhancing the adjoining park-like setting of the Diamond Head Special District.

The project will comply with the requirements of the Diamond Head Special District. These will be fully discussed in the forthcoming Diamond Head Special District Permit application that will be submitted to the City and County Department of Planning and Permitting.

5.10 SPECIAL MANAGEMENT AREA

The project area is located within the Special Management Area (SMA) *(Figure 1-6)*, which was established to preserve, protect, and where possible, to restore the natural resources of the coastal zone of Hawai'i. Although the project site is located .5 miles away from the coastal area and there are no impacts to coastal areas anticipated, the project will comply with the requirements of the SMA. An SMA Approval application will be submitted to the City and County Department of Planning and Permitting.

Special controls on development within this area are necessary to avoid permanent loss of valuable resources and foreclosure of management options. The review guidelines of Section 25-3.2 of the Revised Ordinances of Honolulu (ROH) are used by the Department of Planning and the City Council for the review of developments proposed in the Special Management Area (SMA). These guidelines are derived from Section 205A-26 HRS. The consistency of the proposed project with the guidelines is discussed below.

(1) All Development in the Special Management Area shall be subject to reasonable terms and conditions set by the council in order to ensure that:

- *Adequate access, by dedication or other means, to publicly owned or used beaches, recreation areas, and natural reserves is provided to the extent consistent with sound conservation principles;*
- *Adequate and properly located public recreation areas and wildlife preserves are reserved;*
- *Provisions are made for solid and liquid waste treatment, disposition, and management which will minimize adverse effects upon special management area resources; and*
- *Alterations to existing land forms and vegetation, except crops, and construction of structures shall cause minimum adverse effect to water resources and scenic and recreational amenities and minimum danger of floods, landslides, erosion, siltation or failure in the event of earthquake.*

Discussion:
The proposed action will not adversely affect access to any public shoreline or recreation area as it is located well away from the coastal areas. The existing Diamond Head Crater recreation area near the project will be maintained and will not be affected by the project.

No wildlife preserves or public areas are affected by the project.

Wastewater will flow to the City and County of Honolulu operated sewer system which can accommodate the proposed development. Proposed improvements to the existing sewer will be carried out subject to the approval of the City and County of Honolulu, Department of Planning and Permitting, Wastewater Branch. The design of the sewer system will be in accordance with the "Design Standards of the City and County of Honolulu's Department of Wastewater Management.

Solid waste will be handled and disposed of by private waste companies.

Alterations to the land and vegetation will not adversely affect water or recreational resources. The project will implement required permit conditions and best management practices. The project is a redevelopment of an existing soundstage located in the Hawai'i Film Studio Site. The project will not increase the potential hazard risk associated with flooding, landslides, erosion, siltation or earthquake. The design and construction will meet or exceed County building standards.

(2) No development shall be approved unless the council has first found that:

- *The development will not have any substantial, adverse environmental or ecological effect except such adverse effect is minimized to the extent practicable and clearly outweighed by public health and safety, or compelling public interests. Such adverse effect shall include, but not be limited to, the potential cumulative impact of individual developments, each one of which taken in itself might not have a substantial adverse effect, and the elimination of planning options;*
- *The development is consistent with the objectives and policies set forth in Section 25-3.2 and area guidelines contained in Section 205A-26, Hawai'i Revised Statutes; and*
- *The development is consistent with the County General Plan, Development Plans, Zoning and subdivision codes and other applicable ordinances.*

Discussion:
No substantial adverse environmental or ecological direct, indirect or cumulative impacts are anticipated from the project. The project is consistent with applicable plans and policies of the State of Hawai'i and the City and County of Honolulu.

(3) The Council Shall Seek to Minimize, Where Reasonable:

- *Dredging, filling or otherwise altering any bay, estuary, salt marsh, river mouth, slough or lagoon;*
- *Any development which would reduce the size of any beach or other area usable for public recreation;*
- *Any development which would reduce or impose restrictions upon public access to tidal and submerged lands, beaches, portions of rivers and streams within the special management area and the mean high tide line where there is no beach;*
- *Any development which would substantially interfere with or detract from the line of sight toward the sea from the State highway nearest the coast; and*
- *Any development which would adversely affect water quality, existing areas of open water free of visible structure, existing and potential fisheries and fishing grounds, wildlife habitats, or potential or existing agricultural uses of land.*

Discussion:
Because the project area is situated away from the coastal area and the stream courses the project will not alter surface water or wetland areas. The project will have no adverse impacts on areas of open water, potential fisheries, fisheries, wildlife habitat, or agricultural land. There will be no impact on public access or views towards the sea, and no public beach or recreation area will be affected.

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION

6.0 FINDINGS SUPPORTING ANTICIPATED DETERMINATION

6.1 ANTICIPATED DETERMINATION

After reviewing the significance criteria outlined in Chapter 343, Hawai'i Revised Statutes (HRS), and Section 11-200-12, State Administrative Rules, Contents of Environmental Assessment, the proposed action has been determined to not result in significant adverse effects on the natural or human environment. A Finding of No Significant Impact (FONSI) is anticipated.

6.2 REASONS SUPPORTING THE ANTICIPATED DETERMINATION

The potential impacts of the facilities improvements and future and operation of the proposed Film and Digital Media Center have been fully examined and discussed in this Draft Environmental Assessment. As stated earlier, there are no significant environmental impacts expected to result from the proposed action. This determination is based on the assessments as presented below for criterion (1) to (13).

(1) Involve an irrevocable loss or destruction of any natural or cultural resources.

The archaeological and cultural landscapes have been documented in studies conducted specifically for the project area. As detailed in *Section 3.15 and 3.16* of this report, the project does not involve any known loss or destruction of existing natural or cultural resources. The only specific area of concern is the unknown potential for the inadvertent discovery of subsurface historical or cultural resources, including the unknown possibility of iwi kūpuna (ancestral remains).

Given the low potential for an inadvertent find, it is not recommended at this time that specific archaeological mitigation be in place during demolition and construction. However, if any cultural, historic, or archaeological resources are unearthed or ancestral remains are inadvertently discovered, the State Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD), the O'ahu Island Burial Council representative and participating interests from lineal descendents and individuals will be notified. The treatment of these resources will be conducted in strict compliance with the applicable historic preservation and burial laws.

(2) Curtail the range of beneficial uses of the environment.

The proposed activities will not curtail the range of beneficial uses of the environment. Existing uses conform to existing land use designations. The project would actually increase beneficial uses of the area, since replacement of the aging, monolithic soundstage with the aesthetically designed Media Center building will enhance the adjoining park-like setting of the Diamond Head Special District.

(3) Conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

The proposed project does not conflict with the State's long-term environmental policies or goals and guidelines as expressed in Chapter 344, HRS, and any revisions thereof and amendments thereto, court decisions, or executive orders.

(4) Substantially affects the economic or social welfare of the community or State.

Short-term economic benefits anticipated during construction will include direct, indirect, and induced employment opportunities and multiplier effects but not at a level that would generate significant economic expansion. Long-term economic benefits anticipated during future operations include increased investments into the state's creative industry through the use of the Film and Digital Media Center as a digital media incubator for media business production and increased employment opportunities, particularly with University jobs in the Academy of Creative Media.

The project will also enable future growth for programs which will help the University and State bring in additional funding targeted at expanding digital high tech creative media and related opportunities. Opportunities like this will help to diversify the existing industry and employment in Hawai'i. The project will also improve social welfare by providing a venue and educational program that creates advanced knowledge and emphasizes narrative, or story telling, theories, skills and application across multiple platforms of digital media and within a context of cultural and aesthetic values, expanding educational opportunities to a wide range of local, national, and international students.

(5) Substantially affects public health.

The project is consistent with existing land uses and is not expected to affect public health, except in beneficial ways mentioned in item (4) above. However, there will be temporary short-term impacts to air quality emanating from possible dust emissions and temporary degradation of the acoustic environment in the immediate vicinity resulting from construction equipment. Since the project will replace an existing building within the Hawai'i Film Studio lot, arrangements will be made to minimize the effects to activities in the area. Construction-related impacts of noise, dust, and emissions will be mitigated by compliance with the State Department of Health Administrative Rules.

(6) Involves substantial secondary impacts, such as population changes or effects on public facilities. --

The approval will not have substantial secondary impacts, such as population changes or affects on public facilities. The project will provide digital high tech facilities on the Film Studio lot for use by private production companies and the University's program. As a result, there will be minor and insignificant impacts to public facilities, however, activities such as these have occurred on the site for decades and are seen as part of the existing conditions. While an increase in out of state film and media production opportunities may occur and additional

University jobs may result from the proposed project, this would have only incidental impacts on population.

(7) Involves a substantial degradation of environmental quality.

The proposed development will not involve a substantial degradation of environmental quality. To the contrary, replacing the aging monolithic steel soundstage with a sustainably and aesthetically designed Media Center building will enhance the visual qualities of the environment.

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

The project is a small part of the overall improvement to the character of the Hawai'i Film Studio. However, the project is not a precursor for other future actions.

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

The project area does not contain identified rare, threatened or endangered species or habitat. No impact is anticipated.

(10) Detrimentally affects air or water quality or ambient noise levels.

General temporary impacts associated with construction have been identified in this EA. Mitigation measures which are outlined in this EA will be applied during the on-going construction activity. No detrimental long-term impacts to air, water, or acoustic quality are anticipated with the proposed redevelopment. The approval will not detrimentally affect air or water quality or ambient noise levels.

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

The entire project site lies within Zone X (500 year flood) and lies outside of the designated tsunami zone. The site has long been developed, and redevelopment will not affect environmentally sensitive areas. Proposed improvements will comply with necessary design requirements and building codes. No impact is anticipated.

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

The proposed project site is largely shielded from public view, and is only visible from Diamond Head Road. As detailed in *Section 3.17*, the proposed project entails the construction of a three-story structure and will replace the Existing Soundstage No. 1 located on the Hawai'i Film Studio site. The facility will comply with development standards of the Diamond Head Special District and will not exceed 25 feet in height. The project will have a minimal effect on public views of Diamond Head and will be designed and landscaped to minimize view impacts.

(13) Require substantial energy consumption.

The Film and Digital Media Center building will increase power consumption from the island's electrical grid. However, pursuit of LEED Silver certification for the Media Center will have energy-saving measures such as a selection of energy-efficient systems for air-conditioning, lighting, water heating, and motorized equipment to help to reduce consumption needs and lower overall operational costs.

6.3 SUMMARY

Based on the above findings, we think the proposed Film and Digital Media Center project does not have significant socio-economic or environmental impacts. The Environmental Assessment recommends mitigation measures to alleviate impacts when such impacts are identified.

The Film and Digital Media Center project is consistent with the Hawai'i State Land Use District Boundaries; the Hawai'i State Plan and Functional Plans; the 2050 Sustainable Plan, the Hawai'i Coastal Zone Management Plan, the City's General Plan and Development Plan; the City's Zoning Ordinance, Diamond Head Special District, and Special Management Area, and the American with Disabilities Act.

The proposed Film and Digital Media Center project will provide improvements that will have beneficial effects on the Hawai'i Film industry. The proposal would improve the quality of building design, preserve and enhance the natural and cultural resources, and generally improve the overall film and digital media industry in Hawai'i. It diversifies the economy and provides education as an anticipated growth industry.

7.0 LIST OF REFERENCES

7.0 LIST OF REFERENCES

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8.0 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING COPIES OF THE EA

8.0 LIST OF AGENCIES, ORGANIZATIONS AND INDIVIDUALS RECEIVING COPIES OF THE EA

Respondents and Distribution	Pre-Consultation	Pre-Consultation Comments Received	Receiving Draft EA	Comments Received	Receiving Final EA/ FONSI
Federal Agencies					
U.S. Fish and Wildlife	x				
U.S. Army Corps of Engineers	x				
State of Hawai'i Agencies					
Department of Accounting and General Services	x		x		x
Department of Business, Economic Development & Tourism (DBEDT), Creative Industries Division, Hawai'i Film Office	x		x	x	x
DBEDT, Office of Planning	x	x	x	x	x
Department of Health	x		x	x	x
Department of Land and Natural Resources (DLNR)	x	x	x	x	x
DLNR, State Historic Preservation Division	x	x	x	x	x
DLNR, State Parks Division				x	x
Kapi'olani Community College, Chancellor's Office	x		x		x
Kapi'olani Community College, New Media Arts Department			x		x
Office of Environmental Quality Control	x		x		x
Office of Hawaiian Affairs	x	x	x	x	x
University of Hawai'i, Environmental Center	x		x		x
University of Hawai'i, Office of Capital Improvements			x		x
University of Hawai'i, Vice Chancellor of Finance	x		x		x
City and County of Honolulu					
Board of Water Supply	x	x	x	x	x
Department of Community Services	x	x	x	x	x
Department of Design and Construction	x	x	x	x	x
Department of Environmental Services	x		x		x
Department of Facility Maintenance	x	x	x	x	x

Respondents and Distribution	Pre-Consultation	Pre-Consultation Comments Received	Receiving Draft EA	Comments Received	Receiving Final EA/ FONSI
Department of Parks and Recreation			x	x	
Department of Planning and Permitting	x	x	x	x	x
Department of Transportation Services	x	x	x	x	x
Honolulu Fire Department	x	x	x	x	x
Honolulu Film Office	x		x		x
Honolulu Police Department	x	x	x		x
Office of the Mayor	x		x		x
Elected Officials					
State Senator Les Ihara, Jr.	x		x		x
State House Representative Barbara C. Marumoto	x		x		x
Councilmember Charles Djou	x		x		x
Libraries					
Hawai'i State Library			x		x
Kaimukī Public Library			x		x
Waikīkī Public Library			x		x
UH Hamilton Library			x		x
Citizen Groups, Individuals & Consulted Parties					
Diamond Head Citizen's Advisory Committee	x		x	x	x
Diamond Head Memorial Park	x		x		x
~~Kapi'olani Community College~~	~~x~~		~~x~~		
Neighborhood Board #4 - Kaimukī	x		x		x
East Diamond Head Association				x	x

APPENDIX A COMMENT LETTERS AND RESPONSES

PRE-CONSULTATION SUMMARY

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
ABBEY SETH MAYER
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-12367

December 22, 2008

DEC 23 2008

Mr. George Atta
Group 70 International Inc.
925 Bethel St., 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

The following are our comments on the Pre-Consultation Notice for Draft Environmental Assessment Film and Digital Media Center.

The Office of Planning is supportive of efforts to grow the film and digital media industry in Hawaii. The film and television industry already generates significant tax revenues and jobs in Hawaii. The State of Hawaii wants to expand into the digital media industry. The industry is a national growth industry. Hawaii has established a niche in this industry cluster and has talented young people who would like to enter this field.

The Film and Digital Media Center will support growth in this sector of our economy. It is also consistent with and implements the Hawaii Comprehensive Economic Development Strategy.

The Office of Planning functions include providing the State's position on petitions to reclassify lands before the State Land Use Commission and administering the Coastal Zone Management Act. This project does not involve the reclassification of land since it is entirely in the State Urban District.

With reference to coastal zone management, the State oversees protection of natural, cultural, and economic resources within the coastal zone. Please discuss how the proposed project will balance the competing values of economic development and preservation of coastal resources, including protection from hurricane, storm surge, flood hazard, and soil erosion as applicable.

The Office recommends using the EA/EIS process as a means to identify and incorporate sustainable design and development practices, including green building practices, in the proposed project. OEQC's *Guidelines for Sustainable Building Design in Hawai`i* and the U.S.

Green Building Council's Leadership in Energy and Environmental Design (LEED) programs for new construction and its pilot program for neighborhood development offer guidelines and checklists for this purpose. The adoption of sustainable building and development practices has long-term environmental, social, and economic benefits to Hawaii's residents and communities.

The Office of Planning looks forward to receiving the draft environmental assessment. If you have any questions, please call Mary Lou Kobayashi at 587-2808.

Sincerely,

Mary Lou Kobayashi for

Abbey Seth Mayer
Director

GROUP 70
INTERNATIONAL

February 10, 2009

Mr. Abbey Seth Meyer, Director
State of Hawai'i
Department of Business, Economic Development & Tourism
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Meyer,

Thank you for your Pre-Consultation comment letter dated December 22, 2008 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge and appreciate the Department of Business Development & Tourism (DBEDT), Office of Planning's Support for the proposed Digital Media Center project. We agree that the industry is a national growth industry and that Hawai'i has established a niche in this industry cluster. Through projects such as the Digital Media Center, we can continue to generate significant tax revenues and jobs in Hawai'i as well as encourage and foster talented young people to enter this field.

We acknowledge that the project boundaries are located within the State Urban District and require no reclassification for the proposed use.

The proposed project is approximately .5 miles from the nearest coastal area and is located adjacent to Diamond Head crater on its inland side. There are no potential concerns related to directly affecting the value of coastal resources. Given its location and elevation, there are no identified concerns for flood hazard or storm surge. However, other issues pertaining to natural hazards and soil erosion will be addressed in the Draft EA.

We acknowledge the Department of Business Development & Tourism (DBEDT), Office of Planning's recommendation of using the EA/EIS process as a means of identifying and incorporating sustainable design and development practices. We agree that the adoption of sustainable building and development practices have important long term benefits to Hawaii's residents and communities. The proposed center will conform to the State's objective to meet a minimal standard to attain a Silver certification rating under the United States Green Build Council, Leadership in Energy and Environmental Design program.

In the Draft EA, we will address the issues you raised in your letter. Upon completion, we will be providing your office with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Should you have any additional comments, please feel free to contact me.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta

George I. Atta, AICP
Principal Planner

Group 70 International • 925 Bethel Street, 5th Floor • Honolulu, HI 96813-4307 • tel. 808.523.5866 • fax. 808.523.5874 • www.group70int.com

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

JAN - 6 2009

January 5, 2009

Group 70 International, Inc.
925 Bethel Street 5th Floor
Honolulu, Hawaii 96813-4307

Attention: Mr. George Atta

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Proposed Film and Digital Media Center

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,

for Morris M. Atta
Administrator

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

December 15, 2008

MEMORANDUM

TO: **DLNR Agencies:**
__Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
__Engineering Division
__Div. of Forestry & Wildlife
__Div. of State Parks
__Commission on Water Resource Management
~~Office of Conservation & Coastal Lands~~
x Land Division – Oahu District

FROM: for Morris M. Atta
SUBJECT: Pre-consultation for Draft Environment Assessment for Film and Digital Media Center
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-42:portion 9 and 33
APPLICANT: Group 70 International, Inc.

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by January 1, 2009.

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.
(X) We have no comments.
( ) Comments are attached.

Signed: Timmy Chu
Date: 12-19-08

GROUP 70
INTERNATIONAL

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Tom Young
AIA

February 10, 2009

Morris Atta, Administrator
State of Hawai'i
Department of Land and Natural Resources, Land Division
Post Office Box 621
Honolulu, HI 96809

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Atta,

Thank you for your Pre-Consultation comment letter dated January 5, 2008 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Department of Land and Natural Resources, Land Division, has no comments on the subject matter at this time.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

LINDA LINGLE
GOVERNOR OF HAWAII

FEB - 2 2009

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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

January 29, 2009

Mr. George Atta-Principle Planner
Group 70 International, Inc
925 Bethel St, 5th Floor
Honolulu, HI 96813-4307

LOG NO: 2008.5882
DOC NO: 0901LM26
Archaeology

Dear Mr. Atta:

SUBJECT: Chapter 6E-8 Historic Preservation Review –
Pre-Consultation for Draft Environmental Assessment
Film and Digital Media Center (Diamond Head) Use of State Lands
Waikīkī Ahupua'a, Kona District, Island of O'ahu
TMK: (1) 3-1-042: portion 009 & 0332-2-011:017

Thank you for the opportunity to provide comments on the aforementioned project, which we received on December 11th, 2008. A search of our records indicates an archaeological inventory survey has not been conducted of the subject property. Our review is based on correspondence, reports, maps, and aerial photographs maintained at the State Historic Preservation Division; no field inspection was conducted of the subject property. The subject property is located in proximity to Diamond Head National Monument and was likely the locus of both pre-contact and post-contact activities.

Therefore, in order to determine the effect of the proposed undertaking on potential cultural/historic sites, we recommend that as part of the pre-consultation process an archaeological field inspection/literature review be conducted of the proposed area of potential effect. We feel a survey should be conducted of the subject area to determine whether significant historic properties are present. If significant cultural/historic properties are identified then appropriate mitigation strategies will be implemented. An acceptable assessment report documenting the findings of the field inspection will need to be submitted to this office for review.

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

Aloha,

Nancy A. McMahon

Nancy McMahon, Archaeology and Historic Preservation Manager
State Historic Preservation Division

LM

GROUP 70
INTERNATIONAL

February 10, 2009

Nancy McMahon, Archaeology and Historic Preservation Manager
State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, HI 96707

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Ms. McMahon,

Thank you for your Pre-Consultation comment letter dated January 29, 2009 concerning the Draft EA for the Film and Digital Media Center project.

An Archaeological Literature Review and Field Inspection report was recently submitted to your division for your review and comment. This report was designed to address the identification of any archaeological site types and their locations and to provide recommendations for future archaeological work to be completed as part of the scope of this project. The preliminary results of the report indicated that much of the land surface where the existing soundstage resides and will be the location of the proposed project has been previously graded to a depth as much as three meters in some areas. No surface features or sites affiliated with Pre-Contact, Post-Contact Hawaiian history or military history were found. The report further concluded that the probability of sub-surface remains is very low due to the extensive grading that has already occurred. The report recommends that no additional archaeological fieldwork is necessary. However, as you are well aware, there is always a possibility that unidentified subsurface features and resources may exist. As such, should subsurface cultural or traditional deposits be found during construction of the project, including iwi kūpuna, construction work will immediately cease and both SHPD and OHA will be contacted pursuant to the applicable rules governing said activities.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

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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

JAN - 6 2009

HRD08/4099

December 25, 2008

George Atta, Principal Planner
Group 70 International
925 Bethel Street 5th Floor
Honolulu, Hi 96813-4307

RE: Pre-consultation for the Draft Environmental Assessment for the Film and Digital Media Center at Diamond Head, Honolulu, O'ahu, TMK: (1) 3-1-042: por. 009 and 033.

Aloha e George Atta,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned letter dated December 10, 2008. The Department of Business, Economic Development and Tourism proposes to construct a new Film and Digital Media Center within the Hawai'i Film Facility in the Diamond Head area. The project site is 1.98 acres. The proposed center will be three stories tall and offer approximately 50,000 square feet of floor space. The project will be a high-tech center for the Creative Media Academy of the University of Hawai'i. OHA has reviewed the project and offers the following comments.

Chapter 343 of the Hawaii Revised Statues (HRS) requires that the Draft EA include a Cultural Impact Assessment (CIA). The CIA shall include information relating to the traditional and customary practices and beliefs of the area's Native Hawaiians, and the community should be involved in this assessment. Consideration must also be afforded to any individuals accessing the project area for constitutionally protected traditional and customary purposes, in accordance with the Hawai'i State Constitution, Article XII, Section 7.

OHA requests clarification whether an archaeological inventory survey for the project will be submitted to the State Historic Preservation Division for review and approval. If so, OHA should be allowed the opportunity to comment on the criteria assigned to any cultural or archaeological sites identified within the archaeological inventory survey.

We request the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong by phone at (808) 594-0248 or e-mail him at sterlingw@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

GROUP 70
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M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

February 10, 2009

Clyde W. Nāmu'o, Administrator
State of Hawai'i
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Nāmu'o,

Thank you for your Pre-Consultation comment letter dated December 25, 2008 concerning the Draft EA for the Film and Digital Media Center project.

A Cultural Impact Assessment (CIA) will be completed and included in the Draft EA. The CIA will address concerns related to traditional and customary practices and beliefs of Native Hawaiians and other cultural related issues from the community at-large. As appropriate, issues related to access rights affiliated with said practices and beliefs will be addressed upon the findings and recommendations of the CIA.

An Archaeological Literature Review and Field Inspection report was recently submitted to the State Historic Preservation Division (SHPD) for their initial review and comment. This report was designed to address the identification of any archaeological site types and their locations and to provide recommendations for future archaeological work to be completed as part of the scope of this project.

The preliminary results of the report indicated that much of the land surface where the existing soundstage resides and will be the location of the proposed project has been previously graded to a depth as much as three meters in some areas. No surface features or sites affiliated with Pre-Contact, Post-Contact Hawaiian history or military history were found.

The report further concluded that the probability of sub-surface remains is very low due to the extensive grading that has already occurred. The report recommends that no additional archaeological fieldwork is necessary. However, there is always a possibility that unidentified subsurface features and resources may exist. As such, should subsurface cultural or traditional deposits be found during construction of the project, including iwi kūpuna, construction work will immediately cease and both SHPD and OHA will be contacted pursuant to the applicable rules governing said activities.

Landscaping for the proposed project will be done with drought tolerant plant species that are appropriate for the climate conditions and native soil composition. We agree that the inclusion of native plant species would further the traditional Hawaiian concept of mālama 'āina and create a more Hawaiian sense of place.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

BOARD OF WATER SUPPLY

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

January 5, 2009

JAN - 7 2009

Mr. George Atta
Group 70 International, Inc.
925 Bethel Street, 5th floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Your Letter Dated December 19, 2008 on the Pre-Assessment Consultation for the Film and Digital Media Center Project,TMK 3-1-042:9, 33

Thank you for the opportunity to comment on the proposed resource center.

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 application. The final decision on the availability of water will be confirmed when the building permit application 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 requirements should be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department.

The proposed resource center is subject to Board of Water Supply cross-connection control and backflow prevention requirements prior to issuance of the Building Permit Application.

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

Very truly yours,

for KEITH S. SHIDA
Program Administrator
Customer Care Division

GROUP 70
INTERNATIONAL

PRINCIPALS

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Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

February 10, 2009

Keith S. Shida, Program Administrator, Customer Care Division
City and County of Honolulu
Board of Water Supply
630 South Beretania Street
Honolulu, HI 96843

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Shida,

Thank you for your Pre-Consultation comment letter dated January 05, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge your assessment that the existing water system is adequate to accommodate the proposed development. We further recognize that the Board of Water Supply reserves the right to change its position until the building permit application has been approved.

The applicant will pay the necessary fees for water resource development, transmission, and daily storage.

Fire protection requirements will be coordinated with the Fire Prevention Bureau of the Honolulu Fire Department as the project moves forward.

Finally, we are aware that that the project is subject to Board of Water Supply requirements for cross-connection control and backflow prevention prior to the issuance of building permit application.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU
715 SOUTH KING STREET, SUITE 311 • HONOLULU, HAWAII 96813 • AREA CODE 808 • PHONE: 768-7762 • FAX: 768-7792

MUFI HANNEMANN
MAYOR

DEBORAH KIM MORIKAWA
DIRECTOR

ERNEST Y. MARTIN
DEPUTY DIRECTOR

JAN - 5 2009

December 30, 2008

Mr. George Atta, Principal Planner
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Pre-Consultation for Draft Environmental Assessment
Film and Digital Media Center

Thank you for the opportunity to participate in the pre-consultation phase of the Film and Digital Media Center's environmental assessment. We have reviewed your handout providing a project summary and overview of the proposed action and we have no comment at this time.

Sincerely,

Deborah Kim Morikawa
Director

DKM:so

GROUP 70
INTERNATIONAL

February 10, 2009

Deborah Kim Morikawa
City and County of Honolulu
Department of Community Services
715 South King Street, Suite 311
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Ms. Morikawa,

Thank you for your Pre-Consultation comment letter dated December 30, 2008 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Department of Community Services has no comments on the subject matter at this time.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 523-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

RUSSELL H. TAKARA, P.E.
ACTING DIRECTOR

DEPUTY DIRECTOR

JAN 22 2009

January 22, 2009

Mr. George Atta
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Pre-Consultation for Draft Environmental Assessment
Film and Digital Media Center
(Diamond Head, Honolulu, Hawaii)

Thank you for giving us the opportunity to comment on the above Pre-Consultation for Draft Environmental Assessment.

The Department of Design and Construction has no comments to offer at this time.

Very truly yours,

Russell H. Takara, P.E.
Acting Director

RHT:lt (292487)

GROUP 70
INTERNATIONAL

PRINCIPALS

Francis S. Oda
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Christine Mendes Ruotola
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James L. Stone
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Paul Bierman-Lytle
M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

February 10, 2009

Russell H. Takara, P.E., Acting Director
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Fl.
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Takara,

Thank you for your Pre-Consultation comment letter dated January 22, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Department of Design and Construction has no comments on the subject matter at this time.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

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DEPARTMENT OF FACILITY MAINTENANCE
CITY AND COUNTY OF HONOLULU
1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768 -3381
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR

GEORGE "KEOKI" MIYAMOTO
ACTING DIRECTOR

IN REPLY REFER TO:
DRM 09-33

RECEIVED
JAN 15 2009

January 14, 2009

Mr. George Atta
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Pre-Consultation for Draft Environmental Assessment (DEA)
Film and Digital Media Center, Diamond Head, Honolulu, Hawaii

Thank you for the opportunity to review and comment on the Pre-Consultation for the DEA for the proposed Film and Digital Media Center in the Diamond Head area of Honolulu.

We have no comments to offer as the proposed center will be within State-owned property and will have negligible impact on our facilities and operations.

Any associated improvements within adjacent City owned roadway right-of-ways should be constructed in accordance with the City and County of Honolulu Standard Details.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Sincerely,

George "Keoki" Miyamoto
Acting Director

GROUP 70
INTERNATIONAL

February 10, 2009

George "Keoki" Miyamoto, Acting Director
City and County of Honolulu
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, HI 96707

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Miyamoto,

Thank you for your Pre-Consultation comment letter dated January 14, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Department of Facility Maintenance has no comments on the subject matter at this time.

Any associated improvements within adjacent City owned roadway right-of-ways will be constructed in accordance with the City and County of Honolulu Standard Details.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

Group 70 International • 925 Bethel Street, 5th Floor • Honolulu, HI 96813-4307 • tel. 808.523.5866 • fax. 808.523.5874 • www.group70int.com

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
TELEPHONE: (808) 768-8000 • FAX: (808) 527-6743
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MUFI HANNEMANN
MAYOR

HENRY ENG, FAICP
DIRECTOR

DAVID K. TANOUE
DEPUTY DIRECTOR

JAN 12 2009

2008/ELOG-2993(JS)

December 23, 2008

Mr. George Atta
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Pre-Assessment Consultation for a Draft Environmental Assessment
University of Hawaii Film and Digital Media Center
Tax Map Key 3-1-42: portion of 9 and 33

The Department of Planning and Permitting (DPP) has reviewed the subject pre-assessment consultation request for the above proposal and have the following comments:

1. The site is located within the Special Management Area (SMA). The proposal is subject to the objectives, policies, and guidelines established in the SMA Ordinance, Chapter 25, Revised Ordinances of Honolulu (ROH). A Special Management Area Use Permit (SMP) may be required. As such, the Draft Environmental Assessment (DEA) should also address the requirements of Chapter 25, ROH.

2. The R-10 Residential District height limit is 25 feet.

3. The site is located in the Diamond Head Special district.

4. Road-widening is proposed for Kilauea, 18th and Makapuu Avenues.

5. The DEA should clarify whether the proposed facility is a part of the University of Hawaii curriculum. If so, the facility may require Plan Review Use approval.

6. Explain why the City Department of Planning and Permitting, instead of a State agency, such as the Department of Accounting and General Services, should be the accepting agency for the Environmental Review process.

Please include the DPP in your consultation process for the draft environmental assessment when it is available.

Thank you for the opportunity to comment. If we can be of further assistance, please contact Joyce Shoji of our Urban Design Branch at 768-8032.

Very truly yours,

Henry Eng, FAICP, Director
Department of Planning and Permitting

HE:fm

doc. 667311

GROUP 70
INTERNATIONAL

February 10, 2009

David Tanoue, Director
City and County of Honolulu
Department of Planning and Permitting
650 S. King Street, 7th Floor
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Tanoue,

We are replying to the Pre-Consultation comment letter dated December 23, 2008 by former Director Henry Eng concerning the Draft EA for the Film and Digital Media Center project. We provide the following in response to comments provided:

1. We acknowledge the project is within the Special Management Area and will require the fulfillment of requirements of Chapter 25, ROH SMA Permit process. The Draft EA addresses the criteria and guidelines specific to the SMA area.

2. The project will meet the height restriction of 25' in for the R-10 residential district.

3. We acknowledge that the project is within the Diamond Head Special District and will need to address the corresponding requirements within the Land Use Ordinance and permit application.

4. A Traffic Impact Assessment Report will be included in the Draft EA and will take into account ongoing and near future road widening projects in the immediate vicinity.

5. Although the proposed project is funded as a 50-50 co-share between the University of Hawai'i and the Economic Development Administration, the land for the project is being provided by the State Department of Business Economic Development and Tourism. The facility is not part of the "institutional campus" of the University; rather it will be a DBEDT facility, and therefore, we think a PRU approval is not needed.

6. The State Department of Accounting and General Services will be the accepting authority for this environmental review.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP
Principal Planner

DEPARTMENT OF TRANSPORTATION SERVICES
CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR

WAYNE YOSHIOKA
ACTING DIRECTOR

RICHARD F. TORRES
DEPUTY DIRECTOR

JAN 2 2 2009

TP12/08-292977R

January 14, 2009

Mr. George Atta
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Pre-Consultation for Draft Environmental Assessment: Film and Digital Media Center, Diamond Head

This responds to your letter requesting consultation in preparing for a DEA related to the subject project.

The department wishes to reserve comment on the project pending the preparation of a traffic impact study for the DEA document. Upon completion of the study, we request that a copy of the study be forwarded to our department for review and comment.

Thank you for the opportunity to participate in your consultation process.

Very truly yours,

WAYNE Y. YOSHIOKA
Acting Director

GROUP 70
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PRINCIPALS

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AIA, ASID

Hitoshi Hida
AIA

Roy H. Nihei
AIA, CSI

Ralph E. Portmore
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James I. Nishimoto
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Christine Mendes Ruotola
AICP

James L. Stone
AIA, LEED AP

Paul Bierman-Lytle
M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

February 10, 2009

Wayne Y. Yoshioka, Acting Director
City and County of Honolulu
Department of Transportation Services
650 South King Street, 3rd Fl.
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Mr. Yoshioka,

Thank you for your Pre-Consultation comment letter dated January 14, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Department of Transportation Services wishes to reserve comment on the project pending the preparation and inclusion of a traffic impact study for the DEA document.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta, AICP
Principal Planner

HONOLULU FIRE DEPARTMENT

CITY AND COUNTY OF HONOLULU

636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

December 30, 2008

Mr. George Atta
Principal Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Preconsultation for Draft Environmental Assessment
Film and Digital Media Center
Honolulu, Oahu, Hawaii
Tax Map Keys: 3-001-042: (Portion) 009 and 033

In response to your letter dated December 19, 2008, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and has no objections to the project.

Although the proposed project will not adversely impact the services provided by the HFD, the HFD requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from fire apparatus access as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of the 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2, as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

Sincerely,

Alvin K. Tomita

ALVIN K. TOMITA
Acting Fire Chief

AKT/KT:bh

GROUP 70
INTERNATIONAL

February 10, 2009

Alvin K. Tomita
City and County of Honolulu
Fire Department
636 South Street
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Chief Tomita,

Thank you for your Pre-Consultation comment letter dated December 30, 2008 concerning the Draft EA for the Film and Digital Media Center project.

The following are offered in response to your comments:

1. The proposed project will comply with the Uniform Fire Code, Section 902.2.1, that specifies the requirement of providing a fire apparatus access road. Details during the final design phase will ensure the fulfillment of this requirement.

2. The project will provide a water supply, to be approved by the County and also capable of supplying the required fire flow for fire protection. On-site fire hydrants and mains capable of supplying the required fire flow will also be provided.

3. Civil drawings will be submitted to the HFD for review and approval.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

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POLICE DEPARTMENT
CITY AND COUNTY OF HONOLULU
801 SOUTH BERETANIA STREET · HONOLULU, HAWAII 96813
TELEPHONE: (808) 529-3111 · INTERNET: www.honolulupd.org

MUFI HANNEMANN
MAYOR

BOISSE P. CORREA
CHIEF

PAUL D. PUTZULU
KARL A. GODSEY
DEPUTY CHIEFS

OUR REFERENCE BS-DK

December 24, 2008

DEC 29 2008

Mr. George I. Atta, AICP
Principal Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Atta:

This is in response to your letter of December 19, 2008, requesting comments on a Pre-Consultation, Draft Environmental Assessment, for the Film and Digital Media Center project in Diamond Head.

This project should have no significant impact on the facilities or operations of the Honolulu Police Department.

If there are any questions, please call Major Robert Green of District 7 at 529-3362 or Mr. Brandon Stone of the Executive Bureau at 529-3644.

Sincerely,

BOISSE P. CORREA
Chief of Police

By
DEBORA A. TANDAL
Assistant Chief of Police
Support Services Bureau

Serving and Protecting With Aloha

GROUP 70
INTERNATIONAL

February 10, 2009

Chief Boisse Correa
City and County of Honolulu
Police Department
801 South Beretania Street
Honolulu, HI 96813

Subject: Response to Pre-Consultation Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Diamond Head, Honolulu, Hawai'i)

Dear Chief Correa,

Thank you for your Pre-Consultation comment letter dated December 24, 2008 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge your statement that the project should have no significant impact on your agency's facilities or operations.

Upon completion, we will be providing the Department with a copy of the Draft EA for your review. We appreciate your input and participation in the pre-consultation process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

Group 70 International • 925 Bethel Street, 5th Floor • Honolulu, HI 96813-4307 • tel. 808.523.5866 • fax. 808.523.5874 • www.group70int.com

DRAFT ENVIRONMENTAL ASSESSMENT

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

HAWAII FILM OFFICE
No. 1 Capitol District Bldg., 250 South Hotel St., 5th Flr., Honolulu, Hawaii 96813 Telephone: (808) 586-2570
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Fax: (808) 586-2572
Website: www.hawaiifilmoffice.com E-mail: info@hawaiifilmoffice.com

March 25, 2009

Memorandum

To: George I. Atta, Group 70 International, Inc.
Brian S. Isa, Dept. Of Accounting and General Services
Katherine Puana Kealoha, Office of Environmental Quality Control

From: Donne Dawson, Manager
Hawaii Film Office, Creative Industries Division

Georja Skinner, Administrator
Creative Industries Division (CID)

Subject: Comments on Draft Environmental Assessment
Film and Digital Media Center
Hawaii Film Studio

We have reviewed the Draft Environmental Assessment (EA) for the proposed Film and Digital Media Center Project. Listed below are the Page and Section to which we have made our comments.

Overall there are several major concerns which must be addressed in this document:

First, the Draft EA does not highlight the significance that this is a working film studio site (the only one of its kind in the state); address the impact construction may have on existing production at the Hawaii Film Studio; as well as the potential negative impacts the reduction of leaseable space would have on our ability to market the Hawaii Film Studio to off-shore or local production. These concerns were voiced during the charette process and should be reflected in this document.

Second, the nomenclature used throughout to describe the uses for the Film and Digital Media Center are inconsistent and do not address all facets envisioned for the facility. We recommend you consult further with University of Hawaii ACM and New Media Arts programs to better encapsulate the vision. For example: in section 1.3 on page 1-2, the description of educational programs should reflect the overall content, so when we mention

'academic cinematography' only in reference to the overall program content, this is only one aspect of what is taught in the film program. So consider rewording to a more encompassing statement;

> *"The Film and Digital Media Center's main thrust will be for instructional and academic programs in film, cinematic arts and new media such as 2D and 3D animation, computer generated special effects, computer software design, game design, interactive, mobile and new media applications." (also in Section 2.2 pages 2-3)*

Third, the document does not address any broadband or wireless infrastructure for the Hawaii Film Studio site or the proposed Film and Digital Media Center. As this is a major component of how both education and industry communicate now and into the future, as well as necessary industry infrastructure to deliver content, this should be included as an aspect of work in the appropriate areas of the Draft EA.

Fourth, as renewable energy is a major initiative for Hawaii and the nation, every effort should be made to achieve LEED status now rather than delaying this aspect for future consideration. Integration of photovoltaic and solar components should be included wherever possible and referenced in the document.

Thank you for this opportunity to comment on the draft. We look forward to any questions you may have. Mahalo.

c: Theodore E. Liu, DBEDT
Mark Anderson, DBEDT
Mary Lou Kobayashi, OP/DBEDT
Gail Fujita, EDA

GROUP 70
INTERNATIONAL

May 1, 2009

Georja Skinner, Administrator
Donne Dawson, Manager
State of Hawai'i
Department of Business Economic Development & Tourism
Creative Industries Division
P.O. Box 2359
Honolulu, HI 96804

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Ms. Skinner and Ms. Dawson:

Thank you for your Draft Environmental Assessment comment letter dated March 25, 2009 concerning the Draft EA for the Film and Digital Media Center project. We offer the following responses to your comments:

1. We have revised the Final EA to reflect the significance of the Hawai'i Film Studio site and the potential impacts and opportunities that may occur on existing production as a result of the proposed project. Please see *Section 3.13* of the Final EA.

2. Your comment has been noted. We have revised *Section 1.3 and 2.2* to incorporate elements described in your letter to better define the overall vision of the Film and Digital Media Center.

3. We have addressed broadband and wireless infrastructure for the proposed project in *Section 2.2* and *Section 2.4.5* of the Final EA.

4. We recognize the State's goals relating to renewable energy resources. The proposed Film and Digital Media Center project supports these goals by incorporating sustainable building design standards and practices into design strategies. The project seeks to achieve the State-mandated minimum level of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification through the use of energy saving features such as energy-efficient mechanical and electrical systems, efficient plumbing systems, the use of Volatile Organic Compound (VOC)-free building materials and finishes, and incorporating architectural design features such as shading fins, sun shelves, and energy-efficient windows to decrease cooling loads on the building and increase interior thermal comfort levels. The integration of photovoltaic and solar components and a landscaped green roof are still being considered for the project.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

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LINDA LINGLE
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DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
ABBEY SETH MAYER
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING
235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587-2846
Fax: (808) 587-2824

Ref. No. P-12471

MAR 17 2009

March 13, 2009

To: Brian S. Isa, Engineer
Department of Accounting and General Services

From: Abbey Seth Mayer, Director

Subject: Comments on the Draft Assessment for the Proposed Film and Digital Media Center Project

The following are our comments on the Draft Environmental Assessment (DEA) for the proposed Film and Digital Media Center project.

The Office of Planning is supportive of efforts to grow the film and digital media industry in Hawaii. The film and television industry already generates significant tax revenues and jobs in Hawaii. The State of Hawaii wants to expand into the digital media industry. The industry is a national growth industry. Hawaii has established a niche in this industry cluster and has talented young people who would like to enter this field.

The Film and Digital Media Center will support growth in this sector of our economy. It is also consistent with and implements the Hawaii Comprehensive Economic Development Strategy.

The Office of Planning functions include providing the State's position on petitions to reclassify lands before the State Land Use Commission and administering the Coastal Zone Management Act. This project does not involve the reclassification of land since it is entirely in the State Urban District.

With reference to coastal zone management, the State oversees protection of natural, cultural, and economic resources within the coastal zone. The discussion of how the proposed project will balance the competing values of economic development and preservation of coastal resources, including protection from hurricane, storm surge, flood hazard, and soil erosion indicates that the proposed project will not impact the resources of the coastal zone.

The Office commends the applicant for incorporating sustainable design and development practices, including green building practices designed to attain a LEED rating of "Silver" in the proposed project. The adoption of sustainable building and development practices has long-term environmental, social, and economic benefits to Hawaii's residents and communities.

The DEA details how the proposed project will meet the goals and objectives of the 2050 Sustainable Plan to respect Hawaii's culture, character, beauty, and history, balance economic, community, and environmental goals, and meet the needs of the present without compromising the ability of future generations to meet their own needs.

The Office of Planning appreciates the opportunity to comment on the draft environmental assessment. If you have any questions, please call Mary Lou Kobayashi at 587-2808.

c: Katherine P. Kealoha, OEQC
George I. Atta, Group 70

GROUP 70
INTERNATIONAL

May 1, 2009

Abbey Seth Mayer, Director
State of Hawai'i
Department of Business, Economic Development & Tourism
Office of Planning
P.O. Box 2359
Honolulu, HI 96804

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Meyer,

Thank you for your Draft Environmental Assessment comment letter addressed to the Department of Accounting and General Services dated March 13, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We appreciate your support for the proposed project and your acknowledgement of the project's contribution in expanding the digital media industry of the State. As you have noted in your letter, the Film and Digital Media Center project will not impact the resources of the coastal zone and provides a balance between economic development and the preservation of coastal resources.

We recognize the State's goals relating to renewable energy resources, including the goals and objectives of the 2050 Sustainable Plan. The proposed Film and Digital Media Center project supports these goals by incorporating sustainable building design standards and practices into design strategies. The project seeks to achieve the State-mandated minimum level of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification through the use of energy saving features such as energy-efficient mechanical and electrical systems, efficient plumbing systems, the use of Volatile Organic Compound (VOC)-free building materials and finishes, and incorporating architectural design features such as shading fins, sun shelves, and energy-efficient windows to decrease cooling loads on the building and increase interior thermal comfort levels.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

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LINDA LINGLE
GOVERNOR OF HAWAII

MAR 25 2009

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-09-030

March 23, 2009

Mr. George Atta
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

SUBJECT: Draft Environmental Assessment the Proposed Film and Digital Media Center Project, Diamond Head, Oahu, Hawaii
TMK (1) 3-1-042: 009 (portion) and 033

Thank you for allowing us to review and comment on the subject application. The application was routed to the various branches of the Environmental Health Administration. We have the following Clean Water Branch and General comments.

Clean Water Branch

The Department of Health, Clean Water Branch (CWB), has reviewed the subject document and offers these comments on your project. Please note that our review is based solely on the information provided in the subject document and its compliance with Hawaii Administrative Rules (HAR), Chapters 11-54 and 11-55. You may be responsible for fulfilling additional requirements related to our program. We recommend that you also read our standard comments on our website at http://www.hawaii.gov/health/environmental/env-planning/landuse/CWB-standardcomment.pdf.

1. Any project and its potential impacts to State waters must meet the following criteria:

   a. Antidegradation policy (HAR, Section 11-54-1.1), which requires that the existing uses and the level of water quality necessary to protect the existing uses of the receiving State water be maintained and protected.

   b. Designated uses (HAR, Section 11-54-3), as determined by the classification of the receiving State waters.

   c. Water quality criteria (HAR, Sections 11-54-4 through 11-54-8).

2. You are required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for discharges of wastewater, including storm water runoff, into State surface waters (HAR, Chapter 11-55). For the following types of discharges into Class A or Class 2 State waters, you may apply for NPDES general permit coverage by submitting a Notice of Intent (NOI) form:

   a. Storm water associated with 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 start of the construction activities.

   b. Hydrotesting water.

   c. Construction dewatering effluent.

   You must submit a separate NOI form for each type of discharge at least 30 calendar days prior to the start of the discharge activity, except when applying for coverage for discharges of storm water associated with construction activity. For this type of discharge, the NOI must be submitted 30 calendar days before to the start of construction activities. 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.

3. For types of wastewater not listed in Item 2 above or wastewater discharging into Class 1 or Class AA waters, you may need an NPDES individual permit. An application for an NPDES individual permit must be submitted at least 180 calendar days before the commencement of the discharge. The NPDES application forms may be picked up at our office or downloaded from our website at http://www.hawaii.gov/health/environmental/water/cleanwater/forms/indiv-index.html.

4. You must also submit a copy of the 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 CWB that SHPD has or is in the process of evaluating your project. Please submit a copy of your request for review by SHPD or SHPD's determination letter for the project along with your NOI or NPDES permit application, as applicable.

5. Please note that all discharges related to the project construction or operation activities, whether or not NPDES permit coverage is required, must comply with the State's Water Quality Standards. Noncompliance with water quality requirements contained in HAR, Chapter 11-54, and/or permitting requirements, specified in HAR, Chapter 11-55, may be subject to penalties of $25,000 per day per violation.

If you have any questions, please visit our website at http://www.hawaii.gov/health/environmental/water/cleanwater/index.html, or contact the Engineering Section, CWB, at 586-4309.

General

We strongly recommend that you review all of the Standard Comments on our website: www.hawaii.gov/health/environmental/env-planning/landuse/landuse.html. Any comments specifically applicable to this project 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

GROUP 70
INTERNATIONAL

PRINCIPALS

Francis S. Oda
Arch.D., FAIA, AICP

Norman G.Y. Hong
AIA

Sheryl B. Seaman
AIA, ASID

Hitoshi Hida
AIA

Roy H. Nihei
AIA, CSI

Ralph E. Portmore
AICP

James I. Nishimoto
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Stephen Yuen
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Linda C. Miki
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AICP

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AICP, LEED AP

Christine Mendes Ruotola
AICP

James L. Stone
AIA, LEED AP

Paul Bierman-Lytle
M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

May 1, 2009

Kevin H. Sunada, Manager, Environmental Planning Office
State of Hawai'i
Department of Health
P.O. Box 3378
Honolulu, HI 96801-3378

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Sunada,

Thank you for your Draft Environmental Assessment (EA) comment letter dated March 23, 2009 concerning the Draft EA for the Film and Digital Media Center project.

The standard comments provided on the Clean Water Branch and General Department web site have been reviewed. The project will comply with the requirements of the Clean Water Act, including the rules under Hawai'i Administrative Rules, Sections 11-54 and 11-55. Further, given that the project will include clearing, grading, and excavation of an area greater than one acre, we acknowledge that a National Pollutant Discharge Elimination System (NPDES) permit is required prior to construction. Additionally, all applicable discharge requirements will be met as detailed in your letter.

We appreciate your input and participation in the environmental review process. Upon completion we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

Group 70 International • 925 Bethel Street, 5th Floor • Honolulu, HI 96813-4307 • tel. 808.523.5866 • fax. 808.523.5874 • www.group70int.com

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

RECEIVED
MAR 17 2009
GROUP 70 INT'L

March 13, 2009

Department of Accounting & General Services
Box 119
Honolulu, Hawaii 96810

Attention: Mr. Brian S. Isa

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Film & Digital Media Center

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 Engineering Division, Division of Aquatic Resources, 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,

Charlene D. Unoki
for Morris M. Atta
Administrator

Cc: OEQC
Group 70 International, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 25, 2009

AQUATIC RESOURCES: 2121

DIRECTOR	
COMM. FISH.	
AQ RES/ENV	
ACREC	
PLANNER	
STAFF SVCS.	
RCUH/UH	
STATISTICS	
AFRC/FED AID	
EDUCATION	
SECRETARY	
OFFICE SVCS.	
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DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

RECEIVED
FEB 26 2009
AQUATIC RESOURCES

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
x Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
x Land Division – Oahu District

FROM: ~~Morris M. Atta~~ Marlene
SUBJECT: Draft Environmental Assessment for Film and Digital Media Center
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-42:portion of 9 and 33
APPLICANT: DBEDT

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 13, 2009.

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.
(x) We have no comments.
( ) Comments are attached.

Signed:
Date: 3/12/09

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 25, 2009

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
x Div. of State Parks
__Commission on Water Resource Management
__Office of Conservation & Coastal Lands
x Land Division – Oahu District

FROM: ~~Morris M. Atta~~ Marlene
SUBJECT: Draft Environmental Assessment for Film and Digital Media Center
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-42:portion of 9 and 33
APPLICANT: DBEDT

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 13, 2009.

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.
(X) We have no comments.
( ) Comments are attached.

Signed: Jimmy Chee
Date: 3/31/09

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

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2009 MAR -6 P 2:49

DEPT OF LAND & NATURAL RESOURCES STATE OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

February 25, 2009

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
__Div. of Boating & Ocean Recreation
x Engineering Division
__Div. of Forestry & Wildlife
x Div. of State Parks
__Commission on Water Resource Management
_Office of Conservation & Coastal Lands
_x Land Division – Oahu District

FROM: Morris M. Atta
SUBJECT: Draft Environmental Assessment for Film and Digital Media Center
LOCATION: Honolulu, Oahu, TMK: (1) 3-1-42:portion of 9 and 33
APPLICANT: DBEDT

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by March 13, 2009.

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:
Date: 3/6/09

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LM/MorrisAtta
REF.:DEAFilmDigitalMediaCenter
Oahu.667

COMMENTS

(X) We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone X. The National Flood Insurance Program does not have any regulations for developments within Zone X.

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumitomo at (808) 768-8097 or Mr. Mario Siu Li at (808) 768-8098 of the City and County of Honolulu, Department of Planning and Permitting.
( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.
( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.
( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include water demands and infrastructure required to meet project needs. Please note that projects within State lands requiring water service from the Honolulu Board of Water Supply system will be required to pay a resource development charge, in addition to Water Facilities Charges for transmission and daily storage.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

( ) Other: _____

Should you have any questions, please call Ms. Suzie S. Agraan of the Planning Branch at 587-0258.

Signed:
ERIC T. HIRANO, CHIEF ENGINEER

Date: 3/6/09

GROUP 70
INTERNATIONAL

May 1, 2009

Morris Atta, Administrator
State of Hawai'i
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, HI 96809

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Atta,

Thank you for your Draft Environmental Assessment comment letter addressed to the Department of Accounting and General Services dated March 13, 2009 concerning the Draft EA for the Film and Digital Media Center project.

Per the Engineering Division's comments from Chief Engineer Eric Hirano, we acknowledge that according to Flood Insurance Rate Map information, the project site is located in Zone X, which the National Flood Insurance Program does not have any regulations for development within this zone.

We appreciate your input and participation in the pre-consultation process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

Group 70 International • 925 Bethel Street, 5th Floor • Honolulu, HI 96813-4307 • tel. 808.523.5866 • fax. 808.523.5874 • www.group70int.com

LINDA LINGLE
GOVERNOR OF HAWAII

MAR - 5 2009

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

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

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
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

March 2, 2009

Mr. George Atta, AICP
Group 70 International
925 Bethel Street, 5th floor
Honolulu, Hawai'i 96813-4307

LOG NO: 2009.1043
DOC NO: 0902WT63
Archaeology

Dear Mr. Atta:

SUBJECT: 6E-42 Historic Preservation Review—
Draft Environmental Assessment—
Film and Digital Media Center, Hawai'i Film Studio,
Palolo Ahupua'a, Honolulu District, Island of O'ahu, Hawai'i
TMK: (1) 3-1-042: por. of 009 & 033

Thank you for the opportunity to review this DRAFT Environmental Assessment which we received on February 23, 2009. This project is the construction of a Film and Digital Media Center on the grounds of the Hawai'i Film Studio located adjacent to Kapiolani Community College.

In a review letter to Cultural Surveys Hawai'i regarding their archaeological assessment of the parcel, we determined that there would be **no historic properties affected** (*Literature Review and Field Inspection for the Proposed Diamond Head Digital Media Center, Pālolo Ahupua'a, Honolulu District, O'ahu Island, Hawai'i TMK (1) 3-1-042:009, 033 LOG NO:2009.0661/DOC NO: 0902WT14).* We have not changed our position regarding this project.

Please call Wendy Tolleson at (808) 692-8024 if there are any questions or concerns regarding this letter.

Aloha,

Nancy A. McMahon

Nancy A. McMahon (Deputy SHPO)
State Historic Preservation Officer

CC:
Sate of Hawai'i
Department of Accounting and General Services
Kalanimoku Building
1151 Punchbowl Street
Honolulu, Hawai'i 96813

State of Hawai'i
Department of Business, Economic Development and Tourism
P. O. Box 2359
Honolulu, Hawai'i 96804

Office of Environmental Quality Control
235 S. Beretania Street, Suite 702
Honolulu, Hawai'i 96813

GROUP 70
INTERNATIONAL

May 1, 2009

Nancy McMahon, Archaeology and Historic Preservation Manager
State of Hawai'i
Department of Land and Natural Resources
State Historic Preservation Division
601 Kamokila Blvd., Room 555
Kapolei, HI 96707

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Ms. McMahon,

Thank you for your Draft Environmental Assessment comment letter dated March 02, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the Division has determined that there would be no historic properties affected by the project.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Division with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

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MAR 24 2009
GROUP 70 INT'L

March 20, 2009

Department of Accounting & General Services
Box 119
Honolulu, Hawaii 96810

Attention: Mr. Brian S. Isa

Ladies and Gentlemen:

Subject: Draft Environmental Assessment for Film & Digital Media Center

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 Division of State Parks for their review and comment.

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,

for Morris M. Atta
Administrator

cc: OEQC
Group 70 International, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

RUSSELL Y. TSUJI
FIRST DEPUTY

KEN C. KAWAHARA
DEPUTY DIRECTOR - WATER

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

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES

DIVISION OF STATE PARKS
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 16, 2009

RECEIVED
2009 MAR 20 A 10:30
LAND DIVISION
DEPT. OF LAND & NATURAL RESOURCES
STATE OF HAWAII

MEMORANDUM

TO: Morris M. Atta, Administrator
Land Division

FROM: Dan Quinn, Administrator
State Parks

SUBJECT: Draft Environmental Assessment for the Film and Digital Media Center

Thank you for the opportunity to comment on the Draft Environmental Assessment for the Film and Digital Media Center at Diamond Head Road and 18th Avenue.

General Comment: While the Film and Digital Media Center lies outside of the Diamond Head State Monument, it is within the Diamond Head Special District, which was established to preserve and protect the views and appearance of this unique landmark. We recommend that the project's design be consistent with the height limitations and architectural appearance and character of the Special District. The landscaping should effectively "screen" the new building from Diamond Head Road. In addition, the landscaping should include plant species that are appropriate to Diamond Head's coastal dryland plant community.

Page 3-17 (3.12 Parking and Loading): 3rd paragraph reference to "Lost" Special Use Permit for overflow parking on the exterior slopes of Diamond Head State Monument. This is a temporary parking situation, until State Parks begins work on its Linear Park, which runs from 22nd Avenue to the old Cannon Club site (now park of Kapiolani Community College's Culinary Institute of the Pacific). The Linear Park will remove this parking option.

The Diamond Head Citizens' Advisory Committee, which advises the Department regarding Diamond Head State Monument and its environs, has expressed serious concern regarding this project. Group 70 and Donne Dawson, State Film Commissioner,

met with the Committee at their February 3, 2009 meeting, to present the project and solicit comment. The Committee will be submitting its comments to Group 70 and DAGS directly. Their primary concerns expressed at the February 3, 2009, meeting were:

- The visual impacts the new building will have on the views of Diamond Head;
- The industrial nature of the new facility and that it is too large for the site;
- That there would not be sufficient parking, and that a 2-story parking structure, as called for in the plans, would be built, creating a greater visual impact; and
- The lack of looking at alternative locations for the Film and Digital Media Center.

Thank you for the opportunity to comment on the Draft Environmental Assessment for the Film and Digital Media Center. Should you have any questions or need additional information, please contact Yara Lamadrid-Rose, Diamond Head Park Coordinator, at 587-0294.

c: Brian Isa, DAGS Planning
Diamond Head Citizens' Advisory Committee

GROUP 70
INTERNATIONAL

May 1, 2009

Dan Quinn, Administrator
State of Hawai'i
Department of Land and Natural Resources
Division of State Parks
P.O. Box 621
Honolulu, HI 96809

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Quinn,

Thank you for your Draft Environmental Assessment (EA) comment letter addressed to the Department of Accounting and General Services dated March 16, 2009 concerning the Draft EA for the Film and Digital Media Center project.

As you have stated in your letter, the proposed project is located in the Diamond Head Special District, outside of the District's designated core boundary. The proposed design for the project is consistent with the objectives and design controls specified in the City and County of Honolulu, Land Use Ordinance (LUO), Section 21-9.40. The Film and Digital Media Center facility will be contained within the prescribed 25' height limitation. Further, landscaping requirements will effectively screen the new facility from Diamond Head Road. Prominent public vantage points within the District, including the 18th Avenue from Kīlauea Avenue to Diamond Head Road, will not be impacted. Additionally, landscaping will be provided on the site to further provide screening and vegetation appropriate to the area.

Following the anticipated Final EA/Finding of No Significant Impact (FONSI), a Special District Use Application Permit (Minor) will be submitted to the County. Specific details and drawings will be provided in this application to ensure that Diamond Head State Monument and its associated views are preserved and protected.

Regarding the section on Parking and Loading, we understand that the existing overflow parking located on the exterior slopes of Diamond Head State Monument is temporary until State Parks begins work on its Linear Park. The proposed project does not intend to use this area for its overflow parking needs in the future. Overflow parking will be provided on site where the four existing office buildings (A, B, C, D) are currently located (see *Figure 2-2* of the Draft EA). These buildings will be demolished and kept as open space and landscaped with grasscrete.

We have revised the parking calculations table (*Table 3-1* of the Final EA) for the proposed project, which is provided below. The revised table shows that the proposed project design currently meets parking required by the Land Use Ordinance, Article 6. We would like to note that the required parking calculation of

the Film Studio changed due to the elimination of the four existing office buildings. Overall, with the proposed project, the total number of stalls provided (250 stalls) will exceed the total number of stalls required (176), yielding a net of 74 stalls over the necessary amount required.

	Required Parking for Existing Site (LUO)	Provided Parking for Existing Site	Required Parking for Proposed Project (LUO)	Provided Parking for Proposed Project
Hawai'i Film Studio	123	151	82	139
Proposed Film and Digital Media Center	0	0	94	111
Total	**123**	**151**	**176**	**250**

Source: (Table 3-1, Final EA- Parking Requirements and Provisions for the Film and Digital Media Center)

Finally, as you have noted in your letter, a presentation was provided to the Diamond Head Citizens' Advisory Committee on February 3, 2009. We discussed the Committee's concerns which included visual aesthetics, traffic, parking, and on-site uses. These concerns have been addressed in the Final EA.

Regarding the primary concerns of the Diamond Head Advisory Committee highlighted in your letter, we provide the following responses:

- The project will have a minimal effect on public views of Diamond Head and will be designed and landscaped to minimize view impacts. The project will fit almost exactly into the existing building's footprint and will comply with development standards of the Diamond Head Special District. *Figure 3-8*, *3-9*, and *3-10* of the EA provide a comprehensive visual perspective of the project's impact on surrounding views.

- The aging, monolithic "industrial nature" of the Soundstage #1 will be replaced with the aesthetically designed Film and Digital Media Center, enhancing the adjoining park-like setting of the Diamond Head Special District. *Figure 3-10* of the Draft EA provides Site Sections showing that much of the proposed structure will be located below grade and thus not visible from any public perspective.

- Parking demand and supply has been previously addressed in this response letter. Additionally, the referenced parking structure was previously approved in an accepted Environmental Impact Statement for The Proposed Improvements to the Hawai'i Film Facility, and has been waiting for construction funding. An approved Master Plan and Special Management Area (SMA) Permit (2003/SDD-80 & 89/SMA-43 (Minor Modification) Diamond Head Special District Permit No. 90/DH-19 & 2007/SDD-26) also include the aforementioned provisions of parking structure in its approval. The proposed Film and Digital Media Center project proposes to carry out the design and construction of the pre-approved structure as a part of the overall improvements to the area. The new parking

structure will be effectively screened from view using landscaping and building enclosures.
- As noted in the EA (*Section 4.2*), alternative locations for the proposed project were not explored due to a specific requirement of the project's funding to assess the merits of locating the proposed Film and Digital Media Center on this specific site only. Therefore, the environmental review for this project was limited to reviewing a specified location within the Hawai'i Film Studio site.

We appreciate your input and participation in the environmental review process. Upon completion we will be providing the Department and the Division with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

cc: Yara Lamadrid-Rose, Diamond Head Park Coordinator

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

APR - 7 2009

HRD09/4099C

April 2, 2009

George I. Atta, Principal Planner
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, HI 96813-4307

RE: Request for comments on the Draft Environmental Assessment for the Film and Digital Media Center, Kaimukī, O'ahu, TMK: (1) 3-1-042: por. 009 & 033.

Aloha e George I. Atta,

The Office of Hawaiian Affairs (OHA) received the above-mentioned letter on February 20. 2009. The Film and Digital Media Center is being proposed for the 7.477-acre Hawai'i Film Studio lot, located in Kaimukī, near Diamond Head. The media center will be three stories and measure 47,730 square feet in floor area. OHA has reviewed the project and offers the following comments.

We will rely on the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law.

In addition, OHA recommends that the applicant use native vegetation in its landscaping plan for the subject parcel. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

Thank you for the opportunity to comment, and we look forward to reviewing the Draft Environmental Assessment when it becomes available. If you have further questions, please contact Sterling Wong by phone at (808) 594-0248 or e-mail him at sterlingw@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

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May 1, 2009

Clyde W. Nāmu'o, Administrator
State of Hawai'i
Office of Hawaiian Affairs
711 Kapi'olani Boulevard, Suite 500
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Nāmu'o,

Thank you for your Draft Environmental Assessment (EA) comment letter dated April 2, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We would like to reassure you that should any cultural, historic, or archaeological resources become unearthed or ancestral remains inadvertently discovered, the State Department of Land and Natural Resources (DLNR), State Historic Preservation Division (SHPD), the appropriate O'ahu Island Burial Council representative(s), and participating interests from recognized and potential lineal and cultural descendents and other interested parties will be notified. The treatment of these resources will be conducted in strict compliance with the applicable historic preservation and burial laws.

Additional landscaping may be used to provide additional screening of the project area. Landscaping for the proposed project will be done with native and non-invasive, drought-tolerant plant species, where possible, to help to minimize irrigation requirements and water needs.

We appreciate your input and participation in the environmental review process. Upon completion we will be providing your Office with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta, AICP
Principal Planner

BOARD OF WATER SUPPLY

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

February 23, 2009

FEB 27 2009

Mr. George I. Atta, AICP
Group 70 International, Incorporated
925 Bethel Street, 5th floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Your Letter Dated February 19, 2009 on the Draft Environmental Assessment for the Film and Digital Media Center Project,TMK 3-1-042:9, 33

Thank you for the opportunity to comment on the proposed resource center.

The comments in our letter dated January 5, 2009, which is included in the document, are still applicable.

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

Very truly yours,

K. Shida

KEITH S. SHIDA
Program Administrator
Customer Care Division

cc: Office of Environmental Quality Control
Mr. Brian S. Isa, Department of Accounting and General Services

Water for Life . . . Ka Wai Ola

GROUP 70
INTERNATIONAL

May 1, 2009

Keith S. Shida, Program Administrator, Customer Care Division
City and County of Honolulu
Board of Water Supply
630 South Beretania Street
Honolulu, HI 96843

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Shida,

Thank you for your Draft Environmental Assessment comment letter dated February 23, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that the comments in your letter dated January 5, 2009 are still applicable.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing your Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF COMMUNITY SERVICES
CITY AND COUNTY OF HONOLULU
715 SOUTH KING STREET, SUITE 311 • HONOLULU, HAWAII 96813 • AREA CODE 808 • PHONE: 768-7762 • FAX: 768-7792

MUFI HANNEMANN
MAYOR

DEBORAH KIM MORIKAWA
DIRECTOR

ERNEST Y. MARTIN
DEPUTY DIRECTOR

March 24, 2009

MAR 25 2009

Mr. George Atta, AICP
Group 70 International, Inc
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Atta:

Subject: Draft Environmental Assessment
Film and Digital Media Center
Hawaii Film Studio

Thank you for providing us with the opportunity to review and comment on the Draft Environmental Assessment (EA) for the Film and Digital Media Center. At this time, we have determined that the subject project will have no impact on the projects and programs of the City and County of Honolulu, Department of Community Services (DCS).

However, the DCS is very concerned about our declining job market and is eager to express support of economic development efforts, such as the concept of a business incubator to develop locally-owned businesses in the film and media industry, which will help promote bringing new businesses, and new jobs. Please consider the DCS Community Based Economic Development (CBED) and Work Hawaii as potential collaborators in any future endeavors.

In closing, we appreciate the opportunity to provide comments and look forward to reviewing your Final EA, preferable in electronic form, when it becomes available. Questions regarding this matter may be directed to Mr. Randall S.J. Wong at 768-7747.

Sincerely,

Deborah Kim Morikawa
Director

DKM:rg

cc: Office of Environmental Quality Control
Mr. Brian S. Isa, Department of Account and General Services

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AIA

May 1, 2009

Deborah Kim Morikawa, Director
City and County of Honolulu
Department of Community Services
715 South King Street, Suite 311
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Ms. Morikawa,

Thank you for your Draft Environmental Assessment comment letter dated March 24, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge your comment that there will be no impact on the projects and programs of the Department of Community Services (DCS).

We recognize the importance of the development of locally-owned business in the film and media industry in order to promote new businesses and new jobs in this declining job market. Through providing a facility equipped with the infrastructure and resources for media production, the Film and Digital Media Center will encourage new entrepreneurial ventures and investment in the development of the State's creative industry. We appreciate the opportunity, where feasible, to collaborate with the DCS Community Based Economic Development and Work Hawaii in these potential future endeavors.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF DESIGN AND CONSTRUCTION
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 11TH FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8480 • Fax: (808) 523-4567
Web site: www.honolulu.gov

MUFI HANNEMANN
MAYOR

CRAIG I. NISHIMURA, P.E.
ACTING DIRECTOR

COLLINS D. LAM, P.E.
DEPUTY DIRECTOR

March 10, 2009

Mr. George Atta
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Draft Environmental Assessment
Film and Digital Media Center
Hawaii Film Studio
(Kaimuki, Oahu, Hawaii)
TMK: 3-1-042:portion of 009 & 033

Thank you for giving us the opportunity to comment on the Draft Environmental Assessment.

The Department of Design and Construction has no comments to offer at this time.

Very truly yours,

Craig I. Nishimura, P.E.
Acting Director

CIN:lt (300631)

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Tom Young
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May 1, 2009

Craig I. Nishimura, P.E., Acting Director
City and County of Honolulu
Department of Design and Construction
650 South King Street, 11th Fl.
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Nishimura,

Thank you for your Draft Environmental Assessment comment letter dated March 10, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that you have no further comments to offer at this time.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta, AICP
Principal Planner

DEPARTMENT OF FACILITY MAINTENANCE

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 215, Kapolei, Hawaii 96707
Phone: (808) 768-3343 • Fax: (808) 768-3381
Website: www.honolulu.gov

MUFI HANNEMANN
MAYOR

JEOFFREY S. CUDIAMAT, P.E.
DIRECTOR AND CHIEF ENGINEER

GEORGE "KEOKI" MIYAMOTO
DEPUTY DIRECTOR

IN REPLY REFER TO:
DRM 09-204

March 18, 2009

Mr. George I. Atta, AICP
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

MAR 30 2009

Dear Mr. Atta:

Subject: Draft Environmental Assessment (DEA)
Film and Digital Media Center
Hawaii Film Studio
Kaimuki, Oahu, Hawaii

Thank you for the opportunity to review and comment on the DEA dated February 2009 for the proposed Film and Digital Media Center.

We have no comments to offer as the proposed center will be within State-owned property and will have negligible impact on our facilities and operations.

Should you have any questions, please call Charles Pignataro of the Division of Road Maintenance, at 768-3697.

Sincerely,

Jeoffrey S. Cudiamat, P.E.
Director and Chief Engineer

c: Office of Environmental Quality Control
Department of Accounting and General Services

GROUP 70
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May 1, 2009

Jeoffrey S. Cudiamat, P.E., Director and Chief Engineer
City and County of Honolulu
Department of Facility Maintenance
1000 Uluohia Street, Suite 215
Kapolei, HI 96707

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Cudiamat,

Thank you for your Draft Environmental Assessment comment letter dated March 18, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that you have no comments to offer.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta, AICP
Principal Planner

BI JK 3/9 3/09/09

DEPARTMENT OF PARKS AND RECREATION
CITY AND COUNTY OF HONOLULU

KAPOLEI HALE • 1000 ULUOHIA STREET, SUITE 309 • KAPOLEI, HAWAII 96707
TELEPHONE: (808) 768-3003 • FAX: (808) 768-7053 • INTERNET: www.honolulu.gov

RECEIVED DAGS
DIV. OF PUBLIC WORKS
2009 MAR -9 A 8:13

MUFI HANNEMANN
MAYOR

LESTER K.C. CHANG
DIRECTOR

GAIL Y. HARAGUCHI
DEPUTY DIRECTOR

March 6, 2009

MAR 9 2009

Mr. George I. Atta, AICP
Group 70 International
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Dear Mr. Atta:

Subject: Draft Environmental Assessment
Film and Digital Media Center
Hawaii Film Studio
TM: 3-1-042: portion of 009 and 033

Thank you for the opportunity to review and comment on the Draft Environmental Assessment for the Hawaii Film Studio Film and Digital Media Center.

The Department of Parks and Recreation has no comment as the proposed project will not impact the programs or facilities of the department. You may remove us as a consulted party to the balance of the EIS process.

Should you have any questions, please contact Mr. John Reid, Planner, at 768-3017.

LESTER K. C. CHANG
Director

LKCC:jr
(300748)

cc: Office of Environmental Quality Control
Mr. Brian Isa, State of Hawaii, Department of Accounting and General Services

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May 1, 2009

Lester K.C. Chang, Director
City and County of Honolulu
Department of Parks and Recreation
Kapolei Hale
1000 Uluohia Street, Suite 309
Kapolei, HI 96707

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Chang,

Thank you for your Draft Environmental Assessment comment letter dated March 06, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge that you have no comments to offer at this time.

Per your request, we have removed the Department as a consulted party to the balance of this EA process. As such, the Department will not receive a copy of the Final EA. We appreciate your input and participation in the environmental review process.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 7TH FLOOR • HONOLULU, HAWAII 96813
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MUFI HANNEMANN
MAYOR

DAVID K. TANOUE
DIRECTOR

ROBERT M. SUMITOMO
DEPUTY DIRECTOR

2009/ELOG-420(js)

March 23, 2009

MAR 25 2009

The Honorable Katherine Kealoha, Director
Office of Environmental Quality Control
Department of Health
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813

Dear Ms. Kealoha:

Subject: Draft Environmental Assessment
Film and Digital Media Center
18th Avenue between Kilauea Avenue and Diamond Head Road
Tax Map Key 3-1-42: 9 (portion) and 33

We have reviewed the Draft Environmental Assessment (DEA) for the new Film and Digital Media Center and have the following comments:

Urban Design Branch:

1. The DEA states that the project will be an educational resource for the University of Hawaii (UH) instructional and academic cinematography program and will include an affiliated program for the UH, providing college level educational opportunities to students. The floor area specifically devoted to classrooms, academic offices, and a faculty lounge is 8,965 square-feet.

   To fully evaluate the use of the project by the UH, a schedule of classes, including labs, for a typical semester shall be provided and shall include:

   a. The UH campus(es) that the classes are affiliated with.

   b. Other facilities to be used by the students (i.e., screening rooms, editing rooms, etc.).

   c. Maximum class enrollment.

2. Existing public transportation services providing access to the site should be described. The impacts to public transportation should also be discussed.

3. Clarify the function of the "café." Is it intended to serve the users of the project only (accessory use), or is it intended to be open to the general public?

4. Verify the floor area calculations found in Table 2-1.

5. Provide the basis for determining the number of required parking spaces. Eighty-nine parking spaces for a 47,730-square-foot facility equates to one (1) parking space per 536 square-feet of floor area.

6. The project must comply with the R-10 Residential height limit. In accordance with Section 21-4.60(b) of the Land Use Ordinance related to heights, the building height envelope shall run parallel to existing or finish grade, whichever is lower.

   The 30-foot height plane shown in Section A must run parallel to the finish grade. It appears the project may exceed the 30-foot height limit as shown on Section A. The project also appears to exceed the 25-foot height plane as shown in Section B.

Community Action Plans Branch:

Conformance with the Primary Urban Center Development Plan (PUC DP):

1. The proposed project is located in an area designated Institutional on the PUC DP Land Use Map (PUC - East) and is consistent with this designation.

2. The proposed project is consistent with the key element in the PUC DP vision which emphasizes the importance of Honolulu as the Pacific's leading city and travel destination (Section 2.4). The vision states that the Primary Urban Center continues to be Oahu's primary employment center, as well as the center for many commercial, industrial, transportation, and government functions essential to the State of Hawaii.

3. The proposed project supports the PUC DP policy pertaining to Honolulu as the Pacific's leading City, specifically stimulating development of high technology and knowledge-based industries (Section 3.4.2.3).

4. The proposed project supports the PUC DP policy regarding school and library facilities, specifically supporting the development of a high quality educational system of schools and post-secondary institutions that increase the attractiveness of the Primary Urban Center as a place to live and work (Section 4.7.2).

Policy Planning Branch:

1. Section 5.6 of the DEA cites certain objectives and policies of the Honolulu General Plan. However, some of the policies and objectives quoted in the DEA are inconsistent with our current version of the General Plan. The correct phrasing is identified in **boldface**. The DEA should be revised as follows:

Under Economic Activity, Objective A, Policies 2 and 3 should read as follows:

Policy 2: "Encourage the development of **small businesses and larger industries which** will contribute to the economic and social well-being of Oahu residents."

Policy 3: "Encourage the development in **appropriate locations on Oahu of trade, communications,** and other industries of a nonpolluting nature."

Policy 1 of Economic Activity, Objective E should read as follows:

Policy 1: **"Direct major economic activity and government services to the primary urban center and the secondary urban center at Kapolei."**

Policy 1 of Physical Development and Urban Design, Objective A should read as follows:

Policy 1: "Plan for the construction of new public facilities and utilities in various parts of the Island according to the following priority: first, in the primary urban center; second, in **the secondary urban center at Kapolei;** and third, in the urban-fringe and rural areas."

The heading of "Education" on Pages 5-10 of the DEA should be revised to read "**Health** and Education."

2. Figure 5-1 should be revised to correctly show the location of the proposed Film and Digital Media Center. Figure 5-1 currently refers to a project called "Proposed C-More Site" on a portion of the UH at Manoa campus.

3. The project should take advantage of any landscaping opportunities that may enhance the public views.

Civil Engineering Branch:

1. The capacity of the existing off-site detention basin should be verified with the requirements of the "Rules Relating to Storm Drainage Standards."

2. Address permanent post construction Best Management Practices measures, prior to discharging storm water into the city drainage system.

Wastewater Branch:

The replacement structure will increase the amount of sewage discharged into the municipal sewer system. A Site Development Master Application for wastewater is required.

Should you have any questions, please contact Joyce Shoji of our staff at 768-8032.

Very truly yours,

David K. Tanoue, Director
Department of Planning and Permitting

DKT:nt

cc: Mr. Brian S. Isa, State Department of Accounting and General Services
Mr. George Atta, Group 70 International, Inc.

Doc. 683111

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Tom Young
AIA

May 1, 2009

David K. Tanoue, Director
City and County of Honolulu
Department of Planning and Permitting
650 South King Street, 7th Fl.
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Tanoue,

Thank you for your Draft Environmental Assessment (EA) comment letter addressed to the Office of Environmental Quality Control dated March 23, 2009 concerning the Draft EA for the Film and Digital Media Center project. We offer the following responses to your comments:

Urban Design Branch

1. The Film and Digital Media Center will be used by the University of Hawai'i as an educational resource to support instruction and student productions of programs in film, cinematic arts, and new media and other media such as animation, creative computer programs and the computer creative industry.

a. The classes held at the Film and Digital Media Center are planned to support the University of Hawai'i at Mānoa.

b. Students will be using the classrooms, academic offices, faculty lounge, conference rooms, Foley stage and recording room, editing rooms, and screening rooms. Other facilities in the Film and Digital Media Center may be used by students on an as-need basis and will be scheduled with the facility manager.

c. The proposed site space program for the project provides five (5) modular classrooms which may be used at the same times of the day. There will be approximately 15-30 students and faculty using each classroom at any given time.

2. The only existing public transportation services providing access to the site is the City's The Bus system. Impacts to public transportation services are not anticipated since it is likely that most users of the Film and Digital Media Center, including students and digital media companies, will be driving to the site.

The Film and Digital Media Center will not be by all students enrolled with the University's media arts program. The use of the facility will be dependent upon a

student's focus within applicable programs that are supported by the Center's operations. Additionally, digital media companies and executives who will be using the Film and Digital Media Center as a incubator will likely use large size vehicles to transport equipment and other materials required for production and film projects. It would be impractical to transport equipment such as this using public transportation. However, maybe individual employees would utilize a public transit option so the potential impact would be very minimal. *Section 3.14.7 Public Transportation Services* has been added to the Final EA.

3. The café will be used as an accessory use to the Film and Digital Media Center, intended to serve users of the project only. It will serve occupants and visitors of the project with a limited refreshment menu and will provide seating and lounging furniture. The café will not be open to the general public. *Section 2.3* (*Ground Floor Plan*) of the Final EA will include clarifying language of the function of the café.

4. We have verified the floor area calculations of the site program. *Table 2-1* has been revised for the Final EA.

5. Three use types from Table 21-6.1 of the Land Use Ordinance were selected to calculate the number of required parking stalls for the proposed project: Motion picture and television studio (1 per 1,500 square feet (sf)); theaters (1 per 75 sf); and schools (1 per 10 students, plus 1 per 400 sf of office floor space). We have revised the parking calculations table (*Table 3-1* of the Draft EA) for the proposed project, which is provided below. The revised table shows that the proposed project design currently meets parking required by the Land Use Ordinance, Article 6. We would like to note that the required parking calculation for the entire Film Studio lot decreased due to the elimination of the four existing office buildings. Overall, the total number of stalls to be provided with the proposed project (250 stalls) will exceed the total number of stalls required (176) under the LUO, yielding a net of 74 stalls over the necessary amount required.

	Required Parking for Existing Site (LUO)	**Provided Parking for Existing Site**	**Required Parking for Proposed Project (LUO)**	**Provided Parking for Proposed Project**
Hawai'i Film Studio	123	151	82	139
Proposed Film and Digital Media Center	0	0	94	111
Total	**123**	**151**	**176**	**250**

Source: (Table 3-1, Final EA- Parking Requirements and Provisions for the Film and Digital Media Center)

6. Your comment regarding height requirements and the current design of the project is noted. We are in the process of adjusting the project design and will make the appropriate adjustments to meet the height specification of Section 21-4.60 (b) of the Land Use Ordinance. Upon completion of the adjustments, we will provide revised drawings to your department.

Community Action Plans Branch

1-4. As you have noted, the proposed project is consistent with the Primary Urban Center Development Plan – designation, vision, and policies. Please note that we have provided additional language in *Section 5.7* of the Final EA.

Policy Planning Branch

1. We appreciate you bringing this oversight to our attention. We have edited the Final EA to reflect the correct phrasing of the General Plan.

2. *Figure 5-1* has been revised for the Final EA.

3. The project will maintain the landscaping surrounding the Existing Soundstage No. 1 and will require minimal removal of existing trees and shrubs. Additional landscaping may be used to provide additional screening of the project area. These plants may include the use of native and non-invasive, and drought-tolerant species. A landscaping plan will be prepared in the future, and will include landscaping opportunities that may enhance public views while conforming to design control landscaping requirements of the Diamond Head Special District.

Civil Engineering Branch

1. The off-site detention basin was analyzed in "Drainage Report for Kapi'olani Community College Master Plan, April 1991" by Imata and Associates to limit discharge to predevelopment conditions.

2. Permanent post construction Best Management Practices will be included in the design of the proposed facility. It will include inlet filters and landscaping of areas not paved.

Wastewater Branch

1. Your comment is noted. A Site Development Master Application for wastewater will be submitted with the construction plans.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

DEPARTMENT OF TRANSPORTATION SERVICES

CITY AND COUNTY OF HONOLULU

650 SOUTH KING STREET, 3RD FLOOR
HONOLULU, HAWAII 96813
Phone: (808) 768-8305 • Fax: (808) 523-4730 • Internet: www.honolulu.gov

MUFI HANNEMANN
MAYOR

WAYNE Y. YOSHIOKA
DIRECTOR

SHARON ANN THOM
DEPUTY DIRECTOR

MAR 3 1 2009

TP2/09-300945

March 30, 2009

Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813

Attention: Mr. George Atta

Dear Mr. Atta:

Subject: Draft Environmental Assessment (DEA) for Film and Digital Media Center, Diamond Head

This is in response to your letter requesting for our review and comments on the Draft Environmental Assessment (DEA) for Film and Digital Media Center, TMK: 3-1-042: por. 09 & 33. We offer the following comments.

We recommend that the developer implement the "Recommendations" cited in Appendix C: Traffic Impact Study report in the document as part of the improvements for the project. These include the recommended striping and clearance of the project's driveway from Diamond Head Road.

Please coordinate these improvements with this department prior to any submittal of final design documents.

Should you have any questions on the matter, please contact Mr. Brian Suzuki at 768-8349.

Very truly yours,

WAYNE Y. YOSHIOKA
Director

GROUP 70
INTERNATIONAL

May 1, 2009

Wayne Y. Yoshioka
City and County of Honolulu
Department of Transportation
650 South King Street, 3rd Fl.
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Yoshioka,

Thank you for your Draft Environmental Assessment comment letter dated March 30, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We acknowledge your recommendation that the "Recommendations" cited in the Traffic Impact Assessment Report be included as a part of the improvements for the project. These improvements will be coordinated with your department as the project moves forward and prior to any submittal of final design documents.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

HONOLULU FIRE DEPARTMENT
CITY AND COUNTY OF HONOLULU
636 South Street
Honolulu, Hawaii 96813-5007
Phone: 808-723-7139 Fax: 808-723-7111 Internet: www.honolulu.gov/hfd

MUFI HANNEMANN
MAYOR

KENNETH G. SILVA
FIRE CHIEF

ALVIN K. TOMITA
DEPUTY FIRE CHIEF

MAR 19 2009

March 17, 2009

Mr. George Atta, AICP
Principal Planner
Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813-4307

Dear Mr. Atta:

Subject: Draft Environmental Assessment
Film and Digital Media Center
Hawaii Film Studio
Kaimuki, Oahu, Hawaii
TMK: 3-1-042: portion of 009 and 033

In response to your letter dated February 19, 2009, regarding the above-mentioned subject, the Honolulu Fire Department (HFD) reviewed the material provided and requires that the following be complied with:

1. Provide a fire apparatus access road for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction when any portion of the facility or any portion of an exterior wall of the first story of the building is located more than 150 feet (45 720 mm) from a fire apparatus access road as measured by an approved route around the exterior of the building or facility. (1997 Uniform Fire Code, Section 902.2.1.)

2. Provide a water supply, approved by the county, capable of supplying the required fire flow for fire protection to all premises upon which facilities or buildings, or portions thereof, are hereafter constructed or moved into or within the county.

On-site fire hydrants and mains capable of supplying the required fire flow shall be provided when any portion of the facility or building is in excess of 150 feet (45 720 mm) from a water supply on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building. (1997 Uniform Fire Code, Section 903.2 as amended.)

3. Submit civil drawings to the HFD for review and approval.

Should you have any questions, please call Battalion Chief Socrates Bratakos of our Fire Prevention Bureau at 723-7151.

Sincerely,

KENNETH G. SILVA
Fire Chief

KGS/SY:bh

cc: Office of Environmental Quality Control
Brian Isa, State of Hawaii
Department of Accounting and General Services

GROUP 70
INTERNATIONAL

May 1, 2009

Chief Alvin K. Tomita, Acting Fire Chief
City and County of Honolulu
Fire Department
636 South Street
Honolulu, HI 96813

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Chief Tomita:

Thank you for your comment letter dated March 17, 2009 concerning the Draft EA for the Film and Digital Media Center project.

The following are offered in response to your comments:

1. The proposed project will comply with the Uniform Fire Code, Section 902.2.1, requiring a fire apparatus access road. Final plans to improve access to the project area will be submitted to the Department for review and approval to ensure that an acceptable fire apparatus access road is provided.

2. The project will provide a water supply approved by the county, capable of supplying the required fire flow for fire protection. On-site fire hydrants and mains capable of supplying the required fire flow will also be provided.

3. Civil drawings will be submitted to the HFD for review and approval.

We appreciate your input and participation in the environmental review process. Upon completion, we will be providing the Department with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC.

George I. Atta, AICP
Principal Planner

From: Clark Hatch [mailto:hatch@hawaii.rr.com]
Sent: Wednesday, April 22, 2009 3:39 PM
To: George Atta
Cc: brian.s.isa@hawaii.gov
Subject: Draft environmental assessment for the proposed Film and Digital Media Center

DIAMOND HEAD CITIZENS ADVISORY COMMITTEE

April 22, 2009

To: Group 70 International Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813
Attn: George Atta, AICP

From: Diamond Head Citizens Advisory Committee
(Advisory to the State Department of Land and Natural Resources on Diamond Head State Monument Issues and Environs)

Subject: Draft environmental assessment for the proposed Film and Digital Media Center at the Hawaii Film Studio (TMK (1) 3-1-043: portion of 009 & 033)

The Diamond Head Citizens Advisory Committee opposes the building of the Hawaii Digital Media Center adjacent to the Hawaii Film Studio located near Diamond Head on 18th Avenue. The Hawaii Film Studio, as built, is already an oversized industrial warehouse structure that adversely affects the view planes of the Diamond Head State Monument from 18th Avenue and Kilauea Avenue and beyond.

The existing controversial Film Studio facility was built as a "temporary facility" and was to be relocated to a larger and more appropriate area within twenty years of its completion according to then Governor George Ariyoshi. Although this hasn't taken place yet, Governor Ariyoshi realized that additional land would be needed where permanent buildings could be built and where the complex could be expanded as the industry grew, and that it would be necessary to relocate out of the sensitive Diamond Head Special District.

Accordingly, the industrial buildings located on the present site were constructed in a temporary fashion with low budget design and finishes. These buildings do not measure up to current State and City and County building codes and guidelines for the Diamond Head Special District, and they have become even more of an eyesore with shipping containers and junk stored around the existing oversized industrial warehouse structure. Further, the proposed new building mass and necessary multi-level parking structure to support it would be an even greater blight on Diamond Head.

The added expenses to bring the current buildings up to code and Special District standards within the Diamond Head Special District would be exorbitant, most likely exceeding the costs of the proposed Digital Media Center. Therefore it does not make sense to expand on a property that was officially designated a temporary site.

In these dire financial times it would be prudent to consider another location for a permanent site for both the Hawaii Film Studio and the Digital Media Center. A location in Kapolei, for example, such as that proposed for this type of complex by a Los Angeles based developer in January 2008, would be a logical choice. This state-of-the-art complex was envisioned to be built out at 60,000 square feet on 22 acres near Campbell Industrial Park.

Inasmuch as alternate sites are required by environmental law to be evaluated by environmental reviews, it makes sense to take a serious look at far more suitable locations where soil conditions, land costs, and industrial zoning compliance are more compatible with this project and any future expansion. Above all, this industrial complex should be relocated solely out of respect for the Diamond Head State Monument, which is a visually protected natural resource and primary visitor attraction.

Further, there are numerous other concerns about building where the current Hawaii Film Studio is located, including the following:

1. There are City and State shoreline management restrictions, and there must be compliance with both State and City and County land use ordinances and guidelines. "Diamond Head is a volcanic crater that has been declared a State and National Monument. Its natural appearance and prominent public views have special values of local, State, National and International significance. The district regulations call for special building height, yard set-back, landscape and architectural design requirements." (Special District Guidelines, Diamond Head, City & County of Honolulu, November 2000).

2. Despite the applicant's anticipated Finding of No Significant Impact in the draft environmental assessment, a costly environmental impact statement should be necessary because of the significant visual impact on a protected resource by the proposed facility and its attendant parking structure whose cumulative project development is dependent upon public funding.

3. For a structure of this magnitude to comply with the height limits in the Diamond Head Special District, it would be necessary to excavate down through solid rock to physically accommodate it. While we appreciate that the roof of the proposed new facility is shown to be within the 25 foot height limit specified in the Diamond Head Special District by setting the floor level below the existing grade, we did not find any reference to subsurface conditions in the soils section of the draft environmental assessment. Given that such information would be critical to determine feasibility and cost for such an excavation and the project as a whole, an investigation of the soil depth and potential rock in the excavation area should be part of the draft environmental assessment, and the excavation should be a condition of approval of construction. It should also be noted that Blue rock was encountered at several KCC building sites.

4. There are major storm drains and a complicated water retention basin to contend with on and around the property. An added potential challenge and cost is related to a major storm drain pipe which KCC staff confirms may be located within or adjacent to the facility's footprint. This pipe leads to a storm water retention basin near 18th Avenue and could require costly relocation to continue to provide efficient and effective drainage to the basin.

5. Compounding its proposed structural obtrusiveness within the surrounding landscape is the proposed color of the facility, shown in an elevation view from the Diamond Head Road and bike path as a stark white wall. This is an additional visual incompatibility with the surrounding crater environment.

The Diamond Head Citizens Advisory Committee was established in 1977 and is comprised of representatives from the Diamond Head State Monument Foundation, Historic Hawaii Foundation, American Institute of Architects, American Society of Landscape Architects, the Sierra Club, the Outdoor Circle, Kapiolani Community College, the East Diamond Head Association, West Diamond Head Association, Save Diamond Head, area Neighborhood Boards, Waikiki Improvement Association and other community improvement organizations, several government agencies and elected officials, and concerned citizens.

Thank you for the opportunity to comment.

SIDNEY E. SNYDER, JR., AIA-ME
Chair, DHCAC

GROUP 70
INTERNATIONAL

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M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

May 1, 2009

Mr. Sidney E. Synder, Jr., AIA-ME, Chair
Diamond Head Citizen's Advisory Committee (DHCAC)
c/o State Department of Land and Natural Resources, State Parks Division
Attn: Yara LaMadrid-Rose
P.O Box 621
Honolulu, HI 96809

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Synder,

Thank you for your Draft Environmental Assessment (EA) comments sent via email correspondence dated April 22, 2009 concerning the Draft EA for the Film and Digital Media Center project. Although the public review comment period for the Draft EA ended on March 23, 2009, we do appreciate your continued time and effort to participate in the environmental review process and offer the following as a response to your main concerns.

DHCAC Opposition to Proposed Project

We acknowledge that the DHCAC formally opposes the proposed Film and Digital Media Center. However, we kindly request that DHCAC consider remaining an active participant in the environmental review and subsequent land use approval processes to ensure the major concerns that lend to DHCAC's current position are adequately addressed.

Hawai'i Film Studio Site as a "Temporary Facility"

Since 1913, Hawai'i has and continues to play a major role in the history and development of film and television on a global level, having hosted several hundred films and 23 major television series. It is important to recognize that Hawai'i's film, TV, and digital industry is a key economic driver for the State. In 1990, the impetus for a focused commitment by the State within this industry was created when it took over the studio management of the then-named "Diamond Head Studio". Since that time, it seems that many residents and specifically community organizations within the area have come to recognize the value of service that the Hawai'i Film Studio site has provided in supporting the film industry in Hawai'i. Further, the Hawai'i Film Office endeavors to build upon its existing relationships to continue being a good neighbor within the community.

Over the last 20 years, the film industry in Hawai'i has evolved tremendously in its technical and creative expertise in support of the continuing needs of potential film production vendors. The past policy-setting approvals by the State and City and County of Honolulu provide clear guidance as to the commitment to having the Diamond Head studio facility continue to be a leader in furthering the industry. Allocation of State funds for capital improvements for the Hawai'i Film Studio, including the construction of Stage 2 (1992-1994) and a new production office building and technical building (2005-2006), further demonstrate the continued investment and support by the State at the

present Diamond Head location. While it is recognized that the potential future growth for the Hawai'i Film Studio could be directed to evaluate alternative locations that can support a mass expansion, such as the example provided in your email, we believe that the planned program and design of the Film and Digital Media Center is an appropriate scaled reinvestment at the Diamond Head site. To reclarify, the primary focus of the Film and Digital Media Center is to be an incubation and educational facility.

Issues Regarding Existing Structures Complying with Building Code

The scope of the environmental assessment included the demolition of the existing Soundstage 1 and four portable buildings, which will be replaced by the proposed Film and Digital Media Center and a grasscrete open area to be used for overflow parking needs on-site. We are currently unaware of existing structures to be retained on the HFS site that are not compliant to building code. As the project continues through the environmental review and subsequent land use approvals, coordination with the City and County of Honolulu Department of Planning and Permitting will be ongoing and pertinent issues that are identified, including non-designated building code issues, will be addressed accordingly.

Existing Visual Blight and Future Visual Impacts with Project

Visual impacts are addressed in *Section 3.17* of the EA. The project will have a minimal effect on public views of Diamond Head and will be designed and landscaped to minimize view impacts. The project will fit almost exactly into the existing building's footprint and will comply with development standards of the Diamond Head Special District. *Figure 3-8*, *3-9*, and *3-10* of the EA provide a comprehensive visual perspective of the project's impact on surrounding views. Further, we believe the replacement of an aging structure with an aesthetically designed and new Film and Digital Media Center will enhance the overall character and feel of the site to the adjoining properties, which include Kapi'olani Community College campus, the Diamond Head Memorial Park and Mortuary, and the open entry into the Diamond Head State Monument and Park.

The referenced parking structure was previously approved in an accepted Environmental Impact Statement for The Proposed Improvements to the Hawai'i Film Facility (1989), and has been waiting for construction funding. An approved Master Plan and Special Management Area (SMA) Permit (2003/SDD-80 & 89/SMA-43 (Minor Modification) Diamond Head Special District Permit No. 90/DH-19 & 2007/SDD-26) also include the aforementioned provisions for the parking structure in its approval. The proposed Film and Digital Media Center project proposes to carry out the design and construction of the pre-approved structure as a part of the overall improvements to the area. The new parking structure will be effectively screened using selective landscaping and building enclosures. Careful consideration will also be given to the selected color palette, including the use of earth tone colors for the exterior and roof of the Center and parking structure to better blend these built structures with the surrounding landscaping.

Consideration of Alternative Sites

An evaluation of alternatives is an important element under the State of Hawai'i environmental review process. *Section 4.0* of the EA provide a discussion on all the alternatives that were considered but eliminated from further consideration including the no-action and variations of scaling the proposed program. Alternative locations for

the proposed Film and Digital Media Center were not considered in the EA due to the fact that the project's federal funding, which is provided through a grant by the Economic Development Administration (Award No. 07 79 05542), defined the project location to just the Diamond Head site.

Compliance to State and City and County of Honolulu Land Use Ordinances and Guidelines

Section 5.0 of the EA provides a detailed discussion on the applicable land use policies set forth in the Americans with Disabilities Act, Hawai'i State Plan, State Land Use Law, State Coastal Zone Management Program, State 2050 Sustainable Plan, City and County of Honolulu General Plan, Primary Urban Center Development Plan, Land Use Ordinance, Diamond Head Special District, and Special Management Area.

Section 5.0 of the EA specifically addresses requirements to be met under the Diamond Head Special District, which include landscaping, height limitations, and architectural appearance and character. The proposed project is located in the Diamond Head Special District outside of the designated district core boundary. The proposed design for the project is consistent with the objectives and design controls specified in the City and County of Honolulu, Land Use Ordinance, Section 21-9.40. Following the anticipated Final EA/Finding of No Significant Impact (FONSI), a Special District Use Application Permit (Minor) will be submitted to the County. Specific details and drawings will be provided in this application to ensure that Diamond Head State Monument and its associated views are preserved and protected.

Level of Environmental Review

Under State law, nine types of actions prompt the need to conduct an environmental review. The applicable trigger for the proposed project includes the use of state lands and funds. The level of environmental review depends upon whether the proposed action generates impacts significant enough to warrant either an Environmental Assessment or Environmental Impact Statement (EIS). Upon review of the Final EA, the State Department of Accounting and General Services as the approving agency for this project declares if there is a FONSI or if the identified impacts warrant a full EIS. The EA addresses visual resources and the potential impacts from the proposed project. The findings of the EA highlight that the proposed project will not affect major visual planes and corridors. Further, the new facility will be a major visual improvement to existing conditions on-site and from adjacent lands. It is anticipated that the cumulative impact of the proposed project will not warrant a full EIS.

Subsurface Soil Conditions

Section 3.2 of the Final EA has been revised to include a discussion on the volcanic/geological composition of the general area. The Hawai'i Film Studio site has been previously developed. Prior to the start of detailed design and construction of the Film and Digital Media Center, information regarding sub-surface soils and geotechnical conditions will be further evaluated based upon findings from previous construction projects. We feel the construction estimates are reasonably accurate based known conditions.

Drainage and Stormwater Runoff

Section 3.8.3 of the EA addresses existing drainage conditions, completed improvements, and planned improvements to accommodate on-site collection and storage. We presume that your email references either the 36-inch or 48-inch drains from Kapi'olani Community College (KCC) that enter the Hawai'i Film Studio site. The 36-inch drain from the KCC campus parking lot was intercepted during the design of Soundstage No. 2 and the drainage system was designed such that it avoids any conflicts with future considerations for development. The 36-inch discharges into the existing detention basin along 18th Avenue. The 48-inch drain from KCC also discharges into the detention basin. Engineering studies completed for the EA indicate that the proposed design configuration of the Center can be accommodated without a need to relocate any existing drainage infrastructure to be retained on-site.

Color Scheme of Proposed Facility

The rendering of the proposed Film and Digital Media Center is still a conceptual work in progress. Specific details related to the color palette selection for the proposed Center are still to be finalized and will be included in future discussions of architectural appearance within the Special District permit process. As mentioned earlier, the use of earth tone colors to better match surrounding landscape will be considered in the selection process.

Finally, we also thank you for the opportunity to present before the DHCAC at its February 3, 2009 meeting. At that time, we discussed the DHCAC's concerns which included visual aesthetics, traffic, parking, and on-site uses. These concerns have been addressed in the Final EA.

We appreciate your input and participation in the environmental review process. Upon completion we will be providing the Department and the Division with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

cc: Yara Lamadrid-Rose, Diamond Head Park Coordinator

EAST DIAMOND HEAD ASSOCIATION

P.O. Box 10045, Honolulu, Hawaii 96816-0045

March 23, 2009

MAR 24 2009

Group 70 International, Inc.
925 Bethel Street, 5th Floor
Honolulu, Hawaii 96813
Attn: George Atta, AICP

Subject: Film and Digital Media Center at the Hawaii Film Studio
TMK (1) 3-1-043: portion of 009 & 033

The East Diamond Head Association is opposed to the building of a new Film and Digital Media Center on the site of the Hawaii Film Studio near Diamond Head. As a member of the Diamond Head Citizens Advisory Committee I'm also recommending that the DHCAC oppose this project. The proposed building is planned as a permanent building and is in contradiction of the original plans for the film studio to be situated there on a temporary basis until such time as a permanent studio is to be built in Hawaii Kai as promised by the Governor Ariyoshi Administration.

At the time of the construction of the temporary film studio in 1974 there was considerable community opposition to it being built on its current site. The administration was anxious to provide accommodations for the CBS filming of Hawaii Five-O and expedited the temporary construction at Diamond Head with the promise of relocating it within 20 years.

The outrage and anger of the East Diamond Head community caused by the CBS film crews 24 hour use of the neighborhood for filming was the reason the Governor's administration was forced to build a temporary film studio to confine the film crews from disturbing the nearby residents.

In opposition to the film studio being built at Diamond Head on the site of Kapiolani Community College were the representatives of KCC, its advisory board, student congress and faculty senate as well as the East Diamond Head Association, the Waialae/Kahala Neighborhood Board and the West Diamond Head Association, save Diamond Head Association and the Outdoor Circle.

With the ever expanding needs of the Kapiolani Community College it is evident that the College needs additional space congruous with the earlier plans for the Film Studio land which is located on the campus.

Many Diamond Head residents are leery of the Hawaii Film Studio project. Once again their suspicions have been fueled in part because the Hawaii Film Studio did not inform the community before filing for preliminary permits, etc. To find out about it through the architects who have already drawn up comprehensive plans makes us more suspicious. It looks like another insiders deal.

Included are notes prepared by the Kapiolani Community College Faculty Senate of the original announcement about the Film Studio.

Clark G. Hatch

CLARK G. HATCH
President

Clark Hatch

STATE FILM STUDIO PLANS AT DIAMOND HEAD

THE CONCERN

Land formerly a part of the Kapiolani Community College campus has been transferred from the University to the Department of Business and Economic Development for the construction of a film studio.

THE PROBLEM

A. For the area.

The location is zoned residential.

Three schools that border on 18th Avenue would be affected by industrial development: Kaimuki Intermediate, Pohukaina School for the Retarded, and Kapiolani Community College.

Diamond Head is a State Monument, and the area surrounding it is a Special Design District with height restrictions of 35 feet.

The area is also affected by Shoreline Management restrictions.

Residents are concerned about the impact of added traffic, commercialization, and industrialization.

The proposed site is not only inappropriate for industry, but inadequate for the needs of anything more than a small film studio to expand, the business would have to move elsewhere, or take over more Diamond Head land, creating an industrial zone on Diamond Head.

B. For Kapiolani Community College.

KCC is expanding at a faster-than-anticipated rate.

Acreage necessary for the expansion of the college has been lost.

Long-range plans intended the area for music and drama programs, which are temporarily housed in the deteriorating Maile building.

The present film-studio area--long ago promised to revert to KCC use--is the "front yard" of the campus, and to build warehouse-like buildings there would destroy the esthetic integrity of what is the most beautiful campus in Hawaii and a model for other community colleges in the United States.

With natural boundaries of KCC broken by construction of a film studio, the well-being of the campus is endangered.

RESPONSES

A. From the community

Waialae-Kahala Neighborhood Board and Diamond Head-Kapahulu-St. Louis Neighborhood Board oppose a film studio at this site and request that the land revert to the use of KCC

Kaimuki Neighborhood Board opposes a film studio at this site and requests that the state find a better location

East Diamond Head Association, Save Diamond Head Association, and the Outdoor Circle oppose a film studio at this site and ask that the state find a more suitable location

West Diamond Head Association opposes a film studio at this site

B. From Kapiolani Community College:

Advisory Board, Student Congress, and Faculty Senate oppose a film studio at the site and ask that the land be returned to the use of KCC

GROUP 70 INTERNATIONAL

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Christine Mendes Ruotola
AICP

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AIA, LEED AP

Paul Bierman-Lytle
M. Arch., AIA, LEED AP

Katherine M. MacNeil
AIA, LEED AP

Tom Young
AIA

May 1, 2009

Clark Hatch, President
East Diamond Head Association
P.O. Box 10045
Honolulu, HI 96816

Subject: Response to Comments for Draft Environmental Assessment for the Proposed Film and Digital Media Center
TMK (1) 3-1-042: portion of 009 & 033
(Kaimukī, Honolulu, Hawai'i)

Dear Mr. Hatch,

Thank you for your Draft Environmental Assessment (EA) comment letter dated March 16, 2009 concerning the Draft EA for the Film and Digital Media Center project.

We appreciate the background information you provided on some of the early year concerns of the Hawai'i Film Studio (HFS) lot during its original construction in 1974. It is clear from your letter that during that time, there were concerns regarding the location and operations of Hawai'i Film Studio. However, after almost 40 years of existence within the Diamond Head/Kaimukī area and the last 20 years under State control, it seems that many residents and community organizations within the area have come to recognize the value of service that the Hawai'i Film Studio site has provided in supporting the film industry in Hawai'i. Overall, the film, TV, and digital media industry has become of the primary economic drivers for the State. As such, the Hawai'i Film Office endeavors to build upon its existing relationships to continue being a good neighbor within the community in carrying outs it duties to support the existing and future evolution of this industry.

The proposed use of State land and funds for the proposed Film and Digital Media Center requires the preparation of an Environmental Assessment (EA), under the auspices Chapter 343, Hawaii Revised Statutes. Prior to preparing the necessary documents, efforts were made very early in the initial planning and conceptual design phase of the project to include many stakeholder interests, including representatives from Kapi'olani Community College (KCC). The shared concerns by participating interests related to the proposed Film and Digital Media Center included questioning the adequacy of space at the existing site for program needs, adjustment of infrastructure to be contained within the existing property boundary, and providing adequate on site parking to support the project. These concerns have been addressed in the EA, which serves as a public disclosure document.

During the environmental review, the proposed Film and Digital Media Center project prepared and distributed a Pre-Consultation notice to selected agencies and community groups in December 2008. Pre-Consultation comments were received by participating interests and subsequently addressed in the Draft EA, which was prepared and submitted in February 2009. Notice of Availability for the Draft EA was published in the Office of Environmental Quality Control's (OEQC)

Environmental Notice, which formally commenced a 30-day public review period on February 23, 2009. Please note that the environmental review process is the formal means to inform the general public about any upcoming project requiring State or County approvals. Additionally, for the proposed Film and Digital Media Center project, presentations were made to both the Diamond Head Advisory Committee (February 2009) and to the Kaimukī Neighborhood Board No. 4 (February 2009), as a means to disclose, inform, and solicit community input. Both the merits and concerns shared by these groups and participating community members have been included and addressed in the Final EA.

Please also note that the design plans for the proposed Film and Digital Media Center are still conceptual. Necessary detailed analysis and modifications to the design will be finalized to fulfill the requirements of subsequent approvals that are necessary prior to project implementation. The conceptual renderings and the analysis provided in the EA were to address initial concerns such as visual impacts, ensuring compliance of design elements to regulatory control and guidance measures, and to demonstrate how such proposed improvements would alter or modify existing conditions, such as access and provisions of on-site parking.

Currently, the Film and Digital Media Center project is seeking a determination of a Finding of No Significant Impact (FONSI) for the EA by the determining authority, which is the State Department of Accounting and General Services. Subsequent to a FONSI determination, the project will require other entitlements and approvals prior to filing for building and construction permits, which include a City and County of Honolulu, Special Management Area Use Permit (Major) and a Special District (Minor) Permit. Both planning processes include additional opportunities for community input to be provided and identified concerns to be addressed. Please note that there have been no construction or building permits that have been filed or issued at this time.

We hope we have addressed your shared concerns. We do appreciate your input and participation in this environmental review process. Upon completion, we will provide you with a copy of the Final EA.

Sincerely,

GROUP 70 INTERNATIONAL, INC

George I. Atta

George I. Atta, AICP
Principal Planner

APPENDIX B PRELIMINARY ENGINEERING REPORT

PRELIMINARY ENGINEERING REPORT

FOR THE

DIGITAL MEDIA CENTER

HONOLULU, OAHU, HAWAII

TMK: 3-1-42: portion of 9

Prepared by:

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1150 South King Street, Suite 700
Honolulu, Hawaii 96814

January 2009

TABLE OF CONTENTS

	Page No.
INTRODUCTION	1
Project Location	1
Project Description	1
Purpose	5
Topography	5
Soils	5
ROADWAYS	6
Existing Conditions	6
Proposed Improvements	6
DRAINAGE	6
Existing Conditions	6
Design Criteria	8
Proposed Improvements	9
WATER	9
Existing System	9
Water Requirements	9
Proposed Improvements	11
WASTEWATER	11
Existing System	11
Projected Wastewater Flows	11
Proposed Improvements	13
REFERENCES	14

Page No.

FIGURES

FIGURE 1	LOCATION MAP	2
FIGURE 2	EXISTING SITE CONDITIONS	3
FIGURE 3	PROPOSED DEVELOPMENT PLAN	4
FIGURE 4	DRAINAGE SYSTEM	7
FIGURE 5	WATER SYSTEM	10
FIGURE 6	WASTEWATER COLLECTION SYSTEM	12

INTRODUCTION

The State Department of Business and Economic Development and Tourism is proposing to master plan the southwestern portion of the existing Hawaii Film Facility to include a Digital Media Center. The Hawaii Film Facility is located near the mauka-ewa corner of 18th Avenue and Diamond Head Road on 7.422 acres (see Figure 1). Diamond Head Memorial Park and Mortuary are located across 18th Avenue. The film facility site is located within TMK: 3-1-42:9, land set aside for Kapiolani Community College (KCC). The State land use classification is Urban and the City and County of Honolulu zoning is R-10 residential.

Project Location

The area to be master planned is located south of the recently constructed Technical and Production Office Buildings as shown on Figure 2 (approximate area is 1.98 acres of the 7.422 acres). Although the existing lower parking lot and portion of the secondary access road extends beyond the property line into TMK: 3-1-42:20, the proposed buildings and parking lots will be contained within the film facility site. As shown on Figure 3, the Digital Media Center is proposed to be located at the southwestern corner of the film facility replacing existing Soundstage No. 1. Additional parking required by the development of the Digital Media Center will be accommodated through the construction of a two-story parking garage at the site of the existing 100-stall parking lot, and reconstruction of the existing upper and lower parking lots near the portable buildings. Overflow parking is also proposed in the area of the existing portable buildings.

Project Description

The Digital Media Center will be a high-tech center for the University of Hawaii's Creative Media Academy. While the center's main thrust will be for the instructional and academic cinematography program of the academy, it will embrace other media such as animation, other creative computer programs, and computer creative industry incubation. The center will include soundstages (filming), a stage mill/production facility (for constructing film sets), classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a cafe with a small kitchen. The center will be three

stories tall with the lowest level as a partial basement and take up approximately 50,000 square feet of floor area. Users of the center will primarily be students and faculty. The expected occupancy will be around 300 to 350 people, varying in amount throughout the day and night. The night occupancy, however, is expected to be at a low of about 100.

Other existing buildings within the film facility that will not be affected by the master plan include the Technical Building, Production Office Building, Soundstage No. 2 and a pool building. The Digital Media Center will be separated from the remaining buildings by a 6-ft. high chain link fence.

Access to the Digital Media Center will be from 18th Avenue (considered the secondary access to the film facility). Access to the Digital Media Center from the remaining portion of the film facility will be provided through a gate located at the roadway intersection between the Technical Building and Production Office Building. The fence will provide security while a film production company is onsite.

Purpose

The purpose of this report is to identify the infrastructure requirements for the proposed development.

Topography

The site slopes moderately in an easterly direction at approximately 10 percent. Ground elevations range from 100 ft. above mean sea level near the Production Office Building to 130 feet towards the KCC campus.

Soils

Soil types within the project site are identified in the U.S. Department of Agriculture, Soil Conservation Service, Soil Survey of Islands of Kauai, Oahu, Maui, Molokai, and Laniai, State of Hawaii, August 1972. The site consists of Molokai silty clay loam, 15 to 25 percent slopes and Molokai silty clay loam, 7 to 15 percent slopes near 18th Avenue. This is a well-drained soil that occurs in the uplands. Runoff is medium and the erosion hazard is moderate (for 7 to 15 percent slopes) to severe (for 15 to 25 percent slopes).

ROADWAYS

Existing Conditions

Access to the Hawaii Film Facility is from the main entrance off of 18th Avenue. A secondary access is provided by an existing driveway located in the southern corner of the site. The existing roadway to Soundstage No. 1 is approximately 15 feet wide.

Proposed Improvements

Access to the Digital Media Center will be from the secondary access. The driveway will be relocated north such that it is wholly contained within TMK: 3-1-42:9. The roadway width will be 20 feet to accommodate fire trucks. Curbs will be provided. The existing chain link fence enclosing the Production Office Building will be relocated to accommodate the new roadway and the affected portion of the wrought iron fence along 18th Avenue will be removed.

DRAINAGE

Existing Conditions

Runoff generated within the film facility site is collected by existing onsite inlets, slotted drains, and catch basins. Approximately 6.5 cfs of runoff that is generated near the Production Office Building discharges to the City's drainage system in 18th Avenue (see Figure 4). The remaining runoff discharges into the offsite detention basin located north of the project site.

Offsite runoff from Diamond Head Road and a portion of Diamond Head (approximately 22.7 acres) discharges into the state-owned lands between the project site and Diamond Head Road. Drainage improvements described in the approved Drainage Report for the Proposed Hawaii Film Studio, Renovations & Improvements have been constructed. Therefore, much of the offsite runoff has been captured through a pipe-inlet system and directed to the offsite detention basin via the drainage system in the film facility site. The remaining offsite runoff generated within the state-owned lands between the project site and Diamond Head Road flows overland into the project site where it eventually enters the drainage system through existing inlets and catchbasin

The offsite detention basin adjacent to the project site is approximately 70 feet wide by 190 feet long and 5 to 9 feet deep. In addition to the runoff from the project site (including offsite runoff that enters the project site), it also receives runoff from the KCC campus through a pipe-inlet system. The overflow from the offsite detention basin enters the City's drainage system through an existing 36-inch drain. Storage routing for the detention basin was analyzed in the Drainage Report for Kapiolani Community College Master Plan.

Design Criteria

Hydrologic Criteria

The hydrologic criteria used in this report are based on the "Rules Relating to Storm Drainage Standards" of the Department of Planning and Permitting, City and County of Honolulu, January 2000. The following list summarizes the hydrologic criteria used:

1. Design Storm Recurrence Interval
   - Tm = 10 years for onsite areas
   - Tm = 50 years for onsite areas with sump condition
2. Determination of Runoff Quantity
   - Rational Method (Q=ciA) for onsite drainage system
3. Rainfall Intensity
   - i = 1.9 in/hr for Tm = 10 years
   - i = 2.4 in/hr for Tm = 50 years
4. Runoff coefficients
   - c = 0.35 for grass
   - c = 0.95 for roadways

Since the majority of the site is developed, the future runoff quantity does not increase significantly from the existing runoff. However, the runoff pattern will change due to the proposed improvements.

Hydraulic Criteria

The onsite storm drainage system will be designed in accordance with the "Rules Relating to Storm Drainage Standards" of the Department of Planning and Permitting, City and County of Honolulu, January 2000.

Proposed Improvements

The proposed improvements to accommodate the offsite runoff generated in the state-owned lands between the project site and Diamond Head Road include diverting the runoff to onsite inlets located south of the Digital Media Center (see Figure 4). Onsite runoff generated near the proposed Digital Media Center will be collected in onsite inlets, slotted drain, and a catchbasin. Onsite runoff generated from the lower parking lot below the overflow parking will be captured by a catchbasin. The proposed drainage system will connect to the existing drainage system.

Based on the approved Drainage Report for Kapiolani Community College Master Plan, the offsite detention basin has sufficient capacity to accommodate the development of the Hawaii Film Facility site.

WATER

Existing System

The Hawaii Film Facility is presently served by the Honolulu Board of Water Supply (BWS) 405 system. All reservoirs with spillway elevation of 405 feet from Kalihi to Kaimuki are interconnected, providing the storage capacity for this system. Wilhelmina Rise Reservoir No. 1 (2.0 MG storage capacity) is the closest 405 reservoir to the project site.

Water system improvements described in the report, Water System for the Proposed Hawaii Film Facility, have been constructed. These improvements include construction of a 12-inch water line in 18th Avenue, installation of water meters (domestic and fire), and construction of two water lines within the project site, one for domestic use and irrigation and the second for fire flow (see Figure 5).

There are existing onsite fire hydrants that were installed under previous construction projects. However, there are no fire hydrants near existing Soundstage No. 1.

Water Requirements

The Digital Media Center is considered as a school for the purpose of calculating potable water demand. According to the BWS "Water System Standards", 2002, the average domestic water demand for schools is 4,000 gallons per acre per day (gpad) or 60 gpd/student. Based on the proposed area of approximately 2.0 acres, the estimated average

domestic water demand for the project is 8,000 gpd. Based on the estimated occupancy of 300 to 350 people, the estimated average domestic water demand is 18,000 to 21,000 gpd. An average water demand of 21,000 gpd will be used since the proposed occupancy has been provided.

Fire flow requirements are similar to those described in the report, Water System for the Proposed Film Facility.

Proposed Improvements

Due to proposed grading for the new facilities, the existing 4-inch water line to Soundstage No. 1 will be removed and a new 4-inch water line will be constructed in the access road to the Digital Media Center (see Figure 5). This water line will provide domestic water to the Digital Media Center and any future improvements within the project site.

A new 8-inch water line will be constructed in the access road to service onsite fire hydrants and the proposed fire sprinkler system within the building.

WASTEWATER

Existing System

The existing sanitary sewer system within the project site is comprised of 6-inch and 8-inch sewers and is connected to the 8-inch City and County sewer in 18th Avenue (see Figure 6). An existing 8-inch sewer that transports wastewater from the KCC campus traverses the makai portion of the project site and connects to the City and County sewer in 18th Avenue.

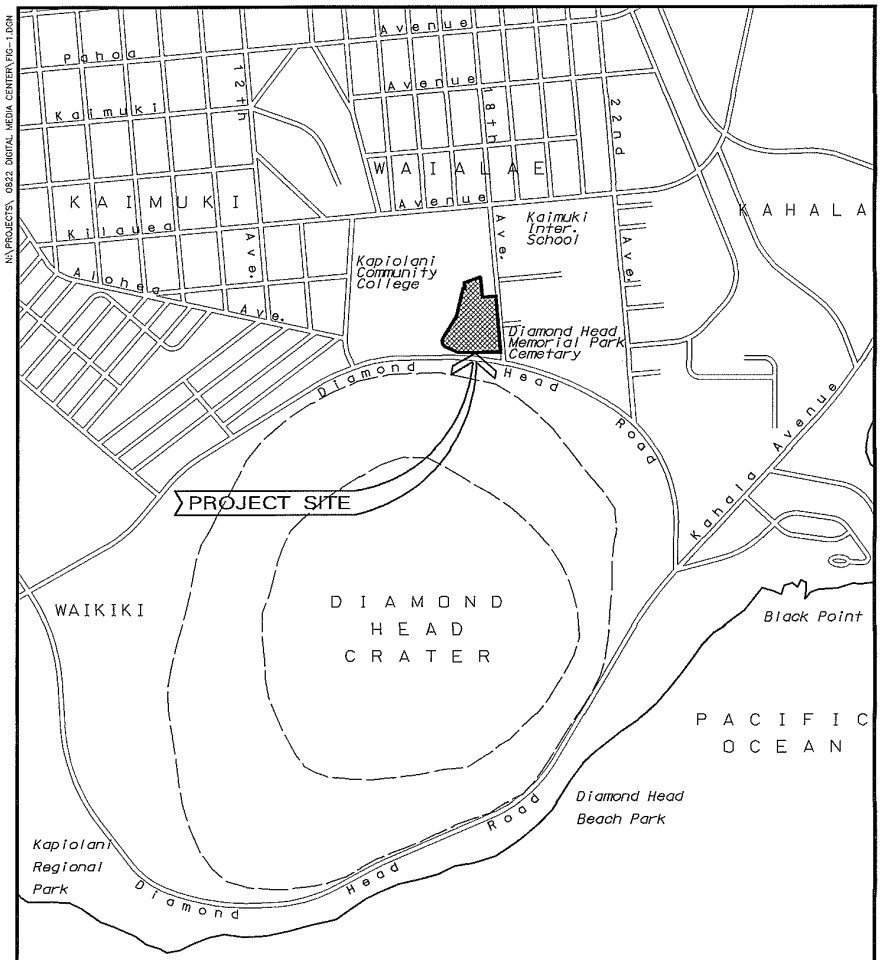
Projected Wastewater Flows

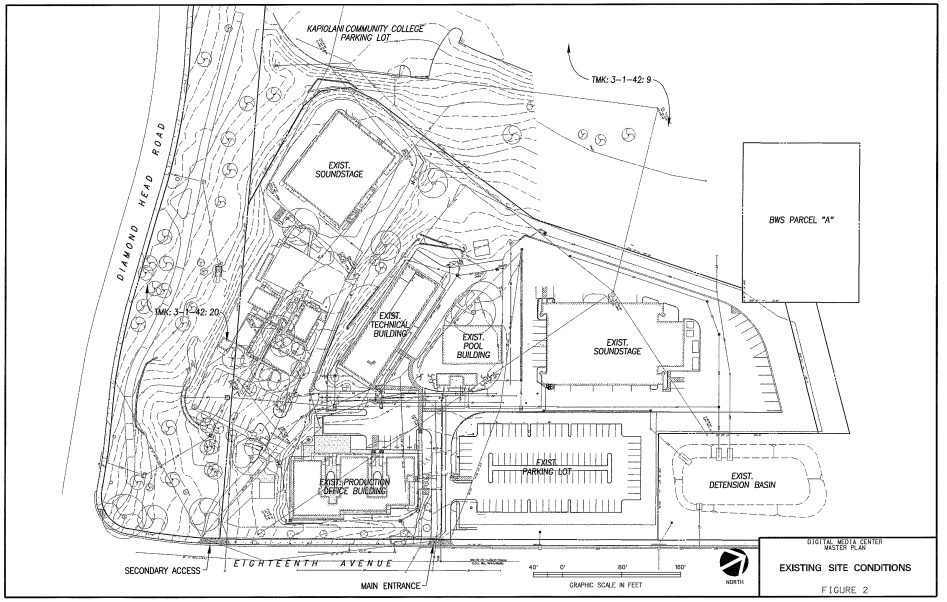
The estimated wastewater flow from the project site is approximately 9,000 to 10,500 gpd based on 30 gallons/capita/day. The design of the sewer system will be in accordancewith the "Design Standards of the Department of Wastewater Management, Volume 1, July, 1993", Department of Wastewater Management, City and County of Honolulu.

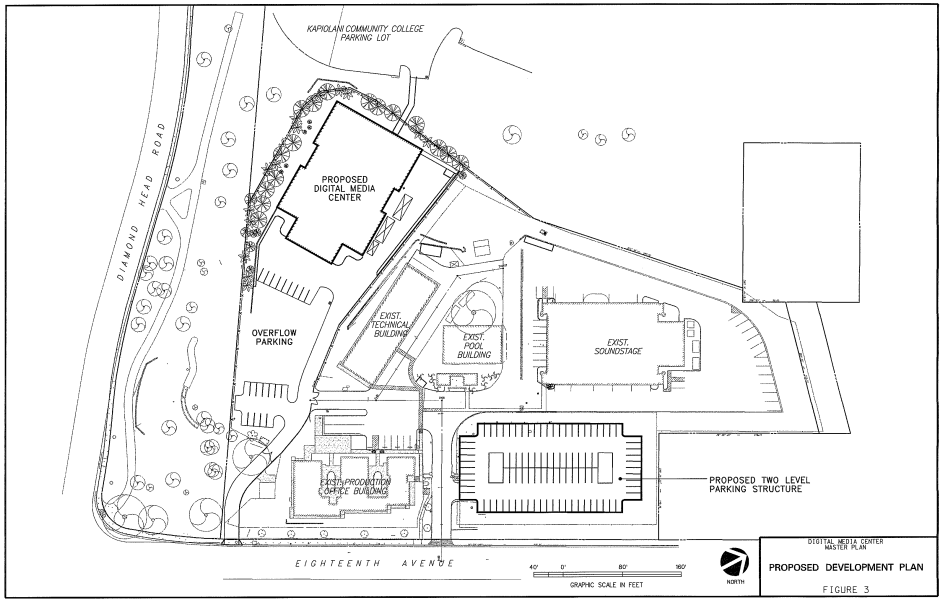
Proposed Improvements

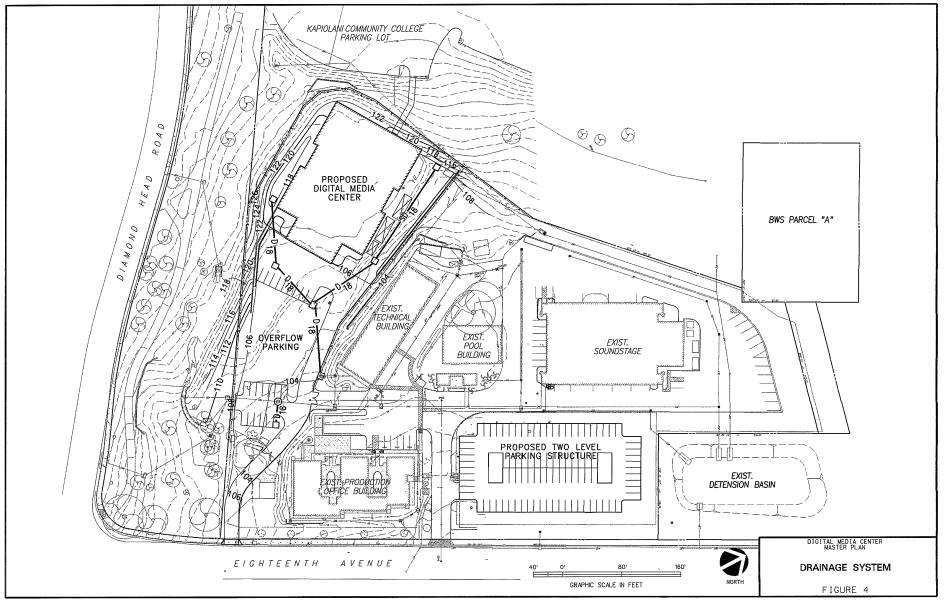
The existing 8-inch sewer from the KCC campus will be removed to accommodate construction of the Digital Media Center. The existing sewer will be cut and plugged near the sewer manhole located below the lower parking lot. A new 8-inch sewer will be constructed in the access road to replace the existing KCC sewer and to serve the Digital Media Center and any future improvements (see Figure 6). Connection of the new sewer to the existing KCC sewer is proposed by modifying the existing SMH near the Digital Media Center within Kapiolani Community College. The new sewer will connect to the existing 8-inch sewer stub located in the roadway between the Technical Building and Production Office Building.

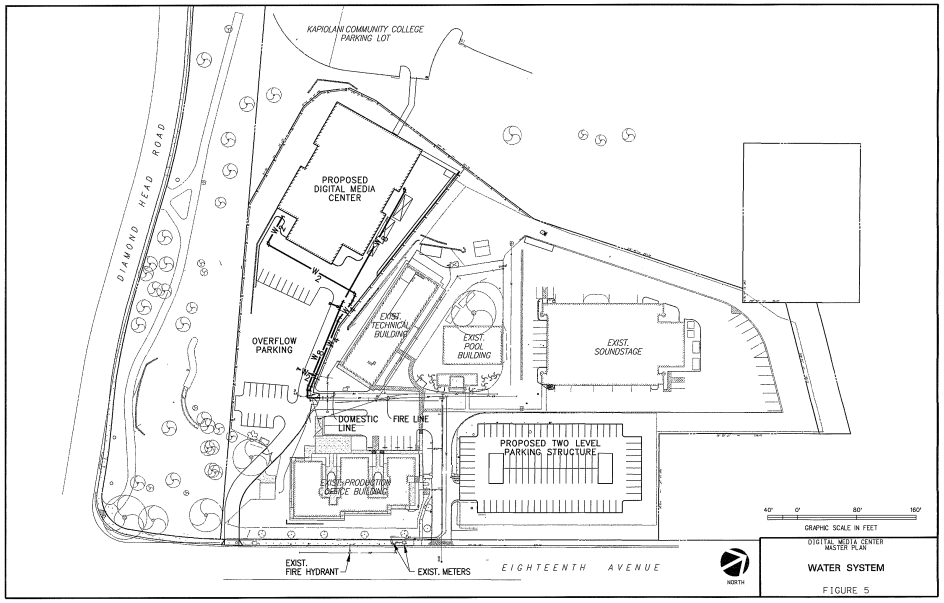
Implementation of the proposed improvements is subject to approval from the City and County of Honolulu, Department of Planning and Permitting, Wastewater Branch. An Application for Sewer Connection is required when the Digital Media Center is developed.

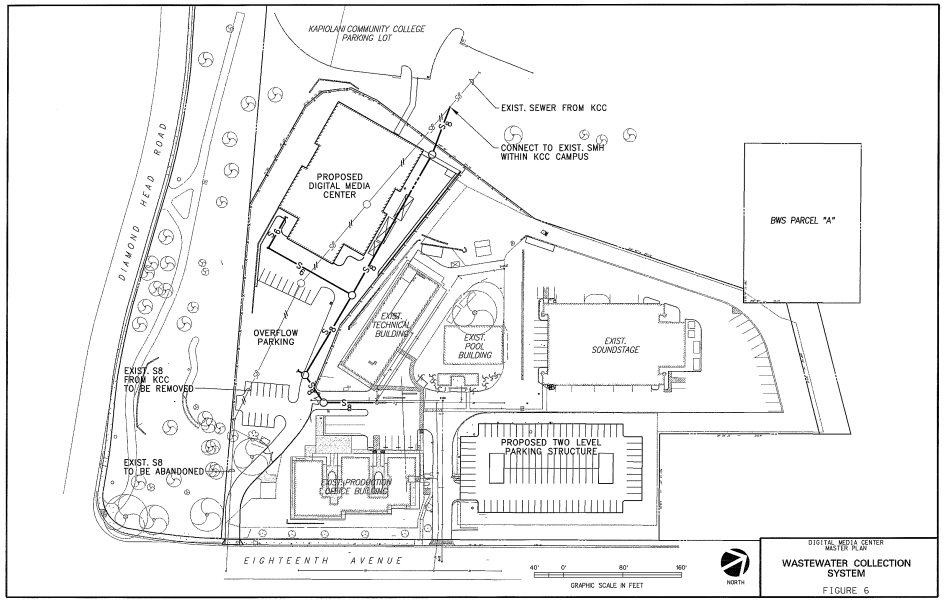

N:\PROJECTS_0822 DIGITAL MEDIA CENTER\FIG-1.DGN
Pahoa
Kaimuki
12th Ave.
Kilauea
Ave.
Alohea
Ave.
Avenue
Avenue
Avenue
18th Ave.
22nd Ave.
WAIALAE
KAIMUKI
KAHALA
Kaimuki Inter. School
Kapiolani Community College
Diamond Head Memorial Park Cemetary
Diamond Head Road
Kahala Avenue
PROJECT SITE
WAIKIKI
DIAMOND HEAD CRATER
Black Point
PACIFIC OCEAN
Diamond Head Beach Park
Kapiolani Regional Park
Diamond Head Road
TAX MAP KEY : 3 – 1 – 42 : POR OF 9 & 33
NORTH
NO SCALE
DIGITAL MEDIA CENTER
MASTER PLAN
LOCATION MAP
FIGURE 1


KAPIOLANI COMMUNITY COLLEGE PARKING LOT
TMK: 3–1–42: 9
DIAMOND HEAD ROAD
EXIST. SOUNDSTAGE
BWS PARCEL "A"
TMK: 3–1–42: 20
EXIST. TECHNICAL BUILDING
EXIST. POOL BUILDING
EXIST. SOUNDSTAGE
EXIST. PRODUCTION OFFICE BUILDING
EXIST. PARKING LOT
EXIST. DETENSION BASIN
SECONDARY ACCESS
EIGHTEENTH AVENUE
MAIN ENTRANCE
40' 0' 80' 160'
GRAPHIC SCALE IN FEET
NORTH
DIGITAL MEDIA CENTER
MASTER PLAN
EXISTING SITE CONDITIONS
FIGURE 2


KAPIOLANI COMMUNITY COLLEGE PARKING LOT
DIAMOND HEAD ROAD
PROPOSED DIGITAL MEDIA CENTER
OVERFLOW PARKING
EXIST. TECHNICAL BUILDING
EXIST. POOL BUILDING
EXIST. SOUNDSTAGE
EXIST. PRODUCTION OFFICE BUILDING
PROPOSED TWO LEVEL PARKING STRUCTURE
EIGHTEENTH AVENUE
40' 0' 80' 160'
GRAPHIC SCALE IN FEET
NORTH
DIGITAL MEDIA CENTER MASTER PLAN
PROPOSED DEVELOPMENT PLAN
FIGURE 3


KAPIOLANI COMMUNITY COLLEGE PARKING LOT
DIAMOND HEAD ROAD
PROPOSED DIGITAL MEDIA CENTER
BWS PARCEL "A"
OVERFLOW PARKING
EXIST. TECHNICAL BUILDING
EXIST. POOL BUILDING
EXIST. SOUNDSTAGE
EXIST. PRODUCTION OFFICE BUILDING
PROPOSED TWO LEVEL PARKING STRUCTURE
EXIST. DETENSION BASIN
EIGHTEENTH AVENUE
40' 0' 80' 160'
GRAPHIC SCALE IN FEET
NORTH
DIGITAL MEDIA CENTER MASTER PLAN
DRAINAGE SYSTEM
FIGURE 4


KAPIOLANI COMMUNITY COLLEGE PARKING LOT
DIAMOND HEAD ROAD
PROPOSED DIGITAL MEDIA CENTER
EXIST. TECHNICAL BUILDING
EXIST. POOL BUILDING
EXIST. SOUNDSTAGE
OVERFLOW PARKING
DOMESTIC LINE
FIRE LINE
PROPOSED TWO LEVEL PARKING STRUCTURE
EXIST. PRODUCTION OFFICE BUILDING
EXIST. FIRE HYDRANT
EXIST. METERS
EIGHTEENTH AVENUE
NORTH
40' 0' 80' 160'
GRAPHIC SCALE IN FEET
DIGITAL MEDIA CENTER MASTER PLAN
WATER SYSTEM
FIGURE 5


KAPIOLANI COMMUNITY COLLEGE PARKING LOT
DIAMOND HEAD ROAD
EXIST. SEWER FROM KCC
CONNECT TO EXIST. SMH WITHIN KCC CAMPUS
PROPOSED DIGITAL MEDIA CENTER
BWS PARCEL "A"
EXIST. TECHNICAL BUILDING
EXIST. POOL BUILDING
EXIST. SOUNDSTAGE
OVERFLOW PARKING
EXIST. S8 FROM KCC TO BE REMOVED
EXIST. S8 TO BE ABANDONED
PROPOSED TWO LEVEL PARKING STRUCTURE
EXIST. PRODUCTION OFFICE BUILDING
EIGHTEENTH AVENUE
40' 0' 80' 160'
GRAPHIC SCALE IN FEET
NORTH
DIGITAL MEDIA CENTER MASTER PLAN
WASTEWATER COLLECTION SYSTEM
FIGURE 6

REFERENCES

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2. City and County of Honolulu, Board of Water Supply, Water System Standards, 2002.

3. Imata and Associates, Inc., Drainage Report for Kapiolani Community College Master Plan, April 1991.

4. Engineering Concepts, Inc., Drainage Report for the Proposed Hawaii Film Studio Renovations & Improvements, November 2004.

5. Engineering Concepts, Inc., Water System for the Proposed Hawaii Film Facility, December 1988.

APPENDIX C TRAFFIC IMPACT ANALYSIS REPORT

TRAFFIC IMPACT ANALYSIS REPORT

FOR THE PROPOSED

FILM AND DIGITAL MEDIA CENTER

HONOLULU, HAWAII

TAX MAP KEY: (1) 3-1-42: 33

PREPARED FOR

GROUP 70 INTERNATIONAL

PREPARED BY

THE TRAFFIC MANAGEMENT CONSULTANT

TRAFFIC IMPACT ANALYSIS REPORT

FOR THE PROPOSED

FILM AND DIGITAL MEDIA CENTER

HONOLULU, HAWAII

TAX MAP KEY: (1) 3-1-42: 33

PREPARED FOR

GROUP 70 INTERNATIONAL

FEBRUARY 6, 2009

PREPARED BY

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Table of Contents

		Page
I.	Introduction	1
	A. Project Description	1
	B. Purpose and Scope of the Study	3
	C. Methodologies	3
	1. Capacity Analysis Methodology	3
	2. Trip Generation Methodology	5
II.	Existing Conditions	5
	A. Roadways	5
	B. Existing Peak Hour Traffic Volumes and Operating Conditions	6
	1. Field Investigation and Data Collection	6
	2. Existing AM Peak Hour Traffic	6
	3. Existing PM Peak Hour Traffic	6
III.	Future Traffic Conditions	9
	A. External Traffic	9
	1. Background Growth in Traffic	9
	B. Year 2012 AM Peak Hour Traffic Analysis Without Project	9
	C. Year 2012 PM Peak Hour Traffic Analysis Without Project	9
IV.	Traffic Access Analysis	12
	A. Site-Generated Traffic	12
	1. Trip Generation Characteristics	12
	2. Trip Distribution	12
	B. AM Peak Hour Traffic Impact Analysis With Project	12
	C. PM Peak Hour Traffic Impact Analysis With Project	12

Table of Contents (Cont'd.)

		Page
V.	Recommendations and Conclusions	16
	A. Recommendations	16
	B. Conclusions	16
Appendix A – Traffic Count Data		
Appendix B – Peak Hour Traffic Analysis		

List of Figures

Page

Figure 1. Vicinity Map 2

Figure 2. Site Plan 4

Figure 3. Existing AM Peak Hour Traffic 7

Figure 4. Existing PM Peak Hour Traffic 8

Figure 5. AM Peak Hour Traffic Without Project 10

Figure 6. PM Peak Hour Traffic Without Project 11

Figure 7. AM Peak Hour Site Traffic Assignment 13

Figure 8. PM Peak Hour Site Traffic Assignment 14

Figure 9. AM Peak Hour Traffic With Project 15

Figure 10. PM Peak Hour Traffic With Project 17

TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED
FILM AND DIGITAL MEDIA CENTER
HONOLULU, HAWAII
TAX MAP KEY: (1) 3-1-42: 33

I. Introduction

A. Project Description

The proposed Film and Digital Media Center will be located makai of the existing Hawaii Film Studio in Honolulu, Hawaii. The subject property is located on the northwest corner of the intersection of 18th Avenue and Diamond Head Road. The proposed project will be constructed on a portion of the 7.422-acre site, identified as Tax Map Key: (1) 3-1-42: 33. Figure 1 depicts the vicinity of the project.

Hawaii Film Studio currently has two accesses on 18th Avenue. The main driveway is located on the west side of 18th Avenue, about 460 feet from its intersection with Diamond Head Road. The main driveway is located immediately opposite the access driveway to the Diamond Head Memorial Park and Mortuary. A little-used secondary driveway also is located on the west side of 18th Avenue, about 220 feet from Diamond Head Road. The secondary driveway is proposed to be located about 180 feet from Diamond Head Road, and will serve as access to the proposed Film and Digital Media Center. The Hawaii Film Studio is comprised of several buildings that total 55,440 square feet of gross floor area (SFGFA). The project site is occupied by a sound stage and portable offices, which will be demolished to make way for the proposed Media Center, 21 parking stalls, and an overflow parking area.

The proposed Film and Digital Media Center will include sound stages (for filming), a stage mill/production facility (for constructing film sets), classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, an equipment storage room, a lobby, and a cafe. The total floor area for the Media Center will be 47,730 SFGFA. In addition to 21 stalls on the project site, the existing 96-stall parking lot at the Hawaii Film Studio will be reconstructed into a 200-stall, two-story parking structure with access from the existing main driveway.

Figure 1. Vicinity Map

The Media Center will be used primarily by students and faculty. The expected occupancy will be between 300 to 350 people, varying in amount throughout the day and night. The night occupancy, however, is expected to be as low as 100 people. The Film and Digital Media Center is expected to be fully built out by the Year 2012. The proposed Film and Digital Media Center site plan is depicted on Figure 2.

B. Purpose and Scope of the Study

The purpose of this study is to analyze the access impacts resulting from the development of the Hawaii Film Studio property. This report presents the findings and recommendations of the study. The scope of this study includes:

1. Description of the proposed project.
2. Evaluation of existing roadways and traffic conditions.
3. Development of trip generation characteristics of the proposed project.
4. Identification of the volumes and types of vehicles that will be generated from the project site.
5. Analysis of traffic conditions without the proposed project.
6. Identification and analysis of access impacts resulting from the development of the proposed project.
7. Recommendations of improvements, as necessary, that would mitigate the access impacts identified in this study.

C. Methodologies

1. Capacity Analysis Methodology

The highway capacity analysis, performed for this study, is based upon procedures presented in the Highway Capacity Manual (HCM), published by the Transportation Research Board, 2000. HCM defines Level of Service (LOS) as "a quality measure describing operational conditions within a traffic stream". Several factors may be included in determining LOS, such as: speed, travel time, freedom to maneuver, traffic interruptions, driver comfort, and convenience. LOS's "A", "B", and "C" are considered satisfactory Levels of Service. LOS "D" is generally considered a minimum "acceptable" operating level of service. LOS "E" is an undesirable condition, and LOS "F" is an unacceptable condition. Table 1 summarizes the LOS criteria.

Figure 2. Site Plan

Table 1. Level of Service Criteria (HCM)		
LOS	**Unsignalized Control (sec/veh)**	**Signalized Control Delay (sec/veh)**
A	≤ 10	≤ 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F	> 50	> 80

"Volume-to-capacity" (v/c) ratio is another measure of effectiveness (MOE) indicating the relative traffic demand to the roadway's capacity. HCM defines capacity as "the maximum number of vehicles that can pass a given point during a specified period under prevailing roadway, traffic flow, and traffic control conditions." A v/c ratio of 0.50 indicates that the traffic demand is utilizing 50 percent of the roadway's capacity. The capacity analysis worksheets are attached in the Appendix.

2. Trip Generation Methodology

The trip generation methodology is based upon generally accepted techniques developed by the Institute of Transportation Engineers (ITE) and published in Trip Generation, 7th Edition. ITE trip rates for a junior/community college are developed by correlating the total vehicle trip generation data with various activity/land use characteristics, such as the vehicle trips per hour (vph) per student.

II. Existing Conditions

A. Roadways

Eighteenth (18th) Avenue is a two-way, two- to four-lane collector street between Diamond Head Road and Pahoa Avenue. The posted speed limit on 18th Avenue is 25 miles per hour (mph). Eighteenth (18th) Avenue is stop-controlled at its Tee-intersection with Diamond Head Road. Eighteenth (18th) Avenue is signalized at its intersection with Kilauea Avenue.

Diamond Head Road is a two-lane collector street on the mauka (north) side of Diamond Head Crater. A left-turn lane is provided on eastbound Diamond Head Road at 18th Avenue.

Kilauea Avenue is a two-way two- to four-lane collector street between 6th Avenue and Waialae Avenue.

B. Existing Peak Hour Traffic Volumes and Operating Conditions

1. Field Investigation and Data Collection

Manual traffic count surveys were conducted on 18th Avenue at its intersections with Kilauea Avenue, Hawaii Film Studio Driveway, and Diamond Head Road on Thursday, January 22, 2009, during the AM and PM peak periods of traffic – from 6:30 AM to 8:30 AM and from 3:30 PM to 5:30 PM. The peak period traffic data are presented in the Appendix.

2. Existing AM Peak Hour Traffic

The AM peak hour of traffic occurred between 7:15 AM and 8:15 AM. Eighteenth (18th) Avenue carried between 700 vehicles per hour (vph) at Diamond Head Road, and 900 vph at Kilauea Avenue, total for both directions. The existing Hawaii Film Studio Driveway carried a total of 26 vph, during the existing AM peak hour of traffic.

During the existing AM peak hour of traffic, the intersection of 18th Avenue and Kilauea Avenue operated at LOS "C" with a v/c ratio of 0.92. Makai bound 18th Avenue operated at LOS "E". The other traffic movements at the intersection operated at satisfactory Levels of Service, i.e., LOS "C" or better.

Eighteenth (18th) Avenue operated at LOS "D" at Diamond Head Road, during the existing AM peak hour of traffic. The other traffic movements at the intersection operated at satisfactory Levels of Service.

The Hawaii Film Studio Driveway operated at LOS "C", during the existing AM peak hour of traffic. Figure 3 depicts the existing AM peak hour traffic.

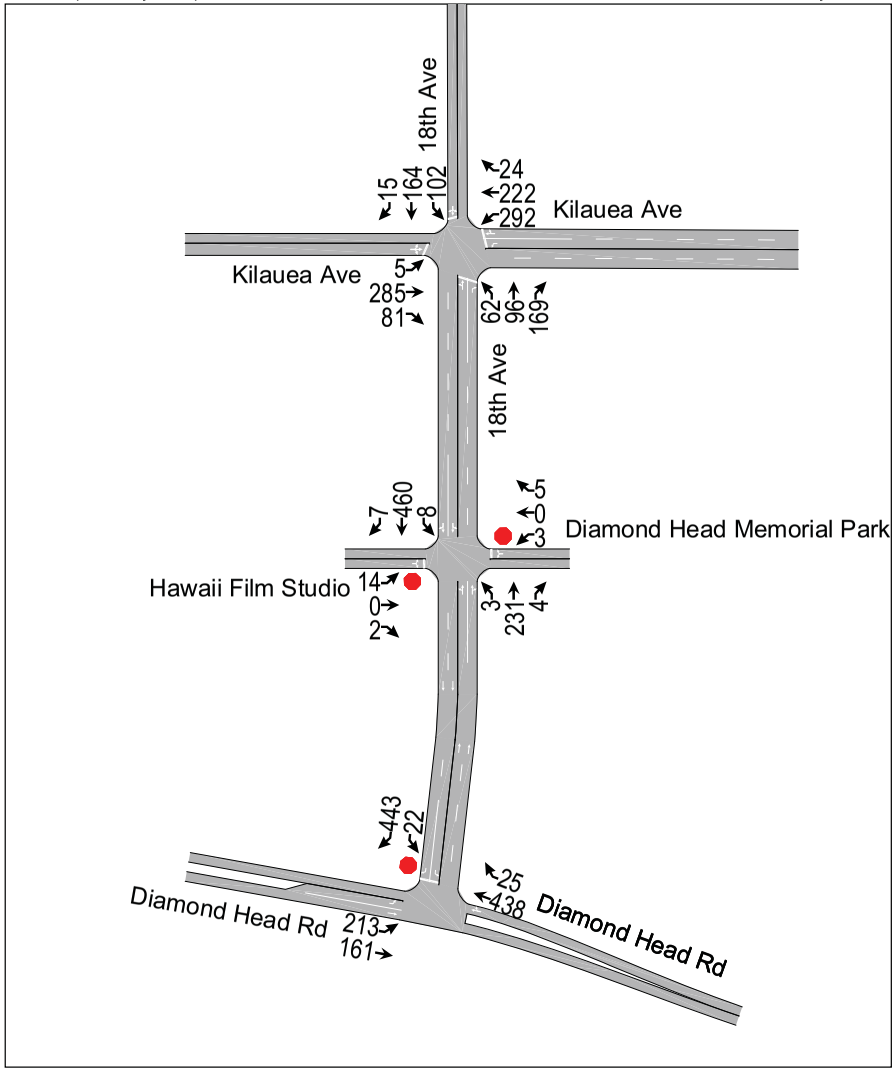
3. Existing PM Peak Hour Traffic

The existing PM peak hour of traffic occurred between 4:15 PM and 5:15 PM. Eighteenth (18th) Avenue carried between 600 vph and 700 vph, total for both directions. The existing Hawaii Film Studio Driveway carried a total of 28 vph, during the existing PM peak hour of traffic.

The intersection of 18th Avenue and Kilauea Avenue operated at LOS "B" with a v/c ratio of 0.67, during the existing PM peak hour of traffic. All traffic movements at the intersection operated at satisfactory Levels of Service.

The left turn movement from 18th Avenue onto Diamond Head Road operated at LOS "E", during the existing PM peak hour of traffic. The other traffic movements at the intersection operated at satisfactory Levels of Service.

During the existing PM peak hour of traffic, the Hawaii Film Studio Driveway operated at LOS "B". The existing PM peak hour traffic is depicted on Figure 4.



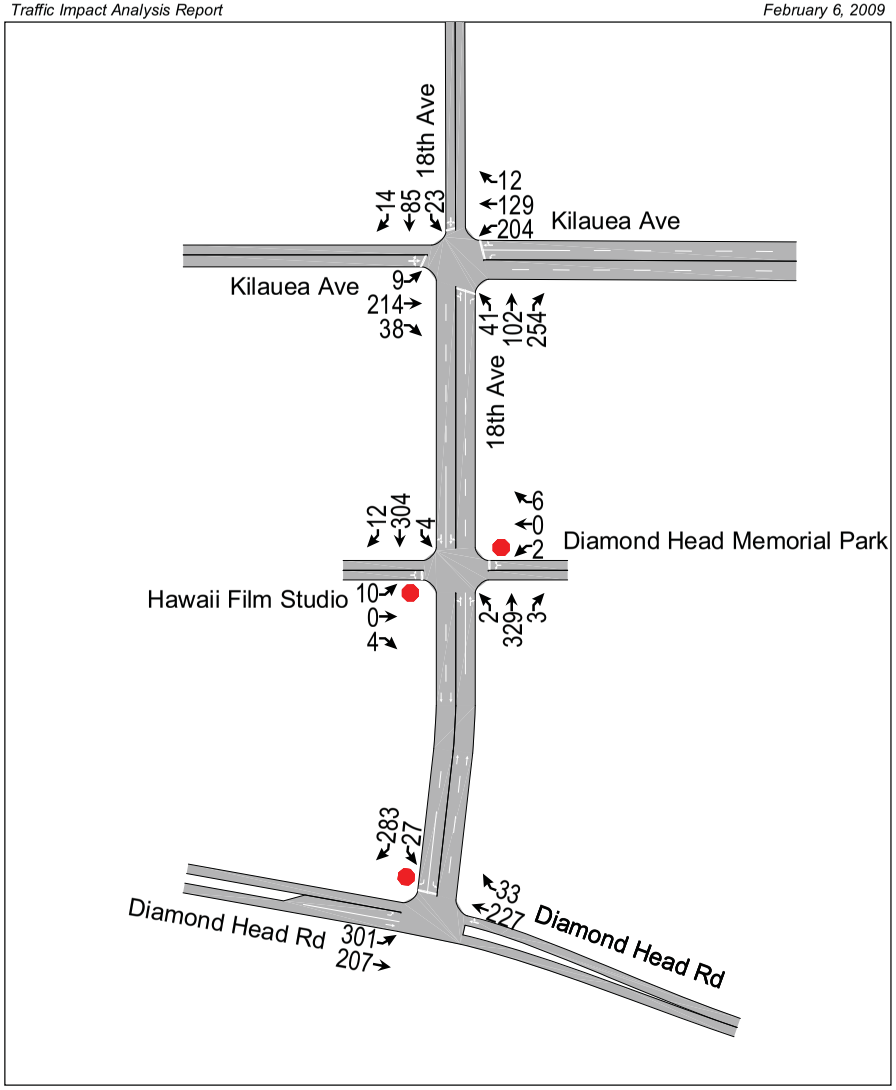


Figure 4. Existing PM Peak Hour Traffic

III. Future Traffic Conditions

A. External Traffic

1. Background Growth in Traffic

The background growth in traffic was derived from the population forecast for Central Oahu, which was published in the Oahu Transportation Regional Plan 2030, prepared for the Oahu Metropolitan Planning Organization (OMPO) in April 2006, and amended in May 2007. The population and employment of the Primary Urban Center of Oahu are expected to increase by 15 percent and 12 percent over a 25-year period. For the purpose of this analysis, a background growth in traffic of 1.0 percent per year was assumed. A growth factor of 1.03 was uniformly applied to the existing peak hour traffic demands to estimate the Year 2012 peak hour traffic demands without the proposed project.

B. Year 2012 AM Peak Hour Traffic Analysis Without Project

The intersection of 18th Avenue and Kilauea Avenue is expected to operate at LOS "C" with a v/c ratio of 0.91, during the AM peak hour of traffic without the proposed project. Makai bound 18th Avenue is expected to continue to operate at LOS “E”. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the AM peak hour of traffic without the proposed project, the left-turn and right-turn movements from 18th Avenue onto Diamond Head Road are expected to operate at LOS "E" and LOS "D", respectively. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

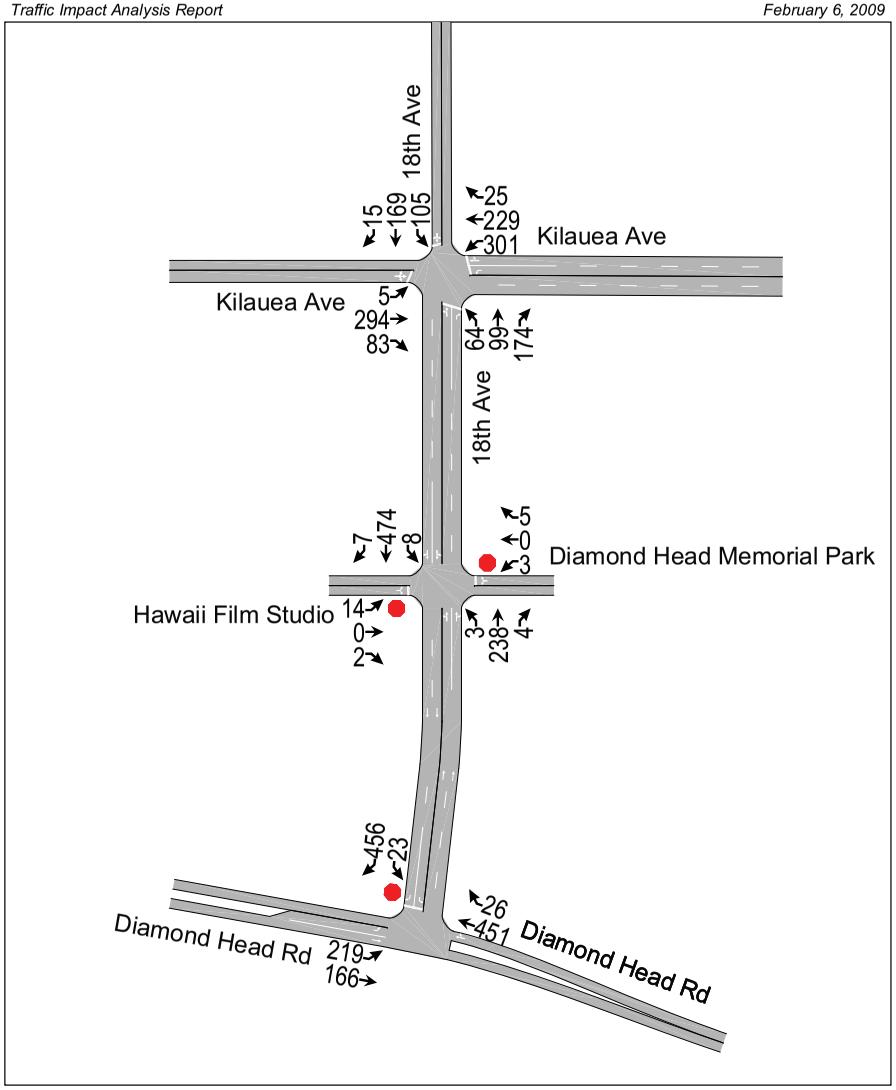
The Hawaii Film Studio Driveway is expected to operate at LOS "C", during the AM peak hour of traffic without the proposed project. Figure 5 depicts the AM peak hour traffic without the proposed project.

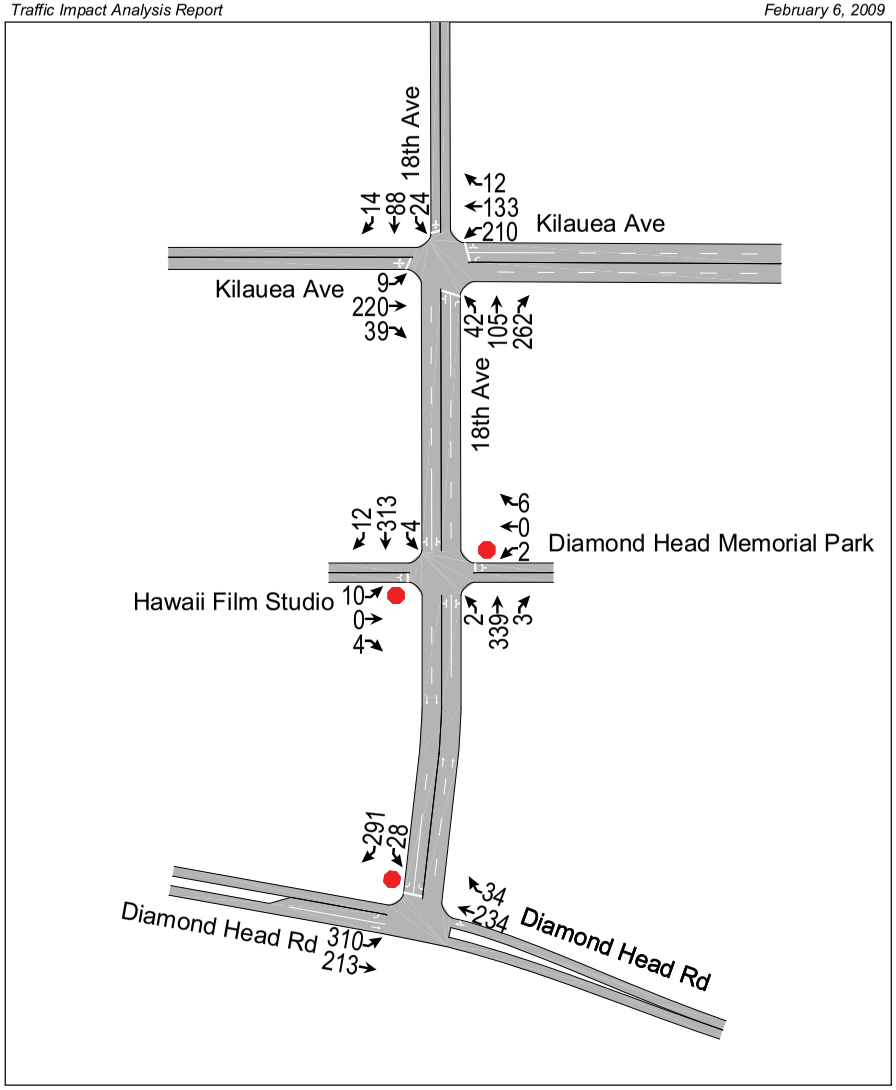
C. Year 2012 PM Peak Hour Traffic Analysis Without Project

During the PM peak hour without the proposed project, the intersection of 18th Avenue and Kilauea Avenue is expected to operate at LOS "B" with a v/c ratio of 0.69. All traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The left turn movement from 18th Avenue onto Diamond Head Road is expected to operate at LOS "E", during the PM peak hour of traffic without the proposed project. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the PM peak hour of traffic without the proposed project, the Hawaii Film Studio Driveway is expected to operate at LOS "B". The PM peak hour traffic without the proposed project is depicted on Figure 6.


18th Ave
15
169
105
25
229
301
Kilauea Ave
Kilauea Ave
5
294
83
64
99
174
18th Ave
7
474
8
5
0
3
Diamond Head Memorial Park
Hawaii Film Studio
14
0
2
3
238
4
456
23
26
451
Diamond Head Rd
Diamond Head Rd
219
166


18th Ave
14
88
24
12
133
210
Kilauea Ave
Kilauea Ave
9
220
39
42
105
262
18th Ave
12
313
4
6
0
2
Diamond Head Memorial Park
Hawaii Film Studio
10
0
4
2
339
3
291
28
34
234
Diamond Head Rd
Diamond Head Rd
310
213

IV. Traffic Access Analysis

A. Site-Generated Traffic

1. Trip Generation Characteristics

The trip generation characteristics of the proposed project are based upon ITE trip rates for a junior/community college. The ITE rates are based upon the number of students. Since the Media Center occupancy of the 350 persons includes faculty, the trip generation rates are considered to be conservative. The proposed Film and Digital Media Center is expected to generate a total of 143 vph, during the AM peak hour of traffic – 106 vph entering the site and 37 vph exiting the site. During the PM peak hour of traffic, the proposed development is expected to generate a total of 121 vph – 70 vph entering the site and 51 vph exiting the site.

2. Trip Distribution

The traffic assignments are based upon existing traffic circulation patterns. The AM and PM peak hour site-generated traffic assignments for the proposed project are depicted on Figures 7 and 8, respectively.

B. AM Peak Hour Traffic Impact Analysis With Project

During the AM peak hour of traffic with the proposed project, the intersection of 18th Avenue and Kilauea Avenue is expected to operate at LOS "C" with a v/c ratio of 0.94. Makai bound 18th Avenue is expected to continue to operate at LOS "E". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

Eighteenth (18th) Avenue is expected to operate at LOS "E" at Diamond Head Road, during the AM peak hour of traffic with the proposed project,. The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

The Hawaii Film Studio Driveway and the Film and Digital Median Driveway are expected to operate at LOS "C", during the AM peak hour of traffic with the proposed project. The AM peak hour traffic with the proposed project is depicted on Figure 9.

C. PM Peak Hour Traffic Impact Analysis With Project

The intersection of 18th Avenue and Kilauea Avenue is expected to operate at LOS "B" with a v/c ratio of 0.79, during the PM peak hour with the proposed project,. All traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

During the PM peak hour of traffic with the proposed project, the left turn movement from 18th Avenue onto Diamond Head Road is expected to operate at LOS "F". The other traffic movements at the intersection are expected to operate at satisfactory Levels of Service.

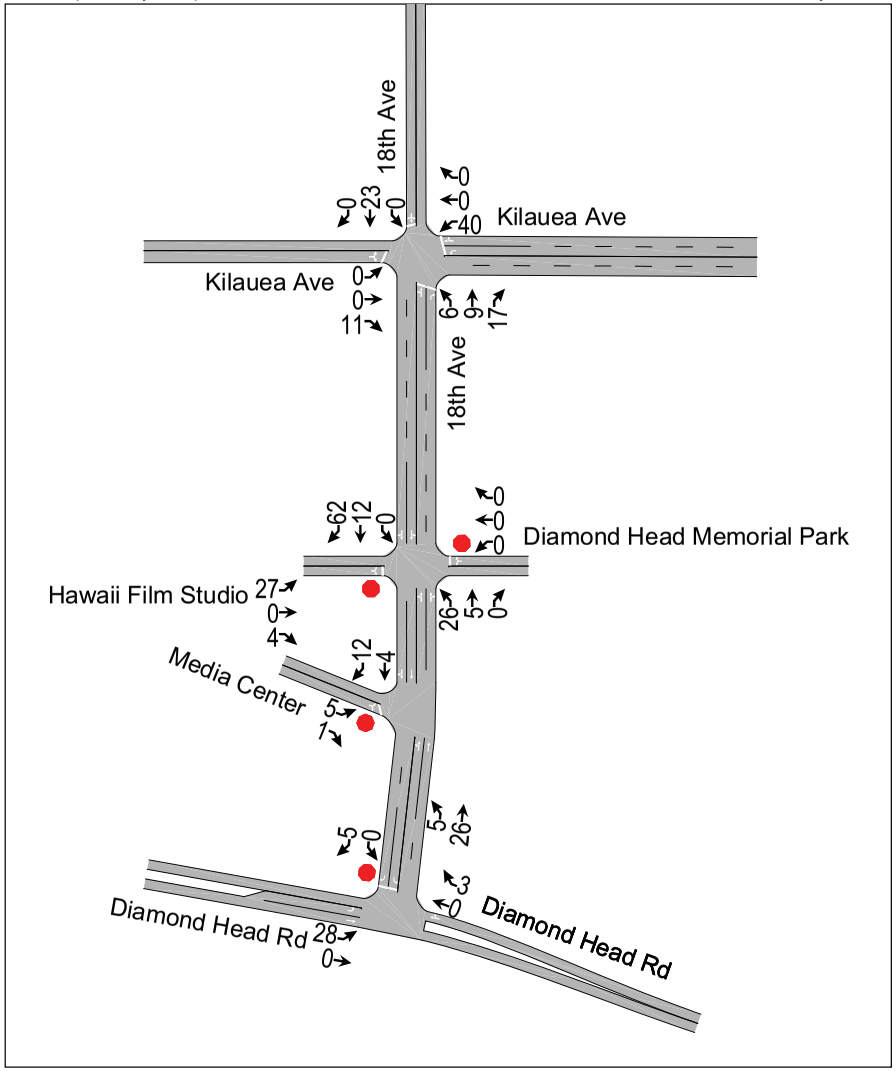
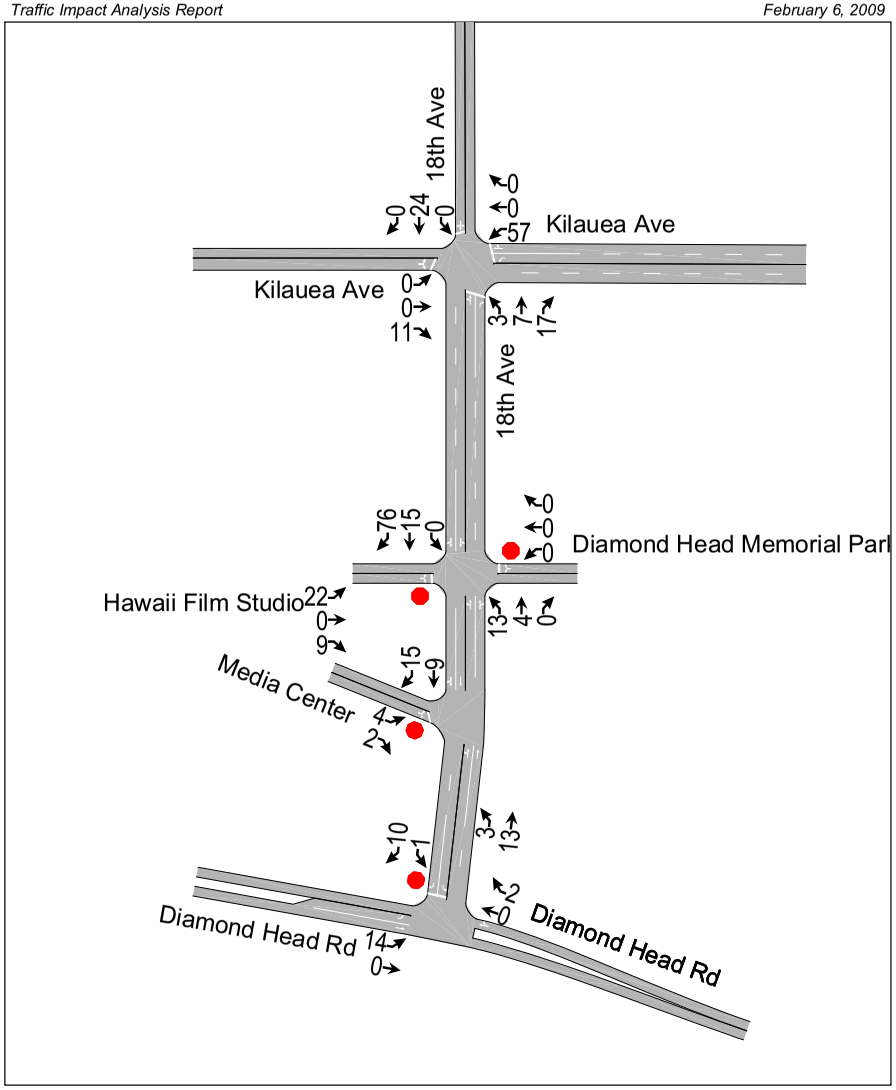
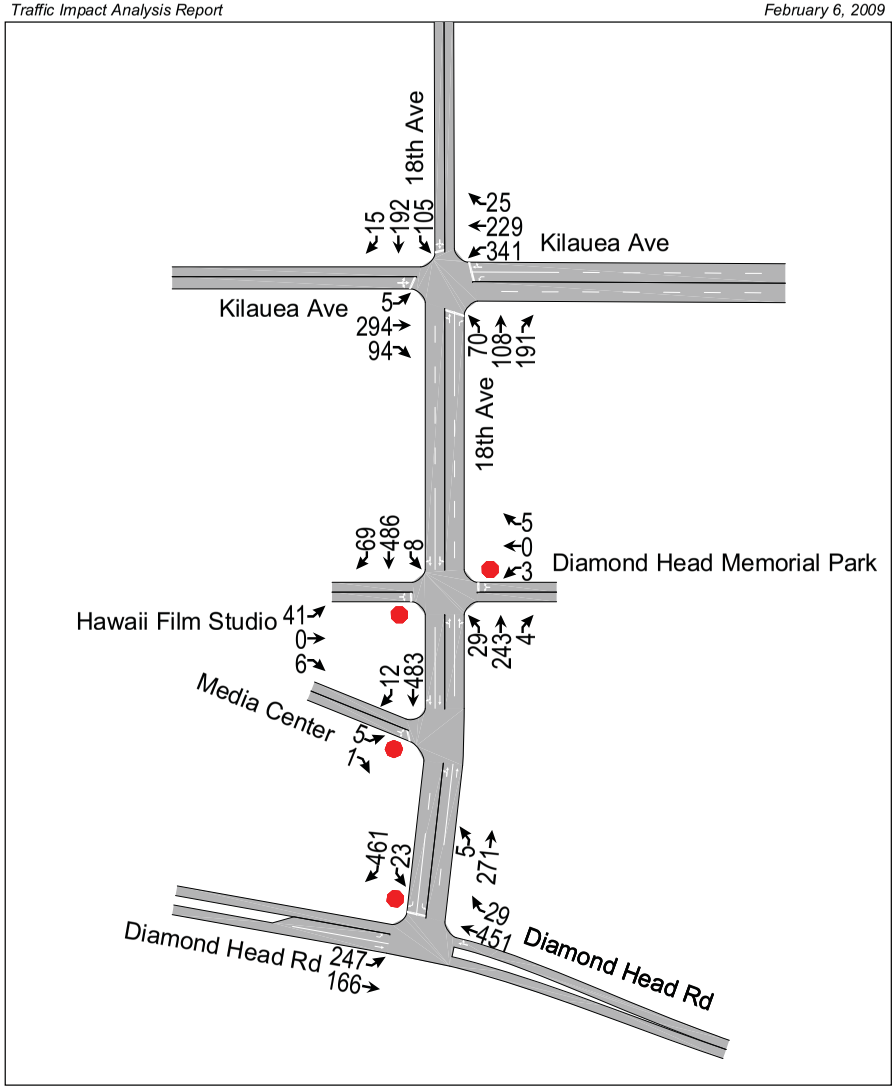


Figure 7. AM Peak Hour Traffic Assignment


18th Ave
Kilauea Ave
Kilauea Ave
18th Ave
Diamond Head Memorial Parl
Hawaii Film Studio
Media Center
Diamond Head Rd
Diamond Head Rd
0 24 0
0 0 57
0 0 11
3 7 17
0 0 0
76 15 0
22 0 9
15 9
4 2
13 4 0
10 1
3 13
2 0
14 0


18th Ave
Kilauea Ave
Kilauea Ave
18th Ave
Diamond Head Memorial Park
Hawaii Film Studio
Media Center
Diamond Head Rd
Diamond Head Rd
15 192 105
25 229 341
5 294 94
70 108 191
69 486 8
5 0 3
41 0 6
12 483
29 243 4
5 1
461 23
5 271
29 451
247 166

The Hawaii Film Studio and the Film and Digital Media Center Driveways are expected to operate at LOS "B". Figure 10 depicts the PM peak hour traffic with the proposed project.

V. Recommendations and Conclusions

A. Recommendations

1. The east leg of Diamond Head Road should be restriped to provide a median shelter lane to facilitate the left-turn movement from 18th Avenue.

2. The sight distance to the right of the proposed Film and Digital Media Center Driveway at 18th Avenue is limited by the distance between the Driveway and Diamond Head Road. The proposed Driveway should located minimum of 155 feet from Diamond Head Road to provide adequate stopping sight distance at 25 miles per hour posted speed.

B. Conclusions

The proposed median shelter lane on Diamond Head Road is expected to improve the traffic operations of the left-turn movement on makai bound 18th Avenue to LOS "C" and LOS "D", during the AM and PM peak hours of traffic with the proposed project, respectively. With the implementation of the traffic improvements recommended herein, the trips generated by the proposed Film and Digital Media Center are not expected to significantly impact traffic in the study area. Table 2 summarizes the capacity analysis.

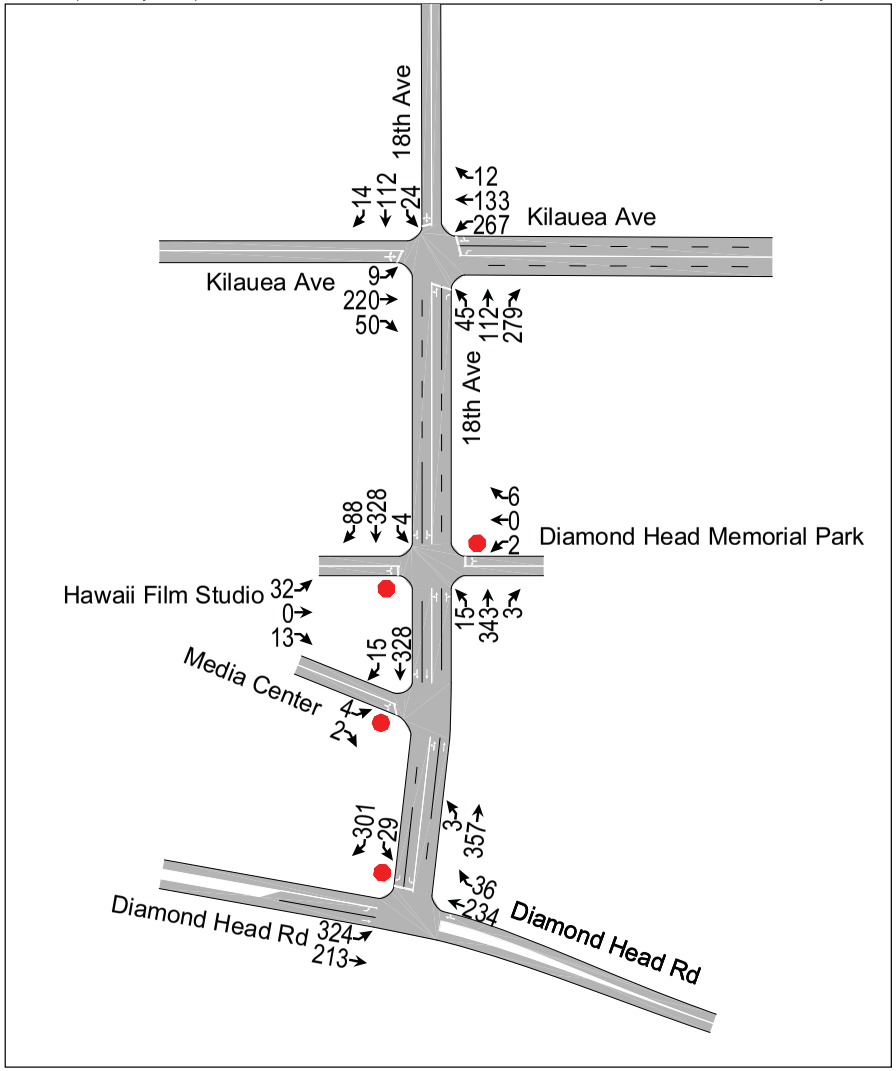


Figure 10. PM Peak Hour Traffic With Project

Table 2. Summary of Capacity Analysis

Scenario	Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Int.
Existing AM Peak Hour of Traffic	Kilauea Ave and 18th Ave	LOS	B			B	A		C		A	E			C
		v/c	0.43			0.58	0.23		0.6		0.41	0.92			0.92
		Delay	11.0			18.0	9.0		34.0		5.3	63.7			22.3
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*D*	*N/A*	*D*	*B*
		v/c	*0.27*	*0.11*		*0.28*			*N/A*			*0.15*	*N/A*	*0.80*	*0.80*
		Delay	*9.5*	*0*		*0*			*N/A*			*34.9*	*N/A*	*30.4*	*12.6*
Existing PM Peak Hour of Traffic	Kilauea Ave and 18th Ave	LOS	B			C	A		B		A	A			C
		v/c	0.49			0.67	0.23		0.33		0.38	0.18			0.67
		Delay	10.9			21.8	8.2		10.7		3.2	8.6			10.1
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*E*	*N/A*	*B*	*A*
		v/c	*0.31*	*0.15*		*0.16*			*N/A*			*0.22*	*N/A*	*0.40*	*0.40*
		Delay	*9.1*	*0*		*0*			*N/A*			*42.9*	*N/A*	*12.7*	*6.9*
AM Peak Hour of Traffic Without Project	Kilauea Ave and 18th Ave	LOS	B			C	A		C		A	E			C
		v/c	0.45			0.63	0.24		0.6		0.41	0.91			0.91
		Delay	11.6			20.3	9.5		33.6		5.1	63.2			22.7
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*E*	*N/A*	*D*	*B*
		v/c	*0.28*	*0.12*		*0.28*			*N/A*			*0.17*	*N/A*	*0.84*	*0.84*
		Delay	*9.6*	*0*		*0*			*N/A*			*37.6*	*N/A*	*34.7*	*14.0*
PM Peak Hour of Traffic Without Project	Kilauea Ave and 18th Ave	LOS	B			C	A		B		A	A			C
		v/c	0.5			0.69	0.23		0.35		0.39	0.19			0.69
		Delay	10.9			22.7	8.1		11.0		3.2	8.9			10.3
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*E*	*N/A*	*B*	*A*
		v/c	*0.32*	*0.16*		*0.17*			*N/A*			*0.25*	*N/A*	*0.42*	*0.42*
		Delay	*9.2*	*0*		*0*			*N/A*			*47.1*	*N/A*	*13*	*7.0*
AM Peak Hour of Traffic With Project	Kilauea Ave and 18th Ave	LOS	B			C	B		C		A	E			C
		v/c	0.48			0.75	0.24		0.63		0.42	0.94			0.94
		Delay	12.6			28.7	10.1		34.2		5.0	67.6			25.5
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*E*	*N/A*	*E*	*B*
		v/c	*0.32*	*0.12*		*0.29*			*N/A*			*0.20*	*N/A*	*0.85*	*0.85*
		Delay	*9.9*	*0*		*0*			*N/A*			*44.8*	*N/A*	*36*	*14.6*
PM Peak Hour of Traffic With Project	Kilauea Ave and 18th Ave	LOS	A			C	A		B		A	B			C
		v/c	0.46			0.79	0.21		0.41		0.43	0.24			0.79
		Delay	9.8			29.7	7.6		12.8		3.5	10.2			12
	Diamond Head Rd and 18th Ave	*LOS*	*A*	*A*		*A*			*N/A*			*F*	*N/A*	*B*	*A*
		v/c	*0.34*	*0.16*		*0.17*			*N/A*			*0.28*	*N/A*	*0.43*	*0.43*
		Delay	*9.3*	*0*		*0*			*N/A*			*52*	*N/A*	*13.2*	*7.3*

Notes:
LOS - Level of Service (Signalized Condition)
v/c - Volume-to Capacity Ratio (Signalized Condition)
Delay - Seconds/Vehicle Delay (Signalized Condition)
LOS - Level of Service (Unsignalized Condition)
v/c - Volume-to Capacity Ratio (Unsignalized Condition)
Delay - Seconds/Vehicle Delay (Unignalized Condition)

TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED
FILM AND DIGITAL MEDIA CENTER

APPENDIX A
TRAFFIC COUNT DATA

TRAFFIC COUNT DATA

PROJECT: Media Center
LOCATION: Honolulu, Hawaii
E-W STREET Kilauea Ave
N-S STREET: 18th Ave

PERIOD: AM Peak
NORTH:
TECHNICIAN: RSO
DATE: 1/22/09

		Kilauea Ave						18th Ave						
TIME		SBR	SBT	SBL	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
6:30	6:45	0	14	8	14	16	10	1	16	7	27	31	7	151
6:45	7:00	3	18	11	5	8	11	1	17	10	40	45	5	174
7:00	7:15	4	22	18	13	17	14	1	30	11	43	57	7	237
7:15	7:30	5	42	27	19	15	33	1	53	20	81	72	8	376
7:30	7:45	5	50	38	15	31	32	2	78	22	76	53	6	408
7:45	8:00	2	41	28	19	40	62	2	102	28	65	49	8	**446**
8:00	8:15	3	31	9	9	10	42	0	52	11	70	48	2	287
8:15	8:30	3	25	6	5	13	29	0	28	15	59	32	1	216
AM PEAK HOUR														
7:15	**8:15**	**15**	**164**	**102**	**62**	**96**	**169**	**5**	**285**	**81**	**292**	**222**	**24**	**1517**
PHF		**1.88**	**1.00**	**0.91**	**0.82**	**0.60**	**0.68**	**0.63**	**0.70**	**0.72**	**1.12**	**1.13**	**0.75**	

TRAFFIC COUNT DATA

PROJECT: Media Center
LOCATION: Honolulu, Hawaii
E-W STREET Kilauea Ave
N-S STREET 18th Ave

PERIOD: PM Peak
NORTH:
TECHNICIAN: RSO
DATE: 1/22/09

		Kilauea Ave						18th Ave						
TIME		SBR	SBT	SBL	NBL	NBT	NBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
3:30	3:45	0	21	11	7	35	43	3	51	18	46	33	14	282
3:45	4:00	2	20	10	10	26	43	3	47	11	49	19	3	243
4:00	4:15	5	18	7	5	25	64	0	46	5	50	29	4	258
4:15	4:30	4	15	7	9	18	54	0	49	6	56	35	2	255
4:30	4:45	3	24	6	23	34	83	6	68	13	48	34	3	**345**
4:45	5:00	2	28	3	4	25	53	3	51	14	50	31	3	267
5:00	5:15	2	16	9	8	25	58	3	37	6	46	28	7	245
5:15	5:30	1	12	7	5	22	51	2	51	5	46	27	8	237
PM PEAK HOUR														
4:00	**5:00**	**14**	**85**	**23**	**41**	**102**	**254**	**9**	**214**	**38**	**204**	**129**	**12**	**1125**
PHF		**1.17**	**0.89**	**0.96**	**0.45**	**0.75**	**0.77**	**0.38**	**0.79**	**0.73**	**1.06**	**0.95**	**1.00**	

TRAFFIC COUNT DATA

PROJECT: Media Center
LOCATION: Honolulu, Hawaii
E-W STREET Diamond Head Road
N-S STREET: 18th Ave

PERIOD: AM Peak
NORTH:
TECHNICIAN: RSO
DATE: 1/22/09

		Diamond Head Road						18th Ave		Hawaii Film StudioDriveways				
TIME		WBL	WBT	WBR	EBL	EBT	EBR	SBL	SBR	NBL	SBR	EBL	EBR	TOTAL
6:30	6:45	0	44	2	22	27	0	22	44	4	2	2	0	169
6:45	7:00	0	70	3	12	21	0	11	49	0	1	1	1	169
7:00	7:15	0	93	1	23	34	0	6	62	0	2	6	1	228
7:15	7:30	0	115	4	48	25	0	7	110	0	1	2	0	312
7:30	7:45	0	120	3	49	38	0	4	102	1	2	2	0	321
7:45	8:00	0	108	8	74	48	0	5	122	2	2	4	1	**374**
8:00	8:15	0	95	10	42	50	0	6	109	1	2	1	0	316
8:15	8:30	0	74	12	37	41	0	5	69	0	2	0	0	240
AM PEAK HOUR														
7:15	**8:15**	**0**	**438**	**25**	**213**	**161**	**0**	**22**	**443**	**4**	**7**	**9**	**1**	**1323**
PHF			**1.01**	**0.78**	**0.72**	**0.84**		**1.10**	**0.91**	**0.50**	**0.88**	**0.56**	**0.25**	**0.88**

TRAFFIC COUNT DATA

PROJECT: Media Center
LOCATION: Honolulu, Hawaii
E-W STREET Diamond Head Road
N-S STREET 18th Ave

PERIOD: PM Peak
NORTH:
TECHNICIAN: RSO
DATE: 1/22/09

		Diamond Head Road						18th Ave		Hawaii Film StudioDriveways				
TIME		WBL	WBT	WBR	EBL	EBT	EBR	SBL	SBR	NBL	SBR	EBL	EBR	TOTAL
15:30	15:45	0	62	6	59	58	0	11	62	2	2	4	2	268
15:45	16:00	0	60	7	62	41	0	10	61	0	2	2	0	245
16:00	16:15	0	54	12	73	51	0	4	64	1	2	1	1	263
16:15	16:30	0	54	5	74	42	0	5	71	1	1	2	0	255
16:30	16:45	0	61	9	99	65	0	6	79	1	6	6	1	**333**
16:45	17:00	0	47	9	56	51	0	6	59	0	0	3	0	231
17:00	17:15	0	65	10	72	49	0	10	74	1	4	0	1	286
17:15	17:30	0	59	9	59	44	0	4	55	0	2	1	2	235
PM PEAK HOUR														
16:15	**17:15**	**0**	**227**	**33**	**301**	**207**	**0**	**27**	**283**	**3**	**11**	**11**	**2**	**1105**
PHF			**0.93**	**0.92**	**0.76**	**0.80**		**1.13**	**0.90**	**0.75**	**0.46**	**0.46**	**0.50**	**0.83**

TRAFFIC IMPACT ANALYSIS REPORT
FOR THE PROPOSED

FILM AND DIGITAL MEDIA CENTER

APPENDIX B

CAPACITY ANALYSIS WORKSHEETS

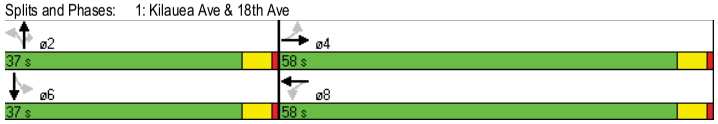
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	285	81	292	222	24	62	96	169	102	164	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1988	0	1770	1827	0	0	1833	1583	0	1815	0
Flt Permitted		0.996		0.440				0.770			0.625	
Satd. Flow (perm)	0	1982	0	820	1827	0	0	1434	1583	0	1156	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			12				249		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.63	0.70	0.72	1.00	1.00	0.75	0.82	0.60	0.68	0.91	1.00	1.00
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	527	0	292	254	0	0	236	249	0	291	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	37.0	37.0	37.0	37.0	37.0	0.0
Total Split (%)	61.1%	61.1%	0.0%	61.1%	61.1%	0.0%	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effct Green (s)		53.3		53.3	53.3			23.8	23.8		23.8	
Actuated g/C Ratio		0.61		0.61	0.61			0.27	0.27		0.27	
v/c Ratio		0.43		0.58	0.23			0.60	0.41		0.92	
Control Delay		11.0		18.0	9.0			34.0	5.3		63.7	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		11.0		18.0	9.0			34.0	5.3		63.7	
LOS		B		B	A			C	A		E	
Approach Delay		11.0			13.8			19.3			63.7	
Approach LOS		B			B			B			E	
Queue Length 50th (ft)		135		90	56			112	0		152	
Queue Length 95th (ft)		172		214	113			111	12		#281	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1221		501	1122			530	742		429	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.43		0.58	0.23			0.45	0.34		0.68	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 87.1			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 70.7%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Kilauea Ave & 18th Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	2	3	0	5	3	231	4	8	460	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	2	3	0	5	3	251	4	9	500	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	659	783	254	529	785	128	508			255		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	659	783	254	529	785	128	508			255		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	100	100	99	100	99	100			99		
cM capacity (veh/h)	344	321	746	428	320	899	1053			1307		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	9	129	130	259	258
Volume Left	15	3	3	0	9	0
Volume Right	2	5	0	4	0	8
cSH	369	636	1053	1700	1307	1700
Volume to Capacity	0.05	0.01	0.00	0.08	0.01	0.15
Queue Length 95th (ft)	4	1	0	0	1	0
Control Delay (s)	15.2	10.7	0.2	0.0	0.3	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	15.2	10.7	0.1		0.2	
Approach LOS	C	B				

Intersection Summary					
Average Delay		0.6			
Intersection Capacity Utilization		28.6%	ICU Level of Service		A
Analysis Period (min)		15			

Film and Digital Media Center
3: Diamond Head Rd & 18th Ave

Existing AM Peak Hour Traffic
2/6/2009

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	213	161	438	25	22	443
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.72	0.84	1.00	0.78	1.00	0.91
Hourly flow rate (vph)	296	192	438	32	22	487
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	470				1237	454
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	470				1237	454
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	73				85	20
cM capacity (veh/h)	1092				142	608

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	296	192	470	22	487
Volume Left	296	0	0	22	0
Volume Right	0	0	32	0	487
cSH	1092	1700	1700	142	608
Volume to Capacity	0.27	0.11	0.28	0.15	0.80
Queue Length 95th (ft)	28	0	0	13	198
Control Delay (s)	9.5	0.0	0.0	34.9	30.4
Lane LOS	A			D	D
Approach Delay (s)	5.8		0.0	30.6	
Approach LOS				D	

Intersection Summary			
Average Delay		12.6	
Intersection Capacity Utilization		58.7%	ICU Level of Service B
Analysis Period (min)		15	

Film and Digital Media Center
1: Kilauea Ave & 18th Ave

Existing PM Peak Hour Traffic
2/6/2009

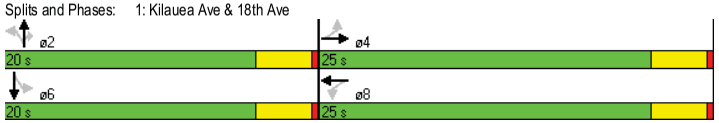
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	214	38	204	129	12	41	102	254	23	85	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	2002	0	1562	1840	0	0	1804	1553	0	1795	0
Flt Permitted		0.976		0.526				0.846			0.936	
Satd. Flow (perm)	0	1960	0	865	1840	0	0	1558	1553	0	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			12				330		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.38	0.79	0.73	1.00	0.95	1.00	0.45	0.75	0.77	0.96	0.89	1.00
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	4%	4%	2%	4%	2%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	347	0	204	148	0	0	227	330	0	134	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	44.4%	44.4%	44.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		13.5		13.5	13.5			16.8	16.8		16.8	
Actuated g/C Ratio		0.35		0.35	0.35			0.44	0.44		0.44	
v/c Ratio		0.49		0.67	0.23			0.33	0.38		0.18	
Control Delay		10.9		21.8	8.2			10.7	3.2		8.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		10.9		21.8	8.2			10.7	3.2		8.6	
LOS		B		C	A			B	A		A	
Approach Delay		10.9			16.0			6.2			8.6	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		48		34	18			28	0		14	
Queue Length 95th (ft)		76		82	42			69	23		48	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1098		479	1025			682	866		750	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.32		0.43	0.14			0.33	0.38		0.18	

Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 38.4			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 48.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Kilauea Ave & 18th Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	0	4	2	0	6	2	329	3	4	304	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	4	2	0	7	2	358	3	4	330	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	535	711	172	542	716	180	343			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	535	711	172	542	716	180	343			361		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	99	100	99	100			100		
cM capacity (veh/h)	423	355	842	420	352	831	1212			1194		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	15	9	181	182	170	178
Volume Left	11	2	2	0	4	0
Volume Right	4	7	0	3	0	13
cSH	493	668	1212	1700	1194	1700
Volume to Capacity	0.03	0.01	0.00	0.11	0.00	0.10
Queue Length 95th (ft)	2	1	0	0	0	0
Control Delay (s)	12.5	10.5	0.1	0.0	0.2	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	12.5	10.5	0.1		0.1	
Approach LOS	B	B				

Intersection Summary

Average Delay		0.5		
Intersection Capacity Utilization	21.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	301	207	227	33	27	283
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.76	0.80	0.93	0.92	1.00	0.90
Hourly flow rate (vph)	396	259	244	36	27	314
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	280				1313	262
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	280				1313	262
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	69				78	60
cM capacity (veh/h)	1283				121	779

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	396	259	280	27	314
Volume Left	396	0	0	27	0
Volume Right	0	0	36	0	314
cSH	1283	1700	1700	121	779
Volume to Capacity	0.31	0.15	0.16	0.22	0.40
Queue Length 95th (ft)	33	0	0	20	49
Control Delay (s)	9.1	0.0	0.0	42.9	12.7
Lane LOS	A			E	B
Approach Delay (s)	5.5		0.0	15.1	
Approach LOS				C	

Intersection Summary				
Average Delay		6.9		
Intersection Capacity Utilization		44.0%	ICU Level of Service	A
Analysis Period (min)		15		

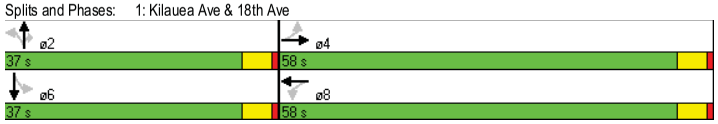
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	294	83	301	229	25	64	99	174	105	169	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1988	0	1770	1827	0	0	1833	1583	0	1815	0
Flt Permitted		0.996		0.428				0.769			0.620	
Satd. Flow (perm)	0	1982	0	797	1827	0	0	1432	1583	0	1147	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23			12				256		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.63	0.70	0.72	1.00	1.00	0.75	0.82	0.60	0.68	0.91	1.00	1.00
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	543	0	301	262	0	0	243	256	0	299	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	37.0	37.0	37.0	37.0	37.0	0.0
Total Split (%)	61.1%	61.1%	0.0%	61.1%	61.1%	0.0%	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effct Green (s)		53.3		53.3	53.3			25.0	25.0		25.0	
Actuated g/C Ratio		0.60		0.60	0.60			0.28	0.28		0.28	
v/c Ratio		0.45		0.63	0.24			0.60	0.41		0.91	
Control Delay		11.6		20.3	9.5			33.6	5.1		63.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		11.6		20.3	9.5			33.6	5.1		63.2	
LOS		B		C	A			C	A		E	
Approach Delay		11.6			15.3			19.0			63.2	
Approach LOS		B			B			B			E	
Queue Length 50th (ft)		149		102	61			116	0		158	
Queue Length 95th (ft)		179		232	117			115	11		#294	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1205		481	1107			521	739		420	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.45		0.63	0.24			0.47	0.35		0.71	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 88.3			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 22.7		Intersection LOS: C	
Intersection Capacity Utilization 72.3%		ICU Level of Service C	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Kilauea Ave & 18th Ave

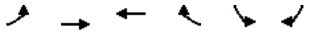


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	0	2	3	0	5	3	238	4	8	474	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	2	3	0	5	3	259	4	9	515	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	678	806	261	545	808	132	523			263		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	678	806	261	545	808	132	523			263		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	95	100	100	99	100	99	100			99		
cM capacity (veh/h)	334	311	737	417	310	894	1040			1298		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	17	9	133	134	266	265
Volume Left	15	3	3	0	9	0
Volume Right	2	5	0	4	0	8
cSH	358	626	1040	1700	1298	1700
Volume to Capacity	0.05	0.01	0.00	0.08	0.01	0.16
Queue Length 95th (ft)	4	1	0	0	1	0
Control Delay (s)	15.6	10.8	0.2	0.0	0.3	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	15.6	10.8	0.1		0.2	
Approach LOS	C	B				

Intersection Summary

Average Delay		0.6			
Intersection Capacity Utilization	29.0%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	219	166	451	26	23	456
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.72	0.84	1.00	0.78	1.00	0.91
Hourly flow rate (vph)	304	198	451	33	23	501
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	484				1274	468
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	484				1274	468
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	72				83	16
cM capacity (veh/h)	1078				133	597

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	304	198	484	23	501
Volume Left	304	0	0	23	0
Volume Right	0	0	33	0	501
cSH	1078	1700	1700	133	597
Volume to Capacity	0.28	0.12	0.28	0.17	0.84
Queue Length 95th (ft)	29	0	0	15	224
Control Delay (s)	9.6	0.0	0.0	37.6	34.7
Lane LOS	A			E	D
Approach Delay (s)	5.8		0.0	34.8	
Approach LOS				D	

Intersection Summary				
Average Delay		14.0		
Intersection Capacity Utilization		60.2%	ICU Level of Service	B
Analysis Period (min)		15		

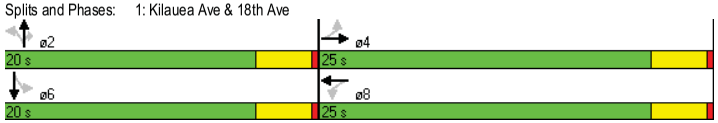
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	220	39	210	133	12	42	105	262	24	88	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	2002	0	1562	1840	0	0	1804	1553	0	1795	0
Flt Permitted		0.976		0.519				0.844			0.933	
Satd. Flow (perm)	0	1960	0	853	1840	0	0	1554	1553	0	1690	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			12				340		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.38	0.79	0.73	1.00	0.95	1.00	0.45	0.75	0.77	0.96	0.89	1.00
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	4%	4%	2%	4%	2%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	0	210	152	0	0	233	340	0	138	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	44.4%	44.4%	44.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		13.7		13.7	13.7			16.7	16.7		16.7	
Actuated g/C Ratio		0.36		0.36	0.36			0.43	0.43		0.43	
v/c Ratio		0.50		0.69	0.23			0.35	0.39		0.19	
Control Delay		10.9		22.7	8.1			11.0	3.2		8.9	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		10.9		22.7	8.1			11.0	3.2		8.9	
LOS		B		C	A			B	A		A	
Approach Delay		10.9			16.6			6.4			8.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		49		35	19			30	0		15	
Queue Length 95th (ft)		78		86	43			71	23		50	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1096		472	1023			673	865		739	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.32		0.44	0.15			0.35	0.39		0.19	

Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 38.5			
Natural Cycle: 40			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 10.3		Intersection LOS: B	
Intersection Capacity Utilization 49.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: Kilauea Ave & 18th Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	10	0	4	2	0	6	2	339	3	4	313	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	0	4	2	0	7	2	368	3	4	340	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	551	732	177	558	736	186	353			372		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	551	732	177	558	736	186	353			372		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	99	100	99	100			100		
cM capacity (veh/h)	412	345	836	409	343	825	1202			1183		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	15	9	186	188	174	183
Volume Left	11	2	2	0	4	0
Volume Right	4	7	0	3	0	13
cSH	482	657	1202	1700	1183	1700
Volume to Capacity	0.03	0.01	0.00	0.11	0.00	0.11
Queue Length 95th (ft)	2	1	0	0	0	0
Control Delay (s)	12.7	10.5	0.1	0.0	0.2	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	12.7	10.5	0.1		0.1	
Approach LOS	B	B				

Intersection Summary

Average Delay		0.5			
Intersection Capacity Utilization		21.9%	ICU Level of Service		A
Analysis Period (min)		15			

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	310	213	234	34	28	291
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.76	0.80	0.93	0.92	1.00	0.90
Hourly flow rate (vph)	408	266	252	37	28	323
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	289				1352	270
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	289				1352	270
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	68				75	58
cM capacity (veh/h)	1273				113	771

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	408	266	289	28	323
Volume Left	408	0	0	28	0
Volume Right	0	0	37	0	323
cSH	1273	1700	1700	113	771
Volume to Capacity	0.32	0.16	0.17	0.25	0.42
Queue Length 95th (ft)	35	0	0	23	52
Control Delay (s)	9.2	0.0	0.0	47.1	13.0
Lane LOS	A			E	B
Approach Delay (s)	5.5		0.0	15.7	
Approach LOS				C	

Intersection Summary			
Average Delay		7.0	
Intersection Capacity Utilization		44.9%	ICU Level of Service A
Analysis Period (min)		15	

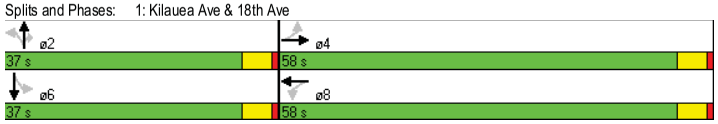
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	294	94	341	229	25	70	108	191	105	192	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1981	0	1770	1827	0	0	1833	1583	0	1818	0
Flt Permitted		0.996		0.413				0.753			0.609	
Satd. Flow (perm)	0	1976	0	769	1827	0	0	1403	1583	0	1128	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			12				281		3	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.63	0.70	0.72	1.00	1.00	0.75	0.82	0.60	0.68	0.91	1.00	1.00
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	559	0	341	262	0	0	265	281	0	322	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	22.0	22.0		22.0	22.0		22.0	22.0	22.0	22.0	22.0	
Total Split (s)	58.0	58.0	0.0	58.0	58.0	0.0	37.0	37.0	37.0	37.0	37.0	0.0
Total Split (%)	61.1%	61.1%	0.0%	61.1%	61.1%	0.0%	38.9%	38.9%	38.9%	38.9%	38.9%	0.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0	5.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Act Effct Green (s)		53.2		53.2	53.2			27.2	27.2		27.2	
Actuated g/C Ratio		0.59		0.59	0.59			0.30	0.30		0.30	
v/c Ratio		0.48		0.75	0.24			0.63	0.42		0.94	
Control Delay		12.6		28.7	10.1			34.2	5.0		67.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		12.6		28.7	10.1			34.2	5.0		67.6	
LOS		B		C	B			C	A		E	
Approach Delay		12.6			20.6			19.2			67.6	
Approach LOS		B			C			B			E	
Queue Length 50th (ft)		177		147	69			129	0		177	
Queue Length 95th (ft)		184		#329	117			125	11		#333	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1173		452	1079			498	743		402	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.48		0.75	0.24			0.53	0.38		0.80	

Intersection Summary

Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 90.5			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.94			
Intersection Signal Delay: 25.5		Intersection LOS: C	
Intersection Capacity Utilization 76.3%		ICU Level of Service D	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Kilauea Ave & 18th Ave

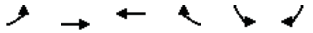


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	0	6	3	0	5	29	243	4	8	486	69
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	0	7	3	0	5	32	264	4	9	528	75
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	784	915	302	617	950	134	603			268		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	784	915	302	617	950	134	603			268		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	100	99	99	100	99	97			99		
cM capacity (veh/h)	273	261	694	359	249	890	970			1292		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	51	9	164	136	273	339
Volume Left	45	3	32	0	9	0
Volume Right	7	5	0	4	0	75
cSH	296	573	970	1700	1292	1700
Volume to Capacity	0.17	0.02	0.03	0.08	0.01	0.20
Queue Length 95th (ft)	15	1	3	0	1	0
Control Delay (s)	19.7	11.4	2.0	0.0	0.3	0.0
Lane LOS	C	B	A		A	
Approach Delay (s)	19.7	11.4	1.1		0.1	
Approach LOS	C	B				

Intersection Summary

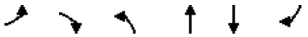
Average Delay		1.6		
Intersection Capacity Utilization		39.0%	ICU Level of Service	A
Analysis Period (min)		15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	247	166	451	29	23	461
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.72	0.84	1.00	0.78	1.00	0.91
Hourly flow rate (vph)	343	198	451	37	23	507
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	488				1353	470
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	488				1353	470
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	68				80	15
cM capacity (veh/h)	1075				113	596

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	343	198	488	23	507
Volume Left	343	0	0	23	0
Volume Right	0	0	37	0	507
cSH	1075	1700	1700	113	596
Volume to Capacity	0.32	0.12	0.29	0.20	0.85
Queue Length 95th (ft)	35	0	0	18	232
Control Delay (s)	9.9	0.0	0.0	44.8	36.0
Lane LOS	A			E	E
Approach Delay (s)	6.3		0.0	36.4	
Approach LOS				E	

Intersection Summary				
Average Delay	14.6			
Intersection Capacity Utilization	60.7%	ICU Level of Service		B
Analysis Period (min)	15			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	5	1	5	271	483	12
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	1	5	295	525	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					584	
pX, platoon unblocked						
vC, conflicting volume	690	269	538			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	690	269	538			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	99			
cM capacity (veh/h)	377	729	1026			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	7	104	196	350	188
Volume Left	5	5	0	0	0
Volume Right	1	0	0	0	13
cSH	410	1026	1700	1700	1700
Volume to Capacity	0.02	0.01	0.12	0.21	0.11
Queue Length 95th (ft)	1	0	0	0	0
Control Delay (s)	13.9	0.5	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	13.9	0.2		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.2			
Intersection Capacity Utilization	23.7%	ICU Level of Service		A
Analysis Period (min)	15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	220	50	267	133	12	45	112	279	24	112	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	15	12	12	12	12	12	12	12	12	12	12
Satd. Flow (prot)	0	1992	0	1562	1840	0	0	1804	1553	0	1801	0
Flt Permitted		0.978		0.519				0.827			0.940	
Satd. Flow (perm)	0	1954	0	853	1840	0	0	1523	1553	0	1706	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			12				362		12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		336			420			389			363	
Travel Time (s)		7.6			9.5			8.8			8.3	
Peak Hour Factor	0.38	0.79	0.73	1.00	0.95	1.00	0.45	0.75	0.77	0.96	0.89	1.00
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%	2%	4%	4%	2%	4%	2%
Parking (#/hr)				0								
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	370	0	267	152	0	0	249	362	0	165	0
Turn Type	Perm			Perm			Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Detector Phase	4	4		8	8		2	2	2	6	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	55.6%	55.6%	0.0%	55.6%	55.6%	0.0%	44.4%	44.4%	44.4%	44.4%	44.4%	0.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	
Act Effct Green (s)		16.1		16.1	16.1			16.2	16.2		16.2	
Actuated g/C Ratio		0.40		0.40	0.40			0.40	0.40		0.40	
v/c Ratio		0.46		0.79	0.21			0.41	0.43		0.24	
Control Delay		9.8		29.7	7.6			12.8	3.5		10.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		9.8		29.7	7.6			12.8	3.5		10.2	
LOS		A		C	A			B	A		B	
Approach Delay		9.8			21.7			7.3			10.2	
Approach LOS		A			C			A			B	
Queue Length 50th (ft)		51		49	19			41	0		23	
Queue Length 95th (ft)		80		#147	43			76	23		59	
Internal Link Dist (ft)		256			340			309			283	
Turn Bay Length (ft)												
Base Capacity (vph)		1046		450	976			612	840		693	
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	

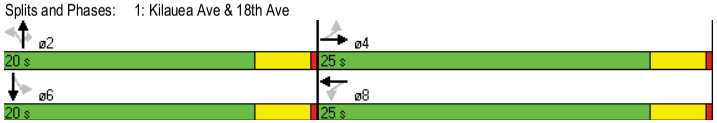
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.35		0.59	0.16			0.41	0.43		0.24	

Intersection Summary

Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 40.4			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 12.0		Intersection LOS: B	
Intersection Capacity Utilization 54.6%		ICU Level of Service A	
Analysis Period (min) 15			

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

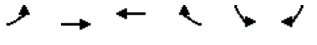
Splits and Phases: 1: Kilauea Ave & 18th Ave



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	0	13	2	0	6	15	343	3	4	328	88
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	0	14	2	0	7	16	373	3	4	357	96
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											389	
pX, platoon unblocked												
vC, conflicting volume	639	822	226	608	868	188	452			376		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	639	822	226	608	868	188	452			376		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	100	98	99	100	99	99			100		
cM capacity (veh/h)	353	302	777	367	284	822	1105			1179		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	49	9	203	190	183	274
Volume Left	35	2	16	0	4	0
Volume Right	14	7	0	3	0	96
cSH	419	628	1105	1700	1179	1700
Volume to Capacity	0.12	0.01	0.01	0.11	0.00	0.16
Queue Length 95th (ft)	10	1	1	0	0	0
Control Delay (s)	14.7	10.8	0.8	0.0	0.2	0.0
Lane LOS	B	B	A		A	
Approach Delay (s)	14.7	10.8	0.4		0.1	
Approach LOS	B	B				

Intersection Summary					
Average Delay	1.1				
Intersection Capacity Utilization	33.5%	ICU Level of Service		A	
Analysis Period (min)	15				



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	324	213	234	36	29	301
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.76	0.80	0.93	0.92	1.00	0.90
Hourly flow rate (vph)	426	266	252	39	29	334
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	291				1390	271
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	291				1390	271
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	66				72	57
cM capacity (veh/h)	1271				105	770

Direction, Lane #	EB 1	EB 2	WB 1	SB 1	SB 2
Volume Total	426	266	291	29	334
Volume Left	426	0	0	29	0
Volume Right	0	0	39	0	334
cSH	1271	1700	1700	105	770
Volume to Capacity	0.34	0.16	0.17	0.28	0.43
Queue Length 95th (ft)	37	0	0	26	55
Control Delay (s)	9.3	0.0	0.0	52.0	13.2
Lane LOS	A			F	B
Approach Delay (s)	5.7		0.0	16.3	
Approach LOS				C	

Intersection Summary				
Average Delay	7.3			
Intersection Capacity Utilization	45.8%	ICU Level of Service		A
Analysis Period (min)	15			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	2	3	357	328	15
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	2	3	388	357	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)					584	
pX, platoon unblocked						
vC, conflicting volume	565	186	373			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	565	186	373			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	454	824	1182			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	7	133	259	238	135
Volume Left	4	3	0	0	0
Volume Right	2	0	0	0	16
cSH	534	1182	1700	1700	1700
Volume to Capacity	0.01	0.00	0.15	0.14	0.08
Queue Length 95th (ft)	1	0	0	0	0
Control Delay (s)	11.8	0.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.8	0.1		0.0	
Approach LOS	B				

Intersection Summary				
Average Delay	0.1			
Intersection Capacity Utilization	22.0%	ICU Level of Service		A
Analysis Period (min)	15			

APPENDIX D ARCHAEOLOGICAL ASSESSMENT

Archaeological Assessment
For the Proposed Diamond Head Digital Media Center, P lolo Ahupua‘a, Honolulu District, O‘ahu Island
TMK: [1] 3-1-042:009, 033.

Prepared for

Group 70 International, Inc.,

Prepared by

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December 2008

(Job Code: PALOLO 1)

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Section 1 Management Summary

Reference	Archaeological Assessment For the Proposed Diamond Head Digital Media Center, P lolo Ahupua‘a, Honolulu District, O‘ahu Island TMK: [1] 3-1-042:009, 033.
Date	December 2008
Project Number (s)	Cultural Surveys Hawaii job code PALOLO 1
Investigation Permit Number	The fieldwork component of the archaeological inventory survey investigation was carried out under archaeological permit number 08-14, issued by the Hawai‘i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR), per Hawai‘i Administrative Rules (HAR) Chapter 13-282.
Project Location	The project area is located at 510 18th Avenue at the southeastern corner of the Kapi‘olani Community College (KCC) campus, which is in a block bound by 18th Avenue to the east, K lauea Avenue to the north, Makapu‘u Avenue to the west, and Diamond Head Road to the south. The KCC campus is between Diamond Head Crater to the south and Kaimuk Hill to the north.
Land Jurisdiction	The land is leased to the Hawai‘i Film Studio by the State of Hawai‘i.
Agencies	State Historic Preservation Division
Project Description	The Digital Media Center will be a high-tech center for the Creative Media Academy, University of Hawai‘i. The center will include soundstages (filming), a stage mill/production facility (for constructing film sets), viewing/screening theaters, classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a cafe with a small kitchen. The center will be three stories tall with the lowest level as a partial basement and take up approximately 50,000 square feet of floor area.
Project Acreage	Approximately 1.6 acres
Area of Potential Effect (APE) and Survey Acreage	The area of potential effect is understood as the approximately 1.6-acre project area footprint of the Diamond Head Digital Media Center
Historic Preservation Regulatory Context	This document was prepared to support the planned project’s historic preservation review under Hawai‘i Revised Statutes (HRS) Chapter 6E-8 and Hawai‘i Administrative Rules (HAR) Chapter 13-13-275. In consultation with the Hawai‘i State Historic Preservation Division (SHPD), the archaeological inventory survey investigation was designed to fulfill the State requirements for an archaeological inventory survey per HAR Chapter 13-13-276.
Fieldwork Effort	3 hours

Number of Historic Properties Identified	None
Effect Recommendation	No historic properties affected
Mitigation Recommendation	No further archaeological work

Table of Contents

Section 1 Management Summary i

Section 2 Introduction 1

2.1 Project Background 1
2.2 Scope of Work 6
2.3 Environmental Setting 6
2.4 Methods 6

Section 3 Background Research 8

3.1 Traditional Land Areas 8
3.2 Mid- 19th Century and the M hele 11
3.3 Late Nineteenth Century to the Present 11
3.3.1 Kaimuk Neighborhood 11
3.3.2 Fort Ruger 13
3.3.3 Kapi‘olani Community College 17
3.3.4 Hawai‘i Film Studio 17
3.3.5 Urban Development in the Kaimuk and Kapahulu Neighborhoods 17

Section 4 Previous Archaeological Research 22

4.1 Previous Archaeological Research in the Vicinity 22
4.2 Previous Study in the Project Area 22

Section 5 Results of Field Inspection 25

Section 6 Summary and Recommendations 29

Section 7 References Cited 30

List of Figures

Figure 1. U.S. Geographic Survey topographic map, Honolulu Quad, showing project area 2
Figure 2. Tax Map Key 3-1-042, showing the project area in lot 33 and a portion of lot 009 3
Figure 3. Aerial photograph, showing the location of the project area (source: U.S.G.S Orthoimagery 2005).....4
Figure 4. Media Center Master Plan Area (Group 70 International), showing existing structures; shaded portion shows development area for Digital Media Center.....5
Figure 5. Media Center Master Plan Area (Group 70 International), showing proposed structures; shaded portion shows development area for Digital Media Center.....5
Figure 6. Overlay of Soil Survey of the State of O‘ahu (Foote et al. 1972), indicating soil types within project area.....7
Figure 7. 1881 map of O‘ahu, Hawaiian Government Survey, by R. Covington (Hawai‘i Land Survey Division, Registered Map. No. 1381); note that the western boundary of Wai‘alae Nui bisects Diamond Head Crater 9
Figure 8. 1906 map of Portion of Honolulu, by C. M. Robinson (1906), showing the project area within the *ahupua‘a* of Kapahulu; note that the western boundary of Wai‘alae Nui is at Black Point, east of Diamond Head Crater (map reprinted in Johnson 1991:296).....10
Figure 9. 1855 Map of Honolulu, by Joseph Marie Henri de La Passe, lieutenant aboard the French vessel *Eurydice*, showing the dense settlement at Waik k west of Diamond Head (“Diamant”) and the lack of habitation in the current study area, between Diamond Head and Kaimuk Crater (map reprinted in Fitzpatrick 1986:82-83).....12
Figure 10. Fort Ruger January 1910, with Battery Harlow in the distance at the base of the northern crater slope, and tent camp in the foreground 14
Figure 11. 1922 map of Fort Ruger, showing scattered structures in the project area (Map on file at U. S. Army Museum of Hawai‘i at Fort DeRussy, Honolulu).....15
Figure 12. 1940s map of Fort Ruger, showing more permanent structures in the project area, labeled barracks, officer’s quarters, and warehouses (Map on file at U. S. Army Museum of Hawai‘i at Fort DeRussy, Honolulu).....16
Figure 13. 1919 War Department map of O‘ahu, Honolulu Quad, showing sparse settlement in Kaimuk (within Kapahulu ‘Ili).....18
Figure 14. 1927 U.S. Geographic Survey map, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk 19
Figure 15. 1943 War Department map of O‘ahu, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk 20
Figure 16. 1953 U.S. Geographic Survey map, Honolulu Quad, showing project area within the future Kapi‘olani Community College block 21
Figure 17. U. S. Geographic Survey map, showing location of previous archaeological projects23
Figure 18. General view of the Five-O Soundstage that dominates the northwest portion of the project area, view to the northwest 26
Figure 19. General view of west side of Five-O Soundstage, Diamond Head Road in background, showing apparent 2-3 meter grade cut to level film studio area, view to south 26

Figure 20. General view of post-1975 garage and houses; technical building to the right and Five-O Soundstage in background, view to the northwest 27
Figure 21. General view of parking lot and houses in southeast portion of project area, view to northwest.....27
Figure 22. General view of Five-O Soundstage from Diamond Head Road sidewalk, showing drop in elevation and cut in grade, view to the north-northeast.....28
Figure 23. General view of house in southeast portion of project area from vicinity of Diamond Head Road, showing drop in elevation and cut in grade, view to north-northeast 28

List of Tables

Table 1. Archaeological Research near Diamond Head.....24

Section 2 Introduction

2.1 Project Background

At the request of Group 70 International (725 Bethel Street, Fifth Floor, Honolulu, Hawai‘i, 96813), Cultural Surveys Hawai‘i, Inc. (CSH) prepared this literature review and field inspection letter report for the approximately 1.6-acre project area footprint of the Diamond Head Digital Media Center located in P lolo Ahupua‘a, Honolulu District (Kona Moku), Island of O‘ahu. The project area is depicted on the 1998 USGS 7.5-minute series topographic quadrangle map, a tax map, and an aerial photograph (Figure 1 to Figure 3). The project area is at the southeastern corner of the Kapi‘olani Community College (KCC) campus, which is in a block bound by 18th Avenue to the east, K lauea Avenue to the north, Makapu‘u Avenue to the west, and Diamond Head Road to the south. The KCC campus is between Diamond Head Crater to the south and Kaimuk Hill to the north. The land is leased to the Hawai‘i Film Studio by the State of Hawai‘i.

This report summarizes the extensive background research presented in a companion report, *Interim Report: Cultural Impact Assessement for the Proposed Diamond Head Digital Media Center, Pālolo Ahupua'a, Honolulu District, O'ahu Island, TMK: [1] 3-1-042:009, 033,* by Brian Cruz, Constance R. O’Hare, and Hallett H. Hammatt, December 2008. The Final Report for the Cultural Impact Assessment will include oral interviews with community contacts. These oral interviews are presently being scheduled by Cultural Surveys Hawai‘i’s cultural specialists.

Only a portion of the 7.477-acre Hawai‘i Film Studio area will be used for the proposed Digital Media Center, as shown in Figure 4 and Figure 5. The new Digital Media Center will replace the old soundstage. Existing structures will be demolished or moved and a new screening theater and parking stalls will be built. The project area is already within a Public Facility designation and the proposed construction will not change the present use of the property. A description of the proposed project was provided by the client, Group 70 International:

> The Digital Media Center will be a high-tech center for the Creative Media Academy, University of Hawaii. . . . The center will include soundstages (filming), a stage mill/production facility (for constructing film sets), viewing/screening theaters, classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a cafe with a small kitchen. The center will be three stories tall with the lowest level as a partial basement and take up approximately 50,000 square feet of floor area.

The field-check component of the archaeological literature review and field check was carried out under archaeological permit number 08-14 issued by the Hawai‘i State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR), per Hawai‘i Administrative Rules (HAR) Chapter 13-282. Photographs of the study area are shown in Figure 18 to Figure 23.

The present study was not intended to meet the requirements of an archaeological inventory-level survey per the rules and regulations of the State Historic Preservation Division/Department of Land and Natural Resources (SHPD/DLNR). However, the level of work is regarded as

Figure 1. U.S. Geographic Survey topographic map, Honolulu Quad, showing project area

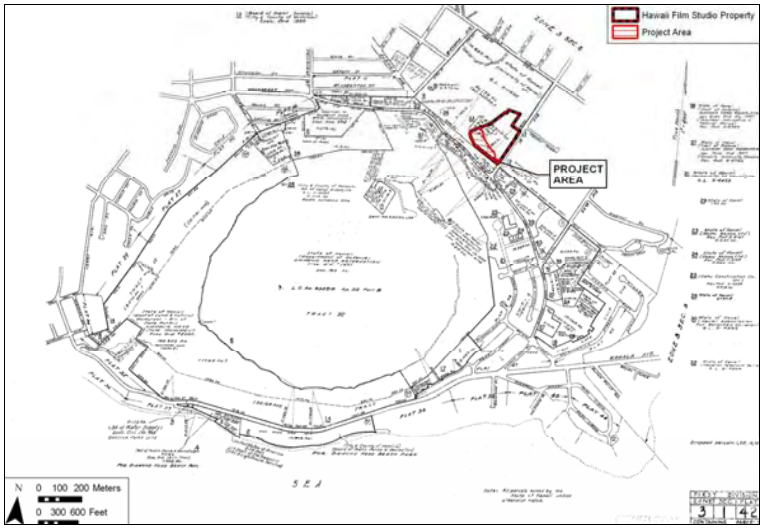

Figure 2. Tax Map Key 3-1-042, showing the project area in lot 33 and a portion of lot 009

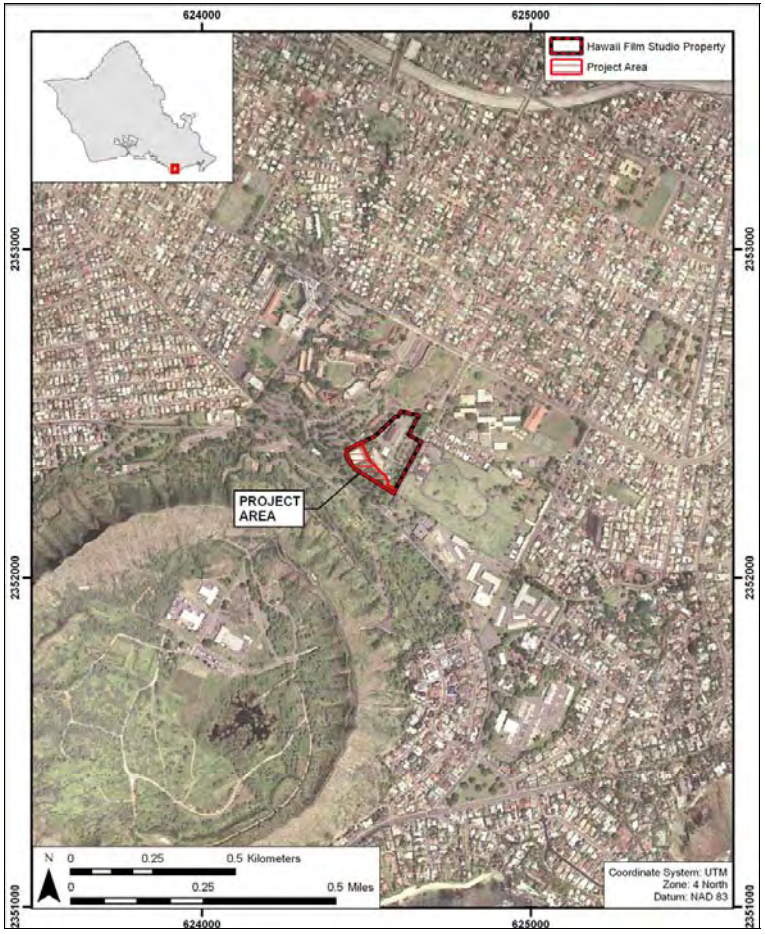

Figure 3. Aerial photograph, showing the location of the project area (source: U.S.G.S Orthoimagery 2005)

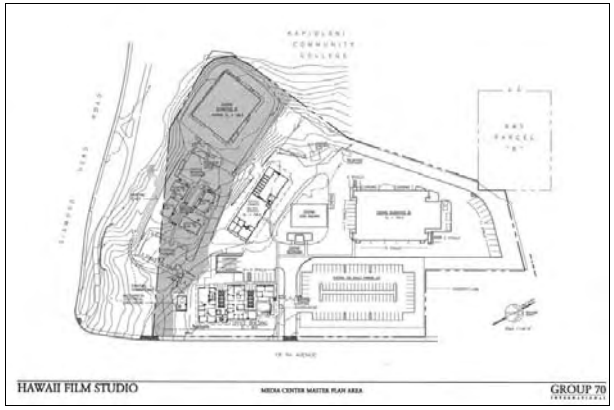

Figure 4. Media Center Master Plan Area (Group 70 International), showing existing structures; shaded portion shows development area for Digital Media Center

Figure 5. Media Center Master Plan Area (Group 70 International), showing proposed structures; shaded portion shows development area for Digital Media Center

sufficient to address archaeological site types and locations, and allow for future work recommendations. This literature review and field-check project report details research methods and findings. The goal is to identify, if possible, cultural resources and historic properties and provide recommendations related to the State of Hawai‘i historic review process.

2.2 Scope of Work

The scope of work for the project includes:

1. Historical research was completed to include study of archival sources, historic maps, Land Commission Awards and previous archaeological reports to construct a history of land use and to determine if archaeological sites have been recorded on or near this property. This historic research is summarized in this letter report.
2. A limited field-check of the project area was conducted to identify any surface archaeological features and to investigate and assess the potential for impact to such sites.
3. The current document includes the results of a summary of the historical research and the limited fieldwork with an assessment of archaeological potential based on that research, with recommendations.

2.3 Environmental Setting

The current project area is on a 2.677-acre lot with a ground slope of 5-20 percent at the north base of Diamond Head Crater. The elevation ranges from 80-132 feet above mean sea level. Average rainfall in the area is 25-35 inches (Armstrong 1973:56). The main southern portion of the study area is covered with Makalapa Clay, 6-12% slopes (MaC), the northwestern corner is covered with Molokai Silty Clay, 15-25% slopes (MuD), and the northeastern corner is covered with Molokai Silty Clay, 7-15% slopes (MuC) (Figure 6). Typical vegetation for these soil types soil types includes *kiawe* (*Prosopis pallida*), *koa haole* (*Leucaena glauca*), lantana (*Lantana camara*), *‘ilima* (*Sida fallax*), *‘uhaloa* (*Waltheria indica*), bermuda grass (*Cynodon dactylon*), fingergrass (*Chloris* spp.), feather fingergrass (*Chloris virgata*), and buffelgrass (*Cenchrus ciliaris*) (Foote et al. 1972). Currently the Hawai‘i Film Studio lot has eight buildings, a parking lot, and paved roads between the structures (see Figure 3). It is landscaped with a few shrubs and trees. The existing buildings were not constructed until 1975 or later.

2.4 Methods

Historical documents, maps and existing archaeological information pertaining to the sites in the vicinity of this project were researched at the CSH library. Information on Land Commission Awards was accessed through Waihona ‘Aina Corporation’s M hele Data Base (www.waihona.com).

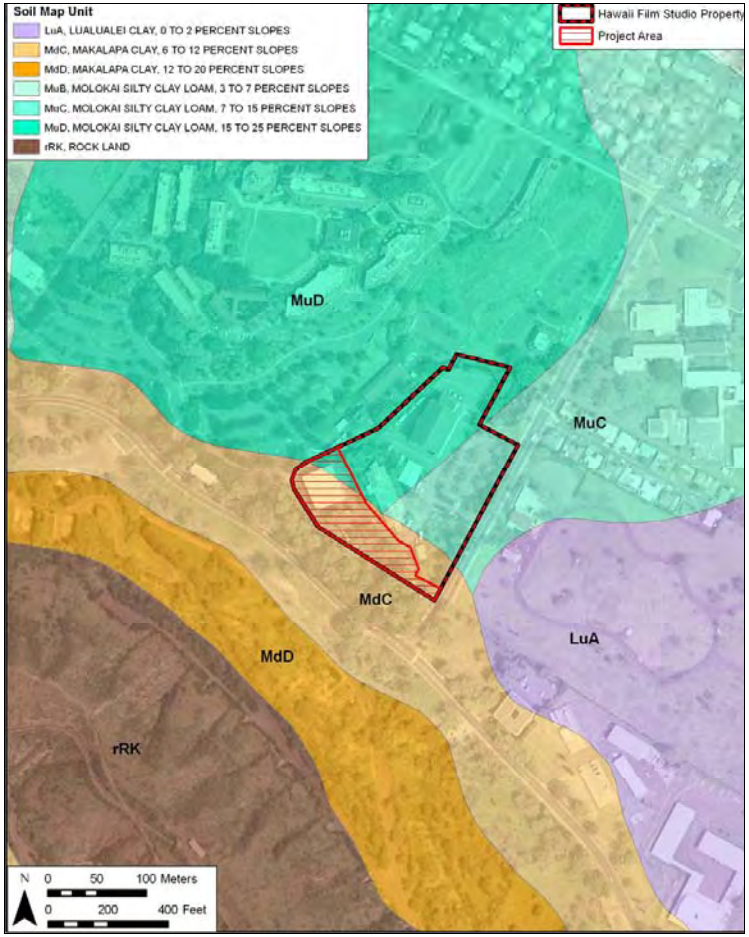

Figure 6. Overlay of Soil Survey of the State of O‘ahu (Foote et al. 1972), indicating soil types within project area

Section 3 Background Research

3.1 Traditional Land Areas

The site for the proposed Digital Media Center is in the modern neighborhood of Kaimuk in the *ahupua‘a* (large land division) of Waik k . Some historic maps, such as the 1881 map of the Island of O‘ahu (Figure 7) indicate that the project area is within the *ahupua‘a* of Wai‘alae Nui, while other historic maps, such as a 1906 map (Figure 8) show it within Kapahulu, an ‘*ili* of P lolo or Waik k .

This conflict concerning the boundary of Wai‘alae is mentioned in an 1883 suit heard by the Hawai‘i Supreme Court (Hawaiian Reports 1887:94-95), when the owners of land in Wai‘alae Nui complained that 1,000 acres of land that should have been within the boundary of Wai‘alae were instead placed within the boundary of Kapahulu. The first map of Kapahulu was made in 1883, and the boundaries of the land were pointed out by a man named Manuka, who grazed his cattle on the land. The litigators of the suit claimed that Manuka exaggerated the boundary of his lands in Kapahulu so that his claim was larger than it should have been. The Supreme Court ruled in Manuka’s favor and concluded that:

> The comparatively valueless character of the land whose boundaries are here sought to be established, no doubt, largely accounts for the indefinite and contradictory nature of the testimony adduced.
>
> The best results we are able to reach is that the boundaries of the land of Kapahulu are as described in the certificate of the Boundary Commission, and we therefore affirm the same. (Hawaiian Reports 1887:95)

According to Handy and Handy (1972:483), P lolo Stream was “large and capable of irrigating terraces along its course on both sides and below the end of the valley.” These terraces were used to cultivate irrigated taro fields, called *lo‘i.* Only a few terraces existed on the outer sides of the streams. In 1940, some of there terraces were still extant and being used, as described by E. Craighill Handy

> Palolo Valley had extensive areas of low terraces throughout its lower portion on the land now covered by houses and golf links, running along both sides of Palolo Stream. Above the junction of Waiomao and Pukele Streams, which form Palolo Stream, there are many high terraces on the hillside to inland, and there were a few terraces on the outer sides of the streams. Some of the upper terraces between the streams are now under cultivation by a Hawaiian planter. Farther up the valleys of Waiomao and Pukele Streams there are a few terraces, and wild taro is said to grow abundantly in the upper reaches. (Handy 1940:74)

The current study area is not near P lolo Stream, which is more than a kilometer to the west. Thus it was not a favorable location for wetland irrigated taro or even dry land sweet potato cultivation, as there was no access to any water, such as a stream, a spring, or a pond. On an

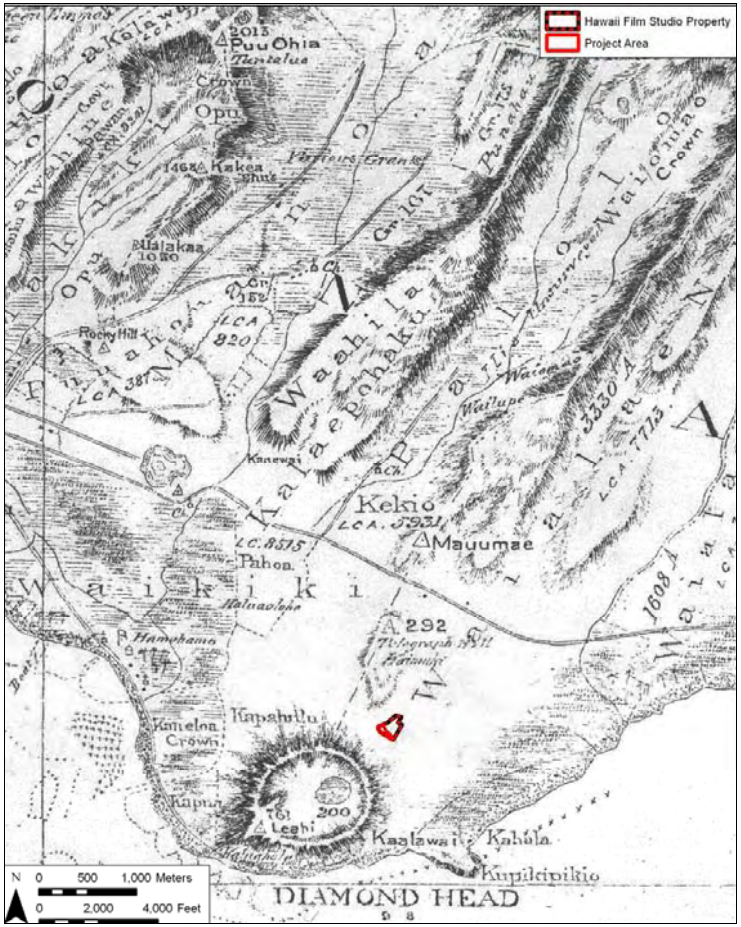

Figure 7. 1881 map of O‘ahu, Hawaiian Government Survey, by R. Covington (Hawai‘i Land Survey Division, Registered Map. No. 1381); note that the western boundary of Wai‘alae Nui bisects Diamond Head Crater

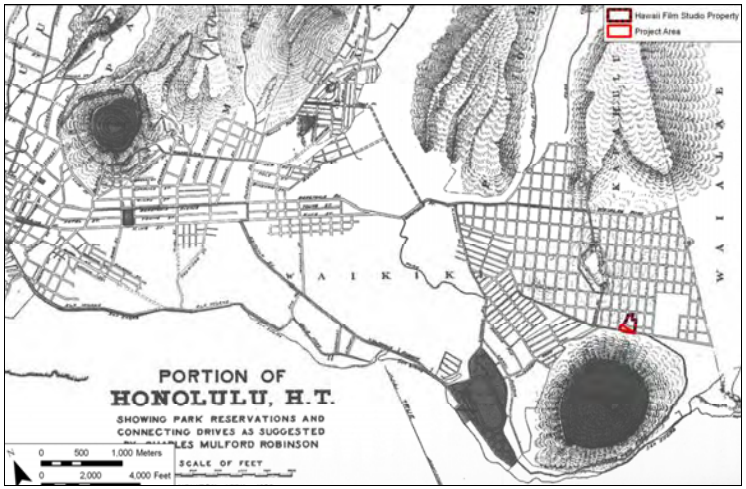

Figure 8. 1906 map of Portion of Honolulu, by C. M. Robinson (1906), showing the project area within the *ahupua'a* of Kapahulu; note that the western boundary of Wai'alae Nui is at Black Point, east of Diamond Head Crater (map reprinted in Johnson 1991:296)

1855 map (Figure 9), the contrast between the densely inhabited and cultivated Waik k coast, and the barren area around Diamond Head is clearly shown.

3.2 Mid- 19th Century and the M hele

The Organic Acts of 1845 and 1846 initiated the process of the M hele, the division of Hawaiian lands, which introduced private property into Hawaiian society. The mid 1800s marked a division of Hawaiian lands between the king, his high chiefs, and commoners. Diamond Head, which lies within the '*ili* of Kapahulu, was awarded to William C. Lunalilo, who ruled Hawai'i as king from 1873 to1874. The award was Land Commission Award (LCA) 8559-B: ' pana (lot) 32 (Barrere 1994:433), which consisted of 2,229 acres in Kamoku, Kaluaokau, Kapahulu, and Diamond Head.

In 1884, the Kapahulu portion of Lunalilo's M hele award, LCA 8559-B, was subdivided by the Lunalilo Estate. A list of Kapahulu lands indicate that the areas to the north and east of the crater, which would include the current study area, were used for pasture (Dole Collection 1884, cited in Tomonari-Tuggle and Blankfein 1998:19). In the 1883 suit on the boundaries of Kapahulu, the leaser of the land also stated that he used the land for pasture. In 1889, one of the first private residences in the Kapahulu area was built by the businessman Charles Snodgrass Martin, who excavated a well onto his property at Campbell Avenue and Hinano Street. He raised pigs and cattle, which roamed all around Diamond Head (Leidemann 2004). All of these documents suggest that the current study area was used for pasture in the 19th century.

3.3 Late Nineteenth Century to the Present

3.3.1 Kaimuk Neighborhood

Kaimuk is known as "The Oldest Little Business Town" on the island. Kaimuk was also the first large subdivision outside of Honolulu. In the late nineteenth century, this hilly, rocky land was used to graze the cattle for dairy farms (Takasaki 1976:67). In 1884, Daniel Paul Isenberg, who would later become a territorial senator, bought the property for $2,325. He used this land to grow alfalfa and raise cattle and blooded horses (Damon 1931:788, 829). Beyond the cattle, the area was also inhabited by ostriches, which were raised by Dr. George Trousseau, King Kal kaua's court physician, who allowed the birds to roam from Kapi'olani Park to Kaimuk (Mills 1939). With the addition of land also owned by his father, Isenberg's property extended from Kapahulu Avenue to K hala Beach (Takasaki 1976:68).

In 1898, Isenberg sold 520 acres of land for 20,000 dollars to two businessmen of the real estate firm of Gear Lansing and Co. The businessmen hoped to turn Kaimuk into a high class residential area, with house lots selling for 400 to 600 dollars each, but few were willing to buy because of the pervasive red dust that settled on everything. As a gimmick, they established a zoo (present location of Lili'uokalani School) which included bears and a zebra. The zebra was actually a donkey painted with stripes, but "when the rains came the stripes were washed away and the hoax was revealed" (Burtnett 1946). To encourage people to move to the new subdivision, the businessmen even offered fifty dollars for every baby born in Kaimuk (Takasaki 1976:70).

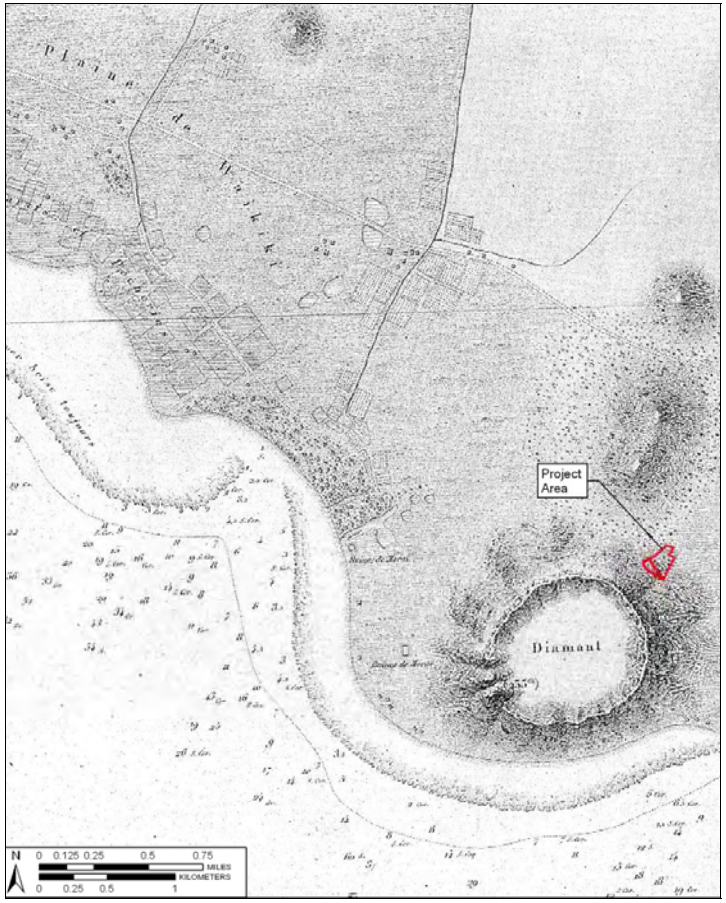

Figure 9. 1855 Map of Honolulu, by Joseph Marie Henri de La Passe, lieutenant aboard the French vessel *Eurydice*, showing the dense settlement at Waik k west of Diamond Head (“Diamant”) and the lack of habitation in the current study area, between Diamond Head and Kaimuk Crater (map reprinted in Fitzpatrick 1986:82-83)

In 1900, Chinatown was burned to eradicate the rats which were spreading the plague. Many of the Chinese moved to Kaimuk to open new businesses and move into new homes. In 1903, the streetcar line was extended from Kapahulu to Koko Head Avenue, making it easier to move from Kaimuk to Honolulu. Business really began to take off in 1925, when sidewalks were laid and dirt roads were paved (Mills 1939). With Wai‘alae Avenue connecting the neighborhood to East Honolulu, Kaimuk became a major business center. During this time, land on Wilhelmina Rise (Kaimuk Hill) sold for eight cents a square foot, nine cents for corner lots.

Then in the 1960s the H-1 Freeway was built, allowing cars to bypass Kaimuk on their way to and from Honolulu. Businesses began to suffer, even though lobbying by the community resulted in the building of a Kaimuk off-ramp. This slow-down did have one positive result; it preserved many of the 1930s and 1940s structures of the business district, keeping Kaimuk from being over-developed with modern high rises and large shopping malls (Watanabe 1996).

3.3.2 Fort Ruger

After a visit by the U.S. Secretary of War in 1905, the U. S. Government purchased 729 acres surrounding Diamond Head in 1906 to establish the Fort Ruger Military Reservation. It was named after Major General Thomas Ruger, a Civil War Union officer. The construction of Fort Ruger began in 1906, and the first twelve-inch mortar, Battery Harlow was completed in 1910 on the north slope of the crater, facing the current study area. The fort was the first U.S. military reservation on Hawai‘i, built to defend Honolulu harbor and the leeward shore of O‘ahu. The prominence of Diamond Crater made it ideal as a fire control station.

A 1910 photograph (Figure 10) shows the general barren area north of Battery Harlow with few permanent structures, but with a cluster of tents. This is the same general area that would later be developed for the officer’s quarters and for barracks, the same as the current study area.

The annual report of the Secretary of War for 1912 noted that permanent buildings for the barracks and officer’s quarters were nearly completed and the remaining structures for the fort were well underway (U.S. War Dept. 1912:325). The soldier’s quarters were superior to those found at other Hawaiian military installations, as noted by a visitor to the fort in 1917:

> Conditions at Fort Ruger are, fortunately, better than in most of the forts. The barracks and some of the officer’s quarters are of concrete and are very satisfactory but many of the officers still live, with their families, in batten shacks. They have done much, it is true, to disguise, on the outside, the inadequacy of their houses by planting vines and shrubs, and the casual tourist would probably exclaim at the “charming little cottages,” but vines and shrubs outside are not much help in the housekeeping which goes on inside. (Castle 1917:92)

Fort Ruger became the headquarters of the Coast Defense of O‘ahu until 1921 (Hibbard 1980). Additional barracks, officer’s quarters, a service club and a chapel were built at the fort in the 1920s. The layout of the fort and the scattered buildings in the current study area can be seen on a 1922 map of the military reservation (Figure 11). In 1941, the Japanese attacked the Hawaiian Islands and extensive building took place at Fort Ruger. So many soldiers were sent to the fort that they had to be housed in barracks building on the crater floor (Division of State Parks 1979:21).

After the war, For Ruger became the headquarters of the South Sector Command, but all of the mortars were considered obsolete and were scrapped. The layout of the military reservation at this time can be seen in a 1940s map of the installation (Figure 12). The buildings in the current study area appear larger and more permanent than those shown on the 1922 map.

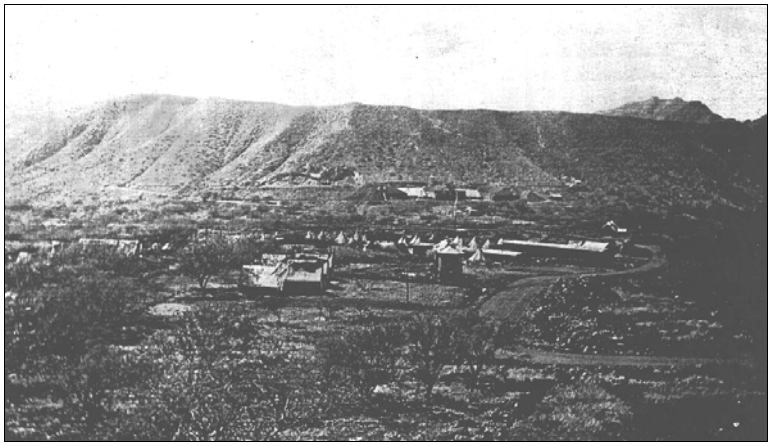

Figure 10. Fort Ruger January 1910, with Battery Harlow in the distance at the base of the northern crater slope, and tent camp in the foreground

In 1950, Fort Ruger became the headquarters of the Hawai'i National Guard, and by the 1960s many of the obsolete building had been demolished. Diamond Head was designated a Monument in 1962, an historic site in 1965, and a National Natural Landmark in 1968. The crater was opened for public recreational use in 1978-1979, administered by the Department of Land and Natural Resources, Division of State Parks (Tomonari-Tuggle and Blankfein 1998:31). The Fort Ruger Historic District was listed on the National Register of Historic Places in 1983. It is a square area in the central section of the crater with remnants of Fort Ruger, including five batteries, 12 gun emplacements, the Leahi Fire Control Station, a winch and cable system, the Kapahulu Tunnel, and a guardhouse (Tomonari-Tuggle and Blankfein 1998:319). The present study area is not within the boundary of the Fort Ruger Historic District.

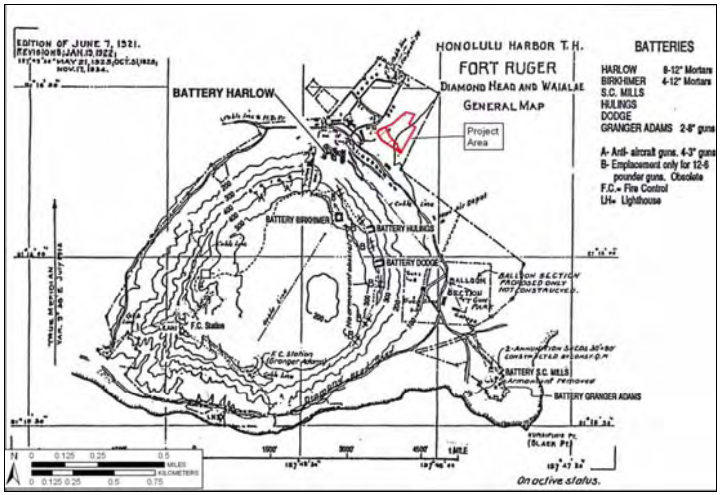

Figure 11. 1922 map of Fort Ruger, showing scattered structures in the project area (Map on file at U. S. Army Museum of Hawai'i at Fort DeRussy, Honolulu)

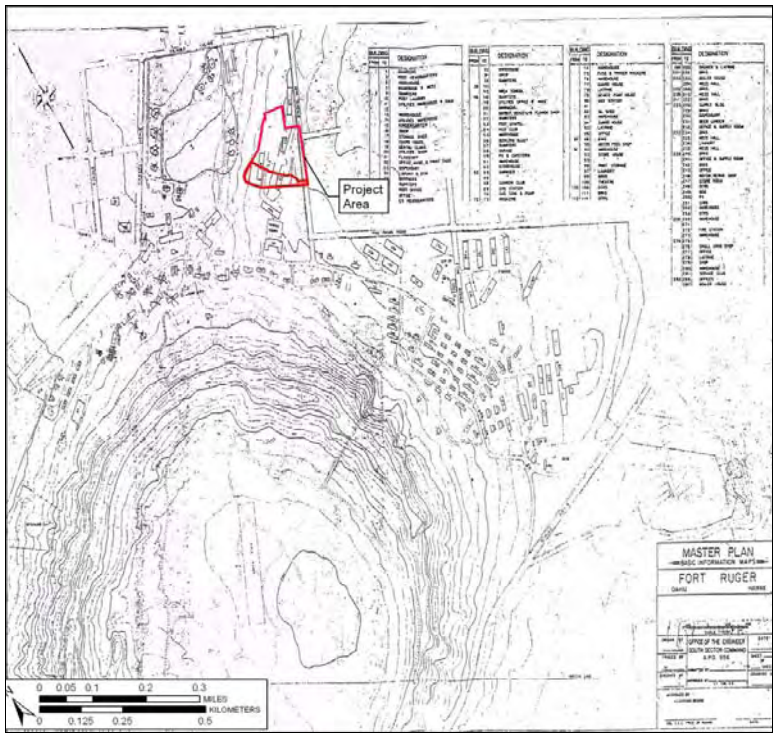

Figure 12. 1940s map of Fort Ruger, showing more permanent structures in the project area, labeled barracks, officer's quarters, and warehouses (Map on file at U. S. Army Museum of Hawai‘i at Fort DeRussy, Honolulu)

3.3.3 Kapi‘olani Community College

Kapi‘olani Community College had its beginning in 1957 as the Kapi‘olani Technical School, when two educational programs administered by the Territorial Department of Instruction were merged, a practical nursing program established in 1947 in several buildings on Pensacola Street and a restaurant program, which had operated in Waik k in the Ala Wai Clubhouse since 1946. A business program was soon added to the curriculum. In 1965 it became part of the open-door community college system of the University of Hawai‘i. A liberal arts program was added in 1968, with all of the different programs taught at the Pensacola campus. As the school gained students, it became clear that the Pensacola campus could not expand to meet the future needs of the school. The vice-president of the school asked the army concerning surplus federal land, especially Fort Ruger, on the *mauka* side of Diamond Head Crater. The army turned over that 52-acre campus parcel that had been used for barracks and officers' duplex housing. Some of the classes moved to the new campus as early as 1975, using five of the original Fort Ruger buildings. New campus buildings were constructed in 1981 (Kamins and Potter 1998:285-286). Today, Kapi‘olani Community College has more than 7,100 on-campus credit students, with an additional 25,000 students enrolled in non-credit programs (http://kapiolani.hawaii.edu/object/kcchistory.html).

3.3.4 Hawai‘i Film Studio

The current study area is used by the Hawai‘i Film Studio. In the mid-1970s, a portion of the Kapi‘olani Community College campus was leased to the television network CBS. On the lot they built a temporary studio to film the popular television series "Hawai‘i Five-O." In the following years, the studio was used to film "Magnum P.I.", which ran from 1980 to 1988, and then for other televisions shows and movies. It is currently used for the filming of the television series "Lost." The property was first leased to the University of Hawai‘i, and then managed by the UH Department of Business as the Diamond Head Studio in 1989. In 1992-1994 a second sound state was built, and the complex was renamed the Hawai‘i Film Studio (2008).

3.3.5 Urban Development in the Kaimuk and Kapahulu Neighborhoods

The density of residential and commercial development of the Kaimuk and Kapahulu neighborhoods can be seen in a series of twentieth century U.S.G.S (or U.S. War Dept.) maps. These maps do not show any structures within Fort Ruger, as public maps at this time usually were not allowed by the U. S. War Department to show detailed features of military reservations. On the 1919 map (Figure 13), only a few houses are shown along the streets. Many of the lots are enclosed by walls, which may be an indication that wandering livestock might still have been a problem at this time. The 1927 map (Figure 14) shows the increase in the number of houses in the residential districts. On the 1943 map (Figure 15) the blocks are narrower and completely covered by residential houses. On the 1953 map (Figure 16), many areas are clearly labeled for the first time, such as Fort Ruger, Kaimuk School, the Diamond Head Memorial Park, and Leahi Hospital. Individual houses are not shown on this map, but larger structures are shown, including six large military structures in the Kapi‘olani Community College block.

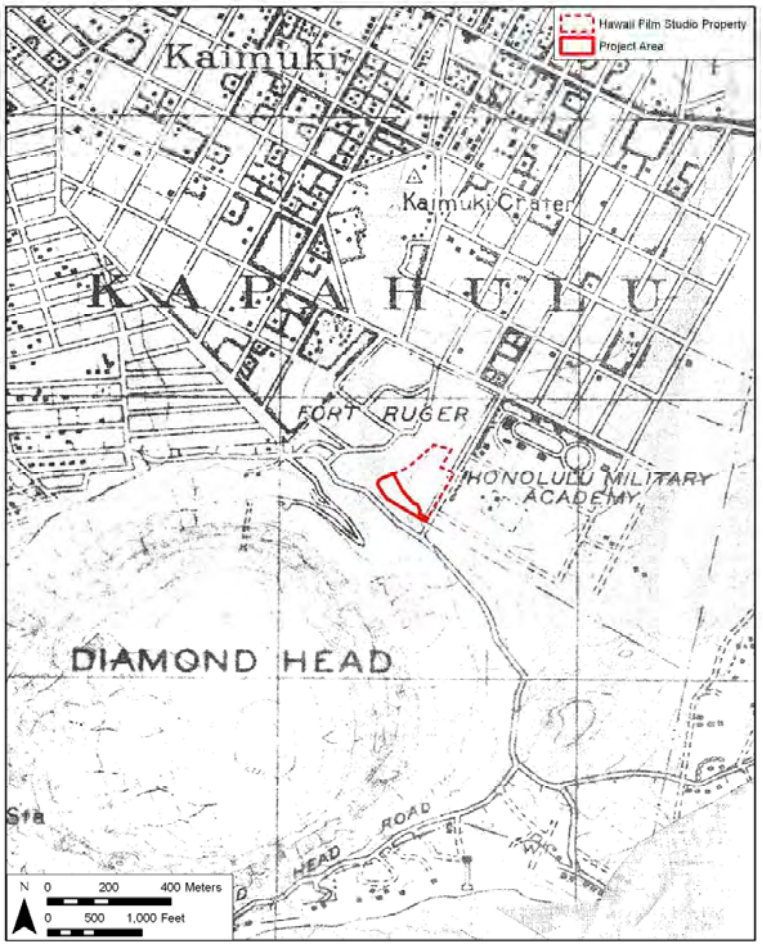

Figure 13. 1919 War Department map of O'ahu, Honolulu Quad, showing sparse settlement in Kaimuk (within Kapahulu 'Ili)

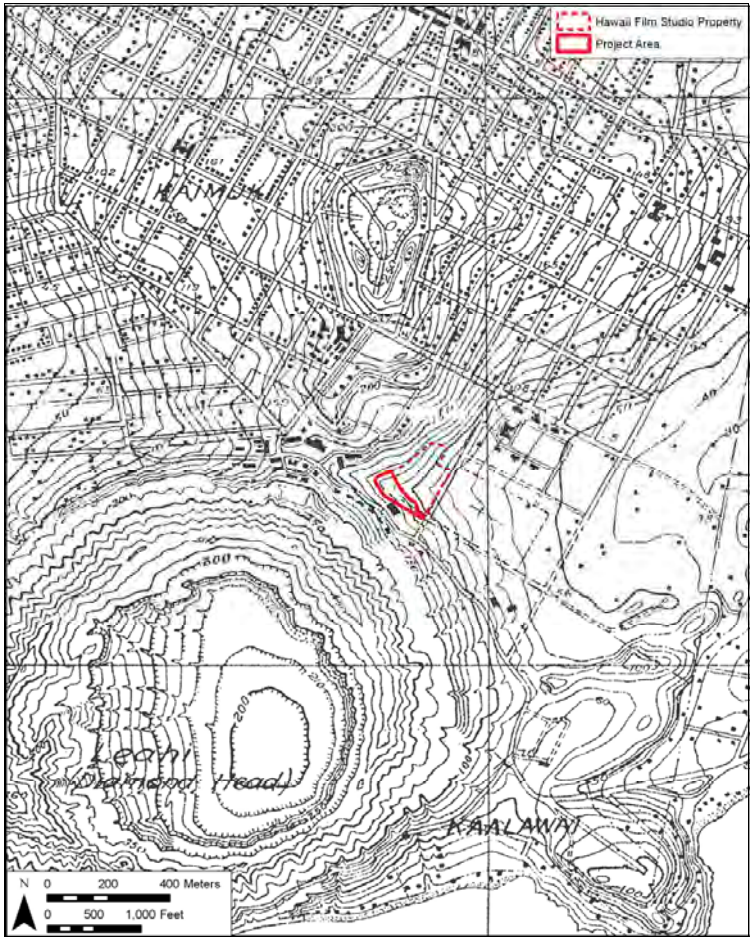

Figure 14. 1927 U.S. Geographic Survey map, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk

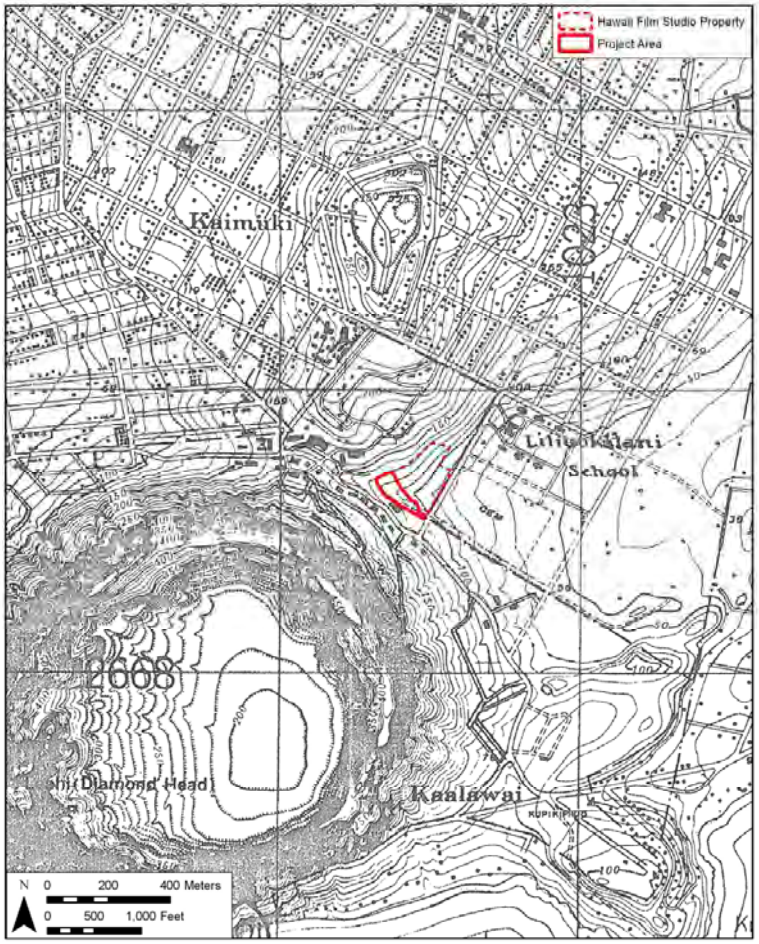

Figure 15. 1943 War Department map of O'ahu, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk

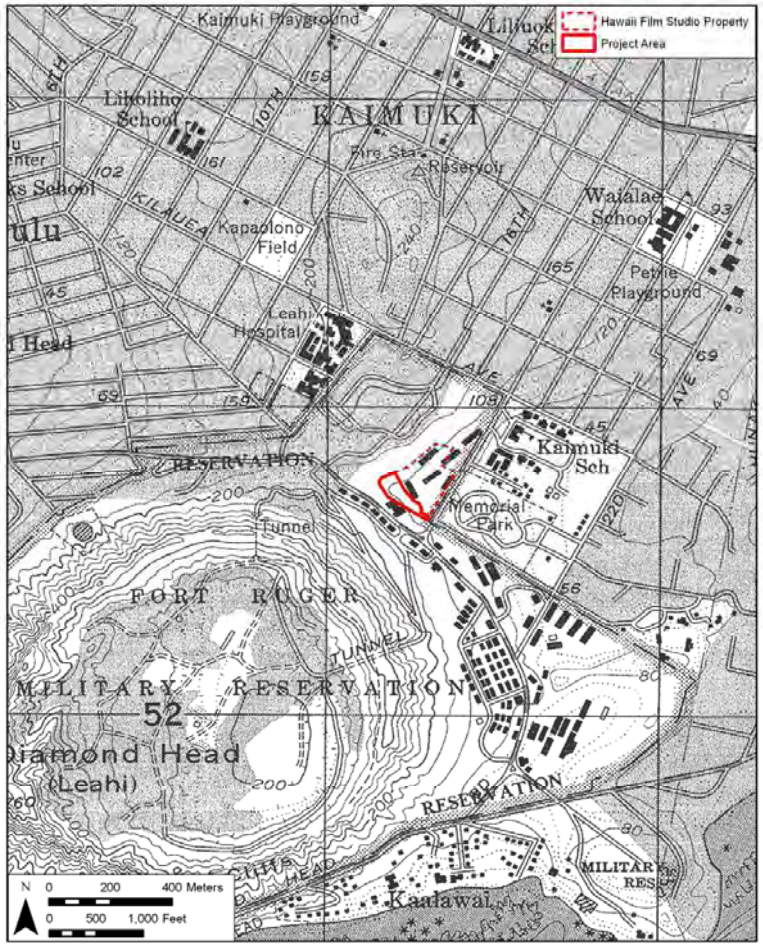

Figure 16. 1953 U.S. Geographic Survey map, Honolulu Quad, showing project area within the future Kapi'olani Community College block

Section 4 Previous Archaeological Research

4.1 Previous Archaeological Research in the Vicinity

Previous archaeological projects around Diamond Head are shown on Figure 17 and summarized in Table 1. Numerous pre-contact and post-contact burials have been found in sand deposits along the Waik k and Wai'alae coasts. However, no pre-contact Hawaiian structures, subsurface remains, or burials have been found during modern archaeological surveys within Diamond Head Crater or on the northern slope, facing the study parcel. Archaeological surveys have been carried out within the Fort Ruger Historic District and the Diamond Head Monument. These surveys have found numerous structures and artifacts associated with the Fort Ruger Military Reservation, which was established in 1901. Although the Kapi'olani Community College (KCC) parcel was once a part of Fort Ruger, used for soldier's barracks and officer's quarters, it is outside the boundary of the Fort Ruger Historic District and the boundary of Diamond Head Monument Park.

4.2 Previous Study in the Project Area

The issue of potential cultural resources in the project area have been addressed in two prior Environmental Impact Statements (for the Kapi'olani Community College Master Plan in 1981 and for the Hawaii Film Facility Expansion in 1989). A *Hawaii Film Facility Environmental Impact Statement* prepared by the State of Hawaii Department of Accounting & General Services (Hawaii DAGS) in August 1989 asserts that:

> An historic sites survey was conducted in 1981 on the entire KCC [Kapiolani Community College] area for the KCC Master Plan EIS. The [proposed film facility] project site was included in this survey. The only historical sites were 5 existing wooden buildings being considered at that time for the Hawaii Register of Historical Places but were never registered. The buildings are all on the KCC site and no sites of historical or archaeological significance are indicated for the proposed film facility project site. (Hawaii DAGS 1989:58, 62)

Like the earlier (1981 KCC) EIS, the 1989 film facility project site EIS concluded that:

> The proposed film facility is not likely to impact any historical or archaeological resources in the project site since it is not probable that any archaeological remains have survived in this area. (Hawaii DAGS 1989:62)

Figure 17. U. S. Geographic Survey map, showing location of previous archaeological projects

Table 1. Archaeological Research near Diamond Head

Source	Type of Investigation	General Location	Findings
McAllister 1933	Island Survey	O‘ahu Island	Identifies Site 58: Papa‘ena‘ena Heiau
Griffin and Yent 1978	Archaeological Reconnaissance Survey	Diamond Head (comfort station and trail)	No traditional Hawaiian sites were located; two concrete foundations of probable World War II origin were found down slope of the trail.
McMahon 1988	Archaeological Reconnaissance Survey	Diamond Head (northeastern base)	Only the remains of military activity related to Fort Ruger Military Reservation were documented.
Bordner 1990	Archaeological Monitoring	Diamond Head Road	No archaeological deposits documented.
Mullins et al. 1992	Archaeological Monitoring	Diamond Head Lighthouse	No evidence of pre-contact occupation on the parcel. Sparse artifacts dating from the late 1800s to early 1900s was documented.
Allen & Shideler 1996	Literature Research	Battery Harlow	Report summarizes environmental data, discusses pre- and post-contact land uses in the Diamond head area, and outlines construction history of Fort Ruger; with limited field inspection.
Tomonari-Tuggle & Blankfein 1997	Archaeological and Historical Assessment	Diamond Head	Report indicated that there is little likelihood of any cultural remains on the parcel.
Tomonari-Tuggle & Blankfein 1998	Historical Research and Archaeological Assessment	Diamond Head State Monument	Report documents a thorough literature review of Diamond Head, as well as a reconnaissance survey of the area.
Jones and Hammatt 2003	Archaeological Monitoring	Black Point	No cultural remains found, but excavations indicating that strata of undisturbed sand may be present below fill layers

Section 5 Results of Field Inspection

A field inspection was conducted by CSH archaeologist David W. Shideler, M.A., under the general supervision of Dr. Hallett H. Hammatt, on December 22, 2008. The field inspection consisted of a walk-through of open areas around the buildings, accompanied by Ms. Tammy Hasegawa of the State of Hawai‘i, Hawai‘i Film Studio, located at 510 18th Avenue, Honolulu. Upon clearing security at the main gate of the studio, they proceeded to the main facility, known as the Hawai‘i Five-O Soundstage (Figure 18). This structure has the appearance of a large pre-fab warehouse that covers as much as one-third of the project area. In walking around the northeast and northwest sides of this structure, it became apparent that there was a marked two to three meter deep artificial cut (Figure 19) in the natural slope to create a level area for the development of the soundstage. This substantial cut was observed to continue to the southeast of the project area. The southern portion of the project area is dominated by small wooden structures (referred to as houses) that were transported to the facility from elsewhere circa 1990 (Figures 20 & 21). No traditional Hawaiian structures or historic (pre-1958) buildings were noted or are believed to be present, as the original soundstage for Hawai‘i Five-O was built around 1975. The project area was noted to have been largely graded, to as much as three meters or more in some areas, to create level areas for construction Figures 22 & 23).

Figure 18. General view of the Five-O Soundstage that dominates the northwest portion of the project area, view to the northwest

Figure 19. General view of west side of Five-O Soundstage, Diamond Head Road in background, showing apparent 2-3 meter grade cut to level film studio area, view to south

Figure 20. General view of post-1975 garage and houses; technical building to the right and Five-O Soundstage in background, view to the northwest

Figure 21. General view of parking lot and houses in southeast portion of project area, view to northwest

Figure 22. General view of Five-O Soundstage from Diamond Head Road sidewalk, showing drop in elevation and cut in grade, view to the north-northeast

Figure 23. General view of house in southeast portion of project area from vicinity of Diamond Head Road, showing drop in elevation and cut in grade, view to north-northeast

Section 6 Summary and Recommendations

The project area is within a section of Waik k , inland of the coastal area with its extensive swamp used to grow wetland taro, separated from the many fishponds and other coastal resources, and distant from the densely inhabited coastal areas. The lack of water and the dry conditions did not make the project area a favorable area for habitation or cultivation. In the mid-nineteenth century, it was used mainly as cattle pasture. In 1906, the study parcel was developed into a support area for the U.S. Military Reservation Fort Ruger. Tents and temporary structures were soon replaced with barracks, officer’s quarters, warehouses, and other structures. Many of these were demolished after World War II, when the base became the headquarters for the Hawai‘i National Guard. The army turned over this 52-acre barracks area in 1975 for the establishment of the Kapi‘olani Community College campus; classes began in five buildings used originally by Fort Ruger. In the mid-1970s, a 7.5 acre portion of the lot was developed into a film studio, where such television shows such as Hawaii Five-O, Magnum P.I., and Lost have been produced.

In 1981 a historic sites survey was conducted on the 52-acre Kapi‘olani Community College Campus as part of the Master Plan of the Environment Impact Statement (Hawai‘i. DAGS 1981). Five buildings related to Fort Ruger were reported on the campus; none of these buildings is on the Hawai‘i Film Studio portion of the lot. The five buildings are not included in the description for the Fort Ruger Historic District, which was listed on the National Register of Historic Places in 1983. Two of the buildings have subsequently been demolished.

In summary, a 1981 surface survey has previously been completed for the study area and a recent field inspection was completed in December 2008. Much of the land surface has been graded to a depth as much as three meters in the west corner of the project area to create a level surface for the soundstage. No traditional Hawaiian or military structures were found. The probability for sub-surface remains, such as pre-contact Hawaiian habitation cultural deposits, agricultural soils, and /or burials is very low. Scattered artifacts associated with Fort Ruger may be present, but significant concentrations of artifacts are unlikely. It is our recommendation that no additional archaeological field work is necessary for the Hawai‘i Film Facility Expansion Project and that the proposed re-development will have “no effect” on cultural resources.

In 1989, the Environmental Impact Statement for the Hawai‘i Film Facility Expansion (Hawai‘i DAGS 1989) was completed. The report stated that: “The proposed facility is not likely to impact any historical or archaeological resources in the project site since it is not probable that any archaeological remains have survived in this areas.” However, the possibility always exists that archaeological or historical remains will be found during the construction phase. The guidelines for the Department of Land and Natural Resources will be complied with if remains are found, which will include immediate cessation of work and notification of the Historic Sites Section.

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APPENDIX E FINAL REPORT
CULTURAL IMPACT ASSESSMENT

Cultural Impact Assessment for the Proposed Diamond Head Film and Digital Media Center, P lolo Ahupua‘a, Honolulu District, O‘ahu Island TMK: [1] 3-1-042:009, 033

Prepared for

Group 70 International, Inc.

Prepared by

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Cultural Surveys Hawai‘i, Inc.

Kailua, Hawai‘i

(Job Code: PALOLO 2)

March 2009

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Management Summary

Reference	Cultural Impact Assessment for the Proposed Diamond Head Film and Digital Media Center Project, P lolo Ahupua‘a, Honolulu District, O‘ahu Island, TMK: [1] 3-1-042:009, 033
Date	March 2009
Project Number(s)	Cultural Surveys Hawai‘i, Inc. (CSH) Job Code: PALOLO 2
Project Location	The project area is at the southeastern corner of the Kapi‘olani Community College (KCC) block, which is bound by 18th Avenue, Diamond Head Road, Makapu‘u Avenue, and K lauea Avenue.
Land Jurisdiction	State of Hawai’i, Department of Business, Economic Development & Tourism
Agencies	State of Hawai‘i Department of Health/Office of Environmental Quality Control (OEQC), State of Hawai‘i Department of Land and Natural Resources/State Historic Preservation Division (SHPD)
Project Description	The proposed three-story project includes a new soundstage, a stage mill production facility, screening/viewing theaters, classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a café with a small kitchen. The proposed Film and Digital Media Center will be a high-tech center for the Academy of Creative Media, University of Hawai‘i (UH) and will contain approximately 50,000 square feet of floor space. The proposed project area currently has a Public Facility designation and the proposed project is within the guidelines of this designation. The proposed project is separate from the adjoining Hawai‘i Film Studio and will not change the present land use designation.
Project Acreage	1.98 acres
Area of Potential Effect (APE)	The Area of Potential Effect (APE) for this Cultural Impact Assessment (CIA) includes the project area in the context of the P lolo Ahupua‘a and other places on O‘ahu that may be traditionally associated or connected with P lolo and/or the project area.
Document Purpose	The project requires compliance with the State of Hawai‘i environmental review process [Hawai‘i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project’s effect on cultural practices and resources. CSH conducted this CIA at the request of Group 70 International. Through document research and cultural consultation efforts, this report provides information pertinent to the assessment of the proposed project’s impacts to cultural practices (per the State Department of Health, Office of Environmental Quality Control’s *Guidelines for Assessing Cultural*

	Impacts). The document is intended to support the project's environmental review and may also serve to support the project's historic preservation review under HRS Chapter 6E-42 and Hawai‘i Administrative Rules Chapter 13-284.
Community Consultation	Hawaiian organizations, agencies and community members were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the vicinity. The organizations consulted included the State Historic Preservation Division (SHPD), the Office of Hawaiian Affairs (OHA), the O‘ahu Island Burial Council (OIBC), Hui M lama I Na K puna ‘O Hawai‘i Nei, and community and cultural organizations in the Kaimuk / Kapahulu area.
Results of Background Research	Background research for this project yielded the following results: (1) The project area is within a section of P lolo inland of the coastal area with its extensive swamp land used to grow wetland taro, separated from the many fishponds and other coastal resources, and distant from the densely inhabited areas near the coast. The lack of water and the dry conditions did not make the project area favorable for intensive habitation or cultivation. (2) Several burial sites have been identified in the K hala area, east of Black Point and the current project area. Most of these have been inadvertent discoveries during construction activities in sand deposits. Numerous burials have also been recorded during archaeological surveys and monitoring projects in Waik k shore, as the beach dunes were a common place for Hawaiians to bury their dead. The use of sand areas for cemeteries continued into the twentieth century. There are some early documents that claim the victims of the sacrificial *heiau* on Diamond Head were buried or discarded within or near the crater, but there has never been any archaeological confirmation for this claim. There are no indications that the present project area was ever used for pre-Contact or post-Contact burials. (3) Five *heiau* (temples) are associated with Diamond Head and are located within and along the base of the crater: Papa‘ena‘ena, (also called L ‘ahi Heiau), Kapua, K palaha, Makahuna and Ahi. All of these *heiau* are believed to have been completely destroyed. No *heiau* were located on the southern slope of Diamond Head Crater. Kukuionapeha Heiau was located on Pu‘u o Kaimuk (the site of the old signal station). (4) The project area is located in a region rich in place names, *wahi*

	pana (legendary or storied places) and associated *mo‘olelo* (oral histories). Mo‘olelo, *‘ōlelo no‘eau* (proverbs) and *oli* (chants) focus on the exploits of Pele, the goddess of volcanoes and her beloved sister, Hi‘iaka, the pig-god Kamapua‘a in relation to L ‘ahi Crater, origin stories about the names Kaimuk , Kapahulu and more. Many stories are associated with *heiau* in proximity to the project area, some of which are *luakini* sacrificial sites, one dedicated to the gods K ne and Kanaloa. (5) In the mid-nineteenth century, the project area was used mainly as cattle pasture. In 1906, the study parcel was developed into a support area for the U.S. military Fort Ruger. Many of the Fort Ruger structures were demolished after World War II, when the base became the headquarters for the Hawai‘i National Guard. The army turned over the former barracks 52-acre area in 1975 for the establishment of the KCC campus.
Results of Community Consultation	For this CIA, a total of 14 community contacts (government agency or Hawaiian cultural community organization representatives, or individuals such as long-time area residents and cultural practitioners) were contacted for commentary or an interview. Six people responded; and 2 *kūpuna* (elders) and/or *kama‘āina* (native born) were interviewed for a more in-depth contribution. Two individuals consented to have their testimony included in this report. The results of the cultural consultation effort indicate that 2 respondents to this study (SHPD and one community consultant) are concerned about the possibility of inadvertent discoveries of Hawaiian artifacts or *iwi* during the construction phase of the proposed Diamond Head Film and Digital Media Center project.
Recommendations	Background research and community consultation for this CIA indicates that the proposed project is likely to have minimal to no impacts to Hawaiian cultural beliefs, practices and resources (historic and/or cultural properties). However, it is recommended that project personnel be alerted about the potential for inadvertent cultural finds and, if human burials are found during the ground disturbance and construction phases of this proposed project, cultural and lineal descendants of the area and appropriate agencies (e.g., SHPD) be notified and consulted in regard to burial treatment plans.

Table of Contents

Management Summary ..... **i**

List of Figures ..... **vi**

Section 1 Introduction **1**

1.1 Project Background 1
1.2 Document Purpose 1
1.3 Scope of Work 5
1.4 Environmental Setting 5
1.4.1 Natural Environment 5
1.4.2 Built Environment 7

Section 2 Methods **9**

Section 3 Traditional Background **10**

3.1 Overview 10
3.2 Mo‘olelo (Oral Histories, Legends) 14
3.2.1 The Winds of the Kona District 14
3.2.2 Prominent Places along the Inland Trail 14
3.2.3 Kaimuk Traditional Places 15
3.2.4 Kapahulu and L ‘ahi Crater (Diamond Head) 22
3.2.5 Subsistence and Settlement 24

Section 4 Historical Background **26**

4.1 Early Historic Period 26
4.2 Mid- 19th Century and the M hele 28
4.3 Late Nineteenth Century to the Present 29
4.3.1 Kaimuk Neighborhood 29
4.3.2 Kapahulu Neighborhood 30
4.3.3 Fort Ruger 31
4.3.4 Kapi‘olani Community College 35
4.3.5 Properties Adjacent to the Kapi‘olani Community College 35
4.3.6 Hawai‘i Film Studio 38
4.3.7 Urban Development in the Kaimuk and Kapahulu Neighborhoods 38

Section 5 Archaeological Research **43**

Section 6 Community Consultation **46**

Section 7 Kama‘ ina “Talk Story” Interviews **52**

7.1 James Nakapa‘ahu 52
7.2 Helemano Lee 54

Section 8 Cultural Landscape of the Project Area **56**

8.1 Overview 56
8.2 Hawaiian Habitation and Agriculture 56

8.3 Gathering of Plant Resources 56
8.4 Marine and Freshwater Resources 57
8.5 Cultural and Historic Properties and Burials 57
8.6 Trails 58
8.7 Wahi Pana (Storied Places) 58

Section 9 Summary and Recommendations **60**

9.1 Results of Background Research 60
9.2 Results of Community Consultation 61
9.3 Recommendations 61

Section 10 References **62**

List of Figures

Figure 1. U.S. Geographic Survey topographic map, Honolulu Quad, showing project area 3
Figure 2. Aerial photograph, showing the location of the project area (source: U.S.G.S Orthoimagery 2005).....4
Figure 3. Overlay of Soil Survey of the State of O‘ahu (Foote et al. 1972), indicating soil types within project area.....6
Figure 4. Hawai‘i Film Studio lot with shaded area representing the proposed project location....7
Figure 5. Media Center Master Plan provided by Group 70 International, Inc. 8
Figure 6. 1881 map of O‘ahu, Hawaiian Government Survey, by R. Covington (Hawai‘i Land Survey Division, Registered Map. No. 1381); note that the western boundary of Wai‘alae Nui bisects Diamond Head Crater 12
Figure 7. 1906 map of Portion of Honolulu, by C. M. Robinson (1906), showing the project area within the *ahupua‘a* of Kapahulu; note that the western boundary of Wai‘alae Nui is at Black Point, east of Diamond Head Crater (map reprinted in Johnson 1991:296).....13
Figure 8. Early nineteenth century trails on the southwest coast of O‘ahu (illustration from ‘ ‘ 1959:93), showing places in P lolo along the Honolulu to Waik k Trail.....15
Figure 9. 1855 Map of Honolulu, by Joseph Marie Henri de La Passe, lieutenant aboard the French vessel *Eurydice*, showing the dense settlement at Waik k west of Diamond Head (“Diamant”) and the lack of habitation in the current project area, between Diamond Head and Kaimuk Hill (map reprinted in Fitzpatrick 1986:82-83) 27
Figure 10. The Kaimuki Bakery, shown here in 1956, occupied the corner of 12th and Wai‘alae Avenues for many years (photo from Watanabe 1996a) 30
Figure 11. Fort Ruger January 1910, with Battery Harlow in the distance at the base of the northern crater slope, and tent camp in the foreground 31
Figure 12. Observation balloon at Fort Ruger, 1920-1924 (photograph from Hawaii Dept. Transportation 2008).....32
Figure 13. 1922 map of Fort Ruger, showing scattered structures in and near the project area (Map on file at U. S. Army Museum of Hawai‘i at Fort DeRussy, Honolulu).....33
Figure 14. 1940s map of Fort Ruger, showing more permanent structures in the project area, labeled barracks, officer’s quarters, and warehouses (Map on file at U. S. Army Museum of Hawai‘i at Fort DeRussy, Honolulu) 34
Figure 15. 1976 photograph (*Honolulu Advertiser* Archives) of the Cannon Club.....38
Figure 16. 1919 War Department map of O‘ahu, Honolulu Quad, showing sparse settlement in Kaimuk (within Kapahulu ‘Ili) 39
Figure 17. 1927 U.S. Geographic Survey map, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk 40
Figure 18. 1943 War Department map of O‘ahu, Honolulu Quad; note absence of Fort Ruger label.....41
Figure 19. 1953 U.S. Geographic Survey map, Honolulu Quad, showing project area within the future Kapi‘olani Community College block 42
Figure 20. U. S. Geographic Survey map, showing location of previous archaeological projects44
Figure 21. January 12, 2009 Response from the Office of Hawaiian Affairs 50
Figure 22. December 17, 2008 Response from the State Historic Preservation Division.....51

List of Tables

Table 1. Archaeological Research near Diamond Head.....45
Table 2. Summary of Community Consultation.....47

Section 1 Introduction

1.1 Project Background

At the request of Group 70 International, Inc. (725 Bethel Street, Fifth Floor, Honolulu, Hawai‘i, 96813), Cultural Surveys Hawai‘i, Inc. (CSH) prepared this Cultural Impact Assessment (CIA) for the 1.98-acre project area footprint of the Diamond Head Film and Digital Media Center located in P lolo Ahupua‘a, Honolulu District (Kona Moku), Island of O‘ahu. The project area is depicted on the 1998 USGS 7.5-minute series topographic quadrangle map, and an aerial photograph (Figure 1 and Figure 2).

The proposed Film and Digital Media Center will be located on the 7.477-acre Hawai‘i Film Studio lot. The proposed project is within an existing Public Facility designation and will not change the present use of the property. A description of the proposed project was provided by Group 70 International:

> The Film and Digital Media Center will be a high-tech center for the Creative Media Academy, University of Hawaii. While the center's main thrust will be for the instructional and academics cinematography program of the academy, it will embrace other media forms such as animation, other creative computer programs, and a computer creative industry incubation. The center will include soundstages (filming), a stage mill/production facility (for constructing film sets), classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a cafe with a small kitchen. The center will be three stories tall with the lowest level as a partial basement and take up approximately 50,000 square feet of floor area. Users of the center will primarily be students and faculty. The expected occupancy will be around 300 to 350 people, varying in amount throughout the day and night. The night occupancy, however, is expected to be at a low of about 100.

The project area is at the southeastern corner of the Kapi‘olani Community College (KCC) campus, which is in a block bound by 18th Avenue to the east, K lauea Avenue to the north, Makapu‘u Avenue to the west, and Diamond Head Road to the south. The Ruger Theater, the Diamond Head Health Clinic, and Le‘ hi Home are adjacent to the campus across Makapu‘u Avenue; residential neighborhoods are across K lauea Street; and the Diamond Head Memorial Park and Kaimuk Intermediate School are across 18th Avenue. The campus is between Diamond Head Crater to the south and Kaimuk Hill to the north.

1.2 Document Purpose

The project requires compliance with the State of Hawai‘i environmental review process [Hawai‘i Revised Statutes (HRS) Chapter 343], which requires consideration of a proposed project’s effect on cultural practices. CSH conducted this CIA at the request of Group 70 International. Through document research and cultural consultation efforts, this report provides information pertinent to the assessment of the proposed project’s impacts to cultural practices and resources (per the Office of Environmental Quality Control’s *Guidelines for Assessing*

Cultural Impacts). The document is intended to support the project’s environmental review and may also serve to support the project’s historic preservation review under HRS Chapter 6E-42 and Hawai‘i Administrative Rules Chapter 13-284.

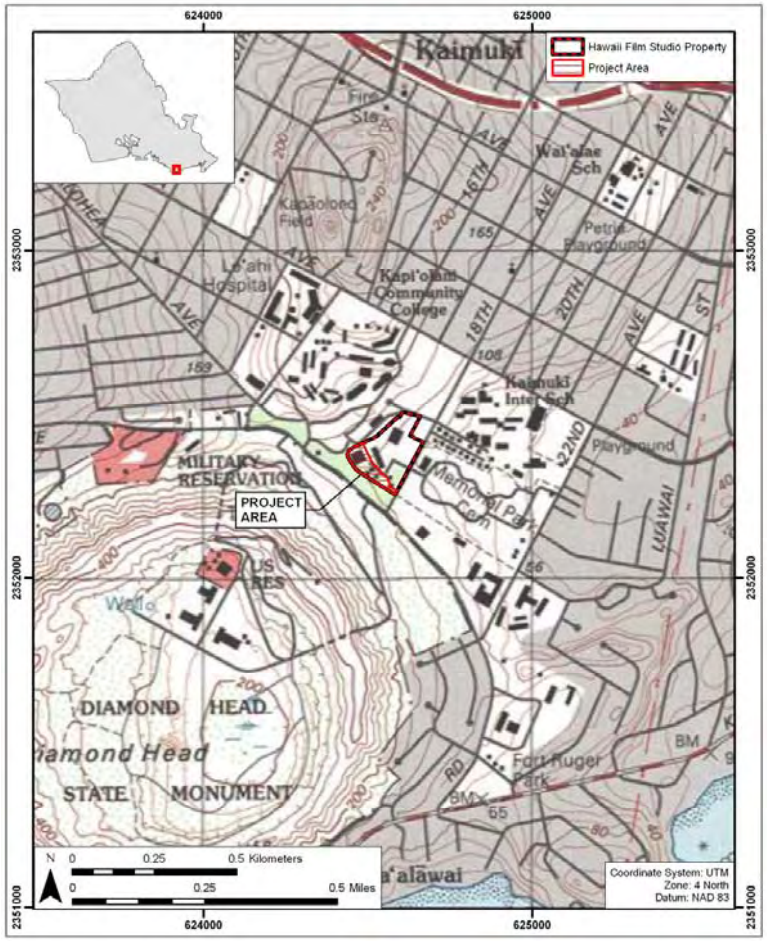


Figure 1. U.S. Geographic Survey topographic map, Honolulu Quad, showing project area

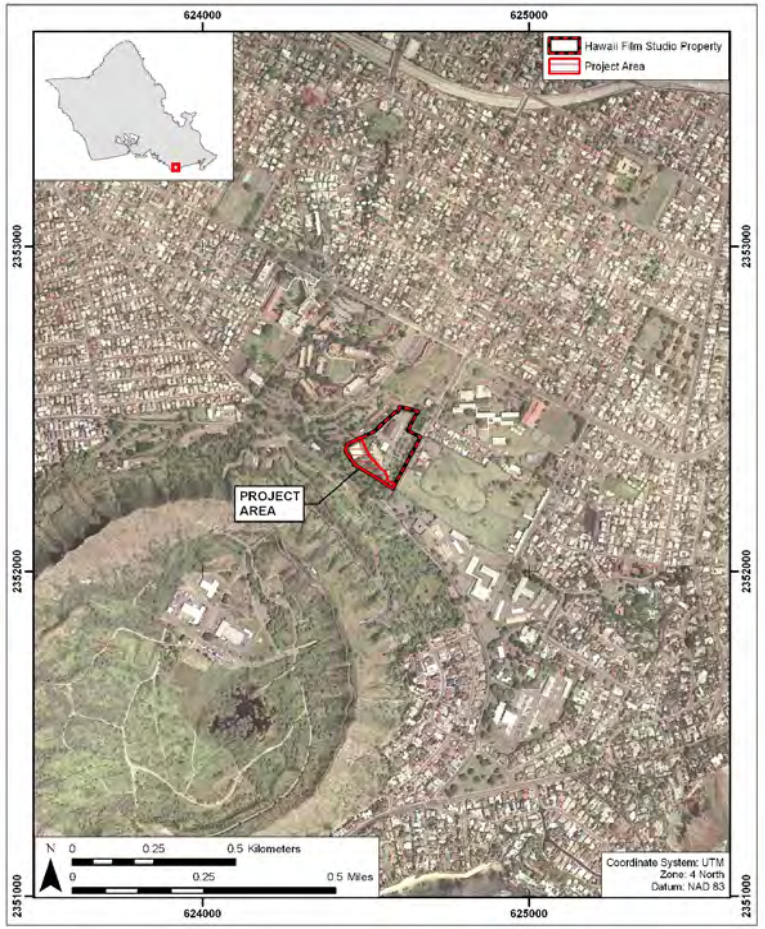


Figure 2. Aerial photograph, showing the location of the project area (source: U.S.G.S Orthoimagery 2005)

1.3 Scope of Work

The scope of work for this CIA includes:

1. Examination of cultural and historical resources, including Land Commission documents, historic maps, and previous research reports, with the specific purpose of identifying traditional Hawaiian activities including gathering of plant, animal, and other resources or agricultural pursuits as may be indicated in the historic record.
2. A review of previous archaeological work at and near the subject parcel that may be relevant to reconstructions of traditional land use activities; and to the identification and description of cultural resources, practices, and beliefs associated with the parcel
3. Consultation and interviews with knowledgeable parties regarding traditional cultural practices at or near the parcel; present uses of the parcel; and/or other (non-Hawaiian) practices, uses, or traditions associated with the parcel.
4. Preparation of a report summarizing the results of these research activities.

1.4 Environmental Setting

1.4.1 Natural Environment

The project area is at the base of Diamond Head Crater, a tuff (consolidated ash) cone formed by a hydro-magmatic eruption, a type of eruption that often occurs near the seashore in Hawai‘i when hot magma comes into contact with water. The steam from the combination of magma and water breaks the magma into fine ash. Tuff cones are usually broad and saucer-shaped, such as Diamond Head and Punchbowl The cone was formed during a single volcanic event during the Honolulu Volcanic Series, which took place approximately 500,000 years ago (MacDonald et al. 1983: 19).

The project area is on an approximately 7.5-acre lot with a ground slope of 5-20 percent. The elevation ranges from 80-132 feet AMSL (above mean sea level). Average rainfall in the area is 25-35 inches (Armstrong 1973:56).

The main southern portion of the project area is covered with Makalapa Clay, 6-12% slopes, (MaC), the northwestern corner is covered with Molokai Silty Clay, 15-25% slopes (MuD), and the northeastern corner is covered with Moloka‘i Silty Clay, 7-15% slopes (MuC). The Makalapa series consists of well-drained soils on uplands, which formed in volcanic tuff. The soils are used for urban development and pasture. Typical vegetation includes *kiawe* (*Prosopis pallida*), *koa haole* (*Leucaena glauca*), lantana (*Lantana camara*), bermuda grass (*Cynodon dactylon*), and fingergrass (*Chloris* spp.) (Foote et al. 1972).

The Moloka‘i series consists of well-drained soils on uplands, which formed in material weathered from igneous rock. The soils are used for sugarcane, pineapple, pasture, wildlife habitat, and homesites. The natural vegetation consists of *kiawe*, *‘ilima* (*Sida falax*), *‘uhaloa* (*Waltheria indica*), feather fingergrass (*Chloris virgata*), and buffelgrass (*Cenchrus ciliaris*) (Foote et al. 1972).

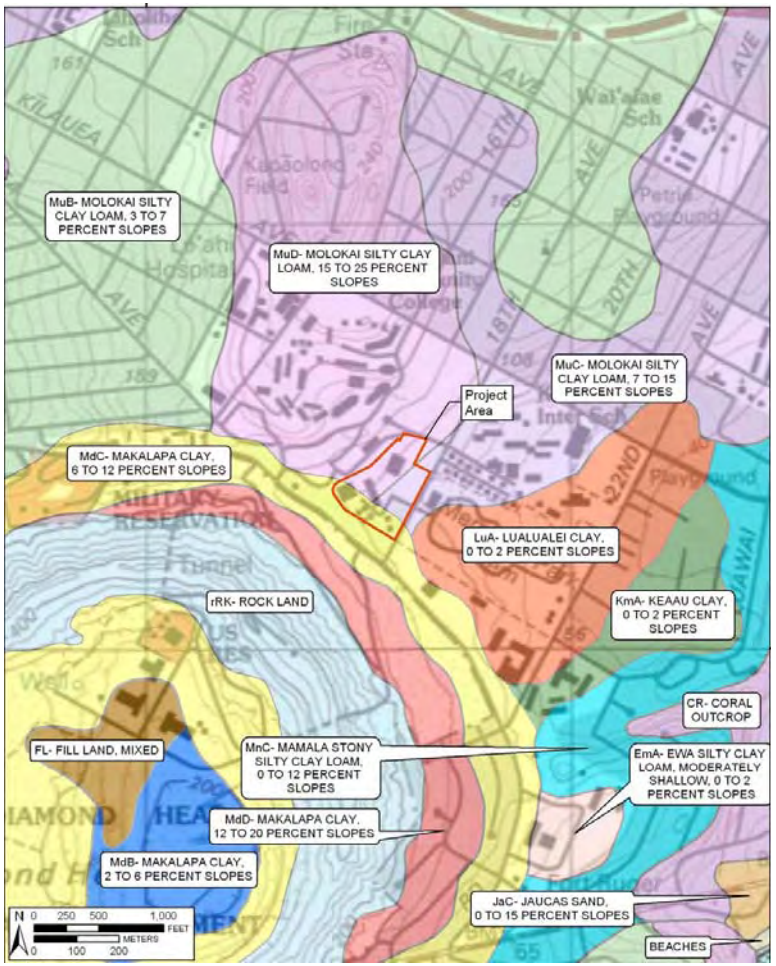


Figure 3. Overlay of Soil Survey of the State of O‘ahu (Foote et al. 1972), indicating soil types within project area

1.4.2 Built Environment

The Hawai'i Film Studio lot includes a soundstage, production office, a technical building, a parking lot, and paved roads between the structures (see Figure 4 below). It is landscaped with a few shrubs and trees.

Figure 4. Hawai'i Film Studio lot with shaded area representing the proposed project location

Figure 5. Media Center Master Plan provided by Group 70 International, Inc.

Section 2 Methods

Historical documents, maps and existing archaeological information pertaining to historic properties in the vicinity of this project were researched at the CSH library. Information on Land Commission Awards was accessed through Waihona ‘Aina Corporation’s M hele Data Base (www.waihona.com). The State Historic Preservation Division, the Office of Hawaiian Affairs, the O‘ahu Island Burial Council, and community and cultural organizations in Honolulu were contacted in order to identify potentially knowledgeable individuals with cultural expertise and/or knowledge of the project area and the surrounding vicinity. The names for potential community contacts were also provided by colleagues at CSH and from the authors’ familiarity with people who live in or around the project area. The cultural specialist conducting research on this assessment employed snowball and judgment sampling methods, an informed consent process and semi-structured interviews according to standard ethnographic methods (as suggested by Bernard 2005). Some of the prospective community contacts were not available to be interviewed as part of this project. A discussion of the consultation process can be found in Section 6 on Community Consultation. Please refer to Table 2, Section 6 for a complete list of individuals and organizations contacted.

Section 3 Traditional Background

3.1 Overview

The site for the proposed Film and Digital Media Center is in the neighborhood of Kaimuk in the *ahupua‘a* (large land division) of Waik k . Some historic maps, such as the 1881 map of the Island of O‘ahu (Figure 6) indicate that the project area is within the *ahupua‘a* of Wai‘alae Nui, while other historic maps, such as a 1906 map (Figure 7) show it within Kapahulu, an ‘*ili* of P lolo or Waik k . In the 1881 map, the western boundary of Wai‘alae Nui is east of Diamond Head Crater, ending at the sea at Black Point. In the 1906 map, the western boundary of Wai‘alae Nui bisects Diamond Head Crater.

This conflict concerning the boundary of Wai‘alae is mentioned in an 1883 suit heard by the Hawai‘i Supreme Court (Hawaiian Reports 1887:94-95), when the owners of land in Wai‘alae Nui complained that 1,000 acres of land that should have been within the boundary of Wai‘alae were instead placed within the boundary of Kapahulu. The first map of Kapahulu was made in 1883, and the boundaries of the land were pointed out by a man named Manuka, who grazed his cattle on the land. The litigators of the suit claimed that Manuka exaggerated the boundary of his lands in Kapahulu so that his claim was larger than it should have been. The Supreme Court ruled in Manuka’s favor and concluded that:

> The comparatively valueless character of the land whose boundaries are here sought to be established, no doubt, largely accounts for the indefinite and contradictory nature of the testimony adduced.
>
> The best results we are able to reach is that the boundaries of the land of Kapahulu are as described in the certificate of the Boundary Commission, and we therefore affirm the same. (Hawaiian Reports 1887:95)

Traditionally, Hawaiian *ahupua‘a* extended from the mountains to the sea so that the inhabitants had access to a wide variety of resources. According to one source (Pearson 1982:9), P lolo was once called Kaluahini, and was an *ahupua‘a* in the district of L ‘ahi, which was the area around Diamond Head. Kaluahini once stretched from the Ko‘olau Mountains to the Waik k shore. Thus, Kapahulu was once a land section within P lolo (Kaluahini). The *ahupua‘a* of P lolo was probably truncated in the early post-Contact Period when the village of Waik k expanded to encompass the coastal lands west of Diamond Head. The modern boundaries of P lolo are the Ko‘olau Mountain Range on the *mauka* (inland side), Wai‘alae Avenue on the *makai* (seaward) boundary, Wai‘alae Nui Ahupua‘a to the east, and M noa Ahupua‘a to the west. Thus today, Kapahulu is considered a land section of Waik k , not P lolo.

The traditional boundary of Kapahulu is also quite different from the boundary of the contemporary neighborhood. Kapahulu once extended from Kapahulu Avenue on the west to the Wai‘alae Ahupua‘a boundary on the east (at Lumawai/Hunakai streets), and from inland of Diamond Head Road north to Wai‘alae Avenue. Kaimuk is not a traditional ‘*ili* of P lolo (or Waik k), but rather the name of the flat land surrounding Kaimuk Hill within the ‘*ili* of Kapahulu. In the present-day, the Kapahulu and Kaimuk neighborhoods are separate. Both are

inland of Diamond Head Road; Kapahulu is the area between Kapahulu Avenue and 6th Street on the west, while Kaimuk extends from 6th Street east to the border with Wai‘alae Ahupua‘a on the east. The following sections on legends, traditions, and history will focus on areas in the lower section of P lolo, within the land area of Kaimuk , and within the ‘*ili* of Kapahulu.

Figure 6. 1881 map of O‘ahu, Hawaiian Government Survey, by R. Covington (Hawai‘i Land Survey Division, Registered Map. No. 1381); note that the western boundary of Wai‘alae Nui bisects Diamond Head Crater

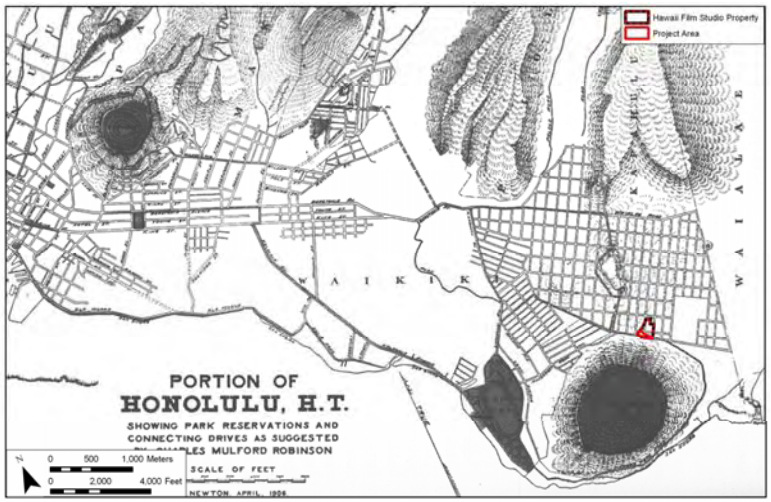


Figure 7. 1906 map of Portion of Honolulu, by C. M. Robinson (1906), showing the project area within the *ahupua‘a* of Kapahulu; note that the western boundary of Wai‘alae Nui is at Black Point, east of Diamond Head Crater (map reprinted in Johnson 1991:296)

3.2 Mo‘olelo (Oral Histories, Legends)

3.2.1 The Winds of the Kona District

In the Hawaiian legend “The Wind Gourd of La‘amaomao” the winds of O‘ahu, including the winds of the Kona district are named. The wind of P lolo is called Wai‘oma‘o (Nakuina 1992:43-44).

> There are our clouds, my father’s and mine.
> Covering the mountains;
>
> Pu‘uokona is of Kuli‘ou‘ou — Kuehu-lepo is of Kahua,
> Ma-ua is the wind of Niu, — Kukalahale is of Honolulu,
> Holouha is of Kekaha, — ‘Ao‘aoa is of Mamala,
>
> Maunuunu is of Waialae, — ‘Olauniu is of Kapalama,
> The wind of Le‘ahi turns here and there, — Haupe‘epe‘e is of Kalihi,
> ‘Olauniu is of Kahaloa, — Ko-momona is of Kahauiki,
> Wai‘oma‘o is of P lolo, — Ho‘e‘o is of Moanalua.

3.2.2 Prominent Places along the Inland Trail

John Papa ‘ ‘ documented an early nineteenth century trail (Figure 8) that extended from Honolulu to Waik k . This trail eventually evolved into the present day alignment of King Street and Wai‘alae Avenue. The trail passed along the makai border of P lolo, which would be the northern boundary of Kaimuk and Kapahulu ‘Ili.

> The trail that ran through Kaluahole went into Kaalawai, up, over, and down into Kahala, to meet the other trail at the place where the stream reached the sand. There they met the mauka trail that came from Ululani’s place in Pawaa to Kapaakea, then up to Kamoiliili, and to Kapohakikeke, where it left the trail that went up to Palolo, and continued on to Mauumae, above Kaimuki where a pole later stood to serve as a mark for ships. From there it went down to, and along the upper side of, the taro patches and the pools of Waialae to join the other trails at the sand and go along Keahia and on to Maunalua, to the sea of Koko, to Makapuu, and so on. (‘ ‘ 1959: 93-94)

The first marker on the trail near P lolo Valley is the rise called Kam ‘ili‘ili, which means “pebble lizard” and refers to a famous *mo‘o* (spirit that can change form) that the goddess Hi‘iaka destroyed (Pukui et al. 1974:153). The next marker was the legendary *pōhaku* (stone) Kapohakikeke in Kaimuk . The third marker was Mau‘umae, a small hill on the right side of the mouth of P lolo Valley (Pearson 1982.1). The literal meaning of mau‘umae is “wilted grass” (Pukui et al. 1974:150).

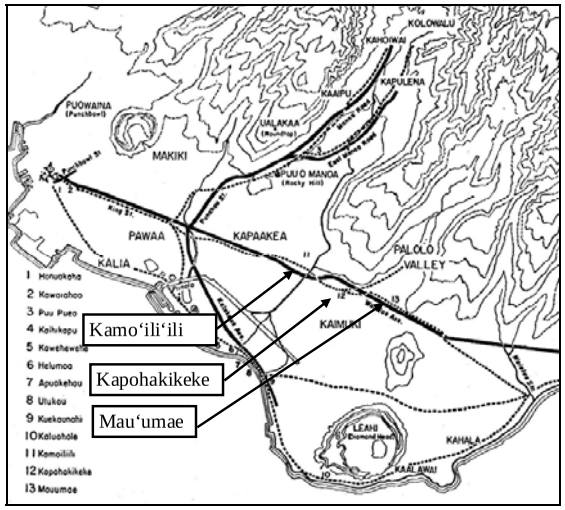


Figure 8. Early nineteenth century trails on the southwest coast of O‘ahu (illustration from ‘ ‘ 1959:93), showing places in P lolo along the Honolulu to Waik k Trail

3.2.3 Kaimuk Traditional Places

3.2.3.1 Origins of the Place Name

Kaimuk literally means “the *ti* oven,” “the (*ka*) oven (*imu*) for cooking ti root (*kī*),” thus, the correct pronunciation of the area should be Ka-imu-ki. The legendary *menehune* supposedly built many of their *ki* ovens in Kaimuk . It is dominated by a shield volcano with a crater about 30 feet deep. The name refers to the story that the legendary little people of Hawai‘i, the *menehune*, cooked *ti* roots in ovens here.

> Kaimuki is not, the oven where food is cooked in Ki leaves, but the oven for cooking ti root. The root of the Dracaena is cooked and eaten like sugar cane, the juice also being distilled to liquor. (Lyons 1901:182)

In one legend, the *ti* ovens are actually built by a man who lived in the Kaimuk area. This man was rather happy-go-lucky, and would rather surf and fish at Waik k than farm his land. He depended on food provided by his father-in-law, a high chief who lived in P lolo Valley. During a dry spell, when the sweet potatoes would not sprout, the chief had no extra food and could no

longer provide food to his son-in-law’s family. The young man appealed to his ‘*aumakua* (family guardians) who told him to gather *ti* roots at dawn and bake them in an oven.

> Early in the morning the hungry people of the valley and the flat lands saw smoke rising from the big *imu* (underground oven). They flocked toward it, but the young man, seeing a multitude of mouths coming toward him, snatched out his ti roots and left only ashes.
>
> The hungry and angry crowd began to follow him to his source of food supply and to the many cooking ovens he built until, in dismay, he went to Hanauma Bay and took a canoe to Molokai.
>
> Behind him on the lowlands, he left hills of red dirt, which were the piled up imu in which he had tried to cook for his family. And that is how the area of hills got its name (Burtnett 1962).

Another interpretation of the name breaks down the word into *kai* (sea, or sea water) and *muki* (sucking noise as made by pursing the lips and expelling or drawing in the air) (Pukui and Elbert 1986:235). According to an article in the newspaper *Sales Builder*, Kaimuki means “whispering sea,” and is associated with the saying “Listen at midnight and you will hear the sea’s peculiar ghostly sighing whisper--hence the ancient name” (*Sales Builder* 1936). Yet another version says the area was named for a famous brigand “who holed up in one of the valleys whence he and his thugs descended upon travelers en route to or from fishing villages beyond Koko Head” (*Honolulu Advertiser* 1949:3).

Burtnett (1962) says Kaimuk also had another name - ‘‘ ina ola”, or “the land of the sick and ailing.” He adds that: “It was a place where sicknesses were cured, particularly those aggravated by the dampness near the sea.”

3.2.3.2 Legend of Pele and Hi‘iaka

The *menehune* are also mentioned in the “Legend of Pele and Hi‘iaka.” At Hi‘iaka’s departure from O‘ahu:

> . . . she wasted no time in leave-taking . . . Their route lay eastward across the dusty, wind-swept plain of Kula-o-kahu‘a – destined in the coming years to be the field of many a daring feat of arms; - then thorough the wild regions of Ka-imu-ki, thickset with bowlders [sic] – a region at one time chosen by the dwarf Menehune as a sort of stronghold where they could safely plant their famous ti ovens and by unmolested by the nocturnal depredations of the swinish Kama-pua‘a. Hiiaka saw nothing or took no notice of these little rock-dwellers. Her gaze was fixed upon the ocean beyond, whose waves and tides they must stem before they reached and passed Moloka‘i and Maui, shadowy forms that loomed in the horizon between her and her goal. (Emerson 1915:185-186)

3.2.3.3 Pōhaku Kīkēkē

The “Bell-stone” known as P haku K k k , or “rapping stone” (Pukui and Elbert 1986:149, 334) was formerly located on the modern boundary between P lolo and Kaimuk , which is today marked by the alignment of Wai‘alae Avenue. It was once near the ‘*ewa* (west) end of Sacred Hearts Academy near 5th Avenue. This stone was struck by children living in the inland area of Kaimuk to announce to their friends on the coast that they were coming down to the beach to surf (Pearson 1982:10). This stone was reported as destroyed or removed prior to 1908 (Sterling and Summers 1978: 277-278l; Site 409).

According to a community consultant in 1908, this *pōhaku* was destroyed before 1908.

> *Ua nanea loa no paha oe i ka pakika pakelo a ke kaa uwila i ka loku hui mai a ka Puulena i lohe ole ai oe i ke kani a ke pele hone i ke kula. O Pohaku ki-keke keia aia la ma ka aoao makai o ke alanui o Waialae e hele aku ai a kiei i ka makani holo uha o Kekaha i ke alanui pii o Palolo a mohope iki iho.*
>
> *He pohaku kani keia e like me ka hao kila ka nui o kona leo a me ka bele oluna o na aumokukaua o Amerika i hiki mai ai ia nei he nui kona leo kani i ke au kahiko a hiki i kona wa i hoolauna mai ai me ko‘u kii onohi, aka i keia wa ua wawahi ia oia a ua kalai ia a lawe ia aku i na aina haole me kona kino nui kupono maluna o kekahi moku kalepa no ka maikai o kona moolelo aine kona kani ana, na lawe ia aku oia me ke ano he pohaku kaulana no Hawaii, nei a he mea hoikeike hoi i ko ke ao holookoa.* (J.K.W. Makanikeoe, *Ka Nūpepa Ku‘oko‘a*, Oct. 2, 1908)
>
> Translation:
>
> . . . You may have been so occupied with the sliding of the street car while the Puulena breezes blow that you did not hear the ringing of the bell which echoes over the plain. This is Pohaku-Kikeke, on the lower side of Waialae road leading up to the place where the thigh baring wind of Kekaha blows, just before reaching the road going up to Palolo. This was a stone that rang loudly like steel and like a bell on American Battleships that come here. It had a very loud sound up to the time that my eyes made its acquaintance. But now it is broken. It was cut and taken to foreign lands, with its fine large body, on a merchant ship because of the goodness of its legend and its ringing. It was taken as a famous stone of Hawaii and to exhibit it to the whole world. (Translation from Sterling and Summers 1978:278)

Another version of the destruction of this stone was told by Grace Warren and published in the *Star-Bulletin* in 1961.

> Recently I heard for the first time about the old Hawaiian bell stone which for years lay beside Waialae Road near 5th Avenue. John Spencer, an old-timer, tells me that when Waialae Road was widened the stone was broken up and thrown into the corner of the grounds of Sacred Hearts Academy. I have also been told that some of the fragments were thrown into the corner of the King’s Daughters Home ground, on the opposite corner of 5th Avenue.

> Mr. Spencer said that 60 to 70 years ago, buildings were scarce and little more than swamp land and pasture lay between Kaimuki and Waikiki. The bell stone at that time was used as a signal by boys to let their friends at the beach know when they were going on a hike or a picnic. Walter Grace is another kamaaina who remembers that there was such a stone. Another friend or mine told me that when she was a little girl she remembers that she and her playmates used to throw stones at the big stone in order to hear the resonance.
>
> Mr. Spencer says that the stone was mushroom shaped. (Warren 1961)

This stone was also at a *wahi pana* or storied place particularly associated with *mo‘o* (dragons), mentioned in the legend of Hi‘iaka, the beloved sister of Pele, the Hawaiian volcano goddess. The longest version of this story was originally serialized in the Hawaiian language newspaper *Ka Na‘i Aupuni* in 1905 and 1906. It has been recently been translated and republished in two volumes, one in the original Hawaiian and one in English (Ho‘oulum hiehie 2006a, b).

In these books Hi‘iaka and her two companions were traveling across the island of O‘ahu. From the coast at Waik k they traveled from P hoa, an ‘*ili* of Waik k , upward towards P lolo Valley.

As they traveled the upland trail, Hi‘iaka warned her friends they would be going through desolate regions with many supernatural creatures. Two of these would be a sister, named P hoa, and her brother, Makahuna, an evil couple who were *‘e‘epa* or *mo‘o* (supernatural creatures).

Hi’iaka chanted:

It is you, O P hoa	*‘O ‘oe ia, e Pāhoa*
Woman who dwells in the Makahuna rain of P lolo,	*Wahine noho ua Makahuna o Pālolo*
Listening to the voice	*Ho‘olono mai ana ‘o ka leo*
The beckoning call of the traveler.	*Leo ualo a kama hele*
Walking beneath the stifling sun, the crackling sun	*Hele ana i ka lā ikiiki, lā ko‘ele ku*
The sun of Waik k	*Lā o Waikīkī ē*
Simply stifling.	*Ikiiki wale.*

(Ho‘oulum hiehie 2006a:291; Ho‘oulum hiehie 2006b:312)

P hoa replied rudely to Hi‘iaka’s call, and suggested that the combined strength of the brother and sister could defeat Hi‘iaka. The movement of the two over the dust created a whirlwind that hid the trail in front of the travelers. Lohiau exclaimed in amazement at the whirlwind.

> *I ia wā, ‘ōlelo akula ‘o Hi’iaka, “ ‘A‘ole kēlā he puahiohio kupu wale a‘e āu e ‘ike akula, e ke kāne. He kuehu lepo manawa ‘ino kēlā na ko‘one‘i mau mo‘o kanaka, ‘o ia ‘o Pāhoa, he wahine, a me kona kaikunāne mo‘o nō ho‘i. Akā, ‘a‘ole ‘o lāua wale nō nā kupu ‘ino o kēia mau kaiāulu, akā, he lehulehu loa nō kēia po‘e. Ei aku nō ia kupu ‘ino o Kamō‘ili‘ili. Ei aku nō ho‘i o Pōhakukīkēkē, a pēlā wale aku.”*

> Hi‘iaka said, “That is no ordinary whirlwind that you see, husband, It is and evil dust storm stirred up by the mo‘o of this place, P hoa, the female, and her mo‘o brother. They however, are not the only malevolent ones of this area, for there are many. Ahead lies the wicked Kam ‘ili‘ili. Also up ahead is P hakuk k k , and there are more.”
>
> (Ho‘oulum hiehie 2006a:291; Ho‘oulum hiehie 2006b:313)

The three continued on the trail and soon they felt a sharp wind, which felt like powerful hands were yanking back on their ears and a loud shrieking voice. Hi‘iaka explained that these winds were not caused by P hoa and her brother, but by a different spirit. Hi’iaka said:

> *“ ‘A‘ohe kēnā he mau ho‘oleleiona mai nā moe wai mai a kākou i ‘ike mai nei i ke kū o ka ‘ea o ka lepo, akā, mai kekahi moe wai ‘oko‘a mai kēia, nona ka inoa ‘o Kamō‘ili‘ili. ‘O kona kalana ‘āina kēia a kākou e hele nei. A mai hopohopo ‘olua no kēia mau mea a ōlua e ‘ike nei.”*
>
> These are not the antics of those water-dwellers we just saw kicking up dust, for this comes form a different mo‘o, named Kam ‘ili‘ili. This is her territory we are going through. Be not afraid of what you see.
>
> (Ho‘oulum hiehie 2006a:292; Ho‘oulum hiehie 2006b:313)

When they reached the top of the bluff, the *mo‘o* Kam ‘ili‘ili attacked Hi‘iaka, but with one flick of her magical *pā‘ū* (skirt), which contained lightning bolts, Hi’iaka blasted the spirit into pieces, scattered over the ground. These rock fragments can still be seen in the area just inland of the former location of Kam ‘ili‘ili Church. In other versions of this story, Kam ‘ili‘ili was changed into a long pile of stones or a sharp rise in the ‘*ili* of Kam ‘ili‘ili.

As the company continued their trip upland to P lolo Valley, they again met P hoa and her brother Makahuna. Before they could even get near Hi‘iaka, the *mo‘o* were caught in an attack with Hi‘iaka’s *pā‘ū*. Although they begged for mercy, Hi‘iaka ignored their pleas and destroyed the two *mo‘o* (Ho‘oulum hiehie 2006a:292-293.)

In a different version of the story, P hoa was the name of a male *mo‘o*, who sat each day on a small hill called “P hoa’s Knoll.” From here he spied on the pond of Huewa, where the beautiful *mo‘o* woman Pohakuk k k would go to bathe every day. This story says that originally the woman had been named Kaual l lehuaop lolo, after the L l lehua rains of P lolo. In their journey towards P lolo Valley, Hi‘iaka and her companions came to Mau‘umae, a place above Keahuk ‘ili‘ai. P hoa quickly gathered *lū‘au* to give to Hi‘iaka as he knew it was her favorite food. He presented the *lū‘au* to Hi‘iaka and asked her a favor in return, to help him to attain the favor of Kaual l lehuaop lolo (Ua-lilihua or Lililehua), who had always rejected him. Before granting the favor, Hi‘iaka suggested that P hoa quickly run down to the pool Huewa to see his desired love. When he came to the pool, he saw her in the arms of her brother, Makahuna, and lost all of his desire for her. Because of his loss, Hi‘iaka spared the life of P hoa, but did destroy the brother and sister *mo‘o* (Ho‘oulum hiehie 2006a:293-294).

In yet another version of this legend, Hi‘iaka destroyed L l lehua and her brother. She placed L l lehua’s ringing voice in a rock called P haku K k k , located on the lower side of the road

going to Wai‘alae (Hiiaka-i-ka-poli-o-Pele, *Ka Na‘i Aupuni*, June 28, 1906, loose translation from Sterling and Summers 1978:278).

According to Mary Kawena Pukui, the fragments of P haku K k k are among the stones in front of the main building of the King’s Daughters Home on the corner of 4th and Wai‘alae Avenues.

> Pahoa is the place where the King’s Daughter’s Home is.
>
> There are two versions of the Pahoa story, one is that Pahoa was a nasty *mo‘o* who was killed by Hiiaka. In the other, he was not nasty, and he was not killed by her. (M. K. Pukui, March 16, 1954, cited in Sterling and Summers:278)

3.2.3.4 Pōhaku Aumeume, Stone-of-Contention

A second *pōhaku* was also in M ‘ili‘ili, called P haku Aumeume, probably located just *makai* of the present-day Wai‘alae Avenue.

> *E ka makamaka e kala mai ia‘u e hoakaka aku ana au i ko‘u kamaaina ia Kamoiliili oia, keia, ua noho a ua kupa, ua ewe, a ua kamaaina maoli no a ua kulaiwi no hoi iloko o na la kuliu i aui aku la a hiki no i keia la. A aia ma ka lua pohaku o ke aupuni e ku nei ma Kamoiliili a makai iki iho e waiho ana o Pohaku*
>
> *Aumeume oia ke alaloa o ke au kahiko o na kupa o Kamoiliili ka hoike maopopo loa no keia pōhaku.*
>
> *Ua wawahi ia kona kino pohakua a aole no paha oe e ike aku no ka mea, he mamao loa oia mai ke alanui aku e holoia nei e ke kaa uwila.* (J. K. W. Makanikeoe, *Ka Nūpepa Ku‘oko‘a*, Oct. 2, 1908)
>
> Translation:
>
> I an a native, a member of an old family of Kamoiliili and am very well acquainted with the things of the land in by gone days up to the present. There is a second stone belonging to the government standing at Kamoiliili just below it (the road?). There lies Pohaku Aumeume (Stone-of-Contention). That was by the old trail in the olden days and the real natives of Kamoiliili can tell you about this stone. It has been broken up and you may not see it for is far from the street car track. (translation from Sterling and Summers 1978:281)

3.2.3.5 Kaumana Pōhaku

Community consultant Solomon Kauai related an account of another famous stone that may have been located somewhere near Sacred Hearts Academy. The story of the stone known as “Kaumana” was told to Theodore Kelsey who published it as “He Mo‘ lelo Kupua No Kaumana i Lilo i P haku” (A strange Legend of How Kaumana Turned into Stone) in the newspaper *Ka Nūpepa Ku‘oko‘a* (July 4, 1919):

> While I was in Honolulu I heard a good legend about Kaumana, a demi-god, who was turned into stone. It is on the ridge between Palolo and Manoa. I wrote the story in English but it would be good to have it in Hawaiian. My friend, Mr. Stokes went to see Mr. Solomon Kauai the narrator of this tale. His residence is on the mauka side of Waialae Road where it meets Kapahulu Road running to Waikiki, at a place close to the end of Kaumana Ridge.
>
> Kaumana left Lahaina-lalo with his parents and fifty followers, leaving his sister Lele behind (that is how Lahaina obtained the name of the breadfruit shade of Lele). He came to Maunalua, Oahu and remained there with his four sons.

The newspaper account goes on to explain that Kaumana first lived in L hain , Maui, but then moved to Maunalua, O‘ahu with fifty servants and his four sons. Kaumana went on a visit to Kaua‘i, but finally wished to return home. A *kahuna* [priest, sorcerer] told him that if he sacrificed his youngest son, Manualua, his trip home would be short, so when he returned to O‘ahu, Kaumana threw his son into a pond along with other offerings. Kelsey (1919) continues:

> This did not make Kaumana happy for he bitterly regretted the loss of his son so he began to kill all the people who had accompanied him from Lahaina, including his wife and parents. He spared only five servants, Wa‘ahila-rain, Polihala-rain, Kuahine rain, and Lililehua-rain. He took them to live with him on the ridge between Palolo and Manoa.

In Waik k , a chief named Kakuhihewa had a fishpond. A heavy rain broke the walls of the pond. A *kahuna* told the king it was the fault of Kaumana and his servants, the rains. To restore the pond, the *kahuna* took a black pig and laid it before Kaumana. Kaumana knew that his end was near, so he turned himself into a stone. The names of ridges and peaks mentioned in the legend and the location of this stone are described in the legend as:

> *O Palihala, o ia kahi kiekie ma ka aoao makai, mai ke Awawa mai o Awawa Loa, Palikuahine, o ia kela wahi e kiei iho la ia Waiakeakua ma Manoa; Palilililehua, aia ma kekahi aoao, e huli Ia i Palolo; o Makaiwi, o ka aina ia mai Palihala aku a i kahi i waiho ai o Kaumana; Ua hoi keia mai ia‘u, aia ma ka mana ana o ke Alanui Elima e kokoke la i ka uwapo.*
>
> *Ma ka hoakaka a Mr. Emekona, ma ka moolelo o Pele ame Hiiaka, o ka Ua Waahila, he ua kilihune ia mai Niihau mai, ahiki i kahi o Kauka, ma ke alanui Wyle. O Ka Ua Lililehua, he ua ia mai Kaauhelumoa mai ahiki i Makaiwi. O Ka Ua Kauhine, o ka ua ia mai Kailua ahiki i Ualakaa. (O ne kaina ‘āina paha ka i maopopo is keia wahi.)* (Kelsey, *Ka Nūpepa Kū‘oko‘a*, July 4, 1919)
>
> Translation:
>
> Pali-hala is the highest point on the makai side from Awawaloa gulch [understood as near Mount Olympus]; Pali-kuahine is the place overlooking Waiakeakua in Manoa; Pali-lililehua is on the opposite side, facing Palolo; Makaiwi is the land from Pali hala to the spot where Kaumana lies, it was pointed out to me, at the place where Fifth Ave. branches out near the bridge.
>
> Mr. Emerson explained in his “Legend of Pele and Hi’iaka” that the Waahila rain is a fine rain which came from Niihau [Nu‘uanu?] to Judd’s place on Wyllie St. the Lilihua rain falls from Kaauhelemoa to Makaiwi. The Kuahine rain falls from Kailua to Ualakaa. (The old timers may know of these places.) (Translation from Hawaiian Ethnological Notes, Bishop Museum Archives)

In other archaeological reports, it has been stated that the Kaumana stone was near the present intersection of Kapahulu and Wai‘alae Avenues, but this is a mistake. The tale is abstracted in Sterling and Summers (1978:279) *Sites of Oahu*, which leaves out the pertinent information that the junction of Kapahulu and Wai‘alae Avenue is the location of the home of the informant, not the location of the stone. The last part of the story states that the stone was “at the place where Fifth Ave. branches out near the bridge,” which would put the stone near the present-day location of the Sacred Hearts Academy.

3.2.4 Kapahulu and L ‘ahi Crater (Diamond Head)

Kapahulu has two meanings, “the worn-out soil” (Pukui et al. 1974:87), or “a feather garment,” which may be a reference to a feather cape worn by King Lunalilo who had a residence in the coastal section of Kapahulu (Acson 1983:32). The marshland of Waik k , located *makai* (southwest) of the present project area, was watered from streams in the Makiki, M noa, and P lolo Valleys and from springs in M noa (Punahou and K newai) and the name Waik k , which means “water spurting from many sources,” was appropriate to the character of the swampy land of ancient Waik k , where water from the upland valleys of M noa and P lolo would gush forth from underground. The current project area is located to the southeast of these streams below the slopes of Diamond Head and is characterized by a drier environment. Kapahulu, meaning, “the worn out soul” or “the worn out soil,” (Pukui et al. 1974:87) could be an indication of the difference between the drier Kapahulu area that characterizes the present project area in comparison to the adjacent Waik k marshlands.

The most prominent topographic feature of Kapahulu is Diamond Head, which is a dormant volcanic crater. The crater got its present name in 1825 when British sailors found sparkling stones on the slope of the crater which they thought were diamonds; these were later identified as calcite crystals.

The Hawaiian name is spelled two ways, as L ‘ahi or Lea‘ahi.

> One interpretation says that L ‘ahi is a contraction of the two words *lei* (a wreath) and *‘ahi* (fire), the two words combining to mean “wreath of fire” (possibly because of signal beacons that were lighted on special occasions). The other popular interpretation is that L ‘ahi is a contraction of *lae* (a cap or promontory) and *‘ahi* (the yellow-fin tuna) the combination meaning “point of the *‘ahi* fish.” (Clark 1977:41)

This last interpretation refers to the shape of the crater. The high rim of the Waik k side of Diamond Head resembles the crest of the ‘*ahi* fish. The crest of the crater may also have been used as a reference point in locating a fishing ground for the *‘ahi* fish (Clark 1977:41).

According to legendary accounts, Pele, the goddess of volcanoes, was driven from the traditional homeland of Kahiki and traveled to the Hawaiian Islands. Pele and her family stopped at each of the islands, from the northern outpost at Ka‘ula, then to Kaua‘i, then to O‘ahu. At each island, she tried to carve out a place for her family, digging into the ground, but at each place, the land was too thin, and seawater soon filled in the crater. On O‘ahu, she tried to dig a home (crater) at liapa‘akai (Salt Lake), at P owaina (Punchbowl), and then at Lae‘ahi (Diamond Head. After these unsuccessful attempts, Pele moved to Moloka‘i, Kaho‘olawe, Maui, and finally the island of Hawai‘i. On Hawai‘i she dug the volcanic crater of K lauea, which did not fill with water and thus became the home of Pele and her sisters (Ho‘oulum hiehie 2006b:1-2).

Hi‘iaka, the favorite sister of Pele, compared the features of the tuff cone to the brow of the *‘ahi* fish (Palikapu n.d.).

Me he i‘a la ka Le o Ahi	Like a fish is the Brow-of-the-ahi
E kalali au ae nei i ke kai.	Resting high above the sea.

Tomonari-Tuggle and Blankfein (1998:14) have suggested an alternative translation of the name, combining *lae* and *ahi* as “cape of fire.”

> From certain points of the southern coast of O‘ahu, the rising sun on the summer solstice appears to emerge as a glowing fire from the center of the crater. This translation may also tie into the presence of a *heiau* called Ahi that was reputed to be located on the crater rim. This *heiau* was dedicated to the god of the winds as a protection against sudden, violent updrafts which could put out the navigation fire [signal beacon mentioned by Clark] that was tended at the *heiau*.

Diamond Head is mentioned in a chant to the O‘ahu chief Kahahana, when he was fleeing an invading army from Maui, around the year. 1785 (Cordy 2002:19, 42). In a lamentation for Kahahana, imagery of the features of Oahu are used:

E i! lau hoe ia ana ka lani,	Speak! The many paddles bearing the chief
Oai kai luna i ka pola waa e.	Who is upon the canoe platform.
Kupu maikai Leahi i ka malie;	Leahi rises beautifully in the calm;
Iaea e ke kai, a moku okoa.	It is separated, it is cut asunder.
Kuhi ka waa holo, he kai ko waena,	The people on the canoes thought a sea lay between,
Aole ka he kai; he hoopunipuni.	But there was no sea; it was deceiving.

(Fornander 1919 Vol. VI:292)

Fornander (1919 Vol. VI:300) explains that “Leahi, serene in the calm, lends itself to the deceptive appearance at times of being separated by sea from the main land.”

The prominence of the crater from Hawaiians in their canoes to later Western visiting ships is indicated in an ‘*ōlelo no‘eau*, a Hawaiian poetical saying or proverb:

> Nani L ‘ahi, he maka no Kahiki. Beautiful L ‘ahi, object of the eyes from Kahiki.
>
> Diamond Head, always observed with interest by visitors from foreign lands. (Pukui 1983:248, #2277)

Another version credits the creation of the crater to a battle between the volcano goddess Pele, and her unwelcome suitor, the Hawaiian pig-god Kamapua‘a.

> There is no mistaking the impressive headland of Leahi. One can quite understand the belief growing up in the native mind, that this crater was the scene of the fight between Kamapuaa, the pig-god, and Pele, the volcano goddess—a fight which terminated by Kamapuaa swallowing an enormous draught of sea water, which he poured forth into the burning bowl, and so extinguished the fires forever. (Gowen 1892:57)

To the southeast of Diamond Head is Black Point, a promontory that extends to the southern most point of O‘ahu. Traditionally, Black Point was referred to as Lae o K pikipiki‘ , which is translated as “rough sea” (Pukui et al. 1974: 25) or “point of raging sea” (Clark 1977:39). The promontory is separated into two halves (Waik k and Wai‘alae) by a small cove that was called Ke‘ahamoe, which was often frequented by fishermen as well as by gatherers of *limu* (edible seaweed) and shellfish (Clark 1977:39).

Also associated with Diamond Head were five *heiau* (temples) located within and along the base of the crater. Papa‘ena‘ena Heiau, also called L ‘ahi Heiau, was a *heiau luakini* (sacrificial temple) once located near the present Hawai‘i School for Girls, on the western flank of Diamond Head. It is perhaps the most acclaimed *heiau* on O‘ahu, as notable kings, including the famous Maui king Kauhiakama, and O‘ahu chief Kahahana, were both sacrificed at Papa‘ena‘ena (McAllister 1933:72). Kapua Heiau, a *heiau luakini*, and K palaha Heiau, a *heiau pō‘okanaka* (both sacrificial heiau), were located near Kapi‘olani Park. Makahuna Heiau, an enclosure dedicated to the gods K ne and Kanaloa, was west of Diamond Head. Ahi Heiau, where the navigation fire was tended, was on the peak of Diamond Head. All of these *heiau* are believed to have been completely destroyed (Allen and Shideler 1996:15). No *heiau* were located on the southern slope of Diamond Head near the project area. Kukuionapeha Heiau was located on Pu‘u o Kaimuk , located about one half mile north and inland of the project area at the site of the old signal station (Thrum in Sterling and Summers 1978:279).

3.2.5 Subsistence and Settlement

According to Handy and Handy (1972:483), P lolo Stream was “large and capable of irrigating terraces along its course on both sides and below the end of the valley.” These terraces were used to cultivate irrigated taro fields, called *lo‘i*. Only a few terraces existed on the outer

sides of the streams. In 1940, some of there terraces were still extant and being used, as described by E. Craighill Handy:

> Palolo Valley had extensive areas of low terraces throughout its lower portion on the land now covered by houses and golf links, running along both sides of Palolo Stream. Above the junction of Waiomao and Pukele Streams, which form Palolo Stream, there are many high terraces on the hillside to inland, and there were a few terraces on the outer sides of the streams. Some of the upper terraces between the streams are now under cultivation by a Hawaiian planter. Farther up the valleys of Waiomao and Pukele Streams there are a few terraces, and wild taro is said to grow abundantly in the upper reaches. (Handy 1940:74)

The current project area is not near P lolo Stream, which is more than a kilometer to the west. Thus it was not a favorable location for wetland irrigated taro or even dryland sweet potato cultivation as there was no access to any water, such as a stream, a spring, or a pond.

Section 4 Historical Background

4.1 Early Historic Period

Waik k Ahupua‘a encompasses lands stretching from Honolulu to Maunalua Bay. Within the *ahupua‘a*, by the time of the arrival of Europeans during the late eighteenth century, the area today known as Waik k , had long been a center of population and chiefly residence. The high chief M ‘ilik k hi first established Waik k as the government center of O‘ahu ca. 1450, and until Kamehameha I moved his court to Honolulu in 1809, it remained the central residence of the rulers of the island.

Chiefly residences, however, were only one element of a complex of features that characterized Waik k up to pre-Contact times. Beginning in the fifteenth century, a vast system of irrigated taro fields was constructed, extending across the littoral plain from Waik k to lower M noa and P lolo valleys. This field system, an impressive feat of engineering the design of which is traditionally attributed to the chief Kalamakua, took advantage of streams descending from Makiki, M noa and P lolo valleys, which also provided ample fresh water for the Hawaiians living in the *ahupua‘a*. Water was also available from springs in nearby M ‘ili‘ili and Punahou. The present project area was located outside of this area of intensive cultivation habitation.

An 1831 visitor to the islands, a Prussian botanist named Dr. F.J.F. Meyen, described this part of O‘ahu:

> Our way took us through the plain along the beach which was only sparsely covered with grass. Not until we came to the village of Waititi, where running and standing water in abundance, did we see the taro fields and precious coconut plantations which stretch almost right up to the ocean shore. Under the scant shadow of these trees stand the quaint huts of the Indians. (Pultz 1981:52)

Samuel Kamakau in 1865 wrote:

> Cultivating was a great occupation of the chiefs, and the land of Waik k was made productive through cultivation—from the inland side to the coconut grove beside the sea. The chiefs constructed many ponds and stocked them with fish, and they made irrigation ditches about the land that led into the fishponds and the taro pond fields. (Kamakau, *Ka Nupepa Ku‘oka‘a*, August 19, 1865, translation from Kamakau 1991:45)

These and other early written accounts clearly depict a continuous zone of population and cultivation from the shoreline of present day Waik k Beach extending north well into M noa Valley. An early map by Henri de La Passe shows these two areas of habitation and agricultural system. The map also shows that the current project area is outside of this highly cultivated and densely inhabited region (see Figure 9).

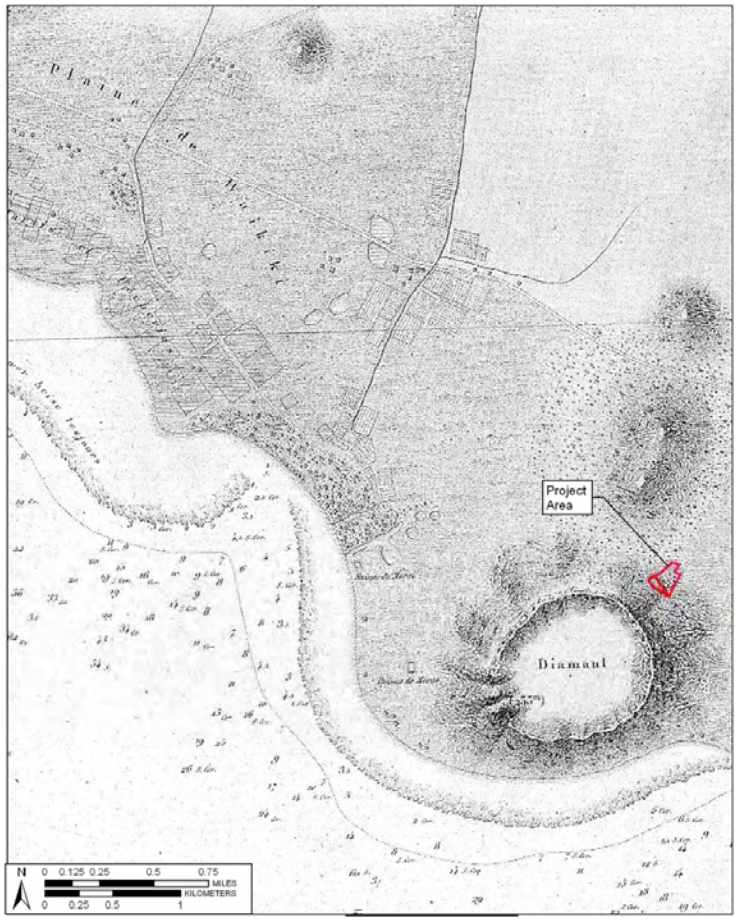


Figure 9. 1855 Map of Honolulu, by Joseph Marie Henri de La Passe, lieutenant aboard the French vessel *Eurydice*, showing the dense settlement at Waik k west of Diamond Head (“Diamant”) and the lack of habitation in the current project area, between Diamond Head and Kaimuk Hill (map reprinted in Fitzpatrick 1986:82-83)

The early historian, Samuel Kamakau (1992:135) related that circa 1783, the war fleet of the invading Maui chief Kahekili reached from Ka‘al wai (on the west side of Black Point) to Kawehewehe (in Waik k). Kamehameha the Great used a similar approach circa 1795 during his invasion of O‘ahu. His canoe fleet landed and covered the beaches from Wai‘alae to Waik k (Kamakau 1992:172).

During the period of early European contact, several British sailing expeditions reported on the glimmering stones abutting the slopes. English sailors found crystalline rocks near the volcanoes base, which were mistook for diamonds, hence the name variations, “Diamond Head”, “Diamond Hill” and “Cape Diamond.” Kamehameha I, who had heard rumors about the diamond discoveries, was said to have placed a tabu on the volcano, so that the source of wealth would be preserved for the *ali‘i*. The tabu was later lifted once it was discovered that the rocks were in fact not diamonds.

In 1865, Dr. Willis Baxley visited Hawai‘i as a special commissioner of the United States. During his tour of the Diamond Head area, which began on Waik k Beach and continued on to Wai‘alae, Baxley noted burials along the eastern face of the headland,

> . . . in the sands of the sea-shore, beyond the reach of ordinary high water, an immense trench is found, in which lie innumerable human bones piled in indiscriminate confusion, and in every degree of disorganization; some few of them being perfect in structure, and bleached by the sun, where disinterred by the northeast wind, forming interesting ethnological specimens. (Baxley 1865: 522)

Thrum’s (1907:59) account of “Tales from the Temples” relates:

> Outside of Kapua, to the east, is pointed out as the place where bodies from the Waikiki-kai heiaus were brought for burial.

The exact location of the “eastern face of the headland” where Baxley documents the burial discovery can only be speculated. Although it seems unlikely the Waik k *heiau* dead would have been transported as far as Black Point, it has been suggested that the burials noted by Baxley were somewhere near the Black Point peninsula (Tomonari-Tuggle and Blankfein 1998: 18).

4.2 Mid- 19th Century and the M hele

The Organic Acts of 1845 and 1846 initiated the process of the M hele, the division of Hawaiian lands, which introduced private property into Hawaiian society. In 1848 the crown, the Hawaiian government, and the *ali‘i* (royalty) received their land titles.

The mid 1800s marked a division of Hawaiian lands between the king, his high chiefs, and commoners. Diamond Head, which lies within the *‘ili* of Kapahulu, was awarded to William C. Lunalilo, who ruled Hawai‘i as king from 1873 to1874. The award was Land Commission Award (LCA) 8559-B: ‘ pana (lot) 32 (Barrere 1994:433), which consisted of 2,229 acres in Kamoku, Kaluaokau and Kapahulu, and Diamond Head.

In 1884, the Kapahulu portion of Lunalilo’s M hele award, LCA 8559-B was subdivided by the Lunalilo Estate. A list of Kapahulu lands indicate that the areas to the north and east of the crater, which would include the current project area, were used for pasture (Dole Collection

1884, cited in Tomonari-Tuggle and Blankfein 1998:19). In the 1883 suit on the boundaries of Kapahulu, the lessor of the land stated that he used the land for pasture. In 1889, one of the first private residences in the Kapahulu area was built by the businessman Charles Snodgrass Martin, who excavated a well onto his property at Campbell Avenue and Hinano Street. He also raised pigs and cattle, which roamed all around Diamond Head (Leidemann 2004). All of these documents suggest that the current project area was used for pasture in the 19th century.

4.3 Late Nineteenth Century to the Present

4.3.1 Kaimuk Neighborhood

Kaimuk is known as “The Oldest Little Business Town” on the island. Kaimuk was also the first large subdivision outside of Honolulu. In the late nineteenth century, this hilly, rocky land was used to graze the cattle for dairy farms. The first developed area was around Pu‘u o Kaimuk , the hill behind the fire station (Watanabe 1996a). During the M hele, most of Kaimuk , about 324 acres, was given to William Lunalilo by Kamehameha III in 1848. Lunalilo did little with this land, but the area was important during the mid nineteenth century, since Kaimuk hill was used as a main trig station by surveyors mapping Kulaokahua, or the “plains of Waik k .” Pu‘u o Kaimuk had in fact been used for many years as a semaphore signal station, where reports of incoming ships were sent to Honolulu. This led to some people calling the *pu‘u* “Telegraph Hill” (Takasaki 1976:67).

In 1884, Daniel Paul Isenberg, who would later become a territorial senator, bought the property for $2,325. He used this land to grow alfalfa and raise cattle and blooded horses (Damon 1931:788, 829). Beyond the cattle, the area was also inhabited by ostriches, which were raised by Dr. George Trousseau, King Kal kaua’s court physician, who allowed the birds to roam from Kapi‘olani Park to Kaimuk (Mills 1939). With the addition of land also owned by his father, Isenberg's property extended from Kapahulu Avenue to Kahala Beach (Takasaki 1976:68).

In 1898, Isenberg sold 520 acres of land for 20,000 dollars to two businessmen of the real estate firm of Gear Lansing and Co. The businessmen hoped to turn Kaimuk into a high class residential area, with house lots selling for 400 to 600 dollars each, but few were willing to buy because of the pervasive red dust that settled on everything. As a gimmick, they established a zoo (present location of Lili‘uokalani School) which included bears and a zebra. The zebra was actually a donkey painted with stripes, but “when the rains came the stripes were washed away and the hoax was revealed” (Burtnett 1946). To encourage people to move to the new subdivision, the businessmen even offered fifty dollars for every baby born in Kaimuk (Takasaki 1976:70).

In 1900, Chinatown was burned to eradicate the rats which were spreading the plague. Many of the Chinese moved to Kaimuk to open new businesses and move into new homes. In 1903, the streetcar line was extended from Kapahulu to Koko Head Avenue, making it easier to move from Kaimuk to Honolulu. Business really began to take off in 1925, when sidewalks were laid and dirt roads were paved (Mills 1939). With Wai‘alae Avenue connecting the neighborhood to East Honolulu, Kaimuk became a major business center. During this time, land on Wilhelmina Rise (Kaimuk Hill) sold for eight cents a square foot, nine cents for corner lots.

Then in the 1960s the H-1 Freeway was built, allowing cars to bypass Kaimuk on their way to and from Honolulu. Businesses began to suffer, even though lobbying by the community resulted in the building of a Kaimuk off-ramp. This slow-down did have one positive result; it preserved many of the 1930s and 1940s structures of the business district (Figure 10), keeping Kaimuk from being over-developed with modern high rises and large shopping malls (Watanabe 1996a).

Figure 10. The Kaimuki Bakery, shown here in 1956, occupied the corner of 12th and Wai‘alae Avenues for many years (photo from Watanabe 1996a)

Important structures within Kaimuk include the College of Hawai‘i Observatory, the Honolulu Military Academy for Boys, the St. Patrick Church, and the Sacred Hearts Academy. It was also the home of three of Honolulu's mayors - John Wilson, Charles Crane and Neal Blaisdell - and detective Chang Apana, the inspiration for Charlie Chan (Watanabe 1996b).

4.3.2 Kapahulu Neighborhood

The current-day community of Kapahulu is bounded by Kapahulu Avenue on the west, Harding Avenue on the north, Alchea and 8th Avenues on the east, and Monsarrat Avenue on the south.

> Kapahulu means the “worn out soul,” or “the nightmare.” Locals of the area understand the concept because of the heavy traffic surrounding the area that wears out the roads. (http://www.khnl.com/Global/story.asp?S=1885683, Aug. 31, 2004)

In the 1920s, other owners began to subdivide the property to sell to new residents and businesses. At this time land could be sold for as low as 25 cents a square foot. The area between

Lincoln and Kaimuk Avenues, near where H-1 Freeway meets Kapahulu Avenue today, has many homes dating to the 1920s to 1940s. Several of the homes are built in a uniquely Hawaiian style, with double pitched roofs and single-wall construction. Today the community has about a population of 1000 people and is known for its antique stores, Hawaiian dealers, surfboard shops, and restaurants. One of the more famous businesses in the community is Leonard's Bakery, which began in 1953 when Leonard Rego first made a batch of *malasadas* based on his mother's recipe and sold them in this bakery (Leidemann 2004).

4.3.3 Fort Ruger

After a visit by the U.S. Secretary of War in 1905, the U. S. Government purchased 729 acres surrounding Diamond Head in 1906 to establish the Fort Ruger Military Reservation. The construction of Fort Ruger began in 1906, and the first twelve-inch mortar, Battery Harlow was completed in 1910 on the north slope of the crater, facing the current project area. It was named after Major General Thomas Ruger, a Civil War Union officer. The fort was the first U.S. military reservation on Hawai‘i, built to defend Honolulu harbor and the leeward shore of O‘ahu. The prominence of Diamond Crater made it ideal as a fire control station.

A 1910 photograph (Figure 11) shows the general barren area north of Battery Harlow with few permanent structures, but with a cluster of tents. This is the area that would later be developed for the officer's quarters and for barracks, the same lot as the current project area.

Figure 11. Fort Ruger January 1910, with Battery Harlow in the distance at the base of the northern crater slope, and tent camp in the foreground

The annual report of the Secretary of War for 1912 noted that permanent buildings for the barracks and officer's quarters were nearly completed and the remaining structures for the fort were well underway (U.S. War Dept. 1912:325). The soldier's quarters were superior to those found at other Hawaiian military installations, as noted by a visitor to the fort in 1917:

> Conditions at Fort Ruger are, fortunately, better than in most of the forts. The barracks and some of the officer's quarters are of concrete and are very satisfactory but many of the officers still live, with their families, in batten shacks. They have done much, it is true, to disguise, on the outside, the inadequacy of their houses by planting vines and shrubs, and the casual tourist would probably exclaim at the "charming little cottages," but vines and shrubs outside are not much help in the housekeeping which goes on inside. (Castle 1917:92)

Fort Ruger became the headquarters of the Coast Defense of O‘ahu until 1921 (Hibbard 1980). In addition to the mortars, several elaborate fire control stations, bunkers, tunnels, and other structures were built within the crater interior and slopes. On the east slope, the Third Balloon Company were assigned to Fort Ruger in 1920 and kept some observation balloons at a small field (Figure 12).

Figure 12. Observation balloon at Fort Ruger, 1920-1924 (photograph from Hawaii Dept. Transportation 2008)

Additional barracks, officer's quarters, a service club and a chapel were built at the fort in the 1920s. The layout of the fort and the scattered buildings in the current project area can be seen on a 1922 map of the military reservation (Figure 13). In 1941, the Japanese attacked the Hawaiian Islands and extensive building took place at Fort Ruger. So many soldiers were sent to the fort that they had to be housed in barracks built on the crater floor (Division of State Parks 1979:21).

After the war, For Ruger became the headquarters of the South Sector Command, but all of the mortars were considered obsolete and were scrapped. The layout of the military reservation at this time can be seen in a 1940s map of the installation (Figure 14). The buildings in the current project area appear larger and more permanent than those shown on the 1922 map.

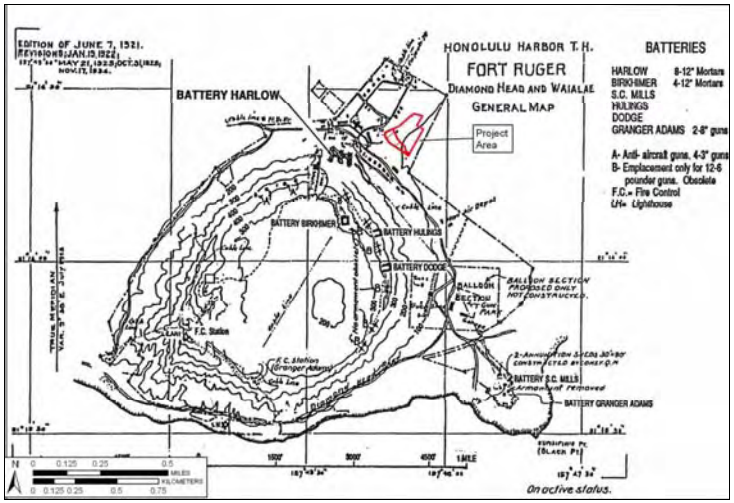


Figure 13. 1922 map of Fort Ruger, showing scattered structures in and near the project area (Map on file at U. S. Army Museum of Hawai'i at Fort DeRussy, Honolulu)

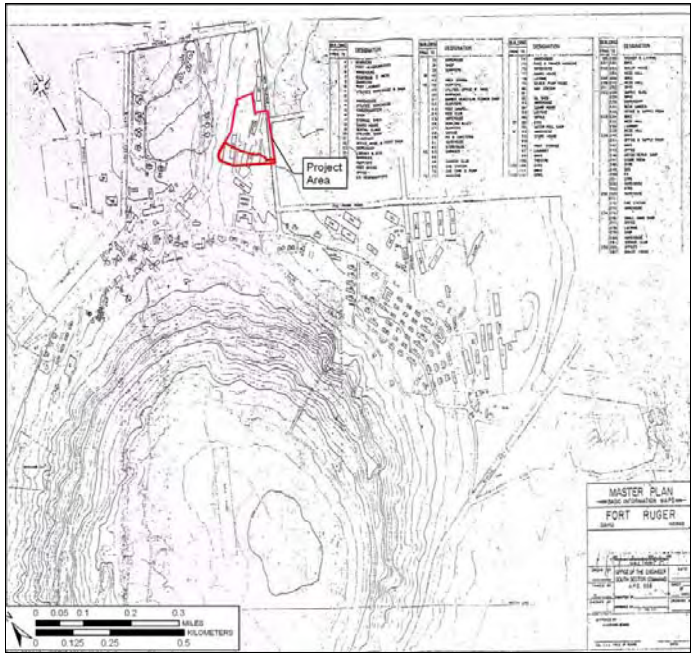


Figure 14. 1940s map of Fort Ruger, showing more permanent structures in the project area, labeled barracks, officer's quarters, and warehouses (Map on file at U. S. Army Museum of Hawai'i at Fort DeRussy, Honolulu)

In 1950, Fort Ruger became the headquarters of the Hawai‘i National Guard, and by the 1960s many of the obsolete building had been demolished. Diamond Head was designated a state monument in 1962, an historic site in 1965, and a National Natural Landmark in 1968. The crater was opened for public recreational use in 1978-1979, administered by the Department of Land and Natural Resources, Division of State Parks (Tomonari-Tuggle and Blankfein 1998:31). The Fort Ruger Historic District was listed on the National Register of Historic Places in 1983. It is a square area in the central section of the crater with remnants of Fort Ruger, including five batteries, 12 gun emplacements, the Leahi Fire Control Station, a winch and cable system, the Kapahulu Tunnel, and a guardhouse (Tomonari-Tuggle and Blankfein 1998:319). The present project area is not within the boundary of the Fort Ruger Historic District.

4.3.4 Kapi‘olani Community College

Kapi‘olani Community College had its beginning in 1957 as the Kapi‘olani Technical School, when two educational programs administered by the Territorial Department of Instruction were merged, a practical nursing program established in 1947 in several buildings on Pensacola Street and a restaurant program, which had operated in Waik k in the Ala Wai Clubhouse since 1946. A business program was soon added to the curriculum. In 1965 it became part of the open-door community college system of the University of Hawai‘i. A liberal arts program was added in 1968, with all of the different programs taught at the Pensacola campus. As the school gained students, it became clear that the Pensacola campus could not expand to meet the future needs of the school. The vice-president of the school asked the army about available surplus federal land, especially Fort Ruger, on the *mauka* side of Diamond Head Crater. The army turned over that 52-acre campus parcel that had been used for barracks and officers' duplex housing to the college. Some of the classes moved to the new campus as early as 1975, using five of the original Fort Ruger buildings. New campus buildings were constructed in 1981 (Kamins and Potter 1998:285-286).

Today, Kapi‘olani Community College has more than 7,100 on-campus credit students, with an additional 25,000 students enrolled in non-credit programs (http://kapiolani.hawaii.edu/object/kcchistory.html).

4.3.5 Properties Adjacent to the Kapi‘olani Community College

4.3.5.1 Lē‘ahi Hospital

L ‘ahi Hospital is adjacent to Kapi‘olani Community College across Makapu‘u Avenue. It was established in 1900 as the "Honolulu Home for the Incurables" by the Victoria Hospital Association. Early on, it specialized in the treatment of tuberculoses. A 1902 Report from the Board of Health to the Hawai‘i Governor lauded the location on the dry northern slopes of Diamond Head:

> In eighteen months the L ‘ahi home has an average of 24 indigent patients in its care at the beginning of each month. This is a most desirable institution and is remarkably situated, in climatic sense, for incurables. It is believed its dry climate, perpetual summer, and protected situation render the cure of some cases of consumption possible. As nearly all of the cases are absolutely destitute of means, when recovery has proceeded so far they can no longer remain a public charge, they return to low and unfit nutrition, come back, and finally succumb to the disease. (Hawai‘i. Governor of Hawai‘i, Board of Health 1902:24)

Today the hospital has 190 beds to care for patients, and has programs for health, therapeutic, and social services.

4.3.5.2 The Ruger/Diamond Head Theater

The Ruger Theater, adjacent on the west to the College began as the movie theater for soldiers stationed at Fort Ruger. In 1952, it was taken over by the Honolulu Community Theatre for stage productions. In 1990, the name changed to the Diamond Head Theater (Diamond Head Theater 2008).

4.3.5.3 Diamond Head Memorial Park

The 25-acre Diamond Head Memorial Park, east of the study parcel across 18th Avenue, was established in 1936 (or earlier). In 1953, it was purchased by Dr. Hung Wo Ching, who added new roadways, buildings, and mausoleums (Diamond Head Memorial Park 2008).

4.3.5.4 Kaimukī Middle School

The Honolulu Military Academy was established in 1911 as a private preparatory school for boys (U.S. Dept. Interior 1920:333). The campus was located at the corner of 18th Street and Diamond Head Road east of and adjacent to the current project area. In 1925, the northern portion of the property was bought by Punahou School, which used it as an annex school for boy boarders. It was called the Punahou Farm School (Alexander and Dodge 1941:510). The school had an athletic track that is now called K lauea Field. From 1939 to 1943 the northern lot was the home of Kaimuk Intermediate School. On a 1943 map, this complex is labeled as Lili‘uokalani School. During World War II, Kaimuk High School also operated at this location in an annex, from 1943 to 1949. The high school moved to a new location, near the Ala Wai Golf Course in 1949. In 1997, the school became Kaimuk Middle School, teaching students in grades 6, 7, and 8 (Kaimuk High School 2008).

4.3.5.5 Cannon Club

When the Vice-President of Kapi‘olani Community College visited the army headquarters at Schofield Barracks in 1965 to ask for the former Fort Ruger lands, the general was said to have replied "Take it all except the Cannon Club" (Kamins and Potter 1998:286). The Cannon Club was a social club with a restaurant built for the officers and their families at Fort Ruger and other military installations on Hawai‘i during World War II in 1945. It was on a 7.8 acre lot opposite the Kapi‘olani Campus across Diamond Head Road, as seen in a 1976 photograph (**Error! Reference source not found.**).

One Hawaiian resident remembers the club in its heyday, when he was taken there as a child by his military father:

> It wasn’t the fanciest place on the island, but it was the sort of old-style officers’ club that crisply preserved the illusion that each guest there, for the evening at least, was important and deserved some extra attention. It was a place where
>
> people said “Sir” and “Ma’am” a lot; where you got fruit cocktail and thick juicy slabs of Porterhouse or prime rib, along with buttery rolls and piping hot baked potatoes heaped with real bacon bits; where you could listen in on the adults’ glittery conversation while you fed torn pieces of rolls to your little sister as if she were a little bird; or watch the grown-ups glide across a dance floor that was open to the balmy breezes and the lambent sky, keeping time to the strains of a live band. (Shibuya 2008)

The club, however, could not keep up with the times. Under a new federal law passed in 1987, military clubs had to be self-sustaining to remain open, and the army had to close the Cannon Club in 1997 as a result. For a few years, there was hope that the restaurant could reopen under private contractors, but the funding for the project fell through. In the Master Plan for Diamond Head Monument, a proposal was made to turn the former club into a gift shop, but that plan also lapsed (Kakesako 1997). The state bought the Cannon Club site from the Army in 2001. The University of Hawai‘i wished to acquire the property, to modify the club into a Culinary Institute of the Pacific, but the old Cannon Club burned to the ground in 2007 (*Honolulu Star Bulletin* 2007).

Figure 15. 1976 photograph (*Honolulu Advertiser* Archives) of the Cannon Club

4.3.6 Hawai‘i Film Studio

The current project area is used by the Hawai‘i Film Studio. In the mid-1970s, a portion of the Kapi‘olani Community College campus was leased to the television network CBS. On the lot they built a temporary studio to film the popular television series “Hawaii Five-O”. In the following years, the studio was used to film “Magnum P.I.”, which ran from 1980 to 1988, and then for other televisions shows and movies. It is currently used for the filming of the television series “Lost.” The property was first leased to the University of Hawai‘i, and then managed by the UH Department of Business as the Diamond Head Studio in 1989. In 1992-1994 a second sound state was built, and the complex was renamed the Hawai‘i Film Studio (2008).

4.3.7 Urban Development in the Kaimuk and Kapahulu Neighborhoods

The density of residential and commercial development of the Kaimuk and Kapahulu neighborhoods can be seen in a series of twentieth century U.S.G.S (or U.S. War Dept.) maps. On the 1919 map (Figure 16), only a few houses are shown along the streets; Fort Ruger is clearly labeled, but individual structures are not shown. Many of the lots are enclosed by walls, which may be an indication that wandering livestock might still have been a problem at this time. One of these large enclosed lots is the L ‘ahi Hospital (not labeled on the map), northwest of the project area. To the east of the project area is the Honolulu Military Academy, which was established in 1911.

The 1927 map (Figure 17) shows the increase in the number of houses in the residential districts. Although a history of Diamond Head Memorial Cemetery stated that the cemetery was not established until 1936, the 1927 map clearly shows that the southern lot east of the project area (across 18th Street) is a cemetery at this date; the lot is marked with a large cross. Fort Ruger again is not labeled, a common practice for military installations; individual structures are also not shown within the project area, but this again is probably due to the concern of the U.S. Military to censor detailed public maps of military reservations.

On the 1943 map (Figure 18), the residential blocks are narrower and completely covered by houses. The war-time Kaimuki School complex, east of the project area is called the Liliuokalani School.

On the 1953 map (Figure 19), many areas are clearly labeled for the first time, such as Fort Ruger, Kaimuki School, the Diamond Head Memorial Park, and Leahi Hospital. Individual houses are not shown on this map, but larger structures are shown, including six large military structures in the Kapi‘olani Community College block.

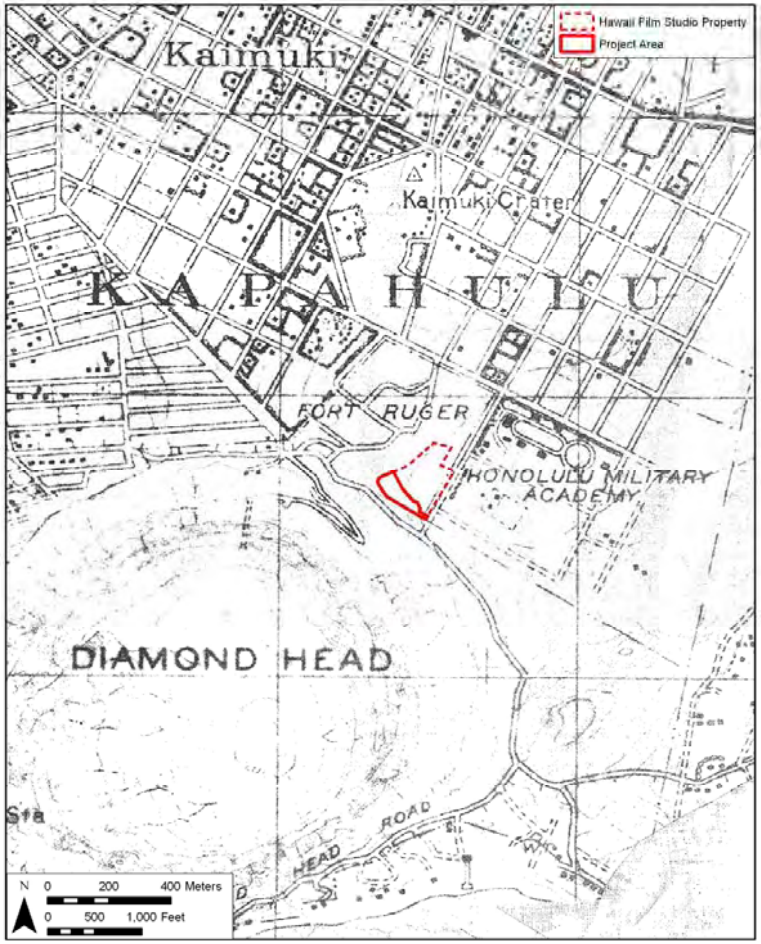


Figure 16. 1919 War Department map of O'ahu, Honolulu Quad, showing sparse settlement in Kaimuk (within Kapahulu 'Ili)

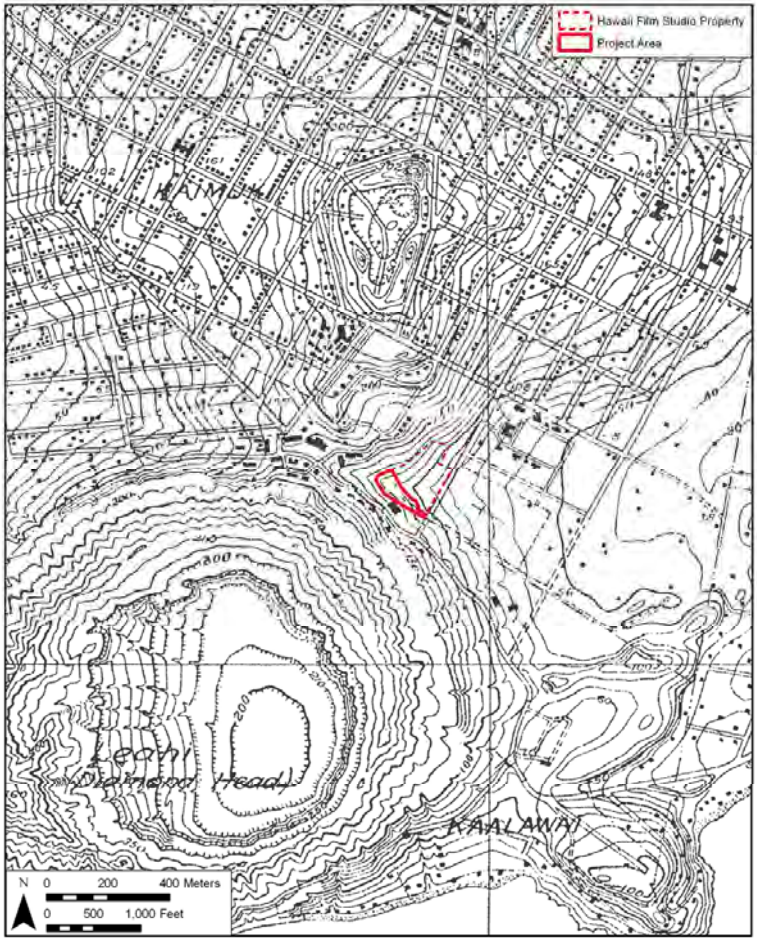


Figure 17. 1927 U.S. Geographic Survey map, Honolulu Quad, showing increasing number of houses in the residential district of Kaimuk

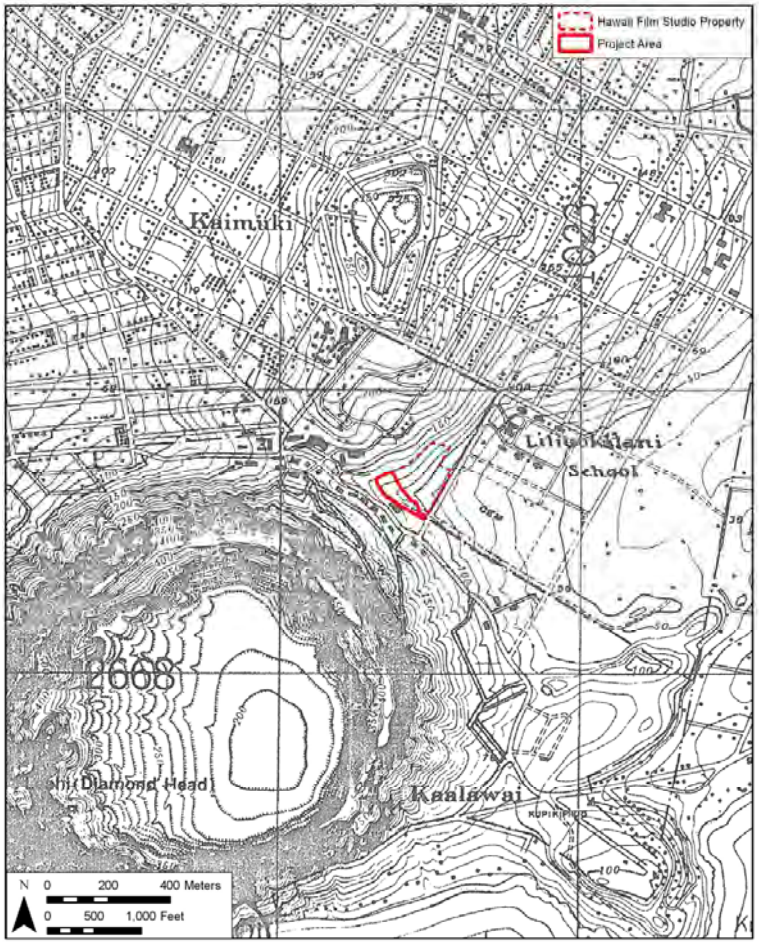


Figure 18. 1943 War Department map of O'ahu, Honolulu Quad; note absence of Fort Ruger label

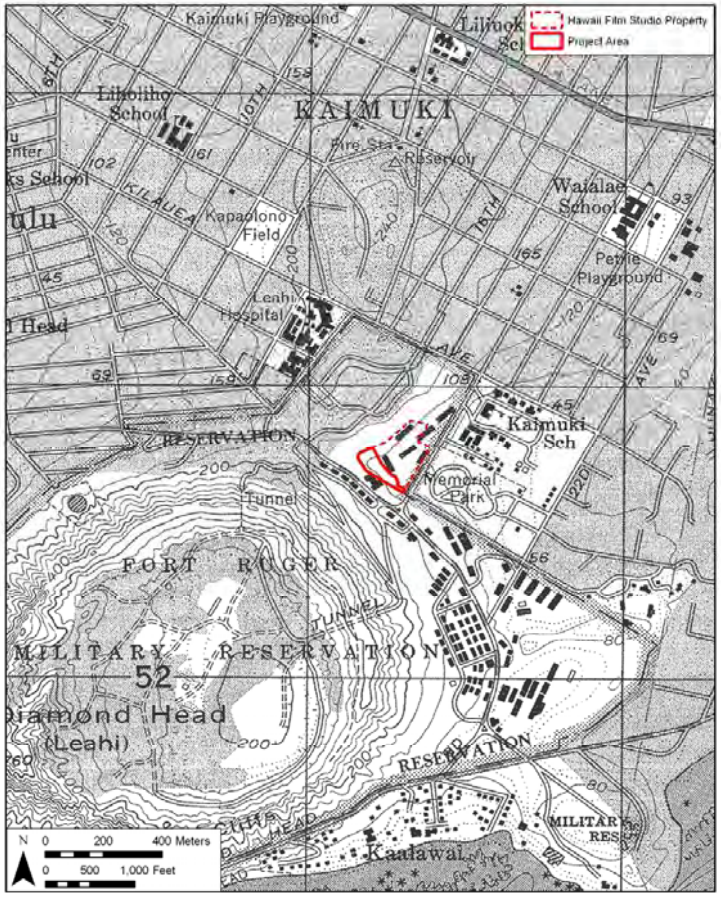


Figure 19. 1953 U.S. Geographic Survey map, Honolulu Quad, showing project area within the future Kapi'olani Community College block

Section 5 Archaeological Research

The first study that documented archaeological sites on O‘ahu was carried out by McAllister (1933) of the Bishop Museum, as part of an island-wide survey of archaeological and cultural sites. McAllister (1933: 71) documented Site 58 as Papa‘ena‘ena Heiau, located on the western slope of Diamond Head on the site of the present Hawai‘i School for Girls. Testing of the area posited to be the location of Papa‘ena‘ena Heiau was later carried out in 1968 by Kenneth Emory (1968) of the Bishop Museum. Two test pits were excavated, but no evidence of the *heiau* was found.

Two archaeological monitoring reports were completed on Diamond Head Road and at the Diamond Head Lighthouse. The reports indicate no significant archaeological deposits or burials (Bordner 1990; Mullins 1992). On one survey of the Diamond Head comfort station and trail (Griffin and Yent 1978), no traditional Hawaiian sites were located, but two concrete foundations of probable World War II origin were found downslope of the trail. In a survey of a small lot at the northeastern base of the crater (McMahon 1988), only military artifacts and structure remnants associated with Fort Ruger were documented. During a monitoring project at Black Point (Jones and Hammatt 2003), no cultural remains were found in the excavations, but the archaeological monitors did suggest that a stratum of undisturbed sand, with cultural material, could be present below fill layers.

Since 1987, several burial sites have been identified in the K hala area, east of Black Point and the current project area. Most of these have been inadvertent discoveries during construction activities in sand deposits. Numerous burials have also been recorded during archaeological surveys and monitoring projects at the Waik k shore, as the beach dunes were a common place for Hawaiians to bury their dead. The use of sand areas for cemeteries continued into the twentieth century. There are some early documents that claim the victims of the sacrificial *heiau* on Diamond Head were buried or discarded within or near the crater, but there has never been any archaeological confirmation for this claim. There are no indications that the present project area was ever used for pre-Contact or post-Contact burials.

An archaeological assessment of the Federal Aviation Administration CERAP (Combined Center Radar Approach) in the inner slope of the crater was made in 1997 (Tomonari-Tuggle and Blankfein 1997). This project entailed a brief walk-through of the lot and background documentary research. Allen and Shideler (1996) conducted a limited field inspection and detailed background research on Battery Harlow, the first mortar placed at Fort Ruger.

The most comprehensive archaeological investigation carried out in the vicinity of the current project area was a historical research and archaeological reconnaissance survey of the Diamond Head State Monument (Tomonari-Tuggle and Blankfein 1998). The report included a thorough literature overview of the traditional land use of Diamond Head and its subsequent military use by the U.S. in the twentieth century. No subsurface testing was carried out.

A survey of the Kapi‘olani Community College was conducted in 1981 as part of the KCC Master Plan Environmental Impact Statement (EIS). The only historic remains were five wooden buildings on the KCC campus. None of these structures is on the current study parcel.

Figure 20. U. S. Geographic Survey map, showing location of previous archaeological projects

Table 1. Archaeological Research near Diamond Head

Source	Type of Investigation	General Location	Findings
McAllister 1933	Island Survey	O‘ahu Island	Identifies Site 58: Papa‘ena‘ena Heiau
Griffin and Yent 1978	Archaeological Reconnaissance Survey	Diamond Head (comfort station and trail)	No traditional Hawaiian sites were located; two concrete foundations of probable World War II origin were found downslope of the trail.
McMahon 1988	Archaeological Reconnaissance Survey	Diamond Head (northeastern base)	Only the remains of military activity related to Fort Ruger Military Reservation were documented.
Bordner 1990	Archaeological Monitoring	Diamond Head Road	No archaeological deposits documented.
Mullins et al. 1992	Archaeological Monitoring	Diamond Head Lighthouse	No evidence of pre-Contact occupation on the parcel. Sparse artifacts dating from the late 1800s to early 1900s were documented.
Allen & Shideler 1996	Literature Research	Battery Harlow	Report summarizes environmental data, discusses pre- and post-Contact land uses in the Diamond head area, and outlines construction history of Fort Ruger; with limited field inspection.
Tomonari-Tuggle & Blankfein 1997	Archaeological and Historical Assessment	Diamond Head	Report indicated that there is little likelihood of any cultural remains on the parcel.
Tomonari-Tuggle & Blankfein 1998	Historical Research and Archaeological Assessment	Diamond Head State Monument	Report documents a thorough literature review of Diamond Head, as well as a reconnaissance survey of the area.
Jones and Hammatt 2003	Archaeological Monitoring	Black Point	No cultural remains found, but excavations indicating that stratum of undisturbed sand may be present below fill layers

Section 6 Community Consultation

For this CIA, an effort was undertaken to contact and consult with Hawaiian cultural organizations, government agencies, and individuals who might have knowledge of and/or concerns about cultural resources and practices specifically related to the project area. This effort was made by letter, e-mail, telephone and in-person contact. In the majority of cases, letters with a detailed description of the proposed action, including project acreage and description provided by Group 70 International, along with a map and aerial photograph of the project area were mailed with the following text:

> At the request of Group 70 International, Inc., Cultural Surveys Hawai‘i Inc. (CSH) is conducting a Cultural Impact Assessment (CIA) for the proposed Film and Digital Media Center Project located on a portion of the site of the Hawai‘i Film Studio in the Diamond Head area of the Waik k Ahupua‘a, Kona District, O‘ahu Island, TMK: [1] 3-1-042:009, 033.
>
> The proposed three-story project includes a new soundstage, a stage mill production facility, classrooms, offices, dressing/make-up rooms, dubbing/editing rooms, a computer hub, equipment storage, lobby and a café with a small kitchen. The proposed Film and Digital Media Center will be a high-tech center for the Academy of Creative Media, University of Hawai‘i and will contain approximately 50,000 square feet of floor space. The proposed project area currently has a Public Facility designation and the proposed project is within the guidelines of this designation. The proposed project is separate from the adjoining film studio and will not change the present land use designation.
>
> The purpose of this cultural study is to assess potential impacts to cultural practices as a result of proposed development in the Waik k Ahupua‘a. We are seeking your *kōkua* and guidance regarding the following aspects of our study:
>
> - **General history and present and past land use of the project area.**
> - **Knowledge of cultural sites which may be impacted by future development of the project area - for example, historic sites, archaeological sites, and burials.**
> - **Knowledge of traditional gathering practices in the project area, both past and ongoing.**
> - **Cultural associations of the project area, such as legends and traditional uses.**
> - **Referrals of *k puna* or elders and *kama‘ ina* who might be willing to share their cultural knowledge of the project area and the surrounding *ahupua‘a* lands.**

- **Any other cultural concerns the community might have related to Hawaiian cultural practices within or in the vicinity of the project area.**

Several (3-5) attempts were made by mail, e-mail and telephone to contact individuals, organizations, and agencies apposite to the CIA for P lolo Ahupua‘a. The results of all consultations are presented in Table 2.

Table 2. Summary of Community Consultation

Name	Affiliation, Background	Comments
Asuega, Dahlia	P lolo Homes, Residence Services Manager	Ms. Asuega was referred by Lynette Cruz. CSH sent letter on February 17, 2009
Ayau, Halealoha	Hui M lama I Na K puna ‘O Hawai‘i Nei	CSH sent letter on December 16, 2008. Mr. Ayau replied on December 17, 2008 that he would forward the project information to other members of Hui M lama I Na K puna ‘O Hawai`i Nei to solicit a response.
Beckett, Jan	Kamehameha Schools Bishop Estate	CSH sent letter on December 16, 2008
Cayan, Phyllis “Coochie”	State Historic Preservation Division, History & Cultural Branch Chief	In a December, 17, 2008 response letter, SHPD stated, “Part of SHPD’s concerns would be any inadvertent burials exposed from possible ground disturbances at the proposed project which are subject to the State Burials Law, Hawaii Revised Statutes, Chapter 6E.” Ms. Cayan also offered names of “some folks who may have recollections of the cultural practices of the area” (Figure 22 below table)
Cruz, Lynette	Ka Lei Maile Ali‘i Hawaiian Civic Club, President	CSH sent letter on December 16, 2008. Ms. Cruz replied December 16, 2008; referred CSH to contact Dahlia Asuega.
Freitas, RMK	*Kahuna pule* of Waik k	Mr. Freitas was referred by OHA. CSH sent letter on January 24, 2008

Name	Affiliation, Background	Comments
Lake, Josh	*Kama‘āina* of P lolo, son of late *kumu hula* John Lake	Mr. Lake was referred by Ms. Cayan, SHPD; CSH sent letter on February 17, 2009
Lee, Helemano	*Kama‘āina* of P lolo	See Section 7 below for full interview
McQuivey, Jace	O‘ahu Island Burial Council, Chair	CSH sent letter on December 16, 2008
Nakapa‘ahu, James	*Kama‘āina* of P lolo, member of Ka Lei Maile Ali‘i Hawaiian Civic Club,	See Section 7 below for full interview
N mu‘o, Clyde	Office of Hawaiian Affairs	In a January 12, 2009 response letter, OHA shared a few *mo'olelo* of P lolo and Kaimuk , and suggested contacting, RMK Freitas, Al Barcarse, Palakiko Yagodich and Kawika Napolean. See Figure 21 below table for full letter.
Napoleon, Kawika	*Kama‘āina* of P lolo	Mr. Napoleon was referred by OHA. CSH sent letter on January 24, 2008
Williams, Evern	P lolo/Kaimuk Community Media Center, ‘ lelo	CSH sent letter on December 16, 2008. Mrs. Williams replied on December 16, 2008, with no comment.
Yagodich, Palakiko	Kapi‘olani Community College	Mr. Yagodich was referred by OHA. CSH sent letter on January 24, 2008

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

HRD08/4099B

January 12, 2009

Brian Cruz, Cultural Researcher
Cultural Surveys Hawai'i
P.O. Box 1114
Kailua, Hawai'i 96734

RE: Cultural Impact Assessment consultation
Digital Media Center Project
Pālolo and Kaimukī Ahupua'a, Kona District, O'ahu
Tax Map Key: (1) 3-1-042:009, 033

Aloha e Brian Cruz,

The Office of Hawaiian Affairs (OHA) is in receipt of your December 16, 2008 letter initiating consultation and seeking comments ahead of a cultural impact assessment (assessment) for the proposed Digital Media Center Project (project) located on a portion of the site of the Hawai'i Film Studio. Based on the information within your letter the proposed project area encompasses 50,000 square feet.

There are numerous accounts which provide some insight to the cultural significance of the lands of Pālolo and Kaimukī in which the project area is located. The mo'olelo of Loheloa details his arrival at Keanau near Lae'ahi (also known today as Diamond Head). Loheloa traveled on a giant log from Waipi'o and upon his arrival called to Kū and Hina to provide a school of fish for the people of the area. Loheloa then engaged Olohe, a cruel chief of the area in a wrestling match. Olohe was defeated and the location where he fell is now known as Kulua-Olohe. There are also accounts which indicate that a heiau of the po'okanaka class is situated on the slopes of Lae'ahi.

OHA recommends consultation with the following individuals who may be willing to share their knowledge of the project area with you: RMK Freitas, Al Barcarse, Palakiko Yagodich and Kawika Napoleon. Please remember that this list is not all encompassing and we are sure additional individuals will be identified as you move forward with your consultation process.

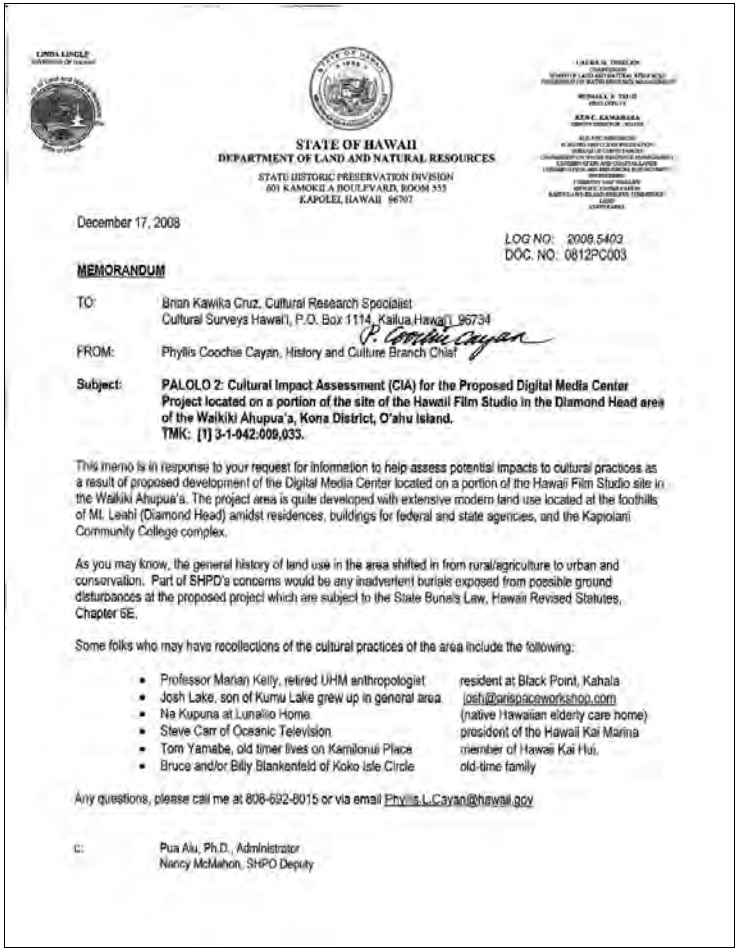
OHA hopes to continue working with you to develop a paradigm shift in assessments which will truly identify the impacts proposed undertakings will have on cultural resources and traditional practices. OHA respectfully maintains the position that all parties bear a responsibility to work towards building successful working relationships with individuals, organizations and communities throughout Hawai'i which will result in a true understanding of what resources and practices are important to the Hawaiian people

Thank you for initiating consultation at this early stage and we look forward to the opportunity to review the draft assessment and provide additional comments. Should you have any questions, please contact Keola Lindsey, Lead Advocate-Culture at (808) 594-1904 or keolal@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

Figure 21. January 12, 2009 Response from the Office of Hawaiian Affairs



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
601 KAMOKILA BOULEVARD, ROOM 555
KAPOLEI, HAWAII 96707

December 17, 2008

LOG NO: 2009.5403
DOC. NO: 0812PC003

MEMORANDUM

TO: Brian Kawika Cruz, Cultural Research Specialist
Cultural Surveys Hawai'i, P.O. Box 1114, Kailua Hawai'i 96734

FROM: Phyllis Coochie Cayan, History and Culture Branch Chief

Subject: PALOLO 2: Cultural Impact Assessment (CIA) for the Proposed Digital Media Center Project located on a portion of the site of the Hawaii Film Studio in the Diamond Head area of the Waikiki Ahupua'a, Kona District, O'ahu Island.
TMK: [1] 3-1-042:009,033.

This memo is in response to your request for information to help assess potential impacts to cultural practices as a result of proposed development of the Digital Media Center located on a portion of the Hawaii Film Studio site in the Waikiki Ahupua'a. The project area is quite developed with extensive modern land use located at the foothills of Mt. Leahi (Diamond Head) amidst residences, buildings for federal and state agencies, and the Kapiolani Community College complex.

As you may know, the general history of land use in the area shifted in from rural/agriculture to urban and conservation. Part of SHPD's concerns would be any inadvertent burials exposed from possible ground disturbances at the proposed project which are subject to the State Burials Law, Hawaii Revised Statutes, Chapter 6E.

Some folks who may have recollections of the cultural practices of the area include the following:

- Professor Marian Kelly, retired UHM anthropologist — resident at Black Point, Kahala
- Josh Lake, son of Kumu Lake grew up in general area — josh@parispaceworkshop.com
- Na Kupuna at Lunalilo Home — (native Hawaiian elderly care home)
- Steve Carr of Oceanic Television — president of the Hawaii Kai Marina
- Tom Yamabe, old timer lives on Kamilonui Place — member of Hawaii Kai Hui.
- Bruce and/or Billy Blankenfeld of Koko Isle Circle — old-time family

Any questions, please call me at 808-692-8015 or via email Phyllis.L.Cayan@hawaii.gov

c: Pua Aiu, Ph.D., Administrator
Nancy McMahon, SHPO Deputy

Figure 22. December 17, 2008 Response from the State Historic Preservation Division

Section 7 Kama' ina "Talk Story" Interviews

Kama'āina and *kūpuna* with knowledge of P lolo Ahupua'a and the proposed project area were contacted for participation in this assessment. The approach of CSH to CIA studies affords community contacts an opportunity to review transcriptions and/or interview notes and to make any corrections, deletions or additions to the substance of their testimony. CSH employs snowball and judgment sampling, an informed consent process and semi-structured interviews (Bernard 2005). To assist in discussion of natural and cultural resources and any cultural practices specific to the project area, CSH initiates the "talk-story" sessions with questions from the five broad categories. The categories include: Gathering Practices, Marine and Freshwater Resources, Burials, Trails and Historic Properties. Presented below are brief backgrounds of participants' "talk-story" sessions and their comments and concerns about the proposed project area.

7.1 James Nakapa'ahu

Mr. James Nakapa'ahu was born in North Kona on December 16, 1952. Approximately one week after his birth, he and his family moved to P lolo Valley. He attended P lolo Elementary School, then went on to Jared Intermediate School and graduated from Kaimuk High School in 1972. Currently, Mr. Nakapa'ahu is a member of *Ka Lei Maile Ali'i* Hawaiian Civic Club. Mr. Nakapa'ahu shared memories of growing up in the P lolo and Kaimuk areas in an interview with CSH on December 29, 2008:

> I remember when I was growing up in P lolo; there was this place we used to go swimming called *Wai 'o mau*, it was on the right side of the valley as you look up the valley. It was a swimming hole with a short waterfall. I remember there was a rope there to swing from the tree and you could land in the water. It was a fun place for us kids to go. Also, in the same area there was this dog that would meet you there. He was like a ghost dog or something. But the thing with the dog was that when he met you there in the area, he would watch after you, like your personal protector. So that was kind of cool. Also in the area was the story of the green lady. As kids, we all were aware of this green lady ghost but I never saw her. Years later, I saw a video on TV, it was this lady named Ariel Tomoka. She was being interviewed and she said she had an encounter with a green lady inside P lolo Valley. So that brought back memories of that legend.
>
> Also in the area on the left side of the valley was what us kids called Dinosaur Mountain because the profile view of the mountain looked like a lizard or something. Friends told me that up in that area at Dinosaur Mountain, Hawaiian-type artifacts were discovered. Items such as *poi* pounders and such were discovered, indicating that Hawaiians used to be up there. Also in that area were caves that we referred to as vampire caves because they looked spooky, but that's probably where the Hawaiians lived.
>
> There was also this family that raised goats in the P lolo area. I remember they used to sell goat milk. It was the nastiest thing I ever tasted.

Mr. Nakapa‘ahu was asked by CSH if he is familiar with any plant gathering in P lolo:

> I remember when we were kids we used to go pick lychee and Dragon Eye fruit up in the valley. Dragon Eye was kind of like lychee but it was green and leathery. We used to pick these fruits and eat them all the time. They were really good. Also in the area we used to pick *ko‘oko‘olau* (*Bidens* spp.), *‘ihi* (*Potulaca* spp.), and *kī (Cordyline terminalis)* or *ti* leaves. The *ti* leaves were for medicinal purposes. There was also this plant kind of like a Eucalyptus tree; it was called *camphor* or something like that. It was used for fevers. My sisters’ danced hula and their *hālau* [hula group] would go in the valley and gather *ti* leaves for their hula skirts.

Mr. Nakapa‘ahu was then asked about the gathering of ocean resources in the *makai* area off Diamond Head:

> My mom would take us to “make *limu.*” That’s what she would say. We would go to the shore and mainly go to the rocky areas; my mom did not like the sand. I think she was allergic to the sand. We would pick this green spongy *limu* called *limu wawae‘iole (Codium edule)*. Once we gathered what we needed, we would clean it real good and then we would eat it just like that. It was really good. We would also gather this thing called *pipipi* [*Black Nerite (Nerita picea*)]. It was like ‘*opihi* [limpets or *Cellana talcosa*] but smaller; you had to eat a lot to make a meal of it. Also, there was lots of *ogo* [*Limu manauea (Gracilaria coronopifolia)*] in the area but *ogo* was not that popular back then as it is now. The *limu* we picked was way cleaner then the *ogo.* I think it was mainly because *ogo* grew closer to water runoff from the land. So my mom had us stick to the green spongy *limu*.

Mr. Nakapa‘ahu was asked what he remembers of the businesses in the Kapahulu, Kaimuk and P lolo areas:

> Oh I remember this place on 10th Avenue. It was called Valley Meat Market. It was these three businesses in a row, Valley Meat Market, a gas station and P lolo Sundries. All the kids used to go to P lolo Sundries. They had the best saimin. They even had the full soda fountain with that Green River drink. McDonalds couldn’t touch this place. It was packed. It was owned by this Japanese and Okinawan family. I remember the ladies who used to work there, they were so fast. As soon as you walked in the door, they were already on you, asking you how they could help you. It was like they were in a rush or something. But I miss that place. It was very good.

Mr. Nakapa‘ahu was asked his thoughts on the proposed Film and Digital Media Center project in the area and its potential impacts to the Hawaiian culture:

> I think it’s a great idea. I just hope they don’t destroy anything or come across anything when they begin to build. Hopefully there is no *iwi* in the area or significant sites that could be harmed. Other than that I think it’s great. I think it will help revitalize the area. The location is nice and dry for their equipment so I think it’s a great idea.

7.2 Helemano Lee

Mr. Helemano Lee was born and raised in P lolo Valley. He is a graduate of Kamehameha Schools Class of 1962 and is the former Cultural Director of the Royal Hawaiian Shopping Center. Currently, Mr. Lee is a member of the Ka Lei Maile Ali‘i Hawaiian Civic Club and continues to reside in P lolo Valley on 10th Avenue. Mr. Lee was interviewed on January 24, 2009 by CSH at his residence. Mr. Lee shared his *mana‘o* (thoughts, ideas, beliefs) about growing up in P lolo Valley on La‘i Road:

> I remember growing up on La‘i Road. There were like ten families on that road. Across the road from our house was an open area on the hillside. That was our playground. We used to play in the pasture and in the river. We would catch *‘o‘opu* or goby fish, craw fish and this other fish called *jojo*. In the area there were guava trees and Jobe’s tears. There were also lots of cows in the pasture wondering around. Further back in the valley is Ka‘au Crater and in the crater was a swimming hole. All the kids used to go swimming in there but I never did go, it was kind of a far hike in. Ka‘au Crater is where the mythical figure called Helumoa lived and later went to Waik k , right where the Royal Hawaiian Shopping Center is. I remember the P lolo stream had lots of water coming down from the mountain. Now it is barely a trickle. I’d like to know why. Where did all the water go? Did someone cap a spring or something? If they did, can they uncap it so our stream can flow again? Anyway, on La‘i Road, we had these Java Plums. They were not only a favorite fruit for the kids to eat but also it was great to throw at each other. Balloons were too expensive so those fruits were our balloons. Our parents were so upset at us when we played with those fruits because it would stain our clothes purple. We used to also put the Java Plums in a jar with Hawaiian salt and let it sit for a week or so and then eat it. It was so good. Another thing we used to do in the valley was go through the tunnel from La‘i Road to Wai‘ ma‘o. There used to be a gate blocking the entrance to the tunnel and we would squeeze through the gate and go through the tunnel. It was a Board of Water Supply tunnel. It’s still there.

Mr. Lee shared his memories of his experience at the Hawai‘i Film Studio:

> Oh yes…I remember that place. I was a prisoner there. I can’t remember the exact year, but the Hawai‘i Film Studio was filming Hawai‘i 5-0 there and I was an extra in one of the episodes. I was in this jail cell with bars and everything. It was made out of wood but they painted it gray to make it look like concrete. It looked real. I waited all day, like 10 hours for a 10-second scene in which Jack Lord walks past the cellblock. I remember while I was waiting in the jail cell for the scene, Jack Lord approached me off the camera and asked me what I was in for. I told him $35. That’s what I got paid…$35. We both laughed. I never did see the episode on air. I don’t even know if I made the final cut for that scene. But it was a great experience. Jack Lord was a big star in those days.

Mr. Lee was asked his thoughts on the proposed Film and Digital Media Center project in the area and its potential impacts to the Hawaiian culture:

> I think it’s a great idea. I think maybe it would help bring more TV and movie productions to Hawai‘i if we have a state of the art digital facility. I think it would be a great tool for students to learn the newer technologies involved in film-making. So I am all for it.

Section 8 Cultural Landscape of the Project Area

8.1 Overview

Discussions of specific aspects of traditional Hawaiian culture as they may relate to the project area are presented below. This section examines cultural resources and practices identified within or in proximity to the subject project area in the broader context of the encompassing P lolo Ahupua‘a landscape. Excerpts from talk story sessions from past and the present cultural studies are incorporated throughout this section where applicable.

8.2 Hawaiian Habitation and Agriculture

Early written accounts clearly depict a continuous zone of population and cultivation from the shoreline of present day Waik k Beach extending north well into the back of M noa Valley. An early map by Henri de La Passe shows these two areas of habitation and agricultural system. The map also shows that the current project area is outside of this highly cultivated and densely inhabited region. The map also shows that the current project area (between Diamond Head and Kaimuk Hill) is outside of this highly cultivated and densely inhabited region. According to Handy and Handy (1972:483), P lolo Stream was “large and capable of irrigating terraces along its course on both sides and below the end of the valley.” These terraces were used to cultivate irrigated taro fields, called *lo‘i*. Only a few terraces existed on the outer sides of the streams. In 1940, some of there terraces were still extant and being used. The current project area is not near P lolo Stream, which is more than a kilometer to the west. The lack of water and the dry conditions did not make the project area favorable for intensive habitation or cultivation.

8.3 Gathering of Plant Resources

The *ahupua‘a* of P lolo is abundant with plant resources due to the amount of rainfall it receives in the valley areas. The area near the proposed project is much dryer, and may not have been as favorable place for plant gathering of, for example, hula and medicinal plants as *mauka* zones. However, *mo‘olelo* about Kaimuk suggest that the lowland area was potentially used for growing and/or gathering, and certainly baking of *ti/ kī* (see 8.7). In an interview with James Nakapa‘ahu, he describes his early childhood and the various plants he and his family used to gather:

> I remember when we were kids we used to go pick lychee and Dragon Eye fruit up in the valley. Dragon Eye was kind of like lychee but it was green and leathery. We used to pick these fruits and eat them all the time. They were really good. Also in the area we used to pick *ko‘oko‘olau* (*Bidens* spp.), *‘ihi* (*Potulaca* spp.), and *kī (Cordyline terminalis)* or *ti* leaves. The *ti* leaves were for medicinal purposes. There was also this plant kind of like a Eucalyptus tree; it was called *camphor* or something like that. It was used for fevers. My sisters’ danced hula and their *hālau* [hula group] would go in the valley and gather *ti* leaves for their hula skirts.

8.4 Marine and Freshwater Resources

To the southeast of Diamond Head is Black Point, a promontory that extends to the southern most point of O‘ahu. Traditionally, Black Point was referred to as Lae o K pikipiki‘ , which is translated as “rough sea” (Pukui et al. 1974: 25) or “point of raging sea” (Clark 1977:39). The promontory is separated into two halves (Waik k and Wai‘alae) by a small cove that was called Ke‘ahamoe, which was often frequented by fishermen as well as by gatherers of *limu* (edible seaweed) and shellfish (Clark 1977:39). There were numerous fishponds in lands to the west of the subject project area. Mr. James Nakapa‘ahu shared his family’s experience on gathering of marine resources:

> My mom would take us to “make *limu.*” That’s what she would say. We would go to the shore and mainly go to the rocky areas; my mom did not like the sand. I think she was allergic to the sand. We would pick this green spongy *limu* called *limu wawae‘iole (Codium edule)*. Once we gathered what we needed, we would clean it real good and then we would eat it just like that. It was really good. We would also gather this thing called *pipipi* [*Black Nerite (Nerita picea*)]. It was like ‘*opihi* [limpets or *Cellana talcosa*] but smaller; you had to eat a lot to make a meal of it. Also, there was lots of *ogo* [*Limu manauea (Gracilaria coronopifolia)*] in the area but *ogo* was not that popular back then as it is now. The *limu* we picked was way cleaner then the *ogo.* I think it was mainly because *ogo* grew closer to water runoff from the land. So my mom had us stick to the green spongy *limu*.

Mr. Helemano Lee discussed his memories of fishing *mauka* of the proposed project area:

> I remember growing up on La‘i Road. There were like ten families on that road. Across the road from our house was an open area on the hillside. That was our playground. We used to play in the pasture and in the river. We would catch *‘o‘opu* or goby fish, craw fish and this other fish called *jojo.*

8.5 Cultural and Historic Properties and Burials

As described in Section 3, there are numerous sites in P lolo Ahupua‘a of historic and cultural significance. The “Bell-stone” known as P haku K k k , or “rapping stone” (Pukui and Elbert 1986:149, 334) was formerly located on the modern boundary between P lolo and Kaimuk , which is today marked by the alignment of Wai‘alae Avenue. It was once near the ‘*ewa* (west) end of Sacred Hearts Academy near 5th Avenue. This stone was struck by children living in the inland area of Kaimuk to announce to their friends on the coast that they were coming down to the beach to surf (Pearson 1982:10). This stone was reported as destroyed or removed prior to 1908 (Sterling and Summers 1978: 277-278l; Site 409).

Several burial sites have been identified in the K hala area, east of Black Point and the current project area. Most of these have been inadvertent discoveries during construction activities in sand deposits. Numerous burials have also been recorded during archaeological surveys and monitoring projects in Waik k shore, as the beach dunes were a common place for Hawaiians to bury their dead. The use of sand areas for cemeteries continued into the twentieth century. There

are some early documents that claim the victims of the sacrificial *heiau* on Diamond Head were buried or discarded within or near the crater, but there has never been any archaeological confirmation for this claim.

There are also numerous *heiau* in P lolo and Kaimuk near the project area that no longer exist today including: Papa‘ena‘ena Heiau (also called L ‘ahi Heiau) Kapua Heiau, K palaha Heiau, Makahuna Heiau, Ahi Heiau and Kukuionapeha Heiau.

Participants in this assessment did not discuss specific cultural or historic properties within or near the project area. However, two contributors did express concern that burials or other historic or cultural properties may be discovered in the process of ground-disturbance and construction.

8.6 Trails

John Papa ‘ ‘ documented an early nineteenth century trail (Figure 8) that extended from Honolulu to Waik k . This trail eventually evolved into the present day alignment of King Street and Wai‘alae Avenue. The trail passed along the makai border of P lolo, which would be the northern boundary of Kaimuk and Kapahulu ‘Ili. The first marker on the trail near P lolo Valley is the rise called Kam ‘ili‘ili, which means “pebble lizard” and refers to a famous *mo‘o* (spirit that can change form) that the goddess Hi‘iaka destroyed (Pukui et al. 1974:153). The next marker was the legendary *pōhaku* (stone) Kapohakikeke in Kaimuk . The third marker was Mau‘umae, a small hill on the right side of the mouth of P lolo Valley (Pearson 1982.1). The literal meaning of mau‘umae is “wilted grass” (Pukui et al. 1974:150).

Participants in this CIA did not discuss trails in or near the project area.

8.7 Wahi Pana (Storied Places)

The project area is located in a region rich in *mo‘olelo*, ‘*ōlelo no‘eau* and *oli* regarding place names, natural features of the landscape, sacred sites (*heiau*), people, gods and goddesses associated with P lolo, Kaimuk and L ‘ahi. The Hawaiian name for Diamond Head crater is spelled L ‘ahi or Lea‘ahi; one interpretation indicating that L ‘ahi is a contraction of the two words *lei* (a wreath) and *‘ahi* (fire), the two words combining to mean “wreath of fire” (possibly because of signal beacons that were lighted on special occasions); another is that L ‘ahi is a contraction of *lae* (a cap or promontory) and *‘ahi* (the yellow-fin tuna) the combination meaning “point of the *‘ahi* fish” (Clark 1977:41). The high rim of the Waik k side of Diamond Head resembles the crest of the ‘*ahi* fish. The crest of the crater may also have been used as a reference point in locating a fishing ground for the *‘ahi* fish (Clark 1977:41).

Kaimuk literally means “the *ti* oven,” “the (*ka*) oven (*imu*) for cooking *ti* root (*kī*). The legendary *menehune* supposedly built many of their *kī* ovens in Kaimuk . In one legend, the *ti* ovens are actually built by a man who lived in the Kaimuk area. This young man would forego farming his land, preferring to spend his time surfing and fishing; one time, faced with nothing to eat, he appealed to his ‘*aumakua* who told him to gather *ti* roots at dawn and bake them in an oven.

The project area is located in a region mentioned in legendary accounts of Pele, the goddess of volcanoes and her beloved sister Hi‘iaka. Pele tried to dig a home (crater) at Le’ahi but was unsuccessful. One story credits the creation of the crater to a battle between Pele, and her

unwelcome suitor, the pig-god Kamapua‘a. Their fight culminated in “Kamapuaa swallowing an enormous draught of sea water, which he poured forth into the burning bowl, and so extinguished the fires forever” (Gowen 1892:57). The bell stone P haku K k k was at a *wahi pana* particularly associated with *mo‘o*, and is mentioned in the legend of Hi‘iaka as are other places and landmarks encountered by Hi‘iaka and her two companions as they traveled across O‘ahu from the coast of Waik k towards P lolo Valley. Many stories are associated with *heiau* in P lolo and Kaimuk near the project area, some of which are *luakini* sacrificial sites. Makahuna Heiau is dedicated to the gods K ne and Kanaloa.

In the letter from OHA stressed the cultural significance of the project area and environs, mentioning *mo‘olelo* about Loeheloa:

> There are numerous accounts which provide some insight to the cultural significance of the land of P lolo and Kaimuk in which the project area is located. The mo‘olelo of Loheloa details his arrival at Keauau near Lae‘ahi (also known today as Diamond Head). Loheloa traveled on a giant log from Waipi‘o and upon his arrival called to K and Hina to provide a school of fish for the people of the area. Loheloa then engaged Olohe, a cruel chief of the area in a wrestling match. Olohe was defeated and the location where he fell is now known as Kalua-Olohe. There are also accounts which indicate that a heiau of the po‘okanaka class is situated on the slopes of Lae‘ahi

Mr. Nakapa‘ahu shared memories of some ghost stories in the P lolo Valley area, mauka of the proposed project area:

> I remember when I was growing up in P lolo; there was this place we used to go swimming called *Wai ‘o mau*, it was on the right side of the valley as you look up the valley. It was a swimming hole with a short waterfall. I remember there was a rope there to swing from the tree and you could land in the water. It was a fun place for us kids to go. Also, in the same area there was this dog that would meet you there. He was like a ghost dog or something. But the thing with the dog was that when he met you there in the area, he would watch after you, like your personal protector. So that was kind of cool. Also in the area was the story of the green lady. As kids, we all were aware of this green lady ghost but I never saw her. Years later, I saw a video on TV, it was this lady named Ariel Tomoka. She was being interviewed and she said she had an encounter with a green lady inside P lolo Valley. So that brought back memories of that legend.

Section 9 Summary and Recommendations

At the request of Group 70 International, Cultural Surveys Hawai‘i, Inc. prepared this Cultural Impact Assessment for the 1.98-acre project area footprint of the Diamond Head Film and Digital Media Center located in P lolo Ahupua‘a, Honolulu District (Kona Moku), Island of O‘ahu.

9.1 Results of Background Research

Background research on the project area and surrounding *ahupua‘a* of P lolo demonstrates:

(1) The project area is within a section of P lolo inland of the coastal area with its extensive swamp land used to grow wetland taro, separated from the many fishponds and other coastal resources, and distant from the densely inhabited areas near the coast. The lack of water and the dry conditions did not make the project area favorable for intensive habitation or cultivation.

(2) Several burial sites have been identified in the K hala area, east of Black Point and the current project area. Most of these have been inadvertent discoveries during construction activities in sand deposits. Numerous burials have also been recorded during archaeological surveys and monitoring projects in Waik k shore, as the beach dunes were a common place for Hawaiians to bury their dead. The use of sand areas for cemeteries continued into the twentieth century. There are some early documents that claim the victims of the sacrificial *heiau* on Diamond Head were buried or discarded within or near the crater, but there has never been any archaeological confirmation for this claim. There are no indications that the present project area was ever used for pre-Contact or post-Contact burials.

(3) Five *heiau* (temples) are associated with Diamond Head and are located within and along the base of the crater: Papa‘ena‘ena, (also called L ‘ahi Heiau), Kapua, K palaha, Makahuna and Ahi. All of these *heiau* are believed to have been completely destroyed. No *heiau* were located on the southern slope of Diamond Head Crater. Kukuionapeha Heiau was located on Pu‘u o Kaimuk (the site of the old signal station).

(4) The project area is located in a region rich in place names, *wahi pana* and associated *mo‘olelo*. Mo‘olelo, *‘ōlelo no‘eau* and *oli* focus on the exploits of Pele, the goddess of volcanoes and her beloved sister, Hi‘iaka, the pig-god Kamapua‘a in relation to L ‘ahi Crater, origin stories about the names of Kaimuk , Kapahulu and more. Many stories are associated with *heiau* in proximity to the project area, some of which are *luakini* or sacrificial sites, one *heiau* is dedicated to the gods K ne and Kanaloa.

(5) In the mid-nineteenth century, the project area was located in an area used mainly as cattle pasture. In 1906, the project area was developed into a support area for the U.S. military Fort Ruger. Many of the Fort Ruger structures were demolished after World War II, when the base became the headquarters for the Hawai‘i National Guard. The army turned over the former barracks 52-acre area in 1975 for the establishment of the KCC campus.

9.2 Results of Community Consultation

For this CIA, a total of 14 community contacts (government agency or Hawaiian cultural community organization representatives, or individuals such as long-time area residents and cultural practitioners) were contacted for commentary or an interview. Six people responded; and 2 *kūpuna* (elders) and/or *kama‘āina* (native born) were interviewed for a more in-depth contribution. Two individuals consented to have their testimony included in this report.

The results of the cultural consultation effort indicate that 2 respondents to this study (SHPD and one community interviewee, Mr. Nakapa‘ahu) are concerned about the possibility of inadvertent discoveries of Hawaiian artifacts or *iwi* during the ground-disturbance and construction phases of the proposed Diamond Head Film and Digital Media Center project.

9.3 Recommendations

Background research and community consultation for this CIA indicates that the proposed project is likely to have minimal to no impacts to Hawaiian cultural beliefs, practices and resources (historic and/or cultural properties). However, it is recommended that project personnel be alerted about the potential for inadvertent cultural finds and, if human burials are found during the ground disturbance and construction phases of this proposed project, cultural and lineal descendants of the area and appropriate agencies (e.g., SHPD) be notified and consulted in regard to burial treatment plans.

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