



STATE OF HAWAII
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAII 96804

PMS-610.14

OFFICE OF SCHOOL FACILITIES AND SUPPORT SERVICES

July 2, 2014

FILE COPY
JUL 23 2014

OFFICE OF THE SUPERINTENDENT
14 JUL -7 AM:03
RECEIVED

Jessica Wooley, Director
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street, Suite 702
Honolulu, Hawaii 96813-2437

Dear Ms. Wooley:

Subject: **He'eia Elementary School Covered Play Court**
Tax Map Key: 4-6-031: 020
He'eia, District of Ko'olau Poko, O'ahu, Hawaii

The Department of Education, State of Hawaii, has reviewed the Draft Environmental Assessment for the subject project and anticipates a Finding of No Significant Impact (FONSI) determination. Please publish this determination in the next Environmental Notice.

One printed copy of the Draft Environmental Assessment and a CD with the document in .pdf format are attached. The Environmental Notice publication form will be e-mailed to OEQC.

Should you have any questions, please contact Mr. Dean Mizumura, Project Coordinator of the Facilities Development Branch at 586-0467.

Sincerely,

Michael H. Shigetani
Public Works Manager

MHS:lm

c: Dean Mizumura, Facilities Development Branch

**AGENCY ACTIONS
SECTION 343-5(B), HRS
PUBLICATION FORM (FEBRUARY 2013 REVISION)**

Project Name He'eia Elementary School Covered Play Court
Island: O'ahu
District: Ko'olau Poko
TMK: 4-6-031: 020
Permits: Variance from Pollution Controls (Noise Permit)
Grubbing, Grading, and Stockpiling
Building Permit
Certificate of Occupancy
Waiver (Building Height)

OFFICE OF ENVIRONMENTAL
QUALITY CONTROL

14 JUL 10 P 1:44

RECEIVED

Proposing/Determination Agency: Department of Education
Facilities Development Branch
1151 Punchbowl Street, Room 501
Honolulu, Hawaii 96813

Dean Mizumura, Project Management
586- 0457

Consultant: Gerald Park
Gerald Park Urban Planner
95-595 Kanamee Street No. 324
Mililani, Hawaii 96789

T: 625-9626

Address, Contact Person, Telephone)

Status (check one only):

X DEA-AFNSI

Submit the proposing agency notice of determination/transmittal on agency letterhead, a hard copy of DEA, a completed OEQC publication form, along with an electronic word processing summary and a PDF copy (you may send both summary and PDF to oeqchawaii@doh.hawaii.gov); a 30-day comment period ensues upon publication in the periodic bulletin.

Summary (Provide proposed action and purpose/need in less than 200 words. Please keep the summary brief and on this one page):

The Department of Education proposes to construct a covered play court at He'eia Elementary School. The project will provide a covered facility where students can engage in outdoor play with minimal exposure to potential accidents caused by inclement weather. The structure also will serve as a covered, multi-purpose center for school activities and functions protected from frequent rain events.

The single-story structure will be located in an open area on the south side of the school grounds adjacent to an existing uncovered play court. The approximately 8,125 square foot structure will provide one regulation basketball court, one regulation volleyball court, four half-court basketball courts, and two side volleyball courts.

The cost of the project is estimated at \$2.0 million. Construction is projected to commence in Spring 2015 and completed by Spring 2016.

DRAFT ENVIRONMENTAL ASSESSMENT

**HE'EIA ELEMENTARY SCHOOL
COVERED PLAY COURT**

He'eia, Ko'olau Poko, O'ahu, Hawai'i

DOE Job No. Q91001-13



Prepared for

Department of Education
State of Hawaii
Project Management Section
1151 Punchbowl Street, Room 431
Honolulu, Hawai'i 96813

June 2014

DRAFT ENVIRONMENTAL ASSESSMENT

***HE'EIA ELEMENTARY SCHOOL
COVERED PLAY COURT***

He'eia, Ko'olau Poko, O'ahu, Hawai'i

DOE Job No. Q91001-13

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

Prepared for

Department of Education
State of Hawaii
Project Management Section
1151 Punchbowl Street, Room 431
Honolulu, Hawai'i 96813

By

Gerald Park Urban Planner
95-595 Kaname'e Street
Mililani, Hawai'i 96789

YFH Architects, Inc.
1100 Ward Avenue, Suite 760
Honolulu, Hawai'i 96814

June 2014

PROJECT PROFILE

Proposed Action: He'eia Elementary School
Covered Play Court
DOE Job No. Q91001-13

Location: He'eia, District of Ko'olau Poko, O'ahu, Hawai'i

Street Address: 46-202 Ha'ikū Road
Kāne'ōhe Hawai'i 96744

Proposing/Determining Agency: Department of Education
Facilities Development Branch
1151 Punchbowl Street, Room 501
Honolulu, Hawai'i 96813

Tax Map Key: 4-6-031: 020
Land Area: 517,055 square feet (11.87 acres)
Landowner: City and County of Honolulu

Existing Use: Public Elementary School
State Land Use Designation: Urban
O'ahu General Plan: Urban Fringe
Sustainable Communities Plan: Ko'olau Poko
SCP Land Use Map: Institutional
Zoning: R-10

Special Management Area: Outside Special Management Area

Need for Assessment: Chapter 343, Hawai'i Revised Statutes
§343-5 (a) (1) Propose the use of state or
county lands or the use of state or county
funds.

Determination: Anticipated Finding of No Significant Impact

Contact Person: Dean Mizumura, Project Coordinator
Department of Education
Project Management Section
1151 Punchbowl Street, Room 431
Honolulu, Hawai'i 96813

Telephone: 586-0467

TABLE OF CONTENTS

	Project Profile	i
	Table of Contents	ii
	Figures and Site Photographs	iv
SECTION 1	DESCRIPTION OF THE PROPOSED PROJECT	1
	A. Purpose and Need for the Project	1
	B. Technical Characteristics	1
	1. Covered Play Court	1
	2. Circulation and Off-Street Parking	2
	3. Infrastructure	2
	4. Demolition and Grading	2
	5. Landscaping	3
	C. Economic Characteristics	3
	D. Social Characteristics	3
SECTION 2	DESCRIPTION OF THE AFFECTED ENVIRONMENT	11
	A. Background Information	11
	B. Environmental Characteristics	12
	1. General	12
	2. Climate	13
	3. Topography	13
	4. Soils	13
	5. Hydrology	13
	a. Surface Water	13
	b. Groundwater	13
	6. Flood Hazard	14
	7. Biological Resources	14
	8. Archaeological Resources	14
	9. Cultural Resources	16
	C. Land Use Controls	17
	D. Public Facilities and Services	19
SECTION 3	SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS	22
	A. Short-term Impacts	22
	B. Long-term Impacts	24
SECTION 4	ALTERNATIVES TO THE PROPOSED ACTION	27
	A. No Action	27
	B. Alternatives Sites	27
SECTION 5	PERMITS AND APPROVALS	28

TABLE OF CONTENTS

SECTION 7	DETERMINATION OF SIGNIFICANCE	30
REFERENCES		33
APPENDIX A	Literature Review and Field Inspection Including Cultural History for the He'eia Elementary School Playcourt Project DOE JOB NO. Q91001-13, He'eia Ahupua'a, Ko'olaupoko District, O'ahu TMK: [1] 406-031: 20.	

FIGURES

Figure	Title	Page
1	Vicinity Map	4
2	Tax Map	5
3	Overall Site Plan (Sheet A001)	6
4	Playcourt Floor Plan (Sheet A002)	7
5	Exterior Elevations (Sheet A007)	8
6	Building Sections (Sheet A008)	9
7	Site, Grading & Utility Plan (Sheet C003)	10
8	Flood Insurance Rate Map	15
9	Zoning	20

TABLES

Table	Title	Page
1	Structures at He'eia Elementary School	11
2	Aquifer Classification	14

PHOTOGRAPHS

Photograph	Title	Page
1	Approximate Location of Covered Play Court Looking West. Existing Outdoor Court on the Right. He'eia Neighborhood Park in the Background.	12

The Department of Education, State of Hawai'i, proposes to construct a multi-purpose covered play court at He'eia Elementary School located in the town of Kāne'ohe, District of Ko'olau Poko, City and County of Honolulu, O'ahu, Hawai'i. He'eia Elementary School ("He'eia Elementary") is bounded by Ha'ikū Road to the north, industrial and residential uses to the southeast and southwest, He'eia Neighborhood Park to the west, and a large paved parking lot to the east (Figure 1).

The property is identified as Tax Map Key 4-6-031: 020 encompassing an area of 517,055 square feet or 11.869 acres. A Tax Map is shown on Figure 2.

A. Purpose and Need for the Project

Located on the windward side of the Island of O'ahu, Kāne'ohe (to include He'eia Elementary) receives approximately 53 inches of rain annually. Rainfall is almost a daily occurrence during the school year (September through May) reducing the number days and times for outdoor recess and recreation. There is no other on-campus facility that can accommodate recess indoors thus children spend their recreation / play time in the classroom or under covered walkway areas.

A purpose of the project is to provide a covered facility where students can engage in outdoor play with minimal exposure to inclement weather conditions and potential accidents due to inclement weather. Secondly, the covered structure will serve as a covered, multi-purpose center for school activities and functions.

B. Technical Characteristics

1. Covered Play Court

A single-story structure with a building footprint of approximately 8,125 square feet (132'-0" X 70'-0") will be erected on the south side of the school grounds (See Figure 3). The new structure will be sited near an existing outdoor play court with a proposed 10-foot separation. One regulation basketball court, four half-court basketball courts, one regulation volleyball court and two side volleyball courts will be provided (See Figure 4). The court surface will be an all weather court surface per Department of Education standards. Finish floor elevation is set at 140.50 feet.

A presentation area will be located at the south end of the structure. It will be flush with the court surface and will not encroach into the court area.

The structure will be erected on a poured in place concrete foundation and floor, framed with steel posts and trusses, and topped with a pitched standing seam metal roof. Both ends of the structure where the performance area, storage room, electrical room, and bathrooms will be placed will be framed with cement masonry unit walls. Chain link fencing on the east and west sides of the structure will allow for ventilation and visual security.

Roof eaves on the east and west sides of the structure will extend over the walkways providing cover and helping to prevent rain from entering the play court (primarily from the windward direction).

Translucent siding spaced around the sides will allow natural light into the interior.

The height of the structure is approximately 30-feet measured from grade to top of roof. The structure exceeds the building height for the residential zoning district by approximately 5+ feet. Exterior elevations and building sections are shown on Figures 5 and 6, respectively. The Department of Education will seek a building height Waiver from the Department of Planning and Permitting City and County of Honolulu to allow the encroachment.

The structure is setback approximately 19 feet from the nearest property line on the west.

An Americans with Disability Act (“ADA”) accessible walkway will connect the play court with nearby walkways. The new 6-foot wide walkway will be covered. Perimeter gates on two sides will provide access to the interior of the structure.

2. Circulation and Off-Street Parking

Changes to on-campus vehicle circulation and parking configurations are not proposed. Short-term modifications may be required to accommodate the movement of construction equipment and traffic to and from the building site.

A fire apparatus access driveway will be constructed from the southwest end of the existing parking area next to the cafeteria to the existing play court. The 20-foot wide driveway is approximately 60 feet in length (See Figure 7).

3. Infrastructure

Domestic water will be supplied from the existing on-campus water system. A new 2” line will tie into an existing 3” service line near Building “D”.

Accessible boy’s and girl’s restrooms will be provided. A new 6” waste line will convey wastewater to an existing 6” lateral near Building “D”.

Electrical power will be routed in underground conduits from the existing on-campus electrical system to an electrical room.

4. Demolition and Grading

The construction project limits is approximately 30,000 square feet which includes 9,250 square feet for the building site. For this assessment, the term building site is equivalent to the “footprint” of the covered play court structure and located within the demarcated project limits (See Figure 7).

The grass covered building site is free of above ground structures thus demolition *per se* will not be required. The level building site does not require extensive excavation and embankment work. Earth work quantities are estimated at removing approximately 350 cubic yards of material and importing 500 cubic yards of fill for topping off the ground

surface. Areas disturbed by construction will be restored to pre-construction condition or better. A Grading Plan is shown on Figure 7.

5. Landscaping

Aside from re-grassing areas adjoining the play court structure, landscaping is not proposed.

C. Economic Characteristics

Construction costs are estimated at \$2.0 million and will be funded by the State of Hawai'i. A one phase construction timetable is proposed with construction projected to commence in Spring 2015 with completion by Spring 2016.

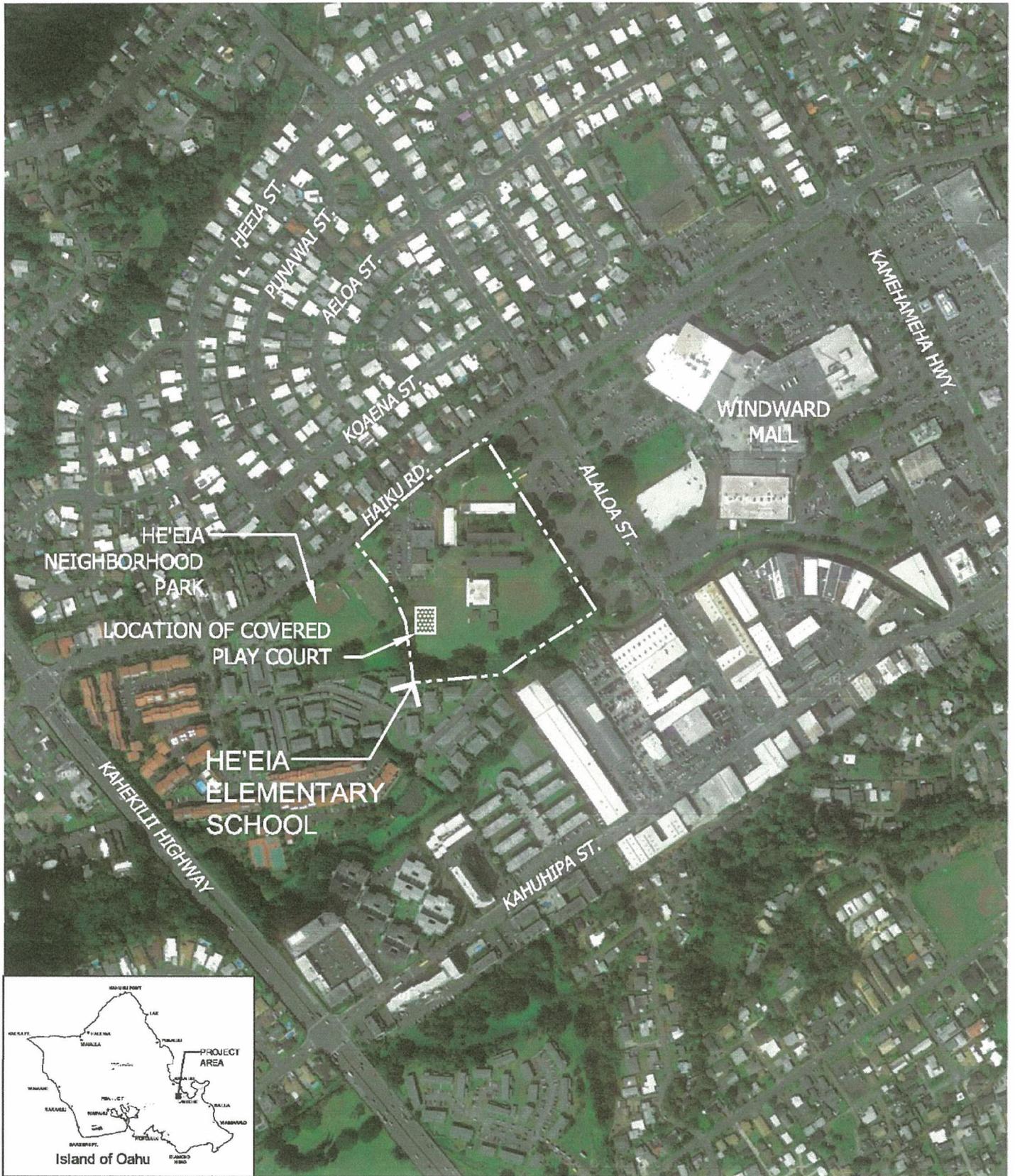
The 11.87 acre parcel (TMK 4-6-031: 020) is owned by the City and County of Honolulu.

D. Social Characteristics

The outdoor play court will remain open for use during most of the construction period but will be closed during certain construction phases. Temporary use of the play courts at He'eia Neighborhood Park during school hours will be arranged with the Department of Parks and Recreation, City and County of Honolulu.

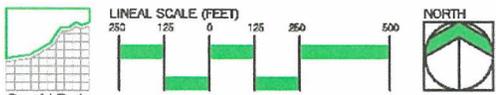
The covered structure will have an occupant capacity of 1,060 persons.

Additional staffing is not required. Use of the play court by grade level, day, and time will be scheduled by teachers and school administrators. Custodial staff will maintain the structure and open and secure the facility daily.



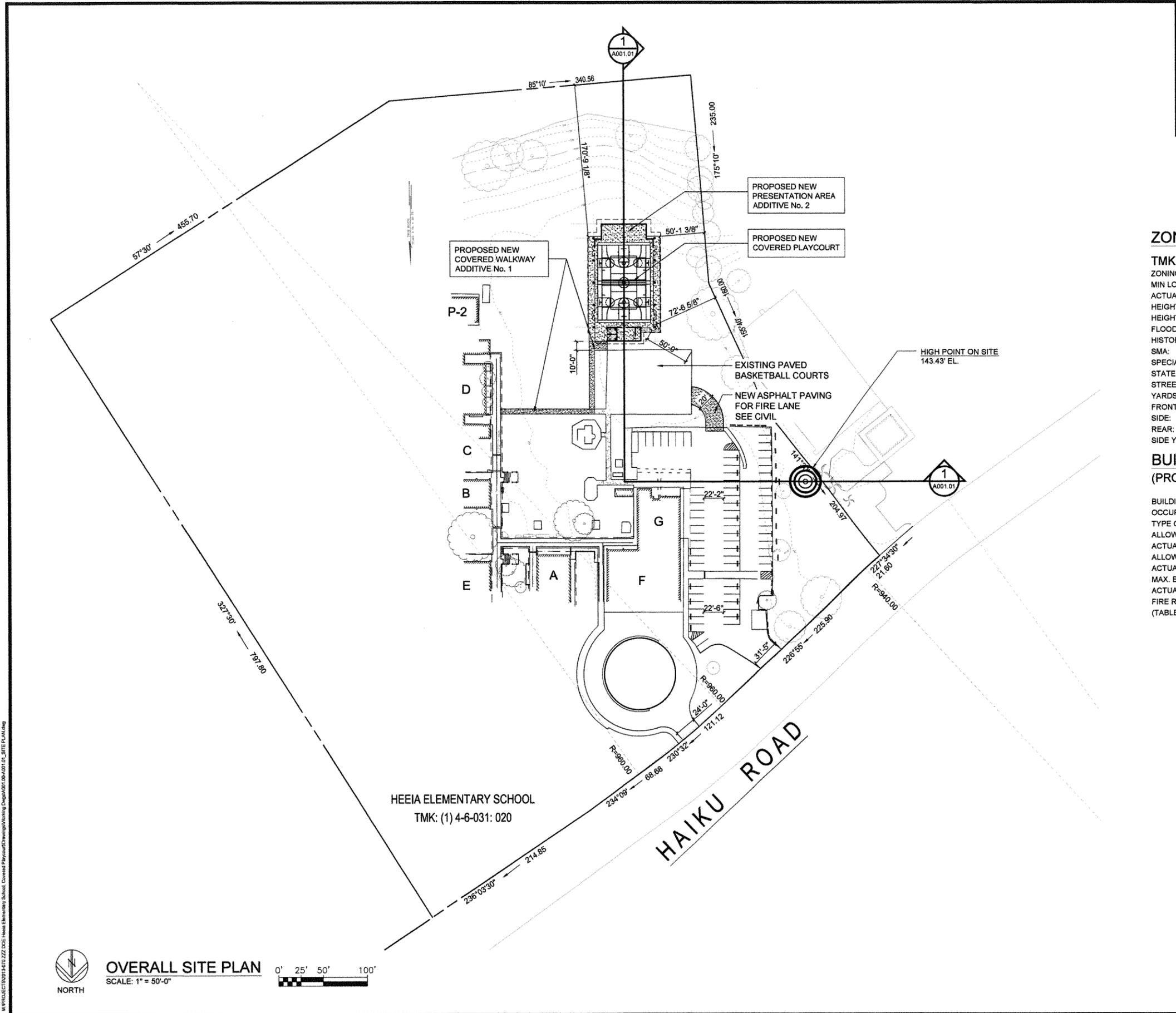
Source: Google Maps

Figure 1
 Location Map
 He'eia Elementary School Covered Play Court



Gerald Park
 Urban Planner
 March 2014

He'eia, Ko'olau Poko, Island of O'ahu, Hawai'i



ZONING INFORMATION

TMK NO. : 4-6-031:020
ZONING: R-10 RESIDENTIAL DISTRICT
MIN LOT AREA: 7,500 SF. FOR R-7.5 5 ACRES FOR P-2
ACTUAL LOT AREA: 517,057 SF. / 11.87 ACRES
HEIGHT LIMIT: 25 FT.
HEIGHT ACTUAL: 30 FT. (WAIVER FROM DPP ZONING DIVISION)
FLOOD ZONES: X - BEYOND 500 YEAR FLOOD PLAIN
HISTORIC SITE REGISTER: NONE
SMA: NOT IN SMA
SPECIAL DISTRICTS: NOT IN SPECIAL DISTRICT
STATE LAND USE: URBAN DISTRICT
STREET SETBACK: NONE
YARDS:
FRONT: 30 FT.
SIDE: 15 FT.
REAR: 15 FT.
SIDE YARD ACTUAL: 19 FT.

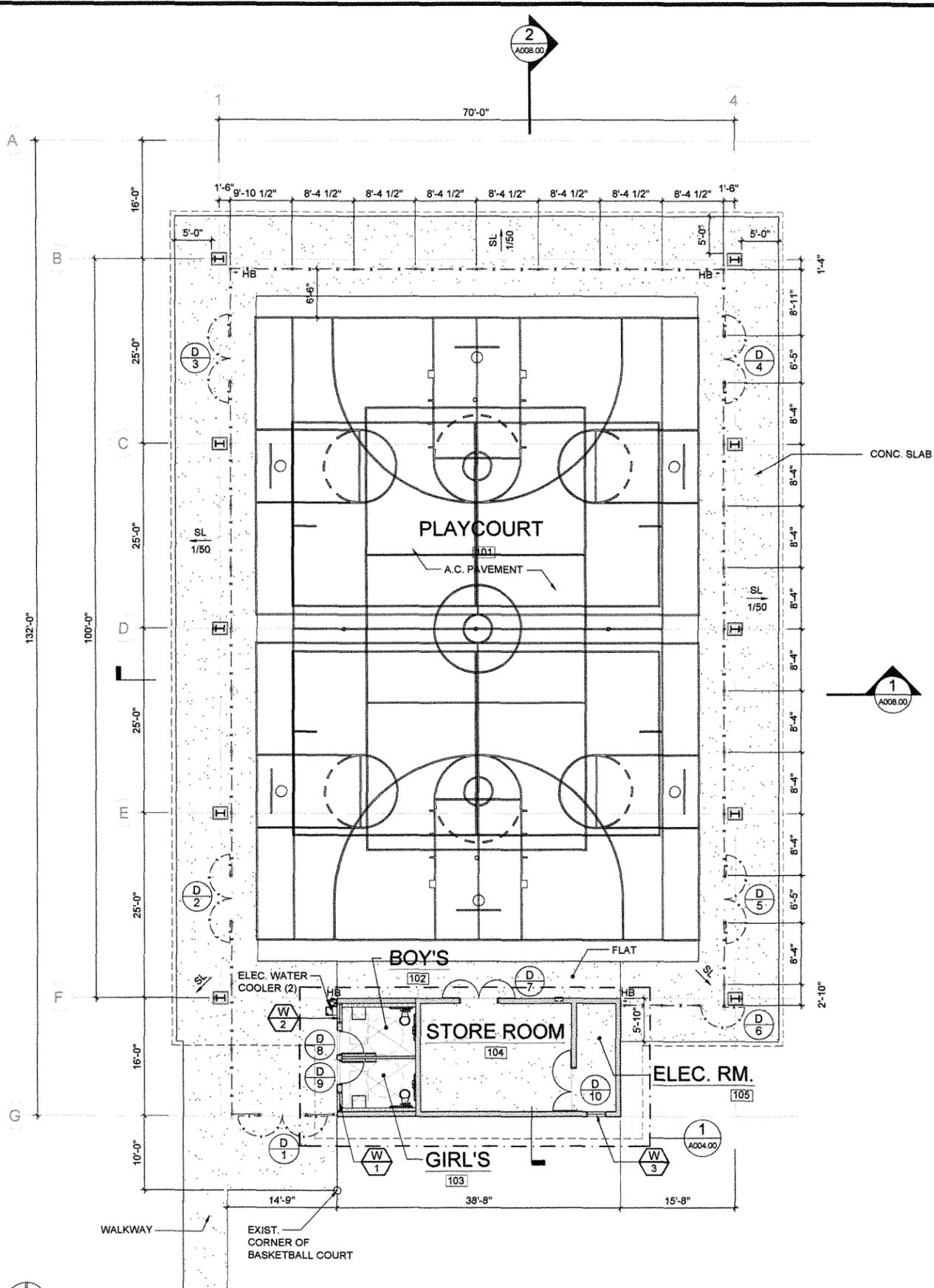
**BUILDING CODE INFORMATION
(PROPOSED COVERED PLAYCOURT STRUCTURE)**

BUILDING CODE: 2006 IBC W/ STATE AMENDMENTS
OCCUPANCY: 15-SCHOOL
TYPE OF CONSTRUCTION: TYPE I
ALLOWABLE FLOOR AREA: 14,500 SF.
ACTUAL FLOOR AREA: 8,219.53 SF.
ALLOWABLE HEIGHT (STORY): 2
ACTUAL STORIES: 1
MAX. BUILDING HEIGHT (FT.): 55 FT.
ACTUAL BUILDING HEIGHT (FT.): 30 FT.
FIRE RATING FOR EXTERIOR WALLS: 10 FT. TO 30 FT. - 0 HR.
(TABLE 602) TYPE I CONSTRUCTION, GROUP E OCCUPANCY

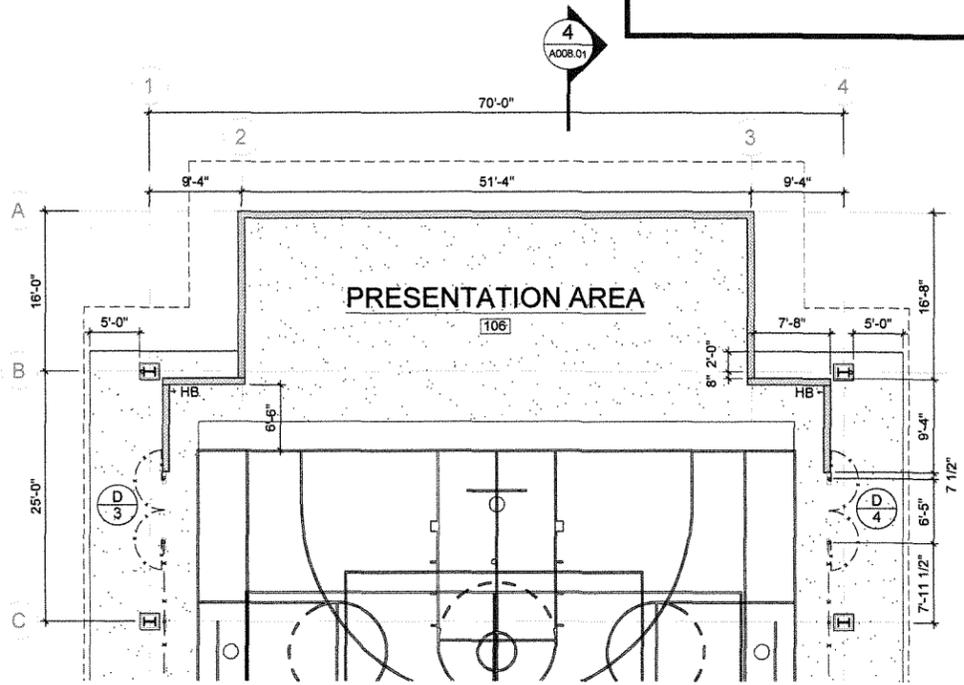


REVISION NO.	BY	DESCRIPTION	SHT. OF	DATE	APPROVED
DEPARTMENT OF EDUCATION STATE OF HAWAII HEEIA ELEMENTARY SCHOOL COVERED PLAYCOURT 46-202 HAIKU ROAD KANEIHE OHAU HAWAII 96744 TMK: 4-6-031:020					
OVERALL SITE PLAN					
YFH ARCHITECTS, INC.			JOB NO.	DRAWING NO.	
DESIGNED BY:	LMH	CHECKED BY:	LMH	Q91001-13	A001.00
DRAWN BY:	GT KN	APPROVED BY:	LMH	DATE	SHEET 9
SCALE:	AS SHOWN	EXPIRATION DATE OF THE LICENSE:	4/30/18	MAY, 2014	OF 50 SHEETS

Figure 3



PLAYCOURT FLOOR PLAN
SCALE: 1/8" = 1'-0"
2' 0" 2' 4' 6" 10' 14"



PARTIAL FLOOR PLAN (ADDITIVE BID ITEM 2)
SCALE: 1/8" = 1'-0"
2' 0" 2' 4' 6" 10' 14"

- LEGEND**
- CONC. FLOOR
 - 8" CMU WALL
 - 3 5/8" MTL. STUD @ 12" O.C. W/ 5/8" W.R. GLASS MAT BOARD EACH SIDE
 - 3 5/8" MTL. STUD @ 12" O.C. W/ 5/8" W.R. GLASS MAT BOARD ONE SIDE

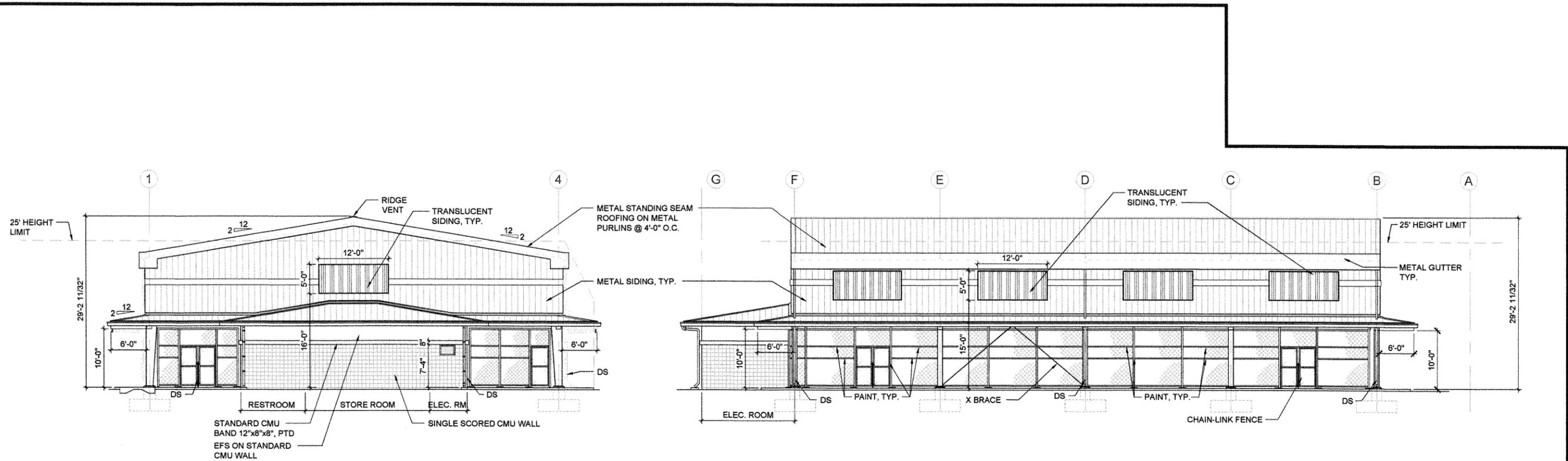
SLOPE NOTE:
PLAYCOURT: FLAT
CONCRETE BORDER: SLOPE OUT 1/8"/FT
CONCRETE SIDEWALK: SLOPE OUT 1/8"/FT

AREA TABULATIONS

ROOM No.	ROOM NAME	SQ. FT.
101	PLAYCOURT	6850.42 SF
102	BOY'S RESTROOM	71.67 SF
103	GIRL'S RESTROOM	71.67 SF
104	STORE ROOM	303.10 SF
105	ELECTRICAL ROOM	78.22 SF
106	PRESENTATION AREA	844.45 SF
107	SIGNAL ROOM	46.67 SF
TOTAL AREA		8,219.53 SF

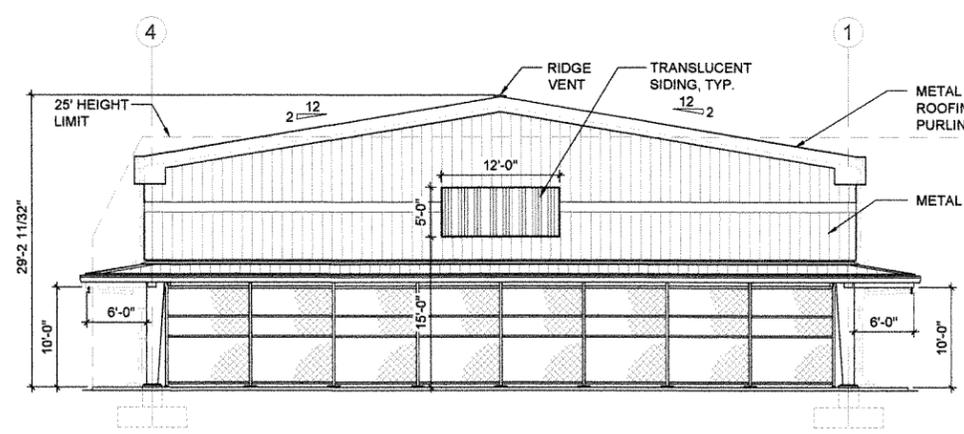
REVISION NO.	SYM	DESCRIPTION	SHT. OF	DATE	APPROVED
DEPARTMENT OF EDUCATION STATE OF HAWAII HĒI'Ā ELEMENTARY SCHOOL COVERED PLAYCOURT 4625 WAIKUKU ROAD KANEHOE OAHU, HAWAII 96744 TWR 4-4-011200					
PLAYCOURT FLOOR PLAN					
YFH ARCHITECTS, INC.		JOB NO.	DRAWING NO.		
DESIGNED BY	CHECKED BY	Q91001-13	A002.00		
LMH	LMH				
DRAWN BY	APPROVED BY	DATE	SHEET		
GT KN	LMH	MAY, 2014	11		
SCALE	AS SHOWN		OF 50 SHEETS		
FILE _____ DRAWER _____ FOLDER _____					

Figure 4

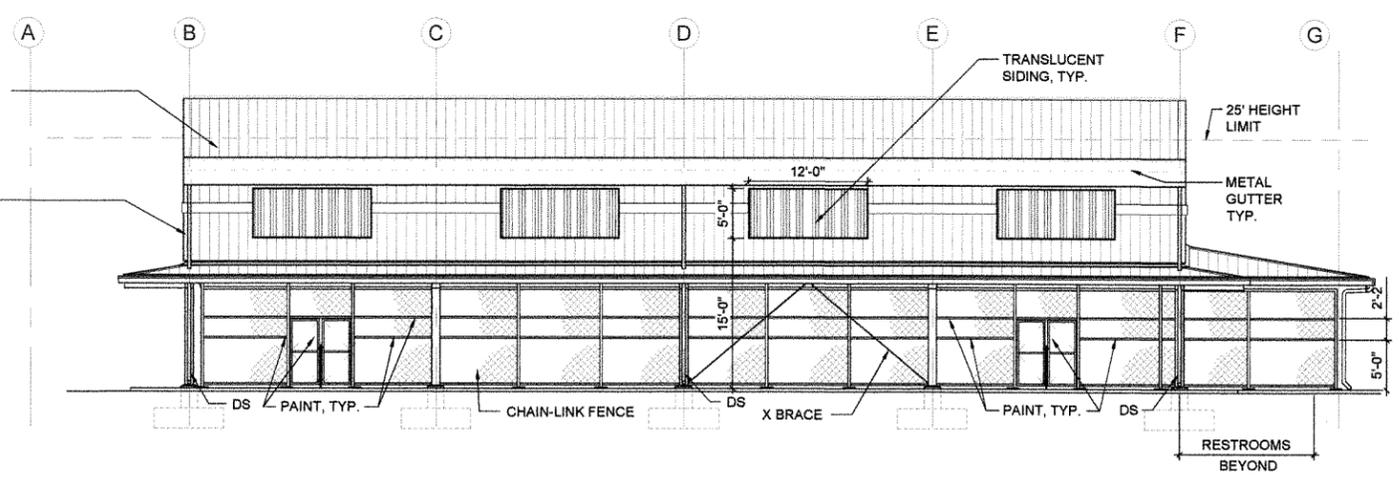


1 NORTH ELEVATION
 A007.00 SCALE: 1/8" = 1'-0"
 2' 0' 2' 4' 6' 10' 14'

2 WEST ELEVATION
 A007.00 SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION
 A007.00 SCALE: 1/8" = 1'-0"



4 EAST ELEVATION
 A007.00 SCALE: 1/8" = 1'-0"

File: H:\2014\2014_14\He'eia Elementary School Covered Playcourt\Drawings\Working\Drawings\A007.00_A008.00_ELEV & SECT.dwg
 M:\PROJECTS\2014\2014_14\He'eia Elementary School Covered Playcourt\Drawings\Working\Drawings\A007.00_A008.00_ELEV & SECT.dwg

REVISION NO.	BY	DESCRIPTION	DATE	APPROVED

LLOYD M. HIGA
 LICENSED PROFESSIONAL ARCHITECT
 No. AR-6093
 HAWAII, U.S.A.

DEPARTMENT OF EDUCATION
 STATE OF HAWAII

HE'IEIA ELEMENTARY SCHOOL
 COVERED PLAYCOURT

45-202 HAKU ROAD
 KANEIHEE, OAHU, HAWAII 96744
 TWC 44-6511200

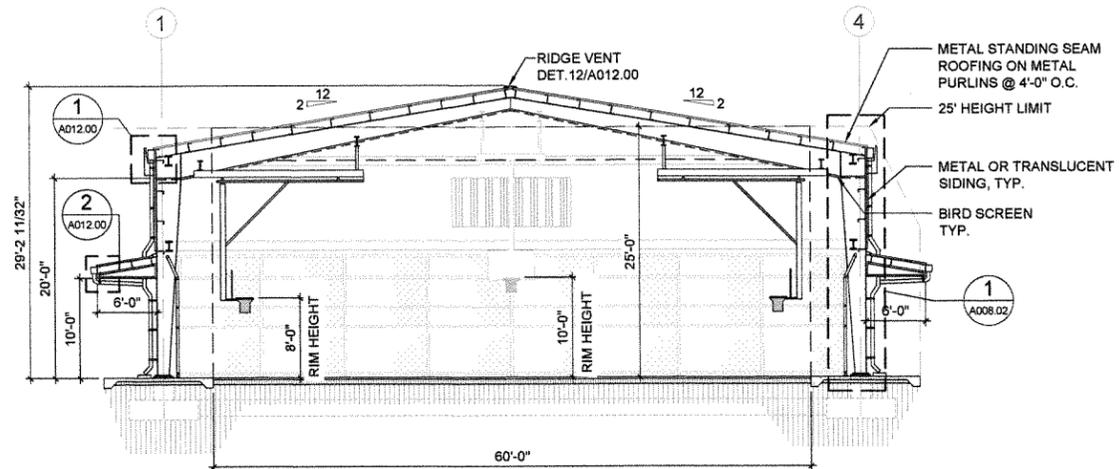
EXTERIOR ELEVATIONS

YFH ARCHITECTS, INC. JOB NO. DRAWING NO.

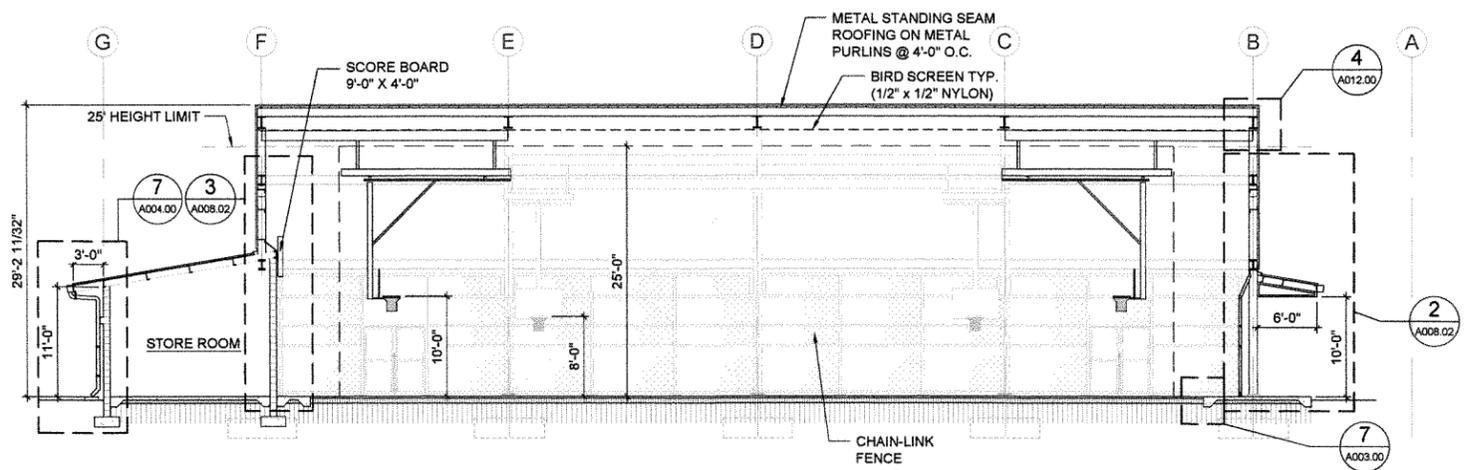
DESIGNED BY: LMH CHECKED BY: LMH Q91001-13 A007.00

DRAWN BY: GT KN APPROVED BY: LMH DATE SHEET 16

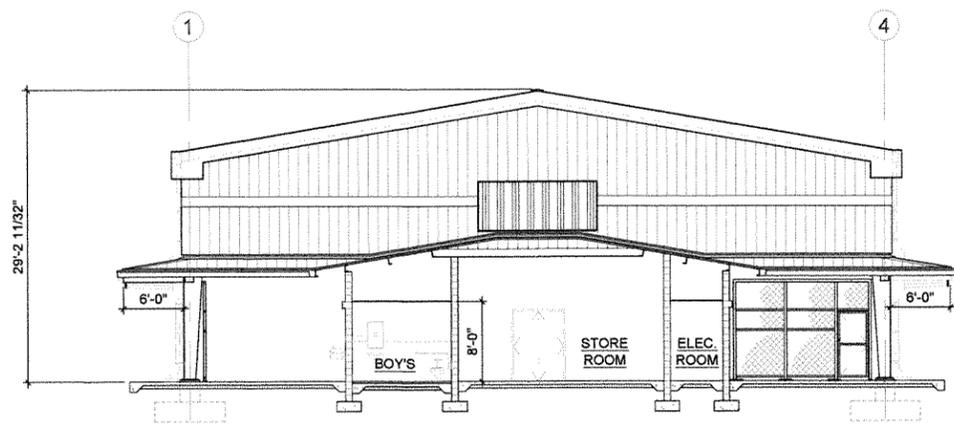
SCALE: AS SHOWN MAY, 2014 OF 50 SHEETS



1 SECTION
A008.00 SCALE: 1/8" = 1'-0"
2' 0' 2' 4' 6' 10' 14'



2 SECTION
A008.00 SCALE: 1/8" = 1'-0"



3 SECTION
A008.00 SCALE: 1/8" = 1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT. OF.	DATE	APPROVED

LLOYD M. HIGA
LICENSED PROFESSIONAL ARCHITECT
NO. AR-5093
HAWAII, U.S.A.

DEPARTMENT OF EDUCATION
STATE OF HAWAII

HE'EIA ELEMENTARY SCHOOL
COVERED PLAYCOURT

48-202 HAKU ROAD
KANEIHE CAMPUS, HAWAII 96744
TMK 4-6-021-020

BUILDING SECTIONS

YFH ARCHITECTS, INC.

DESIGNED BY: LMH
CHECKED BY: LMH
DRAWN BY: GT KN
APPROVED BY: LMH

DATE: MAY, 2014

SCALE: AS SHOWN

JOB NO. Q91001-13
DRAWING NO. A008.00

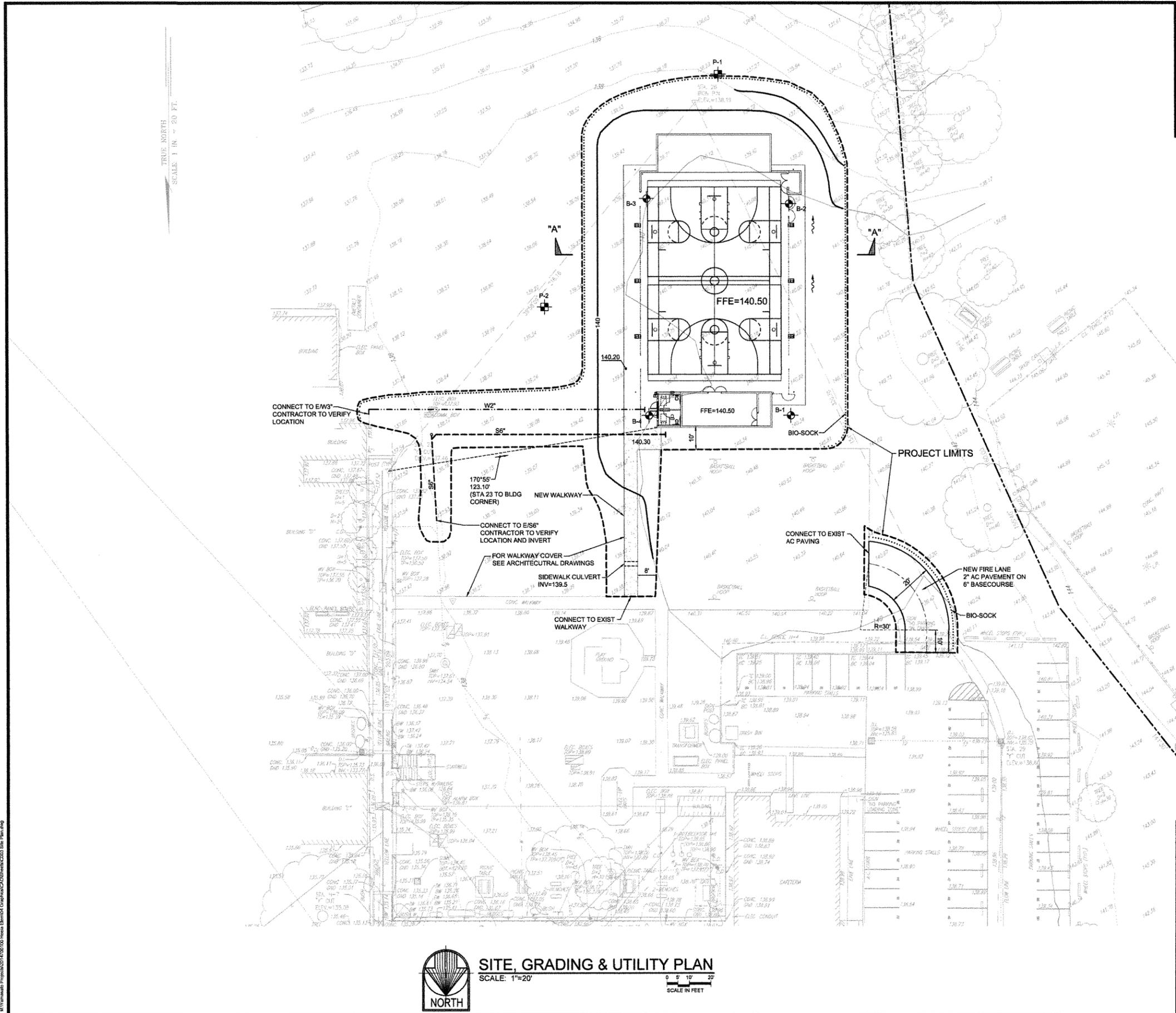
SHEET 17 OF 50 SHEETS

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION WILL BE UNDER MY OBSERVATION.
420318 EXPIRATION DATE OF THE LICENSE

FILE _____ DRAWER _____ FOLDER _____

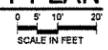
Tue, 17 Jun 2014 3:41pm
M:\PROJECTS\2013\2013-07-ZZZ DOE He'eia Elementary School_Covered Playcourt\Drawings\Working Drawings\07-00-A008.00_ELEV & SECT.dwg

Figure 6



TRUE NORTH
SCALE 1" = 20' FT.

SITE, GRADING & UTILITY PLAN
SCALE: 1"=20'



REVISION NO.	SYM	DESCRIPTION	SHT. OF	DATE	APPROVED

		DEPARTMENT OF EDUCATION STATE OF HAWAII HE'EIA ELEMENTARY SCHOOL COVERED PLAYCOURT 46-000 WAIU ROAD KANEOHE OAHU, HAWAII 96744 TMK 4-6-011-020	
SITE, GRADING & UTILITY PLAN		YFH ARCHITECTS, INC.	JOB NO. Q91001-13
DESIGNED BY: CHK	CHECKED BY: CHK	DRAWING NO. C003	DATE: JUNE 5, 2014
DRAWN BY: BHK	APPROVED BY:	SHEET 5	OF 50 SHEETS
SCALE: AS SHOWN		DATE: JUNE 5, 2014	

Figure 7

A. Background Information

He'eia Elementary School opened for instruction in 1960 with the construction of three permanent buildings (a cafeteria and two classroom buildings) serving grades K to 6. Four other permanent buildings later were constructed between 1961 and 1971. No permanent structure has been erected since 1971. Single portable classrooms were placed on the campus in 1994, 1996, and 1999. Existing structures and uses are listed in Table 1.

Table 1. Structures at He'eia Elementary School

Building	Function	Levels	No. Classrooms	Year Built
A	Library	1	None	1961
B	Classroom	2	12	1960
C	Classroom	2	12	1961
D	Classroom	2	8	1971
E	Administration	1	4	1960
F	Dining Room	1	None	1971
G	Cafeteria	1	None	1960
P1- P3	Portable Classroom	1	3	'94, '96, '99

Source: Department of Education Facilities Inventory System Report, 2006.

Three buildings --- the Administration Building, Library, and Multi-purpose Dining Room --- are arrayed at the front of the school. Three classroom buildings (Buildings "B", "C", and "D") are aligned north to south behind the Administration Building. The Cafeteria is attached to the back of the Multi-purpose Dining Room. Three portable classrooms adjoin Building "D" on the south.

An outdoor, uncovered basketball court with two courts is located at the back of the school. The 3,870 square foot court is bordered by a grassed, open field on the east used by students for physical education classes and free play. A play apparatus for younger children is located about 40 feet to the northeast and a service path for maintenance vehicles passes to the west.

Parking stalls for 80 vehicles are located at the front of the dining room and west side of the Cafeteria. Four accessible stalls are located fronting the dining room. One loading zone is at the rear of the Cafeteria.

The school is part of the Department of Education's Windward District Castle-Kahuku Complex Area. He'eia Elementary is part of the Castle Complex which includes 'Āhuimanu, Kahalu'u, Kāne'ohe, Kapunahala, Parker, Pū'ōhala, and Waiāhole Elementary Schools. King Intermediate and Castle High School are upper level schools in the complex. In general, elementary schools "feed" students into the King Intermediate which "feed" students into Castle High School.

He'eia Elementary operates as a traditional school. The school year runs from early August to the end of May. Approximately 75 persons staff the school including the Principal and

support staff, grade level faculty and special education teachers, before and after school programs staff, and pre-K instructors and aides.

The school reports a current enrollment of 487 students in grades K-6 including regular (416 students), special education (52 students), and pre-K (19 students). The design enrollment is 800 students (DOE, 206).

A Before School Morning Care (6:00 am to 7:45 am) and After School A+ (2:05 pm to 5:30 pm) programs operate on school days.

School buses drop off students at approximately 7:15 AM and return for pick-ups at about 2:05 PM. An area for school buses is located next to the school on the Kailua side of Ha'ikū Road.

B. Environmental Characteristics

1. General

Located on the south side of the school grounds, the building site is bounded by existing outdoor basketball/volleyball courts on the north, structures comprising a multi-family residential development on the south, a grassed open lawn on the east, and He'eia Neighborhood Park on the west. The building site is part of an expansive grass lawn used for open play by students. There are no structures on the building site (See Photograph 1).



Photograph 1. Approximate Location of Covered Play Court Looking West. Existing Outdoor Court on the Right. He'eia Neighborhood Park in the Background.

Monkey pod and silky oak trees growing on the school property and the adjoining multi-residential development on the south and city park on the west form a dense stand of tree growth. The stand measures between 50 to 100 feet wide.

2. Climate

He'eia's climate can be characterized as semi-tropical with warm summer and winter months. The warmest months are from June to November where daytime temperatures are near 81^o F. The coolest months are from December to April where nighttime temperatures average 68^o F.

Average annual rainfall is about 75 inches indicating that He'eia is fairly wet. High rainfall is in the windward districts of Ko'olau Poko and Ko'olauloa is attributable in part to orographic conditions created by moisture laden northeasterly trade winds ascending the Koo'loau Range.

3. Topography

The entire site has been modified by construction of buildings, walkways, impervious pavements, and grassed lawns. Ground elevation ranges from a high of 144 feet above mean sea level in the northwest corner next to Ha'ikū Road a low of 128 feet near the south property line. In general, the property slopes from northwest to south.

The building site has been graded, grassed and is currently maintained as a mowed lawn. Ground elevation averages elevation 140 feet across the building site. At the rear of the proposed structure, ground elevation drops 12 feet to elevation 128 feet.

4. Soils

The Soil Conservation Service (1972) soil map for the area identifies two soil types occurring across the property --- Lolekaa silty clay, 25 to 40 percent slopes (Code: LoE) and Hanalei silty clay, 2 to 6 percent slopes (Code: HnB). Lolekaa Clay is mapped over an estimated 90% of the site with Hanalei clay comprising the remaining 10%. The latter soil is found only along the southern edge of the property.

Site improvements probably have blurred the distinctions between the soil types. More than likely the existing surface and part of the subsurface soil is a mixture of soil types, imported engineered fill, and imported topsoil.

5. Hydrology

a. Surface Water

There are no surface water features on the premises. Kea'ahala Stream flows west to east (or *mauka* to *makai*) about 150 feet south of the school.

b. Ground Water

Kāne'ohe overlies what Mink and Lau (1990) classify the Koolaupoko aquifer. They further characterize the aquifer as a high level, unconfined, dike aquifer, low in salinity and providing fresh drinking water. It is considered to be irreplaceable as a source of fresh water and highly vulnerable to contamination (See Table 2).

Table 2. Aquifer Classification

Aquifer Code	30603212
Island Code	3 - Oahu
Aquifer Sector	06 - Windward
Aquifer System	03 - Koolaupoko
Aquifer Type, hydrogeology	2 – High Level
Aquifer Condition	1 - Unconfined
Aquifer Type, geology	2 - Dike
Status Code	11111
Development Stage	1 – Currently Used
Utility	1 - Drinking
Salinity	1 – Fresh (<250)
Uniqueness	1 - Irreplaceable
Vulnerability to Contamination	1 - High

Source: Mink and Lau, 1990.

6. Flood Hazard

The Flood Insurance Rate Map (“FIRM”) panel for this section of Kāne’ohe places the school site in a flood zone area designated “Other Areas, Zone X”. This designation is defined as “areas determined to be outside the 0.2% annual chance floodplain (Federal Emergency Management Agency, 2011).” The 0.2% annual chance floodplain is the 500 year floodplain. The FIRM panel is shown on Figure 8.

7. Biological Resources

The building site is a grass covered lawn. No other maintained landscape plantings are associated with the building site.

Monkey pod trees generally follow the property line between the school and city park on the west. On the south, silky oak trees intermixed with landscape plantings and trees at the adjoining multi-family residential development form a dense stand of trees. Ipomea grows on chain link fencing marking the property boundaries on the west and south.

Terrestrial fauna was not observed at the time of the field investigation for this assessment. A leashed dog was observed at the city park and domestic dogs and cats are probably kept in residential areas adjoining the school. Mongoose probably inhabits the stand of trees and vegetation growth to the southwest and south.

Common birds including mynah, barred dove, sparrow, pigeon, cattle egret, and Brazilian cardinal were observed. Pacific golden plover have been observed frequenting the grassy lawn at the back of the school (Comment from the He’eia Elementary School Principal and Vice-Principal).

8. Archaeological Resources

Cultural Surveys Hawaii (2014) conducted a Literature Review and Field Inspection of the site of the proposed play court. Their report is appended to this environmental

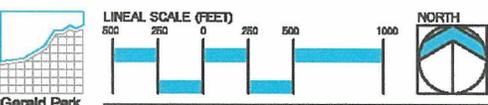


Legend

-  **Special Flood Hazard Zone Subject to Inundation by the 1% Annual Chance Flood**
- Zone A** No Base Flood Elevations Determined.
- Zone AE** Base Flood Elevation Determined.
-  **Floodway Area in Zone AE**
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachments so that the 1% annual chance flood can be carried without substantial increases in flood heights.

-  **Other Flood Areas**
- Zone X** Areas of 0.2% Annual Chance Flood; Areas of 1% Annual Chance Flood with Average Depths of Less than 1 Foot or with Drainage Areas Less than 1 Square Mile; and Areas Protected by Levees from 1% Annual Chance Flood.
-  **Other Areas**
- Zone X** Areas Determined to be Outside the 0.2% Annual Chance Floodplain.

Source: Federal Emergency Management Agency
 Flood Insurance Rate Map
 Map Number 15003C0270H
 Date: Jan. 19, 2011.



Gerald Park
 Urban Planner
 March 2014

He'eia, Ko'olau Poko, Island of O'ahu, Hawai'i

Figure 8
Flood Insurance Rate Map
He'eia Elementary School Covered Play Court

assessment as Appendix A. Excerpts from their investigation are presented below. The figure numbers cited in the excerpt refer to the Literature Review and Field Inspection and not those in the environmental assessment.

“Historic records indicate that coastal He‘eia was particularly densely inhabited which is reflected for example in the density of LCAs in the vicinity of He‘eia Elementary School (see Figure 8). Research indicates however that there were no *maka‘āinana kuleana* LCAs at the location of the present school campus. This may be because the school campus lies on a low ridge between areas of better watered, more fertile bottom lands.

The project area is well back from the coast and is not immediately adjacent to any fresh water. Houses are indicated at the present He‘eia Elementary School campus by 1919 (see Figure 11) but there do not appear to have ever been houses at the present project location per se.

Field inspection indicates the project area is presently a mowed lawn (see Figure 19 through Figure 22) with no indication of any subsurface historic properties likely to be present in the silty clay soils.

Because the school is more than 50 years old, early consultation with the SHPD architecture branch is recommended to ensure there are no concerns for adverse impacts to the school itself as a possible architectural historic property.”

9. Cultural Resources

Excerpts from a cultural impact evaluation conducted as part of the Literature Review and Field Inspection Report is presented below.

a. Contemporary Landscape Description for the Project Area

The project area is adjacent to paved basketball courts used by the He‘eia Elementary School children and is presently a mowed field used by the school children for general recreation. The project area is in short grass lawn with bare patches of silty clay at 3 to 8% slopes visible. There are no constructions within the project area per se. The project area was almost certainly graded at the time the school was established (1960).

b. Traditional Cultural Landscape Description of the Project Area

The project area lies within the traditional area of Kikiwelawela ‘Ili of He‘eia Ahupua‘a approximately 1.1 km. inland (southwest) from the coast of Kāne‘ohe Bay. While He‘eia was known as an *‘Āina momona* or “land of abundance” for its well watered taro fields, fishponds, and extensive reefs, the specific area of the future He‘eia Elementary School campus was not a part of any *maka‘āinana kuleana* Land Commission Award claims. Possibly this is because the school campus location lies on something of ridge separating it from well watered agricultural lands to the northwest and northeast. The LCA claims located nearest to the project area indicate the land at the time of the Kuleana Act (1852) was used primarily for *lo‘i* cultivation and house lots. It is not clear that there was ever a structure in the project area per se or any specific land use prior to the establishment of the school.

c. *Wahi Pana* (Storied Places)

Storied places or *wahi pana* of He'eia include Mōkapu peninsula and Moku o Lo'e island, the extensive coral reefs and fishponds (particularly He'eia Fishpond), and the inland *pali* and caves of 'Ioleka'a. None of these *wahi pana* is believed to be within a kilometer of the He'eia Elementary School campus. Perhaps the closest *wahi pana* would have been Kaulaukī Heiau (SIHP # 50-80-10-328, approximately 1.1 km northwest of the project area), a *heiau* "of good size" (McAllister 1933:173). This modest school playcourt project would have no effect on the *wahi pana* of He'eia.

d. Trails

The map of He'eia by Baldwin and Alexander in 1913 (see Figure 10) shows an alignment approximating present day Ha'ikū Road that bounds the He'eia Elementary School campus on the northwest side, descending down to a coastal road approximating contemporary Kamehameha Highway. These may well have been the major *maukal/makai* and *cross-ahupua'a* trails of He'eia Ahupua'a and remain major public thoroughfares to this day. The playcourt project would have no effect on these probable early trail alignments.

e. Burials

Few burials have been reported from the general vicinity of the project area. Human remains were documented near the mouth of He'eia Stream (Ota and Kam 1982) and eroding from a shoreline bank at He'eia State Park (Kawachi and Yent 1990) both more than a kilometer and a half to the north. Perhaps the major burial ground at Mōkapu peninsula was indeed the preferred resting place for the departed of He'eia.

f. Archaeological Sites

No traditional Hawaiian archaeological sites have been reported from the vicinity of the present project area in the archaeological literature. The nearest archaeological sites are former taro and rice terraces (Hammatt and Borthwick 1990).

g. Traditional Gathering Practices

It is likely that if *pili* (*Heteropogon contortus*) grass grew in the vicinity (none grows there now) that it would have been gathered but few other resources appropriate for gathering seem likely. A field inspection of the project area indicated only a mowed lawn of exotic grasses.

C. Land Use Controls

The State Land Use Commission under the authority of Chapter 205, Hawai'i Revised Statutes classifies all land in the State of Hawai'i as Agricultural, Conservation, Rural, and Urban. Uses in the Agricultural District are regulated by the Land Use Commission; uses in the Conservation District by the Board of Land and Natural Resources, uses in the Rural District by the Land Use Commission, and uses in the Urban District by the respective county government. The zoning powers of the respective counties also govern uses in other than the Conservation District.

- Developed areas around He‘eia Elementary School are classified Urban by the State Land Use Commission.

The use of Urban designated land is under the authority of the City and County of Honolulu and its applicable plans, ordinances, and regulations. City land use policies and controls for O‘ahu are vertically aligned or tiered for managing growth and land uses beginning with the General Plan for the City and County of Honolulu (“General Plan”), community development plans and sustainable community plans, and zoning. Special districts and special management area rules provide supplementary controls for defined areas where man-made features and natural resources should be protected and managed.

The General Plan for the City and County of Honolulu (“General Plan”) is the first tier. It sets forth broad objectives and policies in eleven functional areas such as Economic Activity, Natural Environment, Energy, Physical Development and Urban Design, and Public Safety. The Population component and its objectives and policies are keys to managing growth. The component establishes a population distribution pattern for eight geographic regions comprising the county. Each region has an upper and lower limit (percentage) of the islandwide population for a targeted year (currently 2025).

The General Plan also includes a General Plan Development Pattern Map depicting the eight districts and the desired development pattern for and within the respective district.

- Kāne‘ohe Town is in the Windward O‘ahu region of the island and the development pattern is to maintain developed areas within the region as “Urban-Fringe”.

Development Plans or Sustainable Communities Plans prepared for the eight geographic regions in the County comprise the second tier. Although encompassing eight regions where each area’s values, vision, and policies for accommodating growth are different, the plans collectively support the General Plan. The Ko‘olaupoko *Sustainable Communities Plan* (2000) 1) describes the role of Ko‘olaupoko in Oahu’s development pattern, 2) articulates a vision for the district to the year 2025, 3) prescribes land use development and infrastructure policies, and 4) describes means for implementing the plan (DPP, 2000).

The Ko‘olaupoko SCP reaffirms the directed growth policies of the General Plan. The Plan acknowledges that growth will take place and establishes a Community Growth Boundary encircling the entire district. The boundary identifies areas where growth and infill can occur (inside the boundary) and areas where agriculture, open space, and natural resources should be maintained and preserved (areas outside the boundary).

- Kāne‘ohe Town including He‘eia Elementary School is inside the Community Growth Boundary.

The Urban Land Use map component of the Ko‘olaupoko SCP designates the site of He‘eia Elementary School Institutional.

The Plan also posits policies and planning principles for school facilities in the region. As written, the policies do not apply to the proposed project. A section of the Plan, however, talks about institutional campuses which includes He‘eia Elementary as a secondary campus. Policies and guidelines (paraphrased) that may apply to the project are:

- **Existing Campuses.** Existing institutions may expand facilities and programs within the campuses they presently occupy (Section 3.8.1 Overview).
- Vary the architectural character, depending on theme and purpose of the use. Portions of buildings that are adjacent to or readily visible from residential areas should reflect a more residential character; or be screened from view from such areas by landscaping (Section 3.8.3 Guidelines).
- Building heights should not exceed two to three stories or 40 feet, including the roof form. Height setback transitions should be provided from street frontages, the shoreline, and adjacent residential areas (Section 3.8.3 Guidelines).

Zoning comprises the third tier of the City's land use management system. As shown on zoning maps, land in the county is zoned for certain uses and density (for example R-5 Residential with a minimum lot size of 5,000 square feet). The Land Use Ordinance (which incorporates the zoning maps) prescribes the types of uses permitted in zoning districts and associated development standards. The LUO also establishes requirements for parking, specific use standards, signs, development in flood districts and special districts, and administration and enforcement procedures.

- The school property is zoned R-10 Residential (See Figure 9). Public uses and structures are permitted in the zoning district pursuant to Article 3, Table 21.3 Master Use Table of the Land Use Ordinance, City and County of Honolulu.

D. Public Facilities and Services

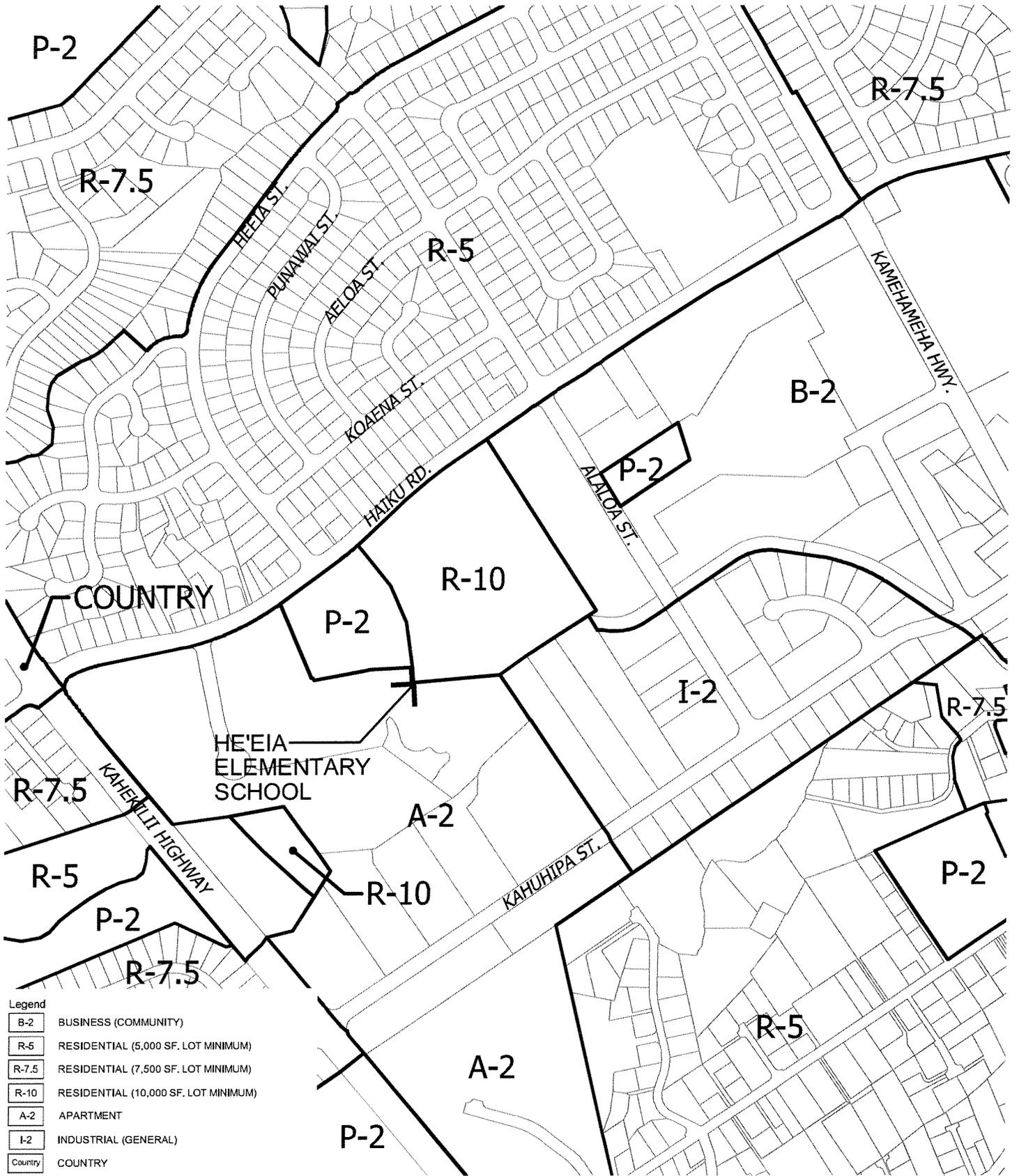
Ha'ikū Road, a paved four-lane, two-way, undivided, County road passes to the north of the school connecting Kamehameha Highway on the east and Kahekili Highway on the west. Within its 50-foot right-of-way, the road is fully improved with curbs, gutters, and sidewalks on both sides. On-street parking is permitted on both sides of the street. The posted speed limit is 25 mph fronting the school and Ha'ikū Neighborhood Park.

Vehicle access to the school is provided by two driveways. One two-way driveway leads to a large employee parking lot on the west side of the cafeteria and a second one-way driveway accesses a circular turnaround at the front of the school for dropping off / picking up students.

A school bus drop off/pick-up is located on the Kailua side of Ha'ikū Road *makai* of the turnaround. Bus movement is one-way in and one-way out. A covered shelter and shade trees provide relief from inclement weather and the hot sun for bus riders.

Bikeway or bike lanes on either side of Ha'ikū Road are not provided but Bike Route signs are posted on both sides of the road. "SCHOOL XING" is painted on the *mauka* bound lane between the two driveways into the school.

Domestic water is provided by an 8" Board of Water Supply main in Ha'ikū Road. From the water main, a 4" lateral connects to a 2" water meter from which water is distributed to the entire school.



- Legend**
- B-2 BUSINESS (COMMUNITY)
 - R-5 RESIDENTIAL (5,000 SF. LOT MINIMUM)
 - R-7.5 RESIDENTIAL (7,500 SF. LOT MINIMUM)
 - R-10 RESIDENTIAL (10,000 SF. LOT MINIMUM)
 - A-2 APARTMENT
 - I-2 INDUSTRIAL (GENERAL)
 - Country COUNTRY
 - P-2 PRESERVATION (GENERAL)

Source: City & County of Honolulu, Department of Planning & Permitting
Zoning Map 20, Ord. 86-121, Oct. 22, 1986

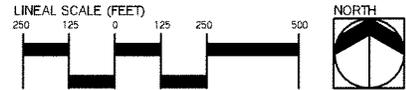
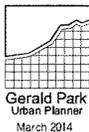


Figure 9
Zoning Map
He'eia Elementary School Covered Play Court

The school is served by the municipal wastewater system. Wastewater discharges into one or two sewer manholes along the south property line. The manholes are connected by a 12" VC main.

The building site and adjoining open lawn area are graded to slope towards the southwest corner of the school grounds. Drainage structures were not observed on the building site. The entire outdoor play court is raised slightly above grade and sloped to drain onto the grass lawn. Sections of the city park nearest the school are sloped to drain in the direction of the school and the parking lot. A gated service entrance located at the south end of the parking lot is sloped to drain towards the parking lot. A shallow concrete swale conveys surface water into a drain inlet about 50 feet north of the service entrance..

Electrical, communication, and street lights are provided from distribution systems on the north side of Ha'ikū Road. Electrical distribution lines from the road into the school grounds are placed underground.

Police protection originates from the Kāne'ohe Police Station located on Kamehameha Highway and fire protection from the Kāne'ohe Fire Station also on Kamehameha Highway. The police and fire stations are located across the street from each other about 1.0 miles from the school via Ha'ikū Road and Kamehameha Highway.

He'eia Neighborhood Park, a city park, adjoins the school on the west. Improvements at the 3.97 acre park include a comfort station, two outdoor basketball courts, one volleyball court, softball field, children's play apparatus, picnic facilities, and limited off-street parking. The basketball and volleyball courts are lighted for night use but the softball field is not. The park is under the jurisdiction of the Department of Parks and Recreation, City and County of Honolulu.

3

SUMMARY OF POTENTIAL ENVIRONMENTAL IMPACTS AND MEASURES TO MITIGATE ADVERSE EFFECTS

The scope of the project was discussed with the consulting architect and design team, staff of the Facilities Development Branch, Department of Education, and the Principal and Vice-Principal of He'eia Elementary School. State and County agencies were contacted for information relative to their areas of expertise. Time was spent in the field noting conditions at the building site, the school grounds, and in the vicinity of the school. The sum total of the consultations and field investigations helped to identify existing conditions and features that could affect or be affected by the project. These conditions include:

- The building site for the covered play court is a maintained grass lawn;
- There are no structures on the building site;
- Rare, threatened, or endangered flora or fauna were not observed on or near the building site;
- There are no archaeological resources associated with He'eia Elementary School;
- There are no on-going cultural practices associated with He'eia Elementary School;
- He'eia Elementary School is not located in a flood hazard area; and
- There are no streams, ponds, or wetlands on the school property.

A. Short-term Impacts

Construction will temporarily affect ambient air quality. Site work activities will raise fugitive dust that can settle in adjoining areas. Site work will be limited to the building site and the limited area to be disturbed should aid in mitigating dust generation and erosion. The general contractor will employ dust control measures to prevent work site and construction equipment and activities from becoming significant dust generators. Control measures shall comply with Chapter 60.1, Air Pollution Control, Title 11, State Department of Health (and revisions thereto).

Most construction equipment and vehicles are diesel powered and emit exhaust emissions typically high in nitrogen dioxide and low in carbon monoxide. The Federal and State nitrogen dioxide standard ---100mg/m³ per annum---which is an annual standard, is not likely to be exceeded during construction. Carbon dioxide emissions should be less than that generated by automobile traffic on adjoining streets. Fumes from diesel equipment may be detected but should be dispersed by the prevailing winds.

Like fugitive dust, construction noise cannot be avoided. Exposure to noise will vary by construction phase, the duration of each phase, and the type of equipment used during the different phases. Maximum sound levels in the range of 82-96 db(A) measured at 50 feet from the source would be generated by heavy machinery during site work. After site work is completed, reductions in sound levels, frequency, and duration can be expected.

Residential uses and schools are considered noise sensitive areas. Building "D", a two-level classroom building and Portable Classroom P-1 are located approximately 100 feet from the building site. Building "D" is constructed of cement masonry unit walls which can effectively aid in noise mitigation. The west side of the building faces the building site and

classrooms are oriented north-south facing away from the building site. Thus construction noise should not adversely interfere with activities in the Building "D" classrooms.

In general, wood is not effective in attenuating noise and loud construction-related sounds will be audible inside the three wooden portables. This impact could be mitigated if the start of site work can be scheduled when school is not in session. Major site work activities can then take place during the summer when school is not in session.

Construction will overlap into the school year and a time / work schedule will be developed in consultation with school administrators. A Spring 2015 start up is projected but if it could be held off for a month or two to the summer, the slight delay should preclude site work activities, dust, and construction related noise from interfering with classroom instruction.

Community Noise Control regulations (State Department of Health, Title 11, Chapter 46 Noise Control for Oahu) establish maximum permissible sound levels for construction activities occurring within "acoustical" zoning districts. Based on the residential zoning for the property, the project is classified as a Class A zoning district for noise control purposes. The maximum permissible daytime (7 a.m. to 10 p.m.) sound level in the district is 55 dBA during daytime and 45 dBA during nighttime for stationary noise sources and equipment related to construction (§11-46-4). Any noise source that emits noise levels in excess of the maximum permissible sound levels cannot be operated without first obtaining a noise permit from the State Department of Health. Although the permit does not attenuate noise per se it regulates the hours during which excessive noise is allowed. The contractor will be responsible for obtaining and complying with conditions attached to the permit.

Although limited in area, site work will expose soil thus creating opportunities for erosion (fugitive dust and suspended sediment in construction related runoff). Within the project limits the area to be grubbed and graded is estimated at 9,250 square feet. Earthwork quantities are estimated at approximately 350 cubic yards of removal and importing approximately 500 cubic yards of fill. Trenching and stockpiling excavated or imported material will be performed in accordance with Chapter 14, Article 14 of the Revised Ordinances of Honolulu, 1990, as amended. Furthermore, work will be done in accordance with the Rules Relating to Soil Erosion Standards and Guidelines.

Best Management Practices (BMPS) for erosion and drainage control during construction will be incorporated into grading plans. BMPS will include erecting silt fences around the project limits, grassing all exposed areas after grading work is completed, placing absorbent socks around drain inlets to minimize sediment from entering the drainage system, and constructing stabilized construction access pads at the entrances to the building site to help protect the driveway and parking areas from mud, dirt, and rocks. The contractor may implement other BMPS based on field conditions and their experience in working with similar work sites.

BMPS also will be implemented pursuant to City and County of Honolulu Rules Relating to Storm Drainage Standards, Section II, Storm Water Quality.

Site work will not exceed one acre thus a NPDES General Permit Authorizing Discharges of Storm Water Associated with Construction Activity will not be required from the State Department of Health.

Areas within the project limits disturbed by construction will be restored and grassed to pre-construction conditions or better.

Vehicles carrying workers and material will contribute to traffic on Ha'ikū Road and Kamehameha Highway and Kahekili Highway the major thoroughfares connecting Ha'ikū Road. Material deliveries will be scheduled during non-peak traffic hours to minimize impact on local and school-related traffic.

A field office and base yard will be set up near the building site at a location to be determined. Material will be unloaded near the building site and/or stockpiled in the base yard. Construction equipment will be stored in the base yard and the yard secured after working hours.

According to Cultural Surveys Hawai'i (2014), "[T] the project area is evaluated as having no surface historic properties and as having a very low probability of subsurface historic properties. No further archaeological work is recommended.

In the unlikely event that any human remains or other significant subsurface deposits are encountered during the course of development activities, all work in the immediate area will stop and the SHPD promptly notified.

The cultural impact evaluation attempted a good-faith summary of the likely traditional Hawaiian landscape of this small (approximately 0.22 acre) project area considering such potential issues as *wahi pana*, trails, burials, archaeological sites, and gathering practices. The project area is a graded, mowed lawn of exotic grasses. On the basis of this evaluation the prospect for any traditional or on-going Native Hawaiian cultural practices in this project area appears very low.

Safeguards will be taken to allow use of the outdoor courts during construction. When the courts have to be closed temporarily, school administrators will consult with the Department of Parks and Recreation to allow use of courts at He'eia Neighborhood Park during school hours.

B. Long-term Impacts

The principal impact of the project is to provide a covered, all-weather structure for year 'round recreational use and school activities. The covered structure will protect students from rain during inclement weather and the sun and heat on "hot" days thus providing for their health and safety.

Noise associated with use of the play court should not be significantly different or "louder" than noise now emanating from children playing on the open lawn, play apparatus, and outdoor courts. Noise will not be constant during the school day but occur when the play court is used for recess, P.E. classes, and school functions.

Roof runoff will be discharged onto the grass areas adjoining the structure and allowed to percolate into the ground. Sidewalks around the play court will be sloped to drain out towards the grass areas. Adverse long term impacts are not anticipated since the proposed method of drainage control is no different from how the outdoor courts are currently drained.

Increases in energy costs can be mitigated by incorporating natural lighting and energy efficient light fixtures/luminaries into the design of the structure and its electrical system.

The play court will present a new object to be seen on campus and will be about the same height as several existing two-level classroom buildings. In general, the structure will not be visible from locations east of the school. Views from this direction are already blocked by existing school buildings and trees along the perimeter of the lot. Existing structures at the front of the campus will block views from residences on Ha'ikū Road except perhaps for the roof of the structure.

The new play court structure is sited on the west side of the campus and the prevailing views will be from areas to the south and west. The front and west sides of the structure and roof will be visible from He'eia Neighborhood Park, Ha'ikū Road, and residences across the school. When school is in session, parked vehicles will obstruct the lower half of the structure but the upper half will be visible.

On the south, existing school buildings are buffered from the adjoining Haiku Point multi-family residential area by ample setbacks, trees, and ground topography on this side of the campus. The residential development is approximately 18 to 20 lower in elevation than the building site and the view of the school grounds is that of a sloping lawn.

The structure will be set back approximately 150 feet from the south or rear property line. With this setback and the difference in ground elevation the north facing view will be the backside of the structure and primarily the edge of roof protruding above the crest of the sloping lawn as seen from second level units. The bottom half will not be visible to ground level units owing to the sloping terrain and the upward facing line of sight. The mix of trees and shrubs in this area will help screen the structure.

The east elevation of the structure may be clearly seen from industrial warehousing areas to the southeast and adjoining the Hakiu Point development.

Over time, the play court will architecturally blend with the school buildings and facilities becoming part of the built-up campus setting.

The play court will replace a grass lawn and reduce open space. The play field has functioned as a recreation space for students and gathering place for school activities for many years. And for many years, inclement weather has curtailed outdoor activities and events.

The proposed use or addition will not affect existing City and County of Honolulu land use controls for the property and school. County zoning regulations allow public uses and structures as permitted uses in the residential zoning district.

The height limit for residential zoning districts is 25-feet. The proposed play court has an approximate height of 30-feet and exceeds the building height for the zoning district. The Department of Education will seek a Waiver to allow a 5+ feet encroachment above the required height limit. The Waiver will neither call into question the use and development standards of the residential zoning nor significantly alter the existing use and character of the school.

The exterior and covered walkways to the structure will be lighted. The sensor activated fixtures will provide down lighting and will not cast light into adjoining areas.

The proposed fire apparatus road will provide ready access for fire fighters and their equipment in the event of fire.

A. No Action

A no action alternative would maintain the status quo of the site thus precluding the occurrence of all environmental impacts, short and long-term, beneficial and adverse disclosed in this Assessment. Resources committed to planning and design of the facility will be foregone and the purpose of the project not achieved.

B. Alternative Location

An alternative location for the play court was not considered. The selected site was chosen because of its proximity to the existing outdoor courts and availability of space to accommodate the proposed structure.

Permits required for the project and responsible authorities are identified below. Additional permits and approvals may be required depending on final construction plans.

State of Hawai'iDepartment of Health

Variance from Pollution Controls (Noise Permit)

Department of Land and Natural Resources, Historic Sites Division

Historic Site Review

City and County of HonoluluBoard of Water Supply

Cross Connection Control and Backflow Prevention

Department of Planning and Permitting

Waiver (Building Height)

Grubbing, Grading, and Stockpiling Permit

Building Permit for Building, Electrical, Plumbing Sidewalk/Driveway and Demolition Work

Certificate of Occupancy

6

AGENCIES AND ORGANIZATIONS TO BE CONSULTED

State of Hawai'i

Department of Health
Environmental Planning Office
Department of Land and Natural Resources
Historic Preservation Division

City and County of Honolulu

Board of Water Supply
Department of Environmental Services
Department of Parks and Recreation
Department of Planning and Permitting
Police Department
Fire Department

Others

Haiku Point Association of Apartment Owners
Hawaiian Electric Company
The Honorable George Okuda, Representative, 48th Representative District
The Honorable Clayton Hee, Senator, 23rd Senatorial District
The Honorable Jill Tokuda, Senator, 24rd Senatorial District
The Honorable Ikaika Anderson, Honolulu City Council
Kaneohe Neighborhood Board No. 30
Kaneohe Public Library (Placement)

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

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

Cultural Surveys Hawaii (2014) indicated the project area “as having no surface historic properties and as having a very low probability of subsurface historic properties.”

They also concluded that” the prospect for any traditional or on-going Native Hawaiian cultural practices in this project area appears very low.”

In the event subsurface deposits are encountered during the course of development activities all work in the immediate area will stop and the State Historic Preservation Division notified of the finds.

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

The project does not curtail the beneficial uses of the environment.

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

The project does not conflict with long-term environmental policies, goals, and guidelines of the State of Hawaii.

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

The project will not substantially affect the economic or social welfare of the State.

5) Substantially affects public health;

Public health will not be affected. Short-term environmental impacts in the form of fugitive dust, construction noise, and minor erosion can be expected during construction. These impacts can and will be mitigated by measures described in this Assessment and measures, such as BMPs for erosion control, to be submitted with construction plans and documents.

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

Substantial secondary impacts on public facilities are not anticipated.

7) Involves a substantial degradation of environmental quality;

Original environmental conditions of the lot were previously modified by construction of the school in the late 1950s and subsequent addition of buildings and associated improvements. Thus the quality of the environment is that of an operating school and physical and environmental conditions described in this assessment.

The covered play court will not substantially degrade environmental quality. It is anticipated that the facility will provide recreational and educational opportunities for students and a place for school assemblies and activities.

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

The project does not involve a commitment for larger actions

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

Rare, threatened, or endangered flora and fauna were not observed on the building site.

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

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

Construction is projected to start in Spring 2015 when school is in session. Site work is the first major activity and grubbing, grading, and excavation will generate noise that will be audible in nearby classrooms. Dust control measures should help prevent fugitive dust from escaping the project limits. The movement of workers and vehicles within the project limits also will contribute general noise. Noise and dust impacts cannot be avoided and the contractor will develop a time / work schedule in consultation with school administrators to minimize interference while classes are in session.

Site work impacts can be avoided if construction can be put off until the end of the school year.

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

He'eia Elementary School is not located in an environmentally sensitive area.

There are no surface water sources on the premises and the school is not located in a flood prone or flood hazard area.

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

County and state plans do not identify significant scenic vistas and/ or panoramic views specifically for He'eia Elementary School. The Ko'olaupoko *Sustainable* Communities Plan Open Space map identifies a *mauka* facing Continuous View from Kāne'ohe Bay in the direction of Kāne'ohe and a *makai* facing Continuous View in the direction of Kāne'ohe Bay from the base of the Ko'olau Mountain range above Kāne'ohe. The proposed covered play court will not significantly affect both panoramic view planes.

13) Requires substantial energy consumption.

Substantial energy consumption is not anticipated.

REFERENCES

- Cultural Surveys Hawai'i. April 2014. *Literature Review and Field Inspection Including Cultural History for the He'eia Elementary School Playcourt Project*. DOE JOB NO. Q91001-13, He'eia Ahupua'a, Ko'olaupoko District, O'ahu TMK: [1] 406-031: 20.
- Department of Education, State of Hawai'i. 2006. *Department of Education Facilities Inventory System Comprehensive Report, He'eia Elementary School*.
- _____. November 2012. *Official Enrollment Count, School Year 2012 – 2013*.
- Department of General Planning, City and County of Honolulu. 1988 (As Amended). *General Plan Objectives and Policies*.
- Department of Planning and Permitting, City and County of Honolulu. August 2000. *Koolaupoko Sustainable Communities Plan*.
- Department of Planning and Permitting, City and County of Honolulu. December 2008. *Land Use Ordinance (As Amended)*.
- Department of Geography, University of Hawai'i at Hilo. 1998. *Atlas of Hawai'i Third Edition*. University of Hawai'i Press. Honolulu.
- Federal Emergency Management Agency. January 2011. *Flood Insurance Rate Map*. Community Panel No. 15003C270H.
- Mink, John F. and L. Stephen Lau. February 1990 Revised. *Aquifer Identification and Classification for O'ahu: Groundwater Protection Strategy for Hawai'i*. Water Resources Research Center, University of Hawaii at Manoa.
- Park, Gerald Urban Planner. March 2014. *Field Observation*.
- U.S. Department of Agriculture, Soil Conservation Service. August 1972. *Soil Survey Report for Islands of Kaua'i, O'ahu, Maui, Moloka'i, and Lāna'i, State of Hawai'i*. In Cooperation with the University of Hawai'i Agricultural Experiment Station.

APPENDIX A

**Literature Review and Field Inspection Including Cultural History
for the He'eia Elementary School Playcourt Project
DOE JOB NO. Q91001-13,
He'eia Ahupua'a, Ko'olaupoko District, O'ahu
TMK: [1] 4-6-031: 020**

NOTE: APPENDIX A IS REPRODUCED ON THE ATTACHED CD.

