



**FINAL ENVIRONMENTAL ASSESSMENT
and
FINDING OF NO SIGNIFICANT IMPACT (FONSI)**

**FOR
HANA AIRPORT AIRCRAFT RESCUE FIRE FIGHTING FACILITY
AND PERIMETER FENCE**

**HANA AIRPORT
400 ALALELE PLACE, HANA, MAUI
[TMK: (2) 1-3-003:022]
JULY 2008**

Prepared for:
**State of Hawaii Department of Transportation
Airports Division**

Prepared by:
**GMP Hawaii, Inc.
1100 Alakea Street, Suite 1800
Honolulu, Hawaii 96813**

PROJECT SUMMARY

Project:	Hana Airport Improvements
Proposing Agency: (Applicant)	State of Hawaii Department of Transportation, Airports Division 400 Rodgers Boulevard, Suite 700 Honolulu, Hawaii 96819 Contact: Kevin Funasaki Phone: (808) 838-8828
Agent:	GMP Hawaii, Inc. 1100 Alakea Street Suite 1800 Honolulu, Hawaii 96813 Contact: Jennifer Littenberg Phone: (808) 521-4711
Approving Agency:	Department of Transportation, Airports Division
Property Owner:	State of Hawaii
Property Location:	400 Alalele Place Hana, Maui, Hawaii
Tax Map Key:	2-1-003:003:022
Property Acreage:	143.79 Acres
Existing Use:	Airport Facilities, and Airport Operations
State Land Use Classification:	Agricultural, Conservation
County Zoning:	Interim/Agricultural
Proposed Project:	<i>The State of Hawaii Department of Transportation Airports Division (HDOT) is proposing the following facility improvements at the Hana Airport to accommodate forecast aviation demand through the near future based on the review of the 1998 Hana Airport Master Plan and to address current Federal Aviation Administration (FAA) requirements.</i>
Agency Determination:	Finding of No Significant Impact (FONSI)

EXECUTIVE SUMMARY

The State of Hawaii Department of Transportation (HDOT), Airports Division under the direction and funding of the United States Federal Aviation Administration (FAA) grant number 3-15-0001-05 has requested that an Environmental Assessment (EA) be conducted to address the proposed improvements and construction at the Hana Airport (HNM). These improvements include the construction of a new Aircraft Rescue and Fire Fighting (ARFF) Facility and construction and installation of a perimeter security fence.

This project is being funded under a grant by the FAA to bring HNM in compliance with Federal Aviation Requirements, Code of Federal Regulations Part 139 Certification of Airports. Federal Aviation Requirement Part 139; establishes certification requirements for small airports serving scheduled air carrier operations with 10-30 passengers.

This Final EA details the proposed improvements and construction projects at the Hana Airport. These improvements include the; 1) Construction of a new one-story ARFF building, new septic sewer tank, emergency back-up generator, a proposed 500 gallon vehicle fuel storage tank, and a proposed 300 gallon water storage tank as redundant back-up systems. 2) Construction of a new security perimeter fence.

This Final EA presents the purpose and need for the proposed project, a comprehensive analysis of the alternatives considered, the affected environment, project and site-specific environmental consequences, and impact mitigation measures associated with the proposed construction of the ARFF building and security perimeter fencing.

The anticipated short-term impacts associated with the construction and implementation of the proposed project is confined to the immediate site and to the area's existing infrastructure. The short-term impacts shall be limited to the estimated construction period and all construction activities will be contained within the project site property.

Construction, operation, and maintenance of the proposed action as outlined, could have short-term minimal adverse impacts as well as long-term positive impacts on the public health, safety and human environment. Most of the adverse impacts would be short-term and construction-related. Adverse effects on topography, soils, and geology; floodplains and wetlands; biological resources; air quality; hazardous materials and wastes; infrastructure; land use and noise and cultural resources are expected to be minimal or negligible with implementation of appropriate mitigation measures.

For the proposed action alternative, impacts on the human environment are expected to be less than significant with implementation of prescribed adverse affect minimization/mitigation measures outlined in this Final EA, along with applicable regulatory permit compliance. Impacts to the socioeconomic environment are positive due to the creation of jobs during the construction phase. The proposed project is in concert with planned development and existing land use.

The information contained in this Final EA was taken from site visits, personal communications, existing environmental, engineering and planning studies, as well as consultation with Federal, State and County agencies.

EXECUTIVE SUMMARY

This Final EA has been prepared in accordance with the requirements of Chapter 343, Hawaii Revised Statutes (HRS) and associated Title 11, Chapter 200, HAR of the DOH Rules, National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the United States (U.S.) FAA (Order 1050.1E and Order 5050.4B).

The proposed project would require the use of State funds and lands and, therefore, requires the preparation of an EA pursuant to Chapter 343, HRS and associated Title 11, Chapter 200, HAR.. The HDOT has reviewed the comments received during the Draft EA public comment period and determined that the proposed project at the Hana Airport will not have a significant impact on any environmental, cultural, social, or economic resources based on the criteria set forth in the DOH Rules, Chapter 200, Title 11. The HDOT has issued a Finding of No Significant Impact (FONSI) determination for this proposed project.

The State of Hawaii Department of Transportation (HDOT), Airports Division under the direction and funding of the United States Federal Aviation Administration (FAA) grant number 3-15-0001-05 has requested that a Final Environmental Assessment (EA) be conducted to address the proposed improvements and construction at the Hana Airport (HNM). These improvements include the construction of a new Aircraft Rescue and Fire Fighting (ARFF) Facility and construction and installation of a security perimeter fence.

This project is being funded under a grant by the FAA to bring HNM in compliance with Federal Aviation Requirements, Code of Federal Regulations Part 139 Certification of Airports. Federal Aviation Requirement Part 139; establishes certification requirements for small airports serving scheduled air carrier operations with 10-30 passengers.

This Final EA (FEA) was prepared in accordance with Chapter 343, Hawaii Revised Statutes (HRS), Chapter 200 Title 11, Administrative Rules, State of Hawaii Department of Health, the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the United States (U.S.) FAA (Order 1050.1E and Order 5050.4B). These policies require the FAA to take into account environmental considerations when funding any Federal action. This FEA provides a framework to address the impacts of the proposed improvements and construction activities at the Hana Airport on Maui.

This FEA evaluates the environmental issues involved with the project and assures the responsibility of its accuracy and content. The information within this FEA has been used to determine whether or not the impacts of the proposed action are significant enough to warrant the preparation of an Environmental Impact Statement (EIS). This FEA evaluates the existing environmental conditions and potential environmental impacts resulting from the proposed project, as well as the mitigation measures which would be implemented to minimize any adverse impacts.

The proposed project would require the use of State funds and lands and, therefore, requires the preparation of an EA pursuant to Chapter 343, HRS and associated Title 11, Chapter 200, HAR. The HDOT has reviewed the comments received during the Draft EA public comment period and determined that the proposed project at the Hana Airport will not have a significant impact on any environmental, cultural, social, or economic resources based on the criteria set forth in the DOH Rules, Chapter 200, Title 11. The HDOT has issued a Finding of No Significant Impact (FONSI) determination for this proposed project.

Due to heightened Transportation Security (TSA), and Federal Aviation Administration (FAA) requirements following the events of September 11th 2001, security improvements for airports across the United States have been proposed, particularly around the perimeter of runways.

United States Title 14 Code of Federal Regulations (CFR) Part 139 requires the Federal Aviation Administration (FAA) to issue Airport Operating Certificate to airports that:

1. Serve scheduled and unscheduled air carrier aircraft with more than 30 seats;
2. Serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats; and
3. The FAA Administrator requires the Airport to obtain a certificate.

An Airport Operating Certificate (AOC) serves to ensure safety in air transportation. To obtain a certificate, an airport must agree to develop certain operational and safety standards such as: fire fighting and rescue equipment, and the infrastructure to respond to potential aircraft related incidents to ensure the public's safety. These requirements may vary depending on the size of the airport and the type of flights available.

The Hana Airport is a regional airport of the State of Hawai'i located on the east shore of the island of Maui, approximately three miles (5 km) northwest of the town of Hana. The airport covers 119 acres (0.5 km²) and has one runway. It is primarily a commuter facility used by unscheduled air taxis and general aviation. Figure 1 illustrates the project location.

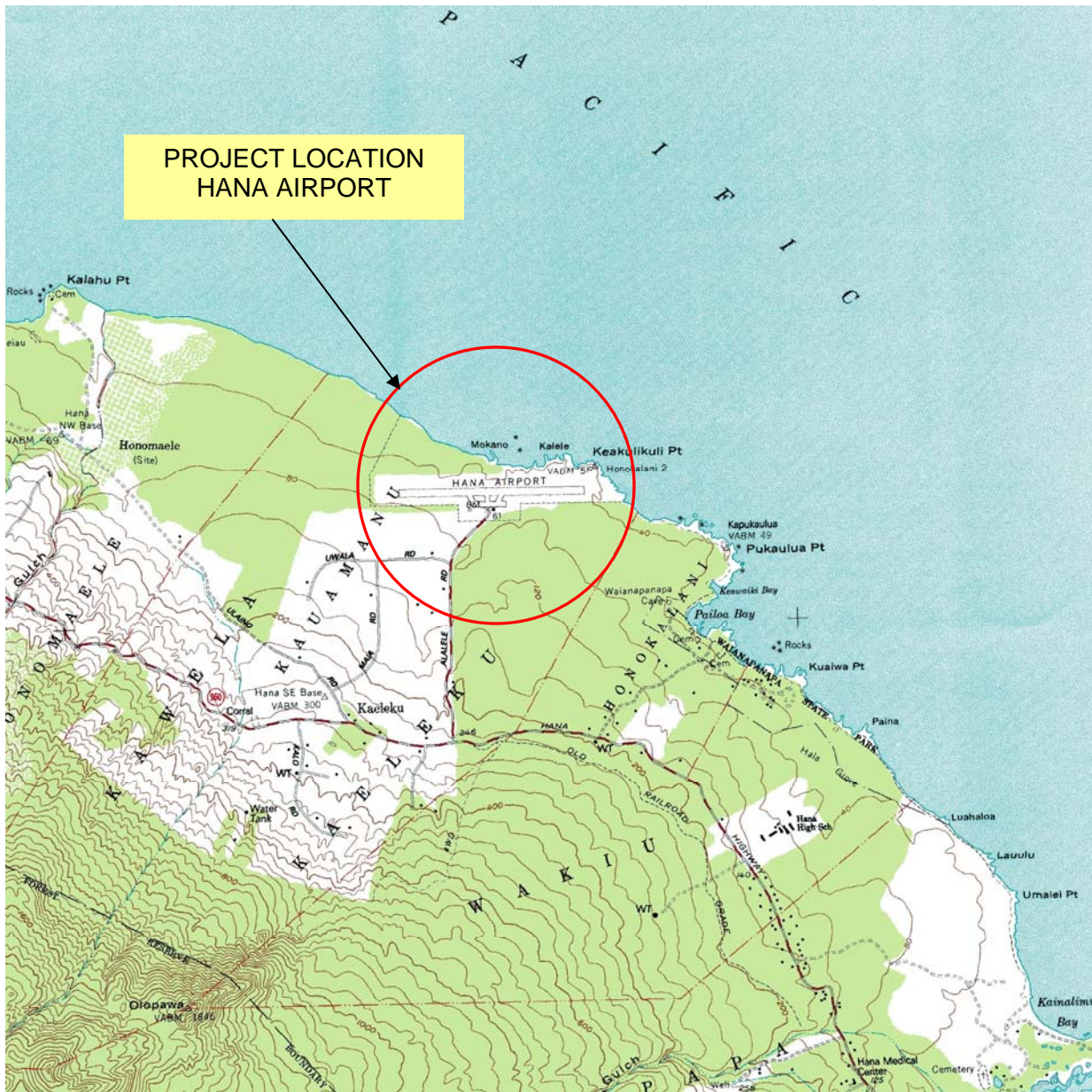
As classified by the FAA's Federal Aviation Regulations (FAR) CFR 14 Part 139, the Hana Airport is defined as a Class III Airport. This classification signifies that the Hana Airport is qualified to "serve scheduled operations of small air carrier aircraft" but cannot serve scheduled or unscheduled large air carrier aircraft. "Small air carrier" aircraft is defined as having passenger seats that provide for 10 to 30.

This project is being funded, in part, by the Airports Division of the HDOT under a grant issued by the FAA, to ensure that Hana Airport can obtain this FAA issued Operating Certificate that complies with FAR; CFR 14 Part 139, Certification of Airports.

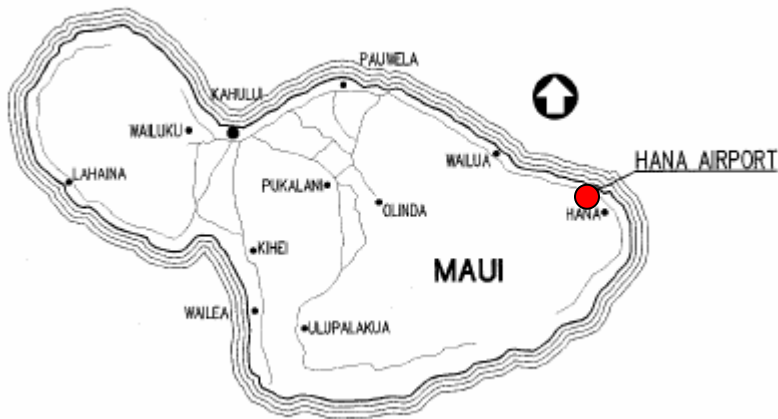
Currently there are no enclosures around the perimeter of the airport property, runway or aircraft movement areas at the Hana Airport. The lack of enclosures for the aircraft movements areas is a major safety concern, not only for the safety of those that may be on the ground but for the safety of the arriving and departing aircrafts as well. The Hana Airports need for an ARFF Facility is crucial in order to assure the safety of aircraft operations and to ensure a fast and efficient response to any aircraft emergencies. Therefore the justification for the proposed improvements at Hana Airport is due to the trigger of CFR 14 Part 139 requirement of an AOC (Appendix A).

The need for improvement to the aviation facilities at the Hana Airport is one regarding safety. The Hana Airport is the only means of aviation transportation for the east side of

Maui and therefore it is vital that the airport facilities meet the FAA's safety standards. Presently, the current airport facilities are not deemed secure under FAA regulations for an airport of their classification.



LOCATION MAP



VICINITY MAP

FIGURE 1 – PROJECT LOCATION

The HDOT and the U.S. FAA evaluated several options in regards to the improvements to the facilities at the Hana Airport.

3.1 ALTERNATIVES NOT CARRIED FORWARD

Taking into consideration that the Hana Airport is currently in operation, the proposal of re-locating the airport was not considered feasible.

3.2 ALTERNATIVES CARRIED FORWARD

The State of Hawaii Environmental Regulations, NEPA and CEQ regulations implementing NEPA (40 CFR parts 1500-1508), and FAA regulations for NEPA compliance (44 CFR part 10) directs the HDOT and the U.S. FAA to investigate and evaluate project alternatives. This EA evaluates two alternatives; the No Action Alternative and the Proposed Action Alternative. The intent of this document is to assess the environmental impacts associated with the HDOT and FAA's request for a specific project (Proposed Action Alternative).

3.2.1 Alternative 1: No Action

The No Action Alternative is defined as maintaining the status quo; in which the FAA would not provide funding for any actions. Under this alternative, no funds would be provided for the improvement or construction to the Hana Airport, and the Proposed Action Alternative would not be implemented.

Under the No Action Alternative, the Hana Airport would continue to not meet FAA safety criteria, and would also continue to provide inadequate emergency operations for the public's safety, posing security risks for the near and long-term.

In the event that the FAA finds that an airport is not meeting any of the obligations required under Part 139, it will often impose administrative action. It can also impose a financial penalty for each day the airport continues to violate the requirements of Part 139. In extreme cases, the FAA may revoke the airport's certificate or limit the areas of an airport where air carriers can land or take off.

In order to ensure that an airport with an AOC is meeting the requirements of Part 139; FAA Airport Certification Safety Inspectors conduct certification inspections. These inspections typically occur yearly, but the FAA can also make unannounced inspections. Below are just a few examples of features or facilities that may be inspected at the airport during a safety inspection:

- **Movement Area Inspection:** A check of the approach slopes of each runway end; inspect movement areas to find out condition of pavement, markings, lighting, signs, abutting shoulders, and safety areas; watch ground vehicle operations; ensure the public is protected against inadvertent entry and jet or propeller blast; check for the presence of any wildlife; check the traffic and wind direction indicators.

- **Aircraft Rescue and Fire Fighting Inspection:** Inspectors will conduct a timed response drill; a review of aircraft rescue and fire-fighting personnel training records, including annual live-fire drill and documentation of basic emergency medical care training; a check of equipment and protective clothing for operation, condition and availability.
- **Fueling Facilities Inspection:** An inspection of the fuel farm and mobile fuelers; a check of airport files for documentation of their quarterly inspections of the fueling facility; a review of certification from each tenant fueling agent about completion of fire safety training.

3.2.2 Alternative 2: Proposed Action

The HDOT and FAA have proposed improvements for the Hana Airport, which include the construction of an ARFF building and a security perimeter fence (herein referred to as the Proposed Action Alternative).

The Proposed Project Alternative is composed of two key infrastructure elements which include; 1.) Construction of a new ARFF and, 2.) Construction of a new security perimeter fence. The Hana Airport does not currently have an ARFF station or a perimeter fence to provide a secure Airport Operations Area (AOA). The construction of the ARFF will enable airport operations to provide quick responses to aircraft related incidents within or near the airport area. The construction of a new security perimeter fence will minimize the infringement of unauthorized individuals into the AOA. Figure 2 presents the proposed ARFF and perimeter fence.

Aircraft Rescue and Fire Fighting (ARFF) Facility:

The primary objective of an ARFF is to save lives by minimizing the effects of an aircraft incident. Optimizing the location of the ARFF station enhances the effectiveness and efficiency of service personnel. Station site location which emphasizes operational ARFF vehicle factors lowers emergency response times. A major factor affecting the ARFF vehicle response time is the location of the ARFF station. An optimum located ARFF station would allow for:

- 1.) Centrally situated to permit quick and unobstructed response to all areas.
- 2.) Immediate, straight and safe access towards the airside.
- 3.) Unimpeded access routes with a minimum of turns to runways, taxiways, and aircraft parking areas.

The ARFF Station is proposed as an alternative to demolishing the existing maintenance building. A new building is proposed to be constructed within the existing parking lot area, just east of the existing maintenance building location. Figure 3 illustrates the proposed ARFF facility location. As shown in Figures 4, 5 & 6, the new ARFF building will be

composed of approximately 2,503 sq. ft., one-story building with a building layout that provides for:

- (1) One ARFF vehicle storage bay.
- (2) Maintenance Shop.
- (3) Mechanical room.
- (4) Electrical room.
- (5) Storage room.
- (6) Two sleeping rooms.
- (7) Multipurpose dining/conference/training room.
- (8) Kitchen.
- (9) Control Room (Watch room).
- (10) Unisex toilet/shower room.

The proposed ARFF design also provides for an emergency back-up generator, a proposed 500 gallon vehicle fuel storage tank, and a proposed 300 gallon water storage tank as redundant back-up systems. The proposed design accommodates future addition or expansions to the structure, such as increasing ARFF personnel and equipment.

HRS §196-9 requires each agency to implement Leadership in Energy and Environmental Design (LEED) Silver or other nationally recognized standards to the extent possible, except when the guidelines, standard or system interferes or conflicts with the use of the facility. Where applicable the proposed project design will incorporate LEED Silver standards as outlined in HRS §196-9.



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DSGN.	DRWN.	CHKD.	APPD.
TAC	EFP	TAC	

KEY PLAN / NOTES:

C	12/21/07	100% DESIGN REVIEW
B	10/29/07	60% DESIGN REVIEW
NO.	DATE	REVISIONS

I HEREBY CERTIFY THAT THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature:

Expiration date: April 30, 2008

PROJECT TITLE :
AIRCRAFT RESCUE AND FIRE FIGHTING FACILITY & SECURITY PERIMETER FENCE
PART 139 IMPROVEMENTS
AT HANA AIRPORT
HANA, MAUI, HAWAII

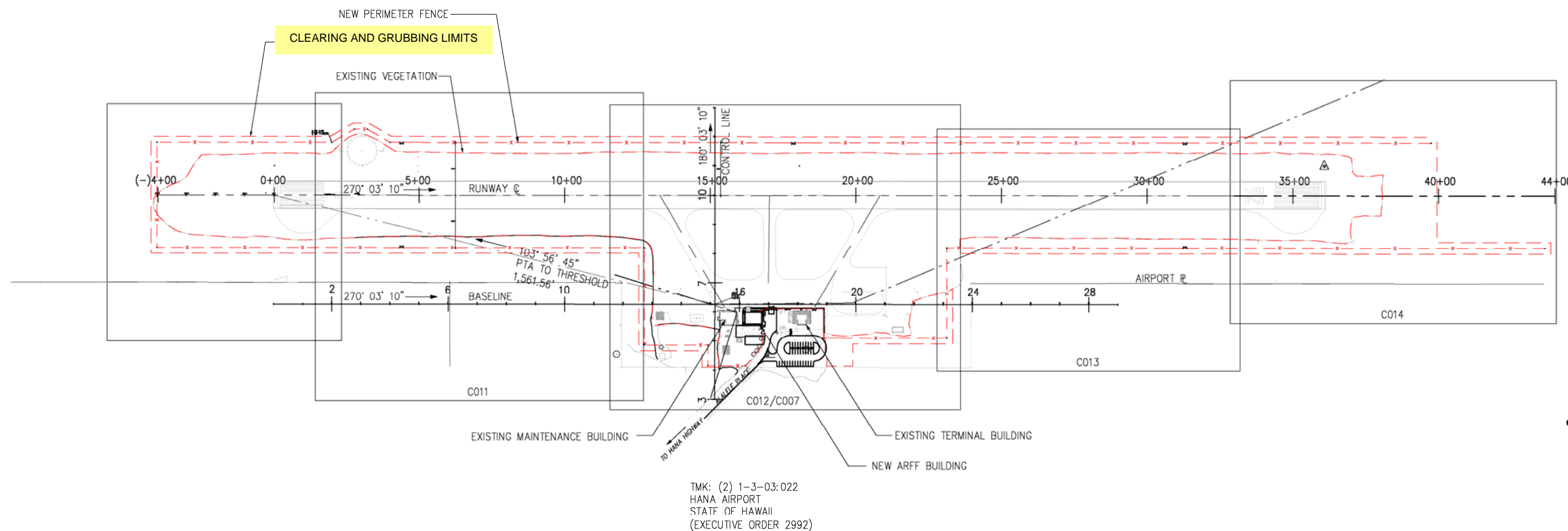
PROJECT NO.:
AM3031-01

SHEET TITLE:

OVERALL SITE PLAN

DATE : DECEMBER 21, 2007
DWG. NO. :

C004 OF -- SHEETS



OVERALL SITE PLAN

SCALE: 1" = 200'

NOTES

1. AZIMUTHS AND COORDINATES ARE REFERRED TO GOVERNMENT SURVEY TRIANGULATION STATION "HONOKALANI 2".
2. ELEVATIONS ARE BASED ON MEAN SEA LEVEL.

GRAPHIC SCALE:

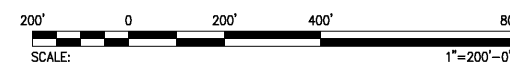
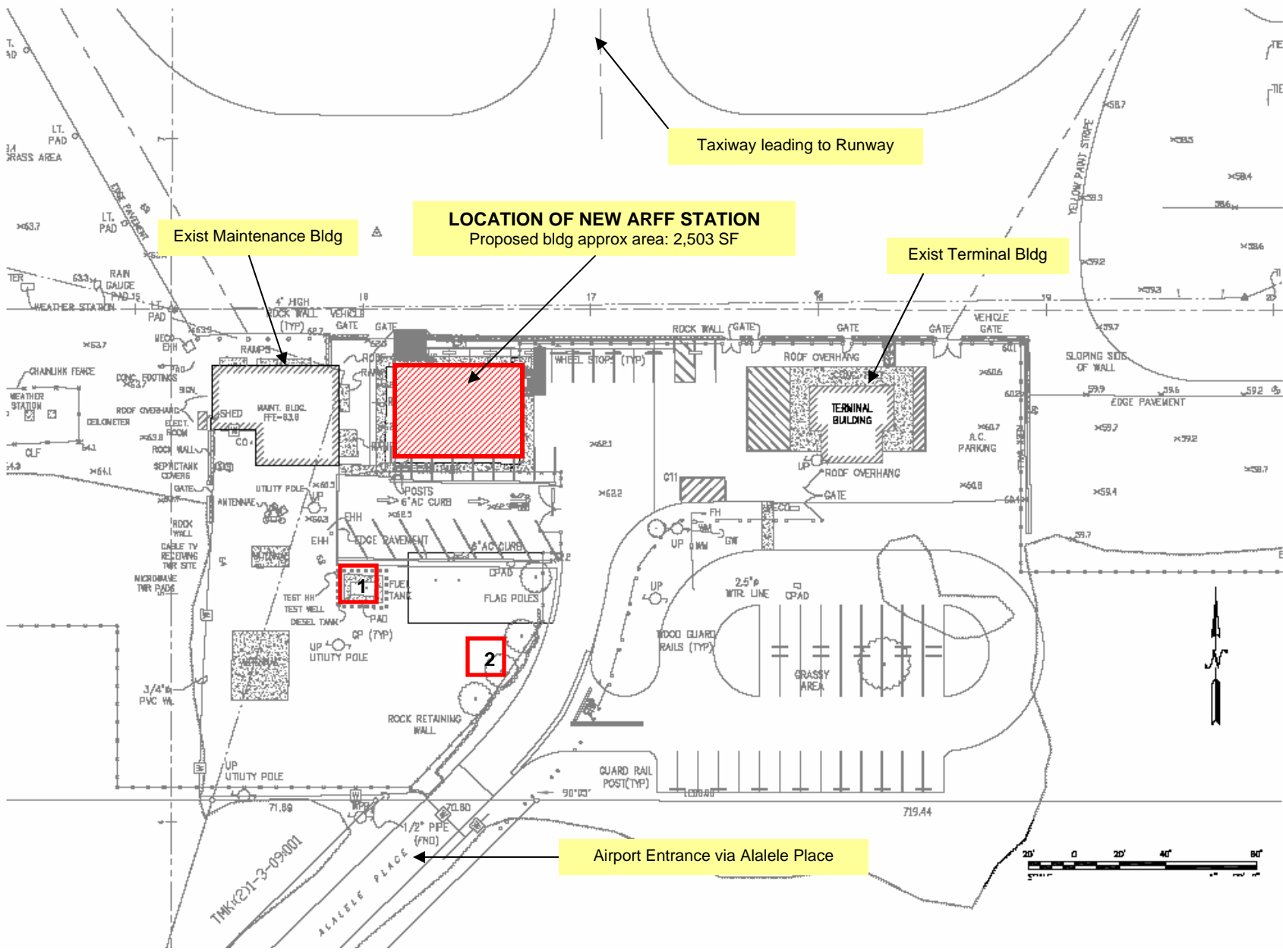
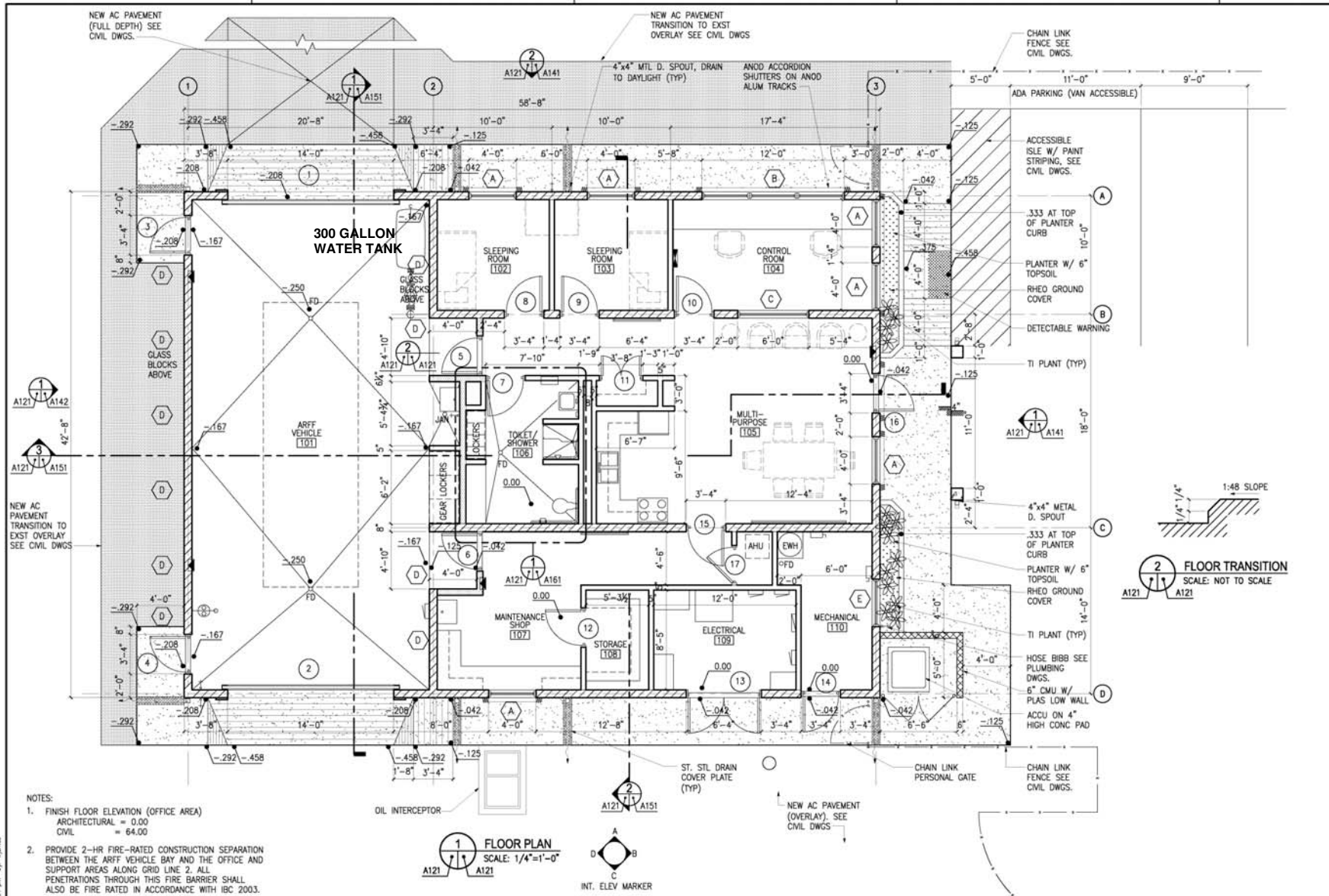


FIGURE 2 – OVERALL SITE PLAN



- 1 500 GALLON FUEL TANK
- 2 APPROXIMATE LOCATION OF SEPTIC TANK

FIGURE 3 – ARFF SITE PLAN



- NOTES:
1. FINISH FLOOR ELEVATION (OFFICE AREA)
ARCHITECTURAL = 64.00
CIVIL = 64.00
 2. PROVIDE 2-HR FIRE-RATED CONSTRUCTION SEPARATION BETWEEN THE ARFF VEHICLE BAY AND THE OFFICE AND SUPPORT AREAS ALONG GRID LINE 2. ALL PENETRATIONS THROUGH THIS FIRE BARRIER SHALL ALSO BE FIRE RATED IN ACCORDANCE WITH IBC 2003.

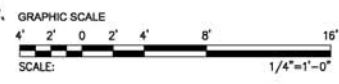
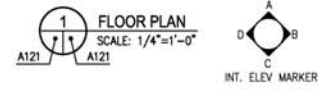


FIGURE 4 - ARFF FLOOR PLAN



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DSGN.	DRWN.	CHKD.	APPD.
YES	WPJ	YES	?

KEY PLAN / NOTES:

NO.	DATE	REVISIONS

PROJECT TITLE:
AIRCRAFT RESCUE AND
FIRE FIGHTING FACILITY
&
SECURITY PERIMETER FENCE
PART 139 IMPROVEMENTS
AT HANA AIRPORT
HANA, MAUI, HAWAII

PROJECT NO.:
AM3031-01

SHEET TITLE:

FLOOR PLAN

DATE:	JUNE 26, 2007	SHEET
DWG. NO.:	A121	OF -- SHEETS

FILE: A121_HR32701-004.dwg
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DSGN.	DRWN.	CHKD.	APPD.
YES	WPJ	YES	?

KEY PLAN / NOTES:

NO.	DATE	REVISIONS

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	Signature: _____
	Expiration date: XXX, 00, 2008

PROJECT TITLE :
AIRCRAFT RESCUE AND FIRE FIGHTING FACILITY & SECURITY PERIMETER FENCE
PART 139 IMPROVEMENTS
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HANA, MAUI, HAWAII

PROJECT NO.:
AM3031-01

SHEET TITLE:

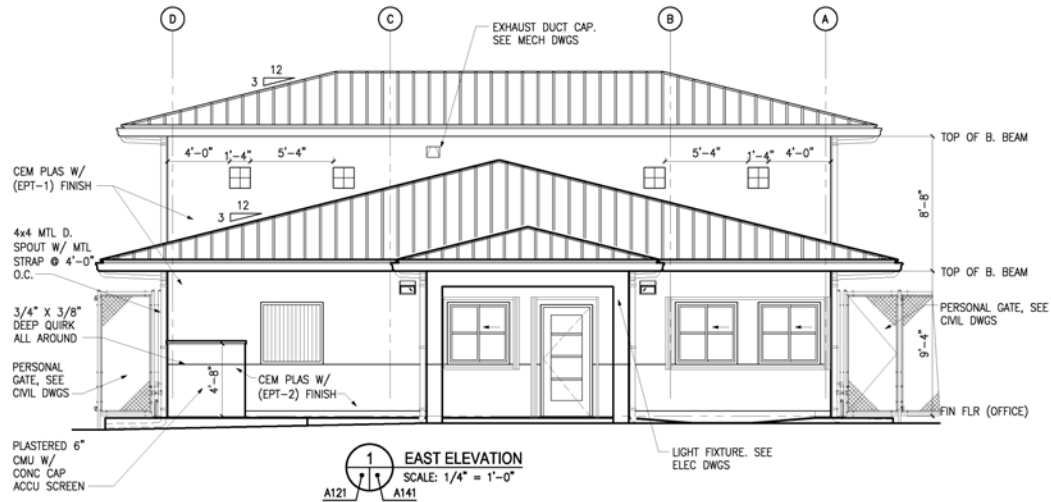
BUILDING ELEVATIONS

DATE :
JUNE 26, 2007
DWG. NO. :

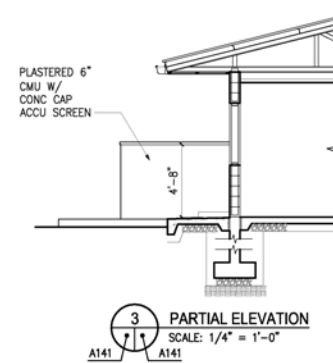
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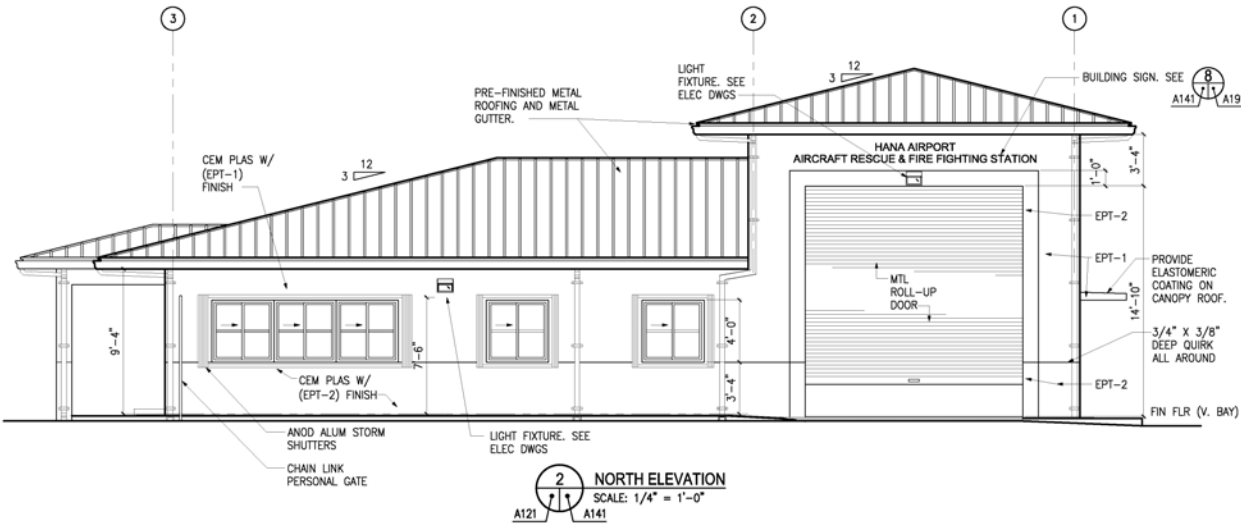
NOTE:
FINISH FLOOR AT VEHICLE BAY IS 2" LOWER THAN FINISH FLOOR AT OFFICE AREA.



1 EAST ELEVATION
SCALE: 1/4" = 1'-0"

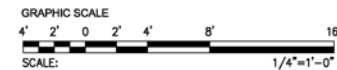


3 PARTIAL ELEVATION
SCALE: 1/4" = 1'-0"



2 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

FIGURE 5 - BUILDING ELEVATIONS





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DSGN.	DRWN.	CHKD.	APPD.
YES	WPJ	YES	?

KEY PLAN / NOTES:

NO.	DATE	REVISIONS

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Signature: _____
 Title: _____
 Expiration Date: 03/01/2008

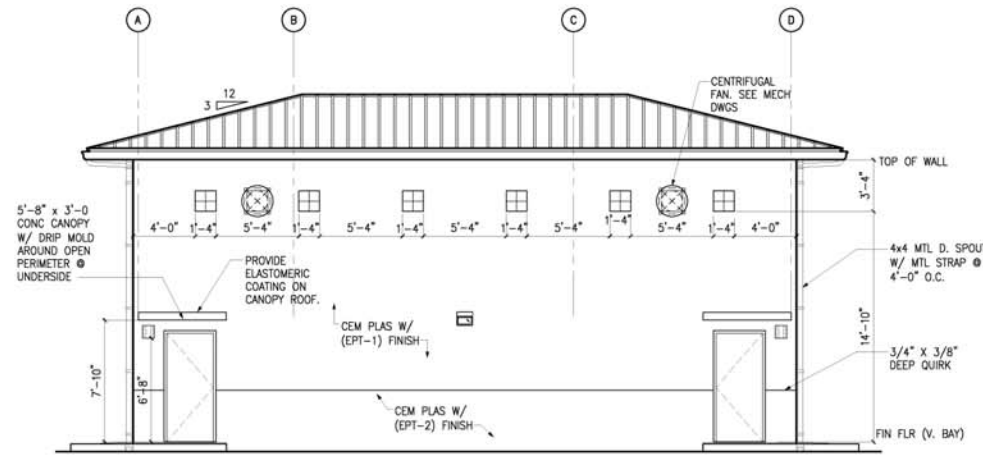
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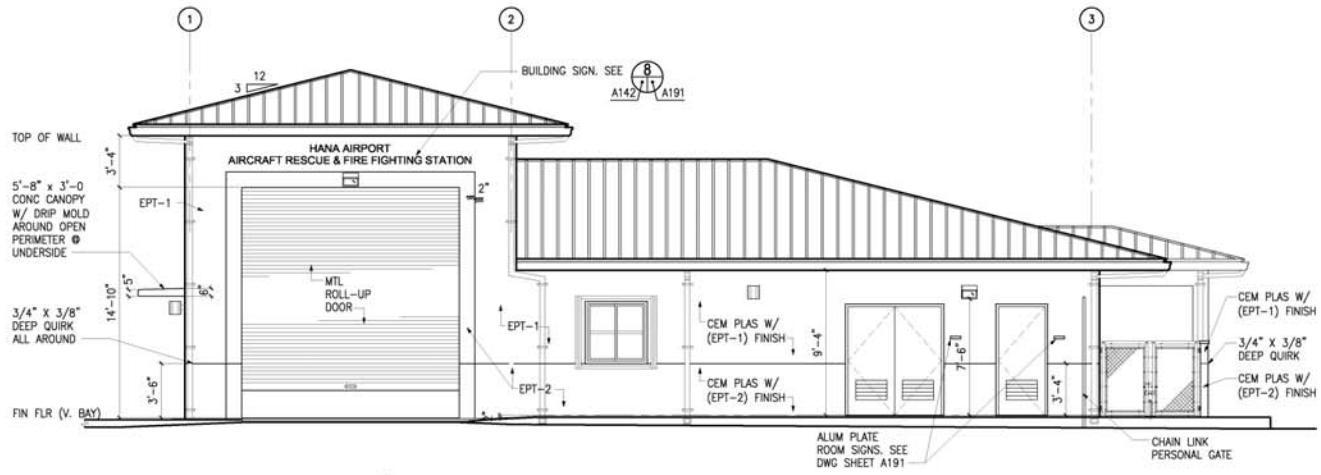
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BUILDING ELEVATIONS

DATE:	JUNE 26, 2007	SHEET
DWG. NO.:		
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NOTE:
 FINISH FLOOR AT VEHICLE BAY IS 2" LOWER
 THAN FINISH FLOOR AT OFFICE AREA.

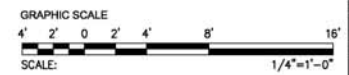


1 WEST ELEVATION
 SCALE: 1/4" = 1'-0"



2 SOUTH ELEVATION
 SCALE: 1/4" = 1'-0"

FIGURE 6 - BUILDING ELEVATIONS



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ARFF Construction Methods and Materials

A building can generally be broken down into three basic physical systems, the structural system, exterior envelope, and interior subdivisions of space. Each of these in turn, are made of linear and planar assemblies. Planar assemblies consisting of horizontal or sloping roof planes, horizontal floor planes, and vertical wall planes. The linear assemblies consist of horizontal beams and vertical columns. These elements and assemblies can come together in a number of ways, depending on the nature of the materials used, the method for transferring and resolving the forces acting on a building, and the desired physical form of the building. A site's geographic location, topography, climate and cost factors have an important influence in the decisions of the construction methods and materials that are used to form the three basic physical systems. The Hana Airport is located along the coastal shoreline, on the remote eastern end of the island. Highway access to the airport from the major city port of Kahului is a considerable distance, with narrow and very winding roads. The logistics of transporting labor, materials and equipment will also bear an influence proposal materials on the methods and materials used for construction.

The Security Perimeter Fence

The primary objective of a security perimeter fence is to set a boundary that will outline the secure AOA area, which will provide a sufficient barrier for unauthorized individuals or animals affecting safe aircraft operations. It is proposed that all vegetation obstructing the visual site of the fence within the AOA area will be cleared up to the fence line. The Security Perimeter Fence layout involves the construction of a new fence line running within the airport boundary limits, therefore minimizing the area needing to be cleared. Bringing the fence line within the airport boundaries will also leave a fishing trail intact that was discovered during an Archeological Field Inspection on the North side of the runway.

The proposed fence line, as shown in Figure 7, is an alternative to the conventional fence lines for AOA areas. This particular fence line minimizes the area to be cleared of existing brush and trees, while still allowing access to the shoreline. This fence line delineates a smaller AOA area, approximately 44.4 acres, but requires a fence line length of approximately 10,100 feet. The new fence line will be constructed on the northern, western and southern boundaries of the runway, taxiway and apron pavement areas. The eastern end of the runway would be secured by the existing cliff shoreline.

Security Perimeter Fence Construction Methods and Materials

Materials proposed for the fence line is galvanized steel, chain link fence. Galvanized chain link fencing is one of the most common types of fence systems used. This type of fencing can be provided with various external coatings to provide a more sustainable product. Other materials are available that can provide better resistance to climatic conditions (e.g. PVC coated chain-link) but will come at a much greater cost. The security fence will be constructed of chain link material fencing to an approximate height of 8 feet, with barbed wire placed along the top of the fence line. In unpaved areas, a line of barbed wire will be placed along the ground surface of the fence line to discourage burrowing by animals.

