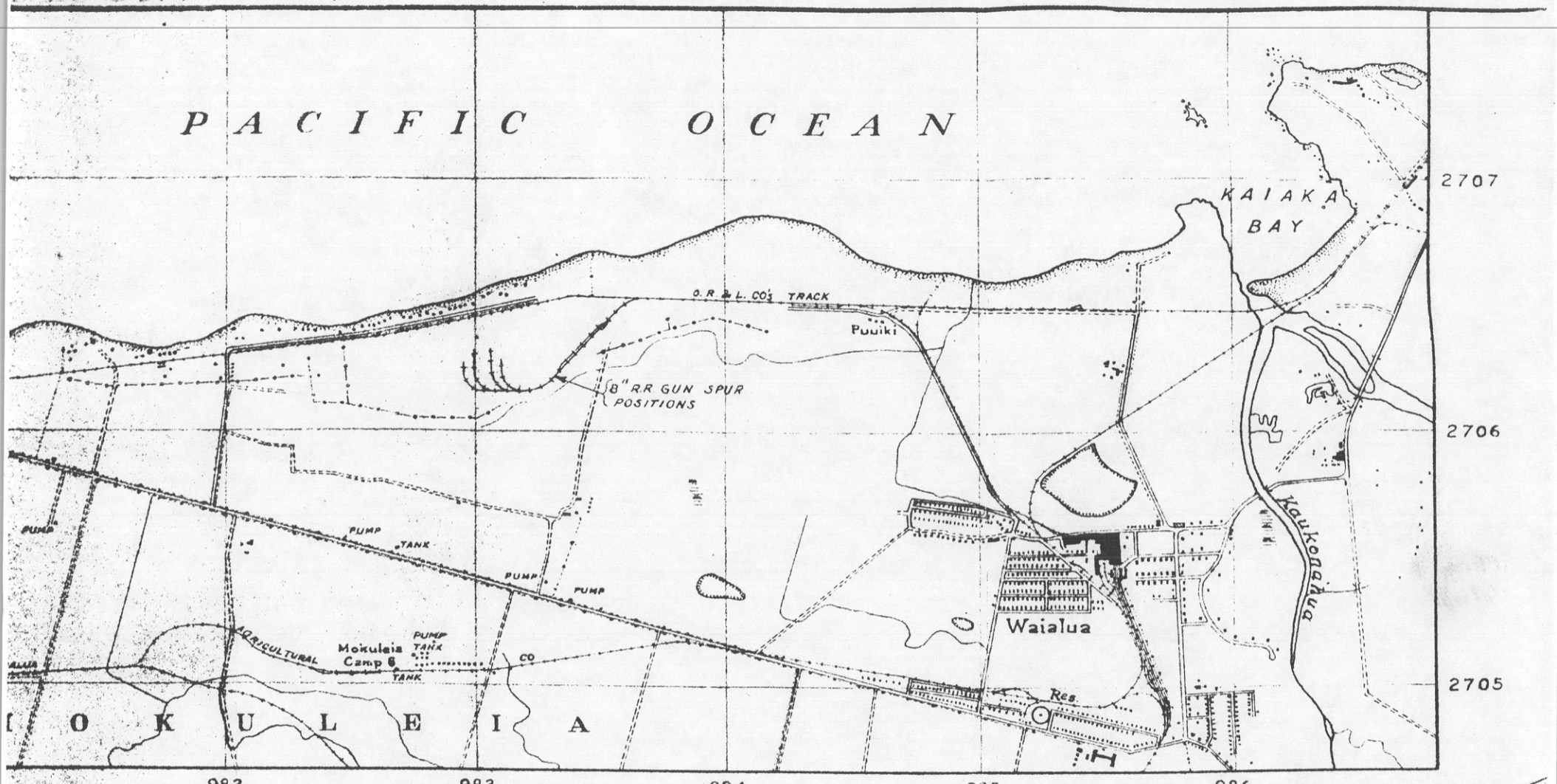
WAR DEPARTMENT



INSET SHOWING LOCATION OF
8" RAILWAY GUN POSITIONS AT PUUIKI
SCALE 1:20,000

1000 0 1 2 3 4 5000 FT.

COURT

G-449

COPY NO. 5 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

SECRET

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ Puuiki, T. H.
BATTERY 8-inch railway guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	March 28, 1939	Sources of	None
Battery completed	September 11, 1939		
Date of transfer	November 17, 1939	Max. kw. required for lights	None
Cost to date of transfer	$17,593.00(Troop labor & 60-lb. rail equipment)	Max. kw. required for motors	None
Materials of construction			
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry.	KPI No.1 8.82 No.2 8.83 No.3 9.32 No.4 9.34	Remarks	Guns not permanently emplaced
Datum plane	M.L.L.W.		

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
		Armament is not permanently emplaced									

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

UNCLASSIFIED RESTRICTED CONFIDENTIAL TOP SECRET
REGRADED
ORDER SEC. ARMY
BY JAGOSSO 7

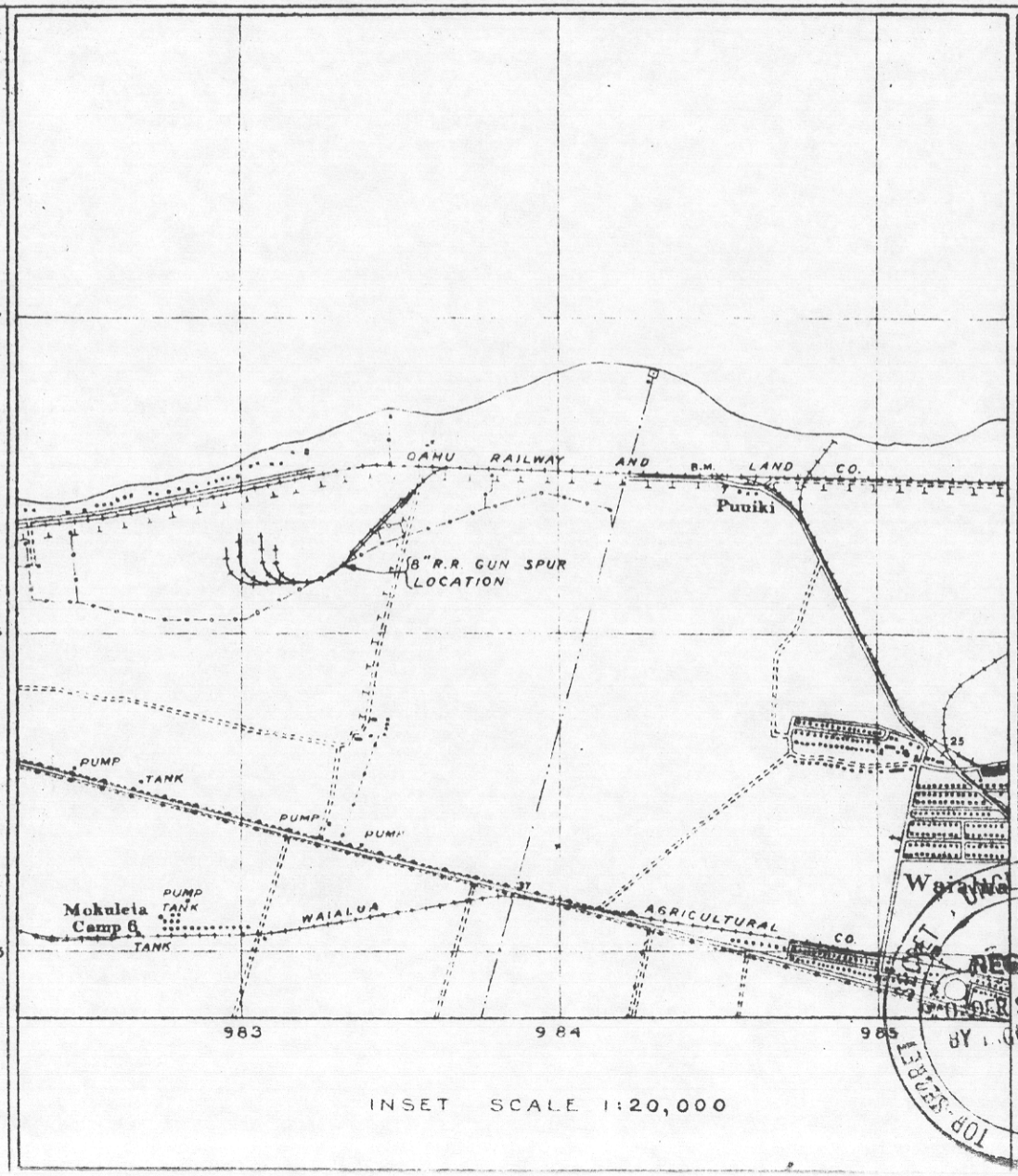
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

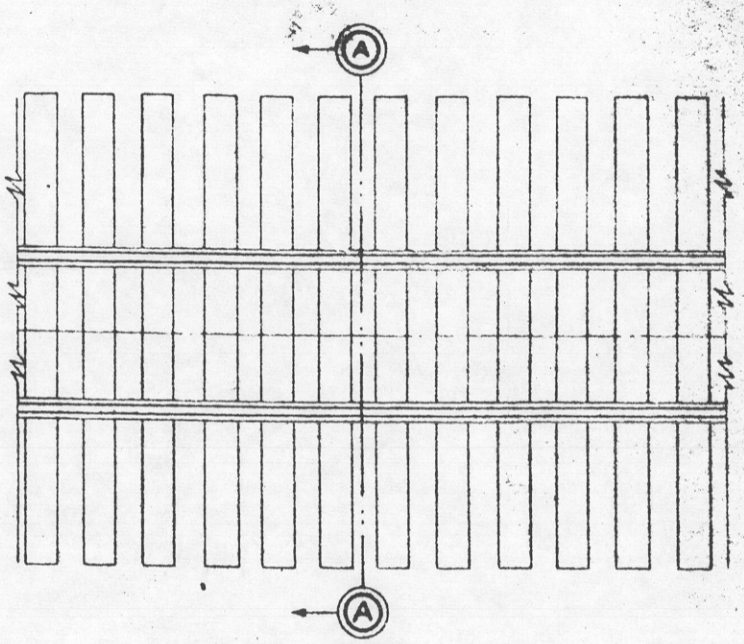
FORM 7 CORRECTED TO JULY 1, 1940

SEACOAST DEFENSES OF OAHU
PUUIKI
8 IN. RAILWAY FIRING POSITION

SECRET

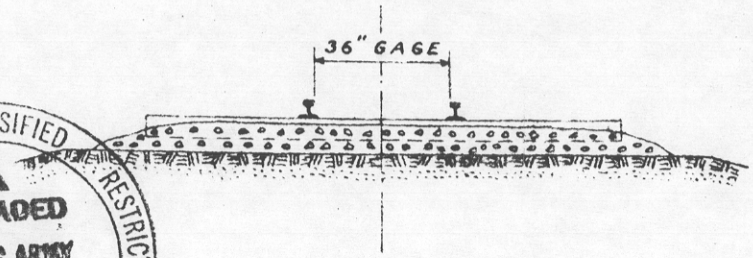


INSET SCALE 1:20,000



PLAN

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



SECTION A-A

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

TOP SECRET
UNCLASSIFIED
RESTRICTED
CONFIDENTIAL
REGRADED
BY ORDER SEC ARMY
BY ... GOSSOLZ

with 660B (Honolulu) 127

COPY NO. 1 OF 7

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF ~~FORT~~ BATTERY

PEARL HARBOR
Puuiki, T.H.
8-inch railway guns

Form 1. Corrected to **July 1, 1940**

No. of guns: 4 Caliber: 8" Carriage: Railway

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	March 28, 1939	Sources of	None
Battery completed	September 11, 1939		
Date of transfer	November 17, 1939	Max. kw. required for lights	None
Cost to date of transfer	$17,593.00(Troop labor &	Max. kw. required for motors	None
Materials of construction	60-lb. rail equipment)		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
	EPI No.1 8.82 No.2 8.83	Type of data transmission	Telephone
Trunnion elevation in btry.	No.3 9.32 No.4 9.34		
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
		Armament is not permanently emplaced									

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

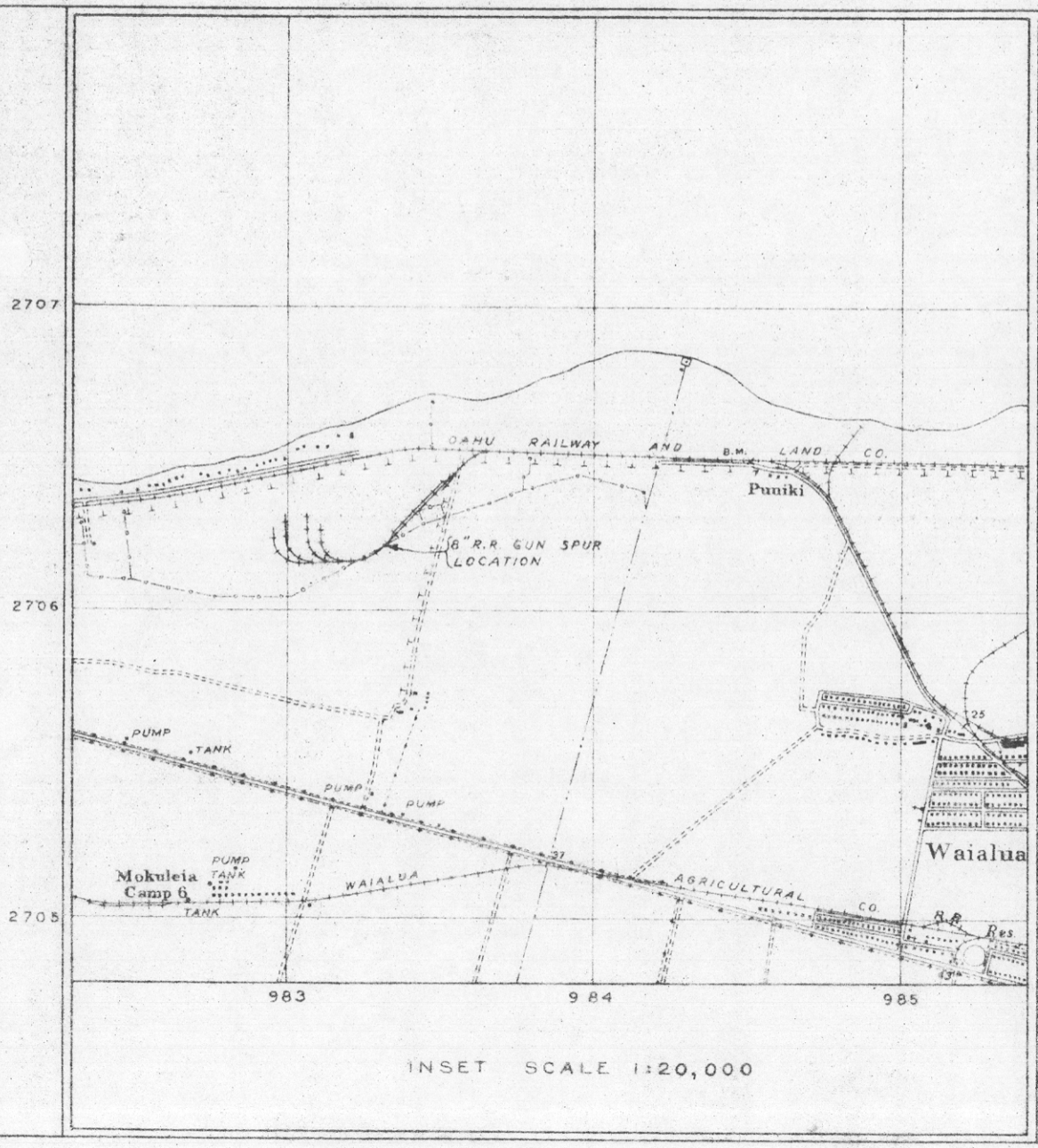
FORM 7 CORRECTED TO JULY 1, 1940

SEACOAST DEFENSES OF OAHU

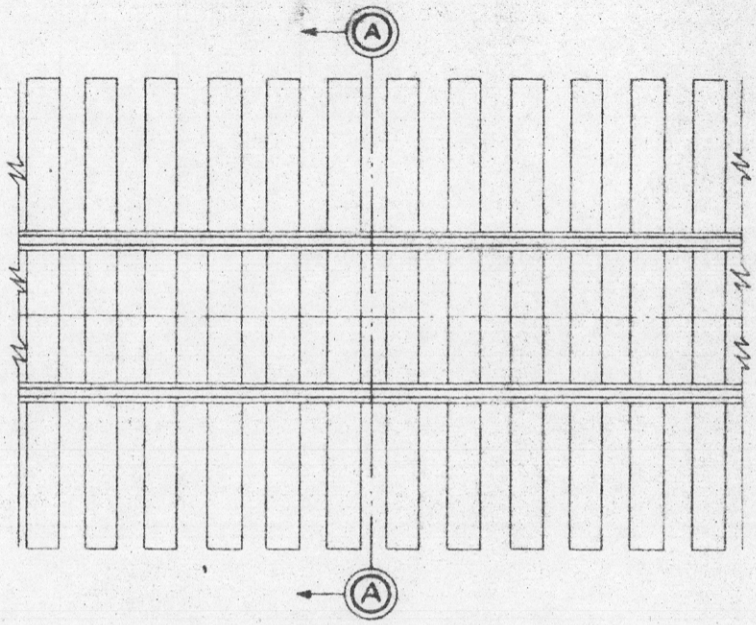
PUUIKI

8 IN. RAILWAY FIRING POSITION

SECRET

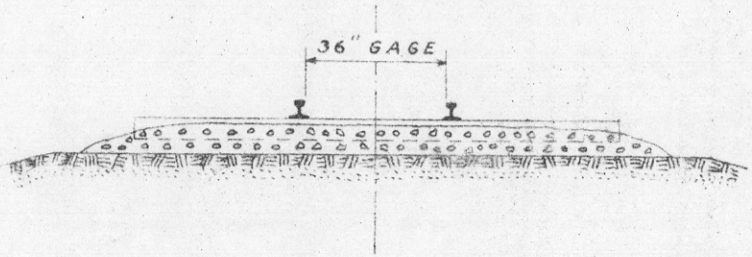


INSET SCALE 1:20,000



PLAN

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



SECTION A-A

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

6-449

COPY NO. 5 of 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ Kawailoa, T.H.
BATTERY 8-inch railway guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	November 1, 1939	Sources of	None
Battery completed	December 29, 1939		
Date of transfer	February 8, 1940	Max. kw. required for lights	None
Cost to date of transfer	$10,987.00(Troop labor &	Max. kw. required for motors	None
Materials of construction	60-lb. rail equipment)		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry.	Approximately 10' above		
Datum plane	mean lower low water. Precise levels not taken.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
		Armament is not permanently emplaced									

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

UNCLASSIFIED
REGRADED
ORDER SEC ARMY
BY [illegible]
TOP SECRET
RESTRICTED
CONFIDENTIAL

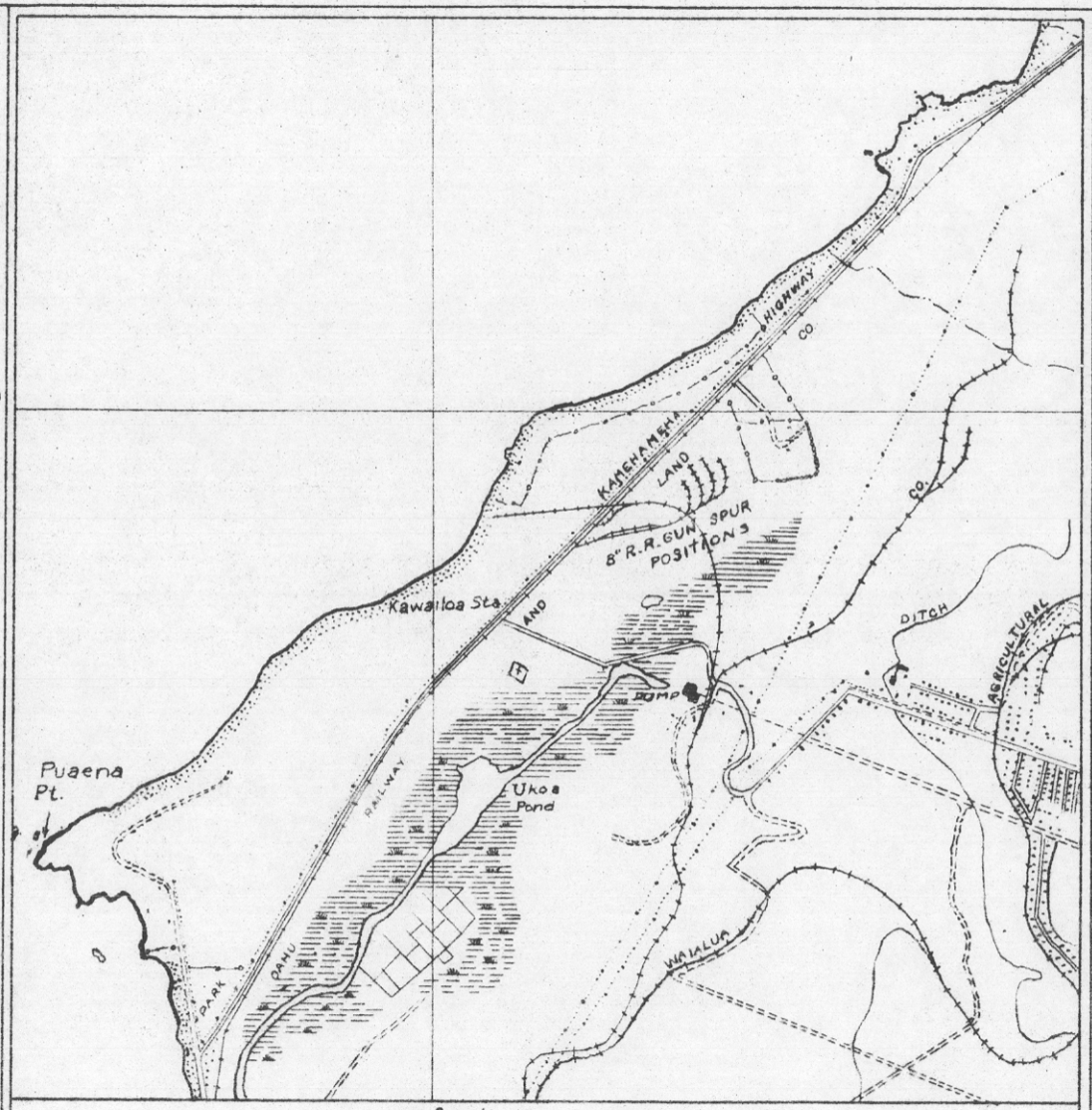
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

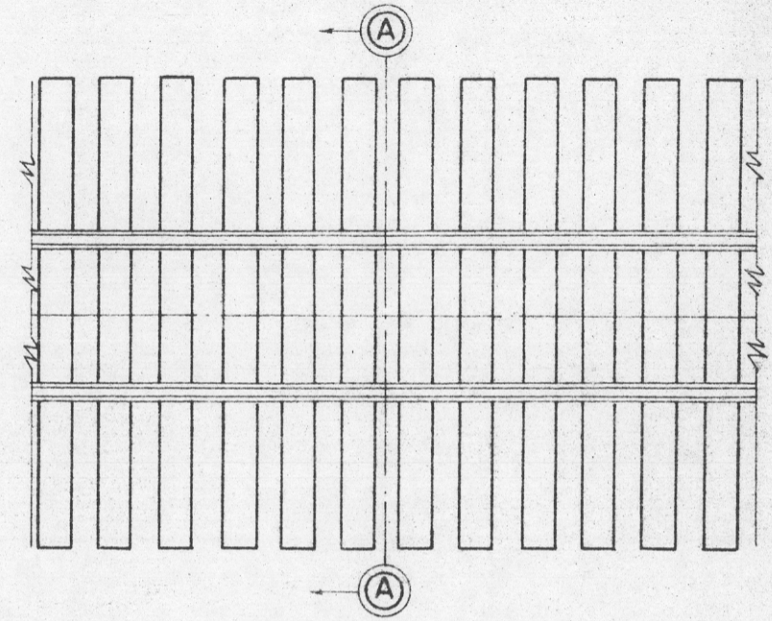
FORM 7 CORRECTED TO JULY 1, 1940

SEACOAST DEFENSES OF OAHU
KAWAILOA
8 IN. RAILWAY FIRING POSITION

SECRET

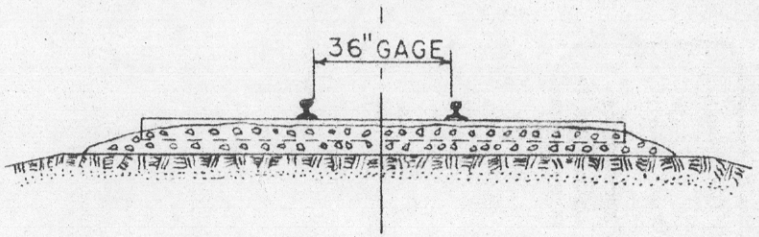


INSET SCALE 1:20,000



PLAN

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



SECTION A-A

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

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

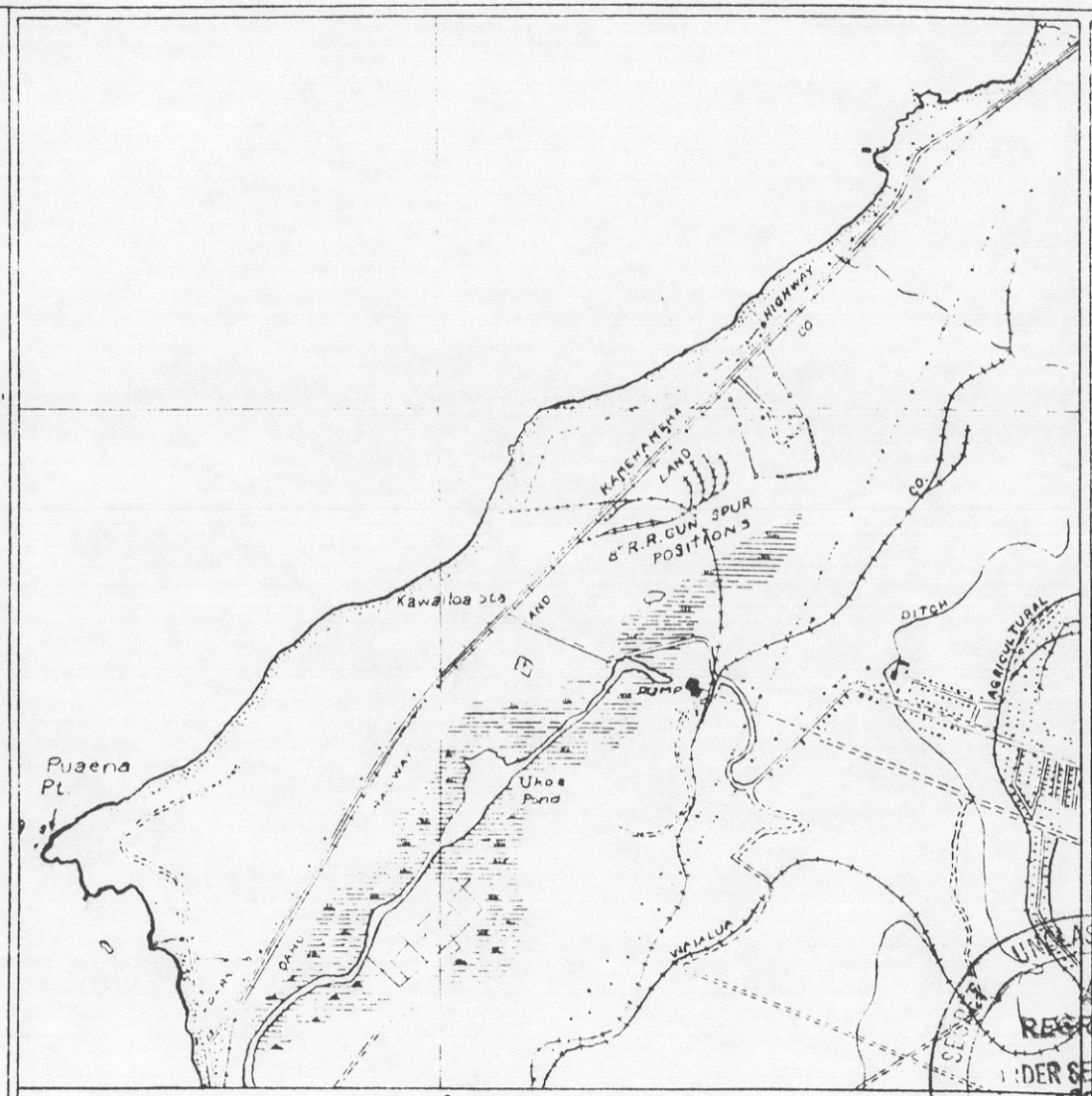
FORM 7 CORRECTED TO JULY 1, 1940

SEACOAST DEFENSES OF OAHU

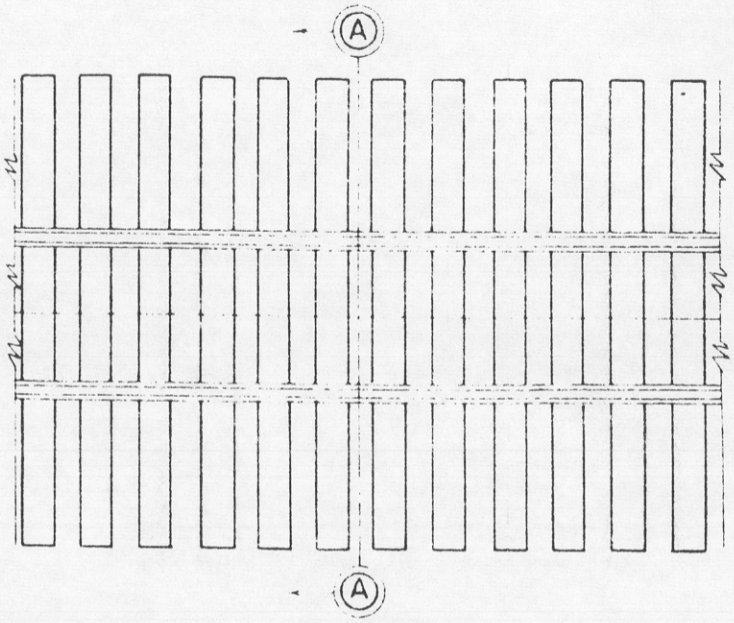
KAWAILOA

8 IN. RAILWAY FIRING POSITION

SECRET

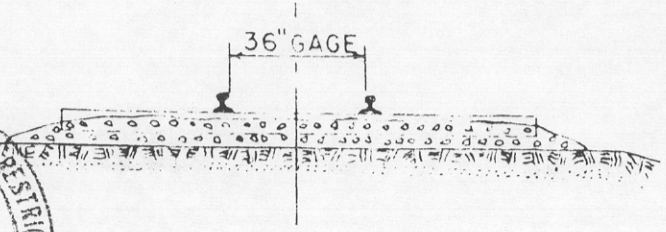


INSET SCALE 1:20,000



PLAN

SCALE 1/4" = 1'-0"



SECTION A-A

SCALE 1/4" = 1'-0"

TOP SECRET SECRET UNCLASSIFIED RESTRICTED CONFIDENTIAL
REGRADED
UNDER SEC ARMY
BY AGO 5807

WAR DEPARTMENT

UNITED STATES ENGINEER OFFICE

[redacted]

In reply refer to: 2005 S

HONOLULU, T. H., December 29, 1939.

Subject: Transfer of completed works.

To: The Commanding General,
Hawaiian Department,
Fort Shafter, T. H.

1. The railway gun positions at Kawailoa have been completed and are ready for transfer to troops for use and care.

2. It is requested that acceptance of this work be granted in accordance with paragraph 18 AR 100-20.

For the District Engineer:

H. H. Pohl,
Major, Corps of Engineers,
Executive Assistant.



HEADQUARTERS HAWAIIAN DEPARTMENT
FORT SHAFTER, T. H.

In reply refer to:

Engr. 662/7 February 8, 1940.

Subject: Transfer of Completed Fortification Works.

To: Engineer Officer in local charge of fortification works (U.S. District Engineer), Foot of Channel Street, Honolulu, T.H.

1. The firing positions for 8-inch railway guns at Kawailoa having been reported by your office as completed and ready for transfer to troops for use and care are hereby accepted and transferred to the Commanding General, Hawaiian Separate Coast Artillery Brigade.

2. In compliance with instructions contained in paragraph 18, Army Regulations 100-20, one copy of this letter is being forwarded to The Adjutant General, Washington, D.C.

For the Commanding General:

Copy to The Adjutant General,
Washington, D.C.

HEADQUARTERS HAWAIIAN DEPARTMENT
FORT SHAFTER, T. H.

In reply refer to:

Engr. 662/7 October 12, 1939.

Subject: Construction of 8-inch Railway Gun Position at Kawailoa.

To: Commanding General, Schofield Barracks, T.H.

1. The War Department has approved the use of part of the savings from the Puuiki Railway Gun Position for the construction of a railway gun position at Kawailoa.

2. It is desired that the 3rd Engineers be directed to construct this gun position, under the direction of the Department Engineer, starting construction on or about November 1, 1939.

3. The Department Engineer is authorized to contact the 3rd Engineers directly with reference to details concerning this construction.

By command of Major General HERRON:



Smith 660B (Honolulu) 127

SECRET

COPY NO. 1 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ Kawailoa, T.H.
BATTERY 8-inch railway guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	November 1, 1939	Sources of	None
Battery completed	December 29, 1939		
Date of transfer	February 8, 1940	Max. kw. required for lights	None
Cost to date of transfer	$10,987.00 (Troop labor &	Max. kw. required for motors	None
Materials of construction	60-lb rail equipment)		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry.	Approximately 10' above		
Datum plane	mean lower low water. Precise levels not taken.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
		Armament not permanently emplaced									

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF Disarmed to C.G. Schofield Bks
FORT Kawaihoa Mil. Reservation
BATTERY Panama mounts
No. of guns: 4 Caliber: 155m/m Carriage: Split Trail

Form 1. Corrected to

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	Dec 15, 1939		
Date of transfer	Jun 3, 1940	Max. kw. required for lights	— — —
Cost to date of transfer	$3,107.00 (Proof Butts + equipment)	Max. kw. required for motors	— — —
Materials of construction	Reinforced Concrete		
Type of cement	Portland	Present condition of battery	Good
WATER AND SEWER:		Rooms wet or dry	No rooms
Connected to water supply	No		
Connected to sewer	No	How ventilated	
Type of latrine	None	Type of data transmission	Telephone
Elevation center of conc. empl.	Gun 1 241.805 Gun #3 234.550		
~~Trunnion elevation in btry.~~	" 2 239.117 " #4 235.280	Remarks	Guns not permanently emplaced
Datum plane	MLLW		

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
				Armament is not permanently emplaced.							

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points

None

COPY NO. 5 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

SECRET

Assigned to: Commanding General,
~~HARBOR DEFENSES OF~~ Schofield Barracks, T. H.
FORT Kawailoa Military Reservation
BATTERY Panama Mounts
No. of guns: 4 Caliber: 155-m.m. Carriage: Split Trail

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	October 18, 1939		
Date of transfer	January 5, 1940	Max. kw. required for lights	-
Cost to date of transfer	$5,107.00 (Troop labor & equipment)	Max. kw. required for motors	-
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	-
Elevation contour of emplacement	Gun 1 241.805/Gun 3 234.550 " 2 239.117/Gun 4 235.230	Type of data transmission	Telephone
~~Trunnion elevation in btry.~~		Remarks	Guns not permanently emplaced
Datum plane	M.L.L.W.		

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
				Armament is not permanently emplaced							

SECRET UNCLASSIFIED RESTRICTED
REGRADED
HQTSTS
ORDER SEC ARMY
BY [illegible]
CONFIDENTIAL

Emplacement No.	Type	Delivery	Motor					Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	R.P.M.	Type of control		
			None						

REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

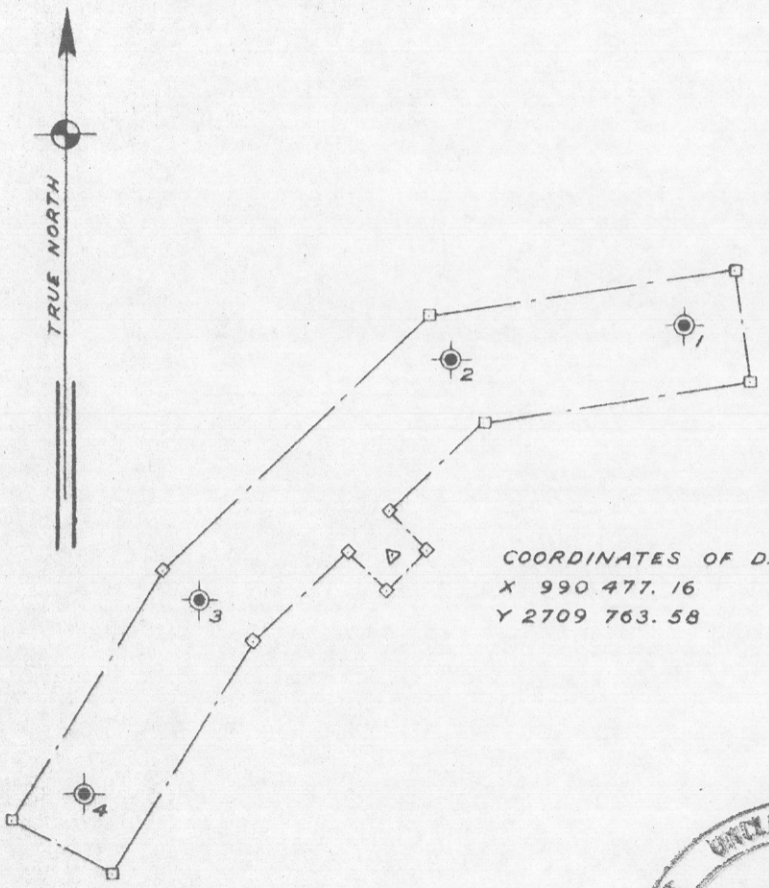
GENERAL PLAN

FORM 7 CORRECTED TO JULY 1, 1940

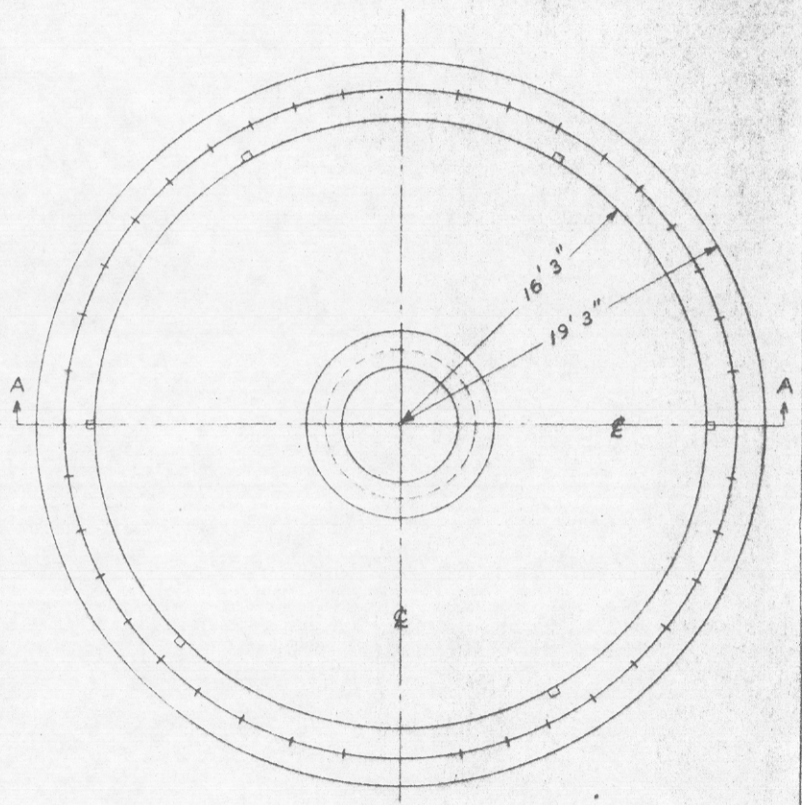
HARBOR DEFENSES OF HONOLULU, T.H.
KAWAILOA MILITARY RESERVATION
4 – PANAMA MOUNTS FOR 155 MM GUNS

GRAPHIG SCALES

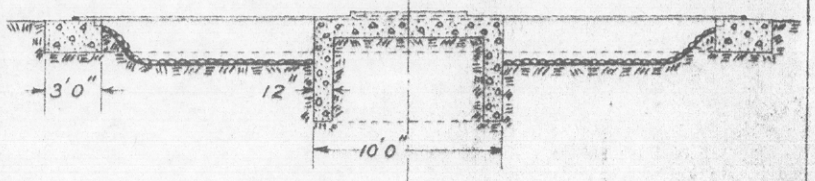
10 0 10 20 30 FT.
100 0 100 200 300 FT



COORDINATES OF D.P.
X 990 477. 16
Y 2709 763. 58



PLAN



SECTION A-A
SCALE: 1" = 10'

SECRET UNCLASSIFIED RESTRICTED CONFIDENTIAL
REGRADED
ORDER SEC ARMY
BY TAG 0880.7
SECRET

G-669

SECRET

3026

COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~and Torpedo Structures~~)

HARBOR DEFENSES OF HONOLULU
FORT RUGER
STRUCTURE KAWAILOA CAMP, OAHU

Form 2. Corrected to

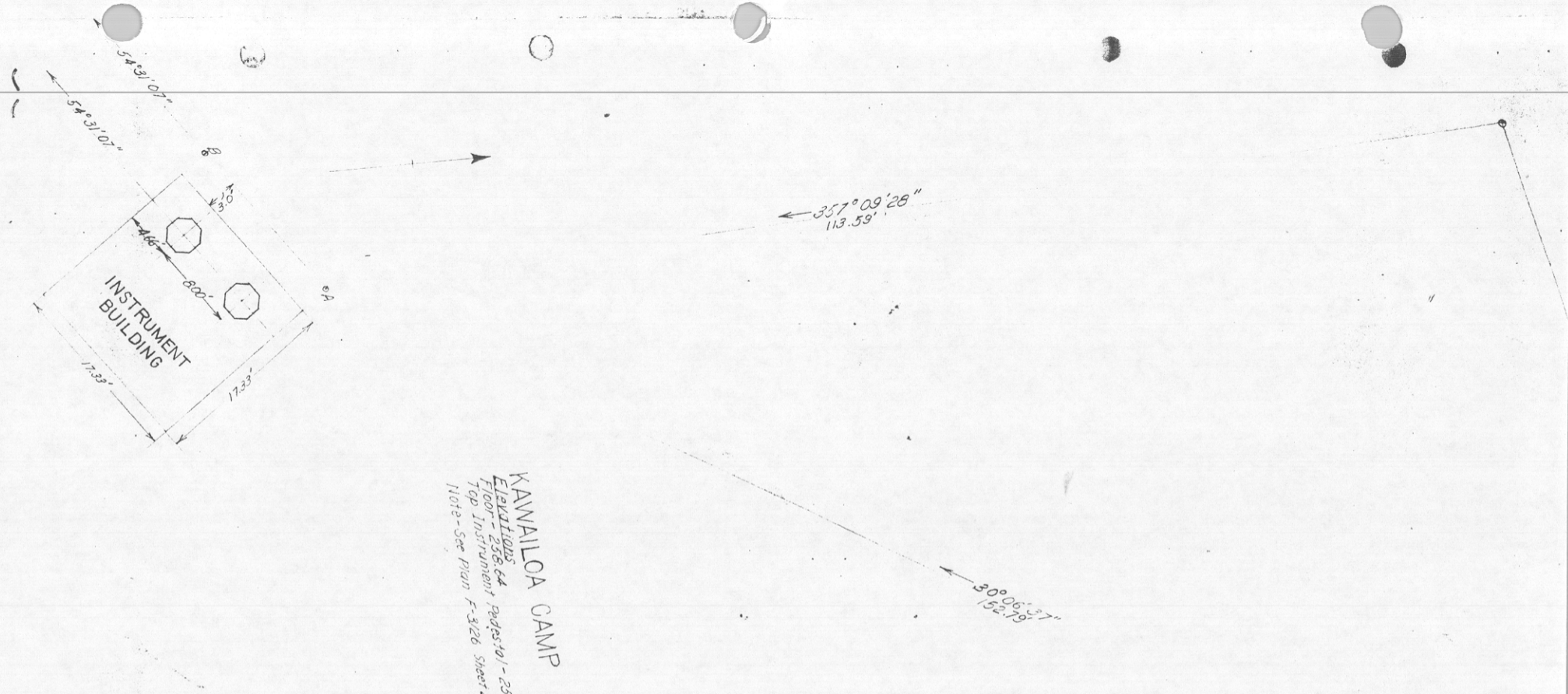
STRUCTURE:	
Location	
Date of transfer	December 13, 1941
Cost to that date	
Type of construction	
(a) Roof	CONCRETE
(b) Remainder of building	CONCRETE
How concealed	CAMOUFLAGE NET (WIRE)
How protected	
Height above concealment	
Height above protection	
Conspicuous at yards	
ELECTRIC CURRENT:	
Source of	POWER PLANT
Kilowatts required	
Type of lighting fixtures	
HEAT:	
How heated	
WATER AND SEWER:	
Connected to water mains	YES
Connected to sewer	NO
Type of latrine	OUTSIDE
Permanent or temporary inst'ln	PERMANENT
Present condition	
REFERENCE:	
Reference of site	SEE ATTACHED SKETCH
Reference of instrument axis	
Type and capacity of crane	NONE
Max. dim. of reel handled	

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of
Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type

Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling. Refer to Drawing F-327, Sheets 3705

SECRET


54°31'07"
54°31'07"
3.0'
4.66'
8.00'
INSTRUMENT BUILDING
17.33'
17.33'
357°09'28"
113.59'
30°06'37"
152.79'
KAWAILOA CAMP
Elevations
Floor - 258.64
Top Instrument Pedestal - 259.41
Note - See Plan F-3126 Sheet 2
TO U.S.M.R. MON. No. 2

6 445

COPY NO. 5 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Assigned to: Commanding General,
~~HARBOR DEFENSES OF~~ Schofield Barracks, T. H.
FORT Kawailoa Military Reservation
BATTERY Panama Mounts
No. of guns: 4 Caliber: 155-m.m. Carriage: Split Trail

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	October 18, 1939		
Date of transfer	January 3, 1940	Max. kw. required for lights	-
Cost to date of transfer	$3,107.00 (Troop labor & equipment)	Max. kw. required for motors	-
Materials of construction	Reinforced concrete		
Type of cement	Portland	Present condition of battery	Good
ER AND SEWER:		Rooms wet or dry	No rooms
Connected to water supply	No		
Connected to sewer	No	How ventilated	-
Type of latrine	None	Type of data transmission	Telephone
Elevation contour of conc. empl.	Gun 1 241.805/Gun 3 234.550		
~~Trunnion elevation in btry.~~	" 2 239.117/Gun 4 235.230	Remarks	Guns not permanently emplaced
Datum plane	M.L.L.W.		

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
				Armament is not permanently emplaced							

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
None										

SECRET UNCLASSIFIED RESTRICTED
REGRADED
ORDER SEC ARMY
BY 03307

REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7

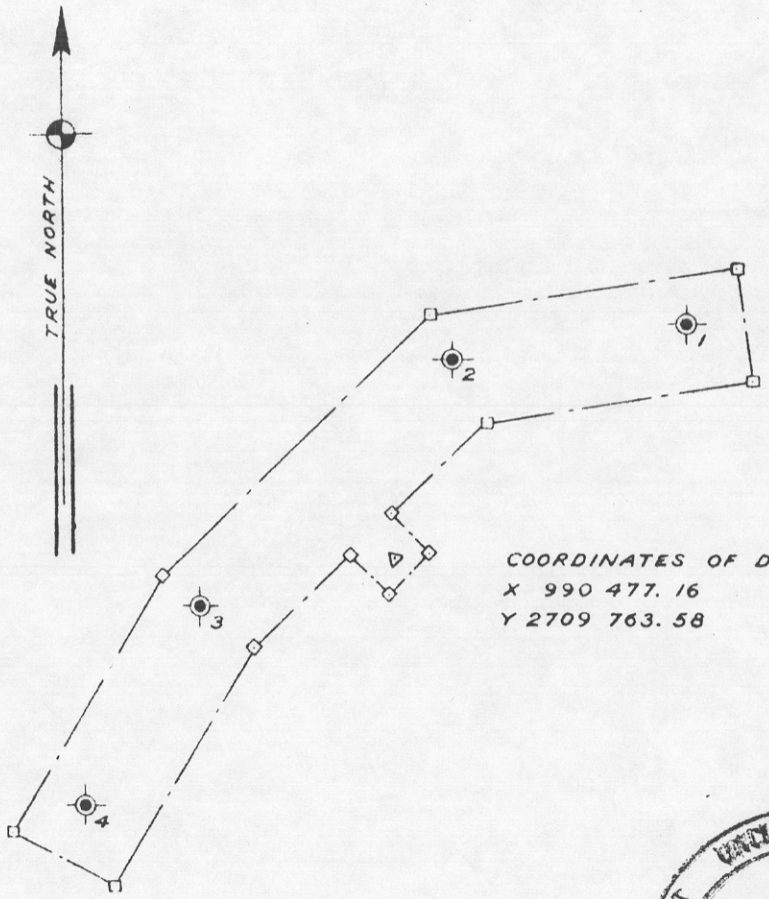
CORRECTED TO JULY 1, 1940

HARBOR DEFENSES OF HONOLULU, T.H.
KAWAILOA MILITARY RESERVATION
4 – PANAMA MOUNTS FOR 155 MM GUNS

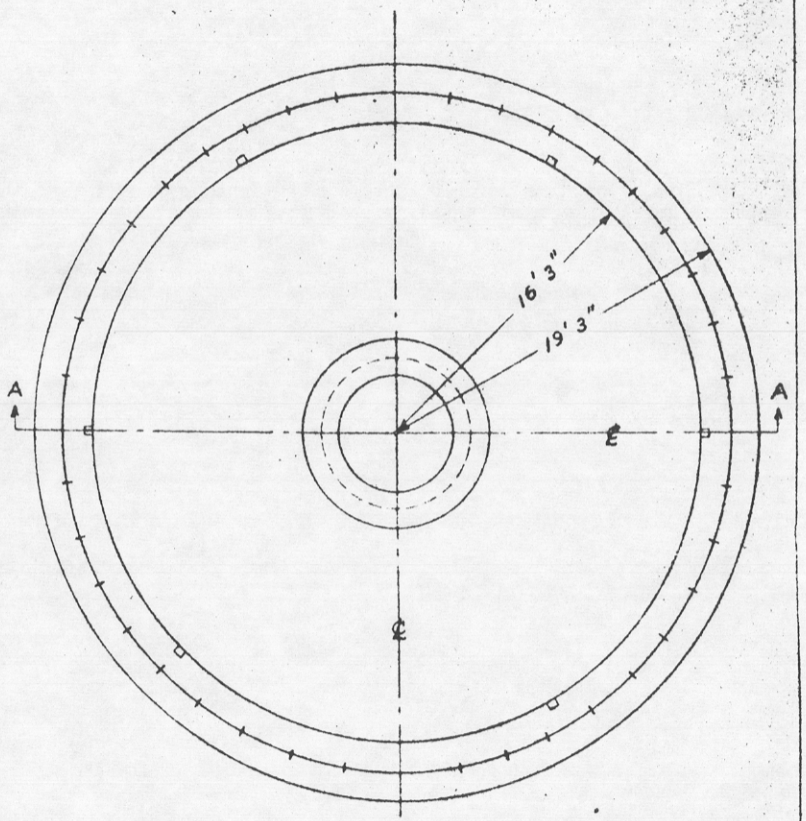
GRAPHIG SCALES

10 0 10 20 30 FT.

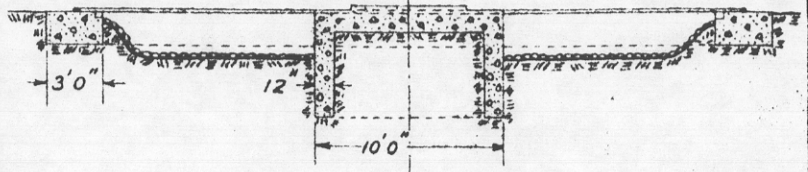
100 0 100 200 300 FT



COORDINATES OF D.P.
X 990 477. 16
Y 2709 763. 58



PLAN



SECTION A-A
SCALE: 1" = 10'

UNCLASSIFIED
SECRET
RESTRICTED
CONFIDENTIAL
REGRADED
ORDER SEC ARMY
BY TAG 8807

SECRET

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Corrected to Oct. 4, 1927.

PUPUKEA.
BATTERY See Below
No. of Guns, None.
2 Emplacements for 240 MM Howitzer

Battery commenced	May 23, 1927		
Battery completed	June 30, 1927	Source of electric current	None.
Date of transfer	Sept.27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosendale cement	Portland	Present condition of battery	Good.
Cost to date of transfer	$4,216.74 *	Rooms wet or dry	None provided
Connected to water supply	No.		
Connected to sewer	No.	How ventilated	Not required.
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail

ARMAMENT

None mounted

HOISTS

None

MOTOR

None

REPORT OF COMPLETED WORKS

(General Plan)

August 1927.

Form 7.

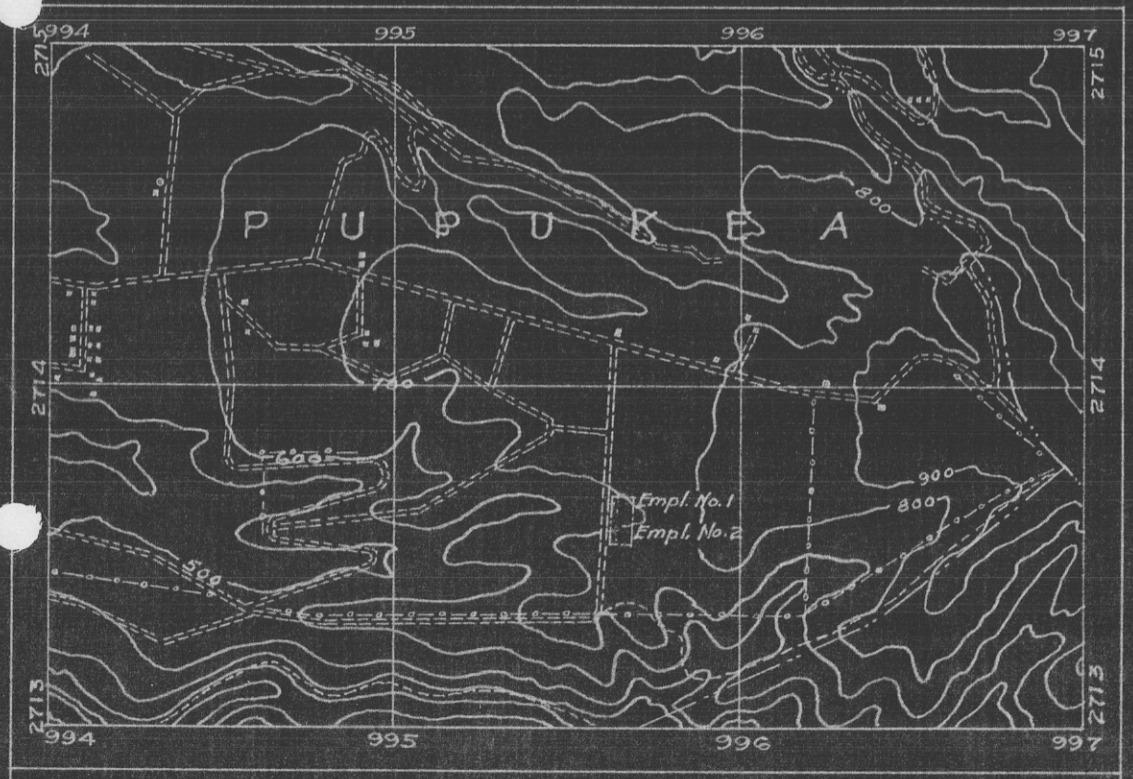
PUPUKEA

2 EMPLACEMENTS

(Graphic Scales)

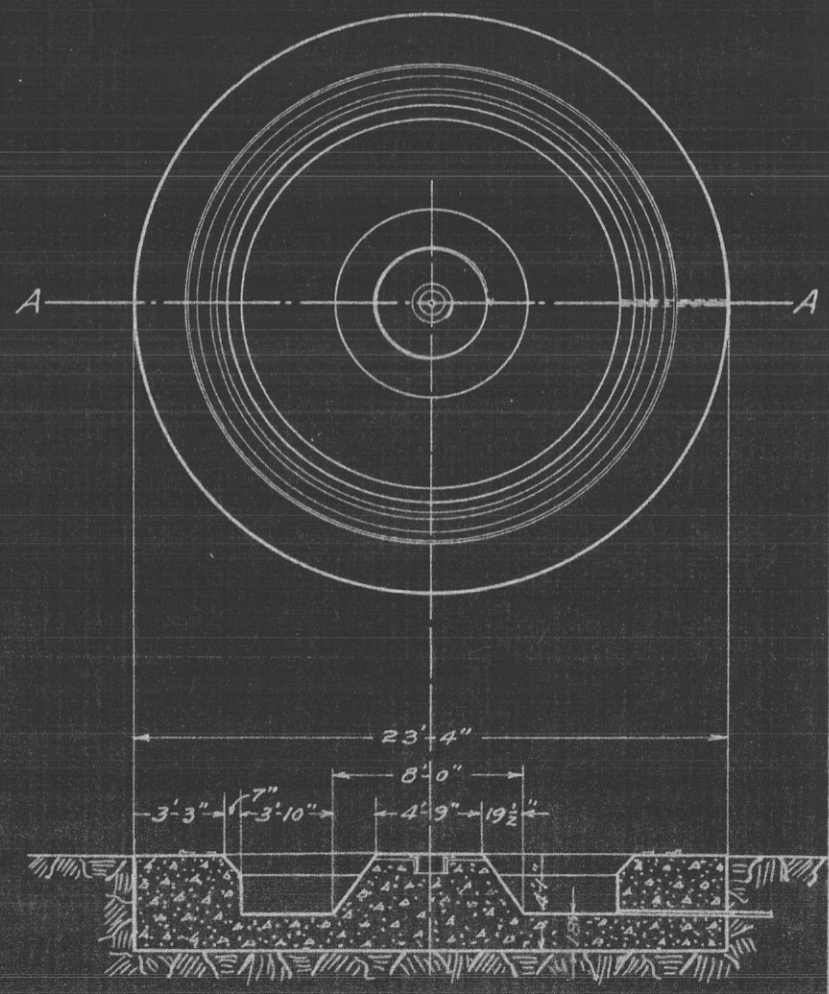
0 500' 1000' 2000' 3000' 4000'

12" 0 5' 10' 15' 20'



Insert showing location of Emplacements - Scale: 1 : 20000

PLAN



SECTION A-A

Scale: 1" = 8'-0"

665 (Oahu) 532

Dec. 4, 1941

Oahu

F.C. Stations

Fire Control Station "O",

Pupukea, Oahu.

The above completed works accepted for use of and care by troops 12/1/41.

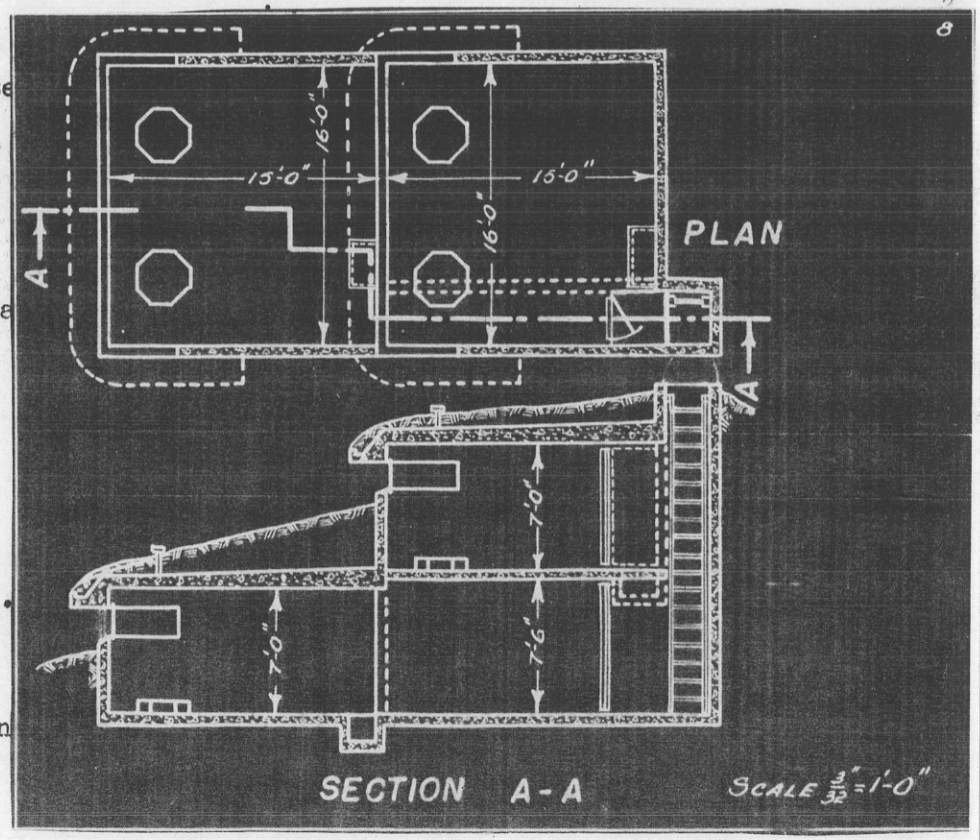
U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
DEC 19 1934
SAN FRANCISCO, CAL.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to Dec. 5, 1934.

HARBOR DEFENSES OF PEARL HARBOR
Structure: Fire Control Stations "O"
Pupukea for Batteries Hatch and Willis-
ton, Forts BARRETTE and WEAVER, T. H.

Location	U.S. Gov't. Trig. Sta. Pupukea Az. 275° 28' - Dist. 2,740.46' ℄
Date of transfer	November 30, 1934
Cost to date	$4,485.53
Type of construction:	
(a) Roof	Reinforced concrete
(b) Remainder of building	" "
How concealed	Earth fill on roof
" protected	Cut and cover type
Height above concealment	Not above
" " protection	" "
Conspicuous at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.2 KW
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
" " sewer	"
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	350' above m.l.l.w.
" " instrumental axis	Not determined
Type of observing instrument	D.P.F. instruments
" " plotting board	None
" " data transmission	Telephones (By Sign



See Page 5, para 4, Report of Operations, Fortification Work, May 1934, Honolulu
Fort Barrette : Installed 2 new D.P.F. Insts. in Battery Hatch F.C. Station "O"
Fort Weaver : Installed 1 new D.P.F. Inst. in Battery Williston F.C. Station "O"

Hawaii 660B (Honolulu) 127

SECRET

COPY NO. 1 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~
BATTERY 8-inch railway guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	November 1, 1939	Sources of	None
Battery completed	December 29, 1939		
Date of transfer	February 8, 1940	Max. kw. required for lights	None
Cost to date of transfer	$10,987.00 (Troop labor &	Max. kw. required for motors	None
Materials of construction	60-lb rail equipment)		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry. Datum plane	Approximately 10' above mean lower low water. Precise levels not taken.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
		Armament not permanently emplaced									

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

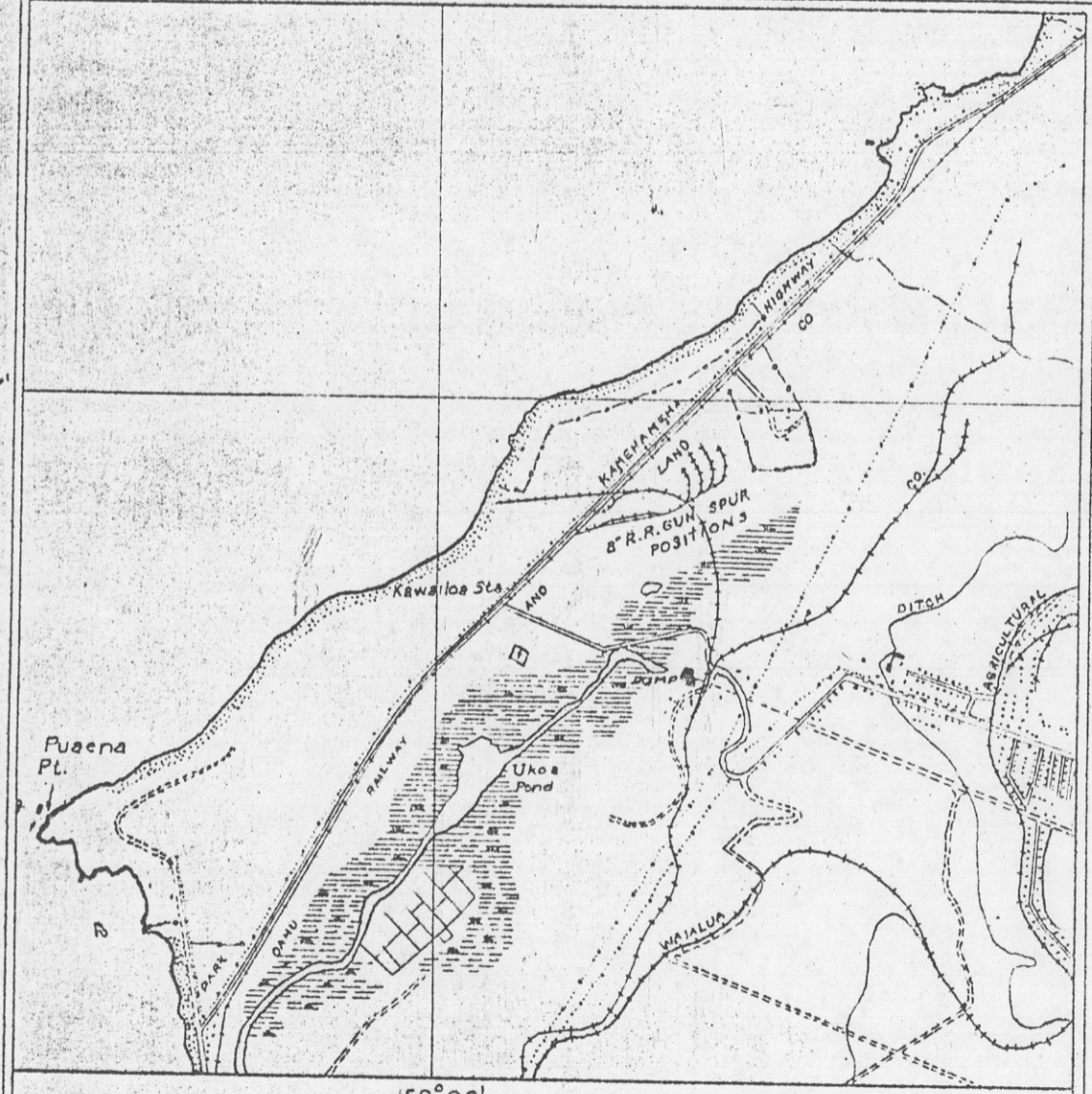
FORM 7 CORRECTED TO JULY 1, 1940

SEACOAST DEFENSES OF OAHU

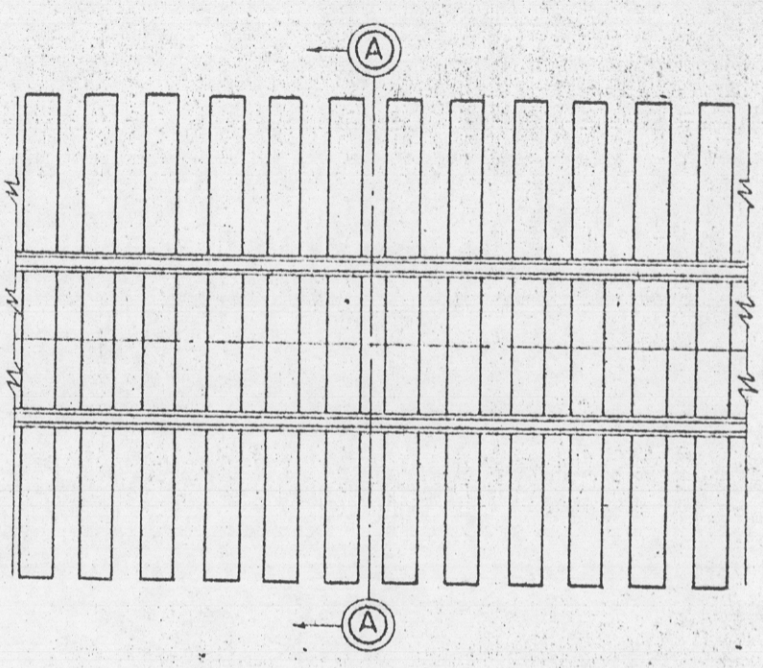
KAWAILOA

8 IN. RAILWAY FIRING POSITION

SECRET

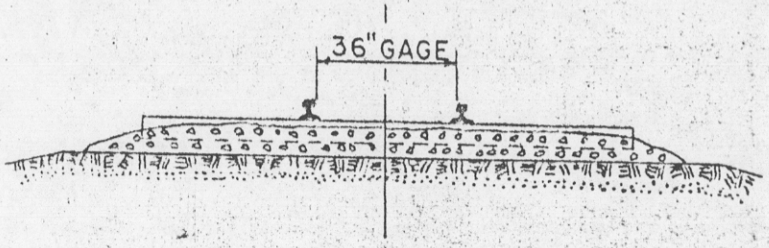


INSET SCALE 1:20,000



PLAN

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



SECTION A-A

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

Wit 662 B (Oahu) 206

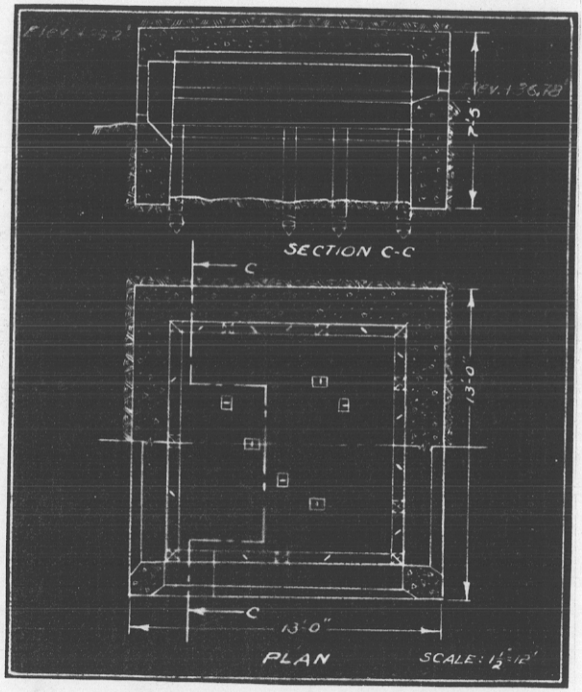
REPORT OF COMPLETED WORK-- SEACOAST DEFENSES, HAWAII

Structure - CONCRETE MACHINE GUN EMPLACEMENT

Form No. 2

Unit No. 11, Waimea, Oahu.

Location	: Grid Coordinates - U. S. Zone System 92,012 - 13,308
Date of transfer	: July 9, 1934
Cost to date	: $1098.80 complete
Type of construction:	:
(a) Roof & walls	: Reinforced Concrete
(b) Firing doors	: 1½ sheet boiler plate
How concealed	: Camouflage paint on walls - Sod on roof
How protected	: Dug in type
Source of electric current	: Not lighted
Kilowatts required	: None
Type of lighting fixtures	: None
How heated	: Not required
Connected to water mains	: No
Connected to sewer	: No
Type of latrine	: None
Reference of site	: 36.2' above mean lower low water
How ventilated	: Not required



U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
AUG 15 1934
SAN FRANCISCO, CAL.

See O.C.E. Drwg #22-90-14-A

With 662 B (Oahu) 206

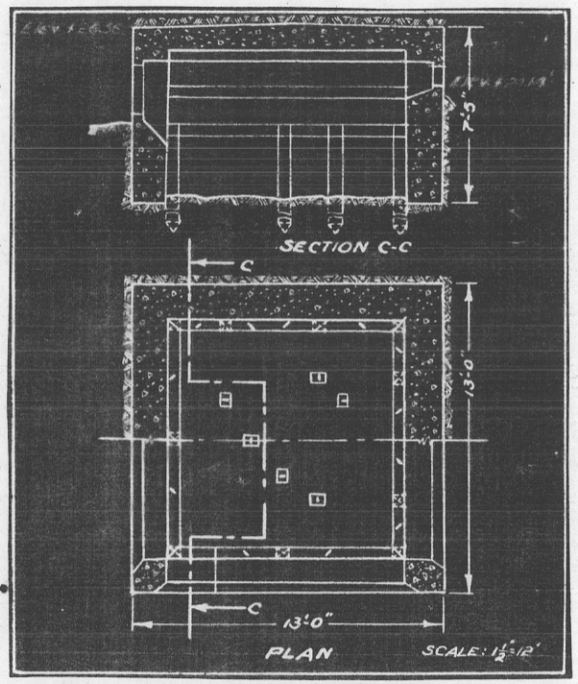
REPORT OF COMPLETED WORK -- SEACOAST DEFENSES, HAWAII

Structure- CONCRETE MACHINE GUN EMPLACEMENT

Form No. 2

Unit No. 12, Waimea, Oahu

Location	: Grid Coordinates - U. S. : Zone System : 92,539 - 13,625 :
Date of transfer	: July 9, 1934
Cost to date	: $1089.00 complete
Type of construction:	:
(a) Roof & Walls	: Reinforced concrete
(b) Firing doors	: 1½" sheet boiler plate
How concealed	: Camouflage paint on walls- : sod on roof
How protected	: Dug in type
Source of electric current	: Not lighted
Kilowatts required	: None
Type of lighting fixtures	: None
How heated	: Not required
Connected to water mains	: No
Connected to sewer	: No
Type of latrine	: None
Reference of site	: 23.56' above mean lower low wat.
How ventilated	: Not required



U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
AUG 15 1934
SAN FRANCISCO, CAL.

See O.C.E. Drwg. # 22-90-14 A

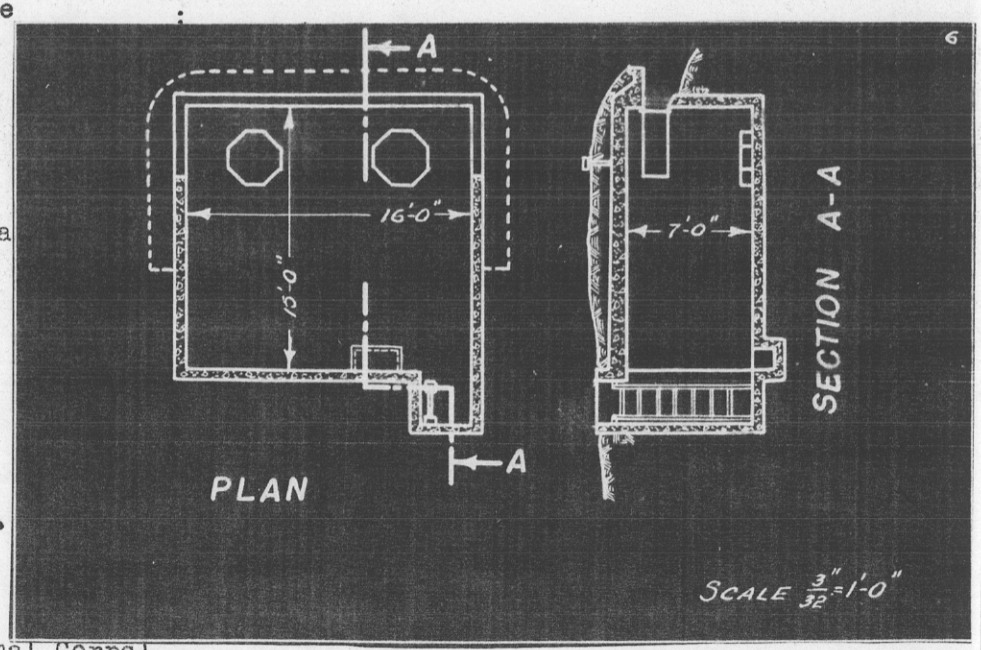
U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
DEC 19 1934
SAN FRANCISCO, CAL.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Harbor Defenses of Pearl Harbor
Structure: Fire Control Station "W" Waialua
for Battery Williston, Ft. Weaver, T. H.

Form No. 2. Corrected to Dec. 5, 1934.

Location	U.S. Gov't. Trig. Sta. Puena Az. 185° 10' - 20,864'±
Date of transfer	November 30, 1934
Cost to date	$2,164.90
Type of construction:	
(a) Roof	Reinforced concrete
(b) Remainder of building	" "
How concealed	Earth fill on roof
" protected	Cut and cover type
Height above concealment	Not above
" " protection	" "
Conspicuous at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1 KW
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
" " sewer	"
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	545' above m.l.l.w.
" " instrumental axis	Not determined
Type of observing instrument	D.P.F. instruments
" " Plotting board	None
" " data transmission	Telephones (by Signal Corps)



See Report of Oper., Fortifications, June 1936, page 5, para. 4, "Installed 2 D.P.F. Instruments."

6-445

/

RECORD OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF **Pearl Harbor** Set #3 of 4
FORT **Kamehameha**
BATTERY **Kuhuku**
No. of guns: **4** Caliber: **155 mm** Carriage: **Split Trail**

Form 1. Corrected to

GENERAL:	
Battery commenced	**3 - 11 - 41**
Battery completed	**4 - 16 - 41**
Date of transfer	**7 - 23 - 41**
Cost to date of transfer	**$ 4,591.82 ***
terials of construction	**Reinforced Concrete**
Type of cement	**Portland**
WATER AND SEWER:	
Connected to water supply	**None**
Connected to sewer	
Type of latrine	
Trunnion elevation in btry.	**(1) 232.39' (3) 241.57'** **(2) 228.80' (4) 244.62'**
Datum plane	**M.L.L.W.**

ELECTRIC CURRENT:	
Sources of	**None**
Max. kw. required for lights	
Max. kw. required for motors	
Present condition of battery	**None**
Rooms wet or dry	
How ventilated	**Open**
Type of data transmission	**Field Telephone**
Remarks	**Guns are not permanently emplaced.**

UNCLASSIFIED
SECRET
SECRET
DOWNGRADED
ORDER SEC ARMY
By Authority of the District Engineer,
Honolulu, T. H.
JUN 30 1942
Date
CONFIDENTIAL
Officer Affixing

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
Guns are not permanently emplaced. Different guns of the same caliber may be used.											

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
None										

* Represents cost chargeable to the Department Engineer Office.

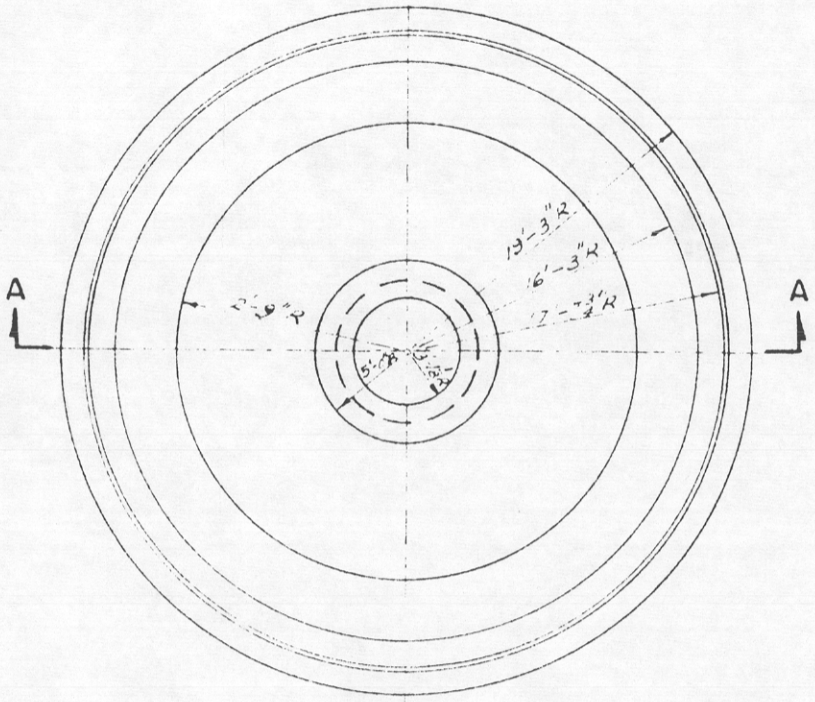
T OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
BATTERY KAHUKU

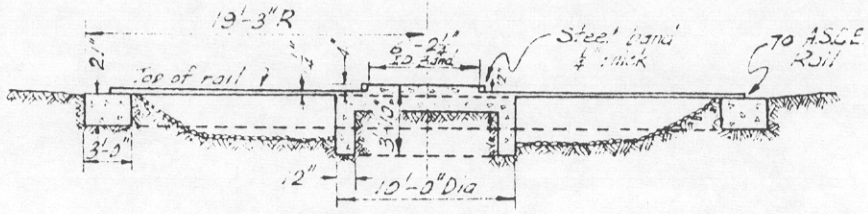
Set #3 of 4

Form 7 Corrected to

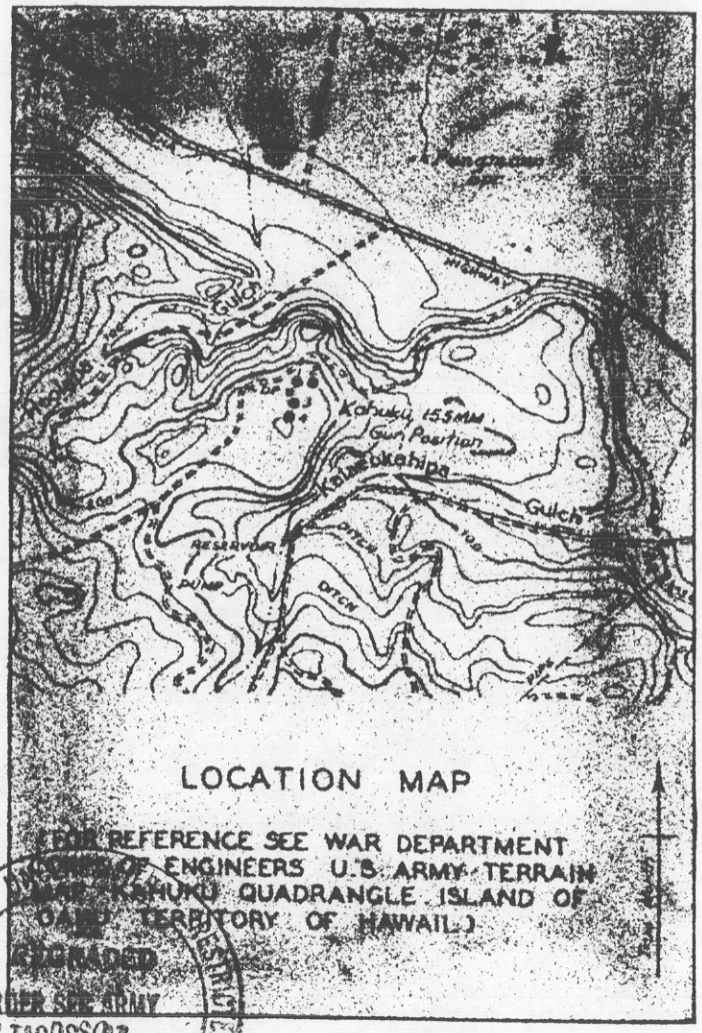
No. of guns: 4 . Caliber: 155mm. Carriage: Split Trail
Graphic Scales:



PLAN



SECTION A-A



LOCATION MAP

(FOR REFERENCE SEE WAR DEPARTMENT CORPS OF ENGINEERS U.S. ARMY TERRAIN MAP KAHUKU QUADRANGLE ISLAND OF OAHU TERRITORY OF HAWAII.)

SECRET
REGRADED
ORDER SEC ARMY
BY TAG OSSOZ

SECRET

SERIAL NO. I
COPY NO. 3

FILE NO F-55/56

6-452

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F.C. Station "K" Kahuku Upper Station**

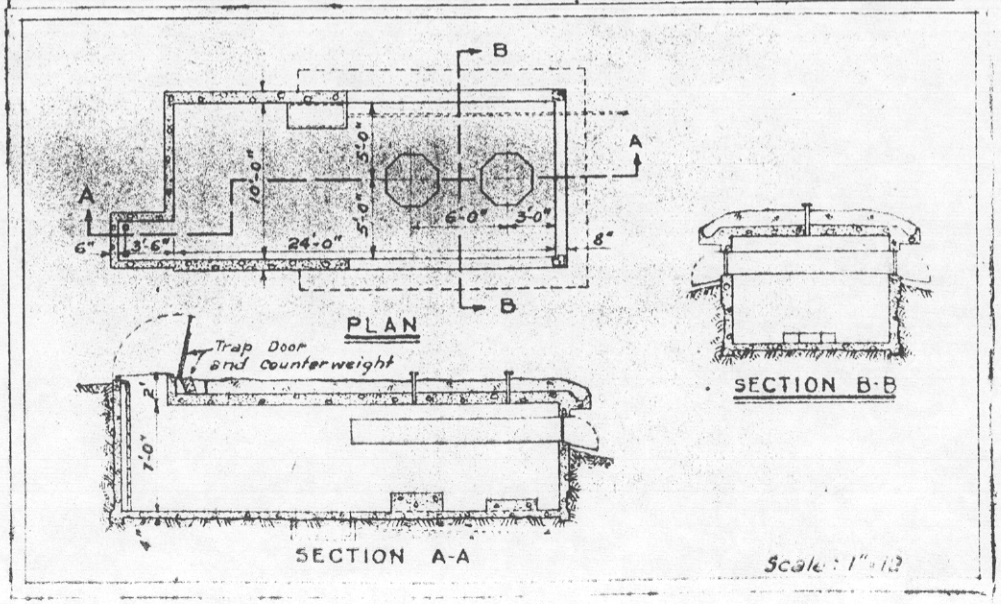
Form 2. Corrected to **December 1, 1939**

STRUCTURE:	
Location	**Kahuku, Oahu, T. H.**
Date of transfer	**May 9, 1939.**
Cost to that date	**$3,476.60**
Type of construction	
(a) Roof	**Rein. Concrete, earth cover.**
(b) Remainder of building	**Reinforced concrete**
How concealed	**Station set into ground, earth cover on roof.**
How protected	**Same.**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at **2000** yards	
ELECTRIC CURRENT:	
Source of	**None**
Kilowatts required	**None**
Type of lighting fixtures	**None**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected.**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	**--**
Present condition	**--**
REFERENCE:	
Reference of site	**375.0 ft. above sea level**
Reference of instrument axis	**380.0 ft. above sea level**
Type and capacity of crane	**None**
Max. dim. of reel handled	**--**

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type



6-452

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "K" Kahuku Lower Station**

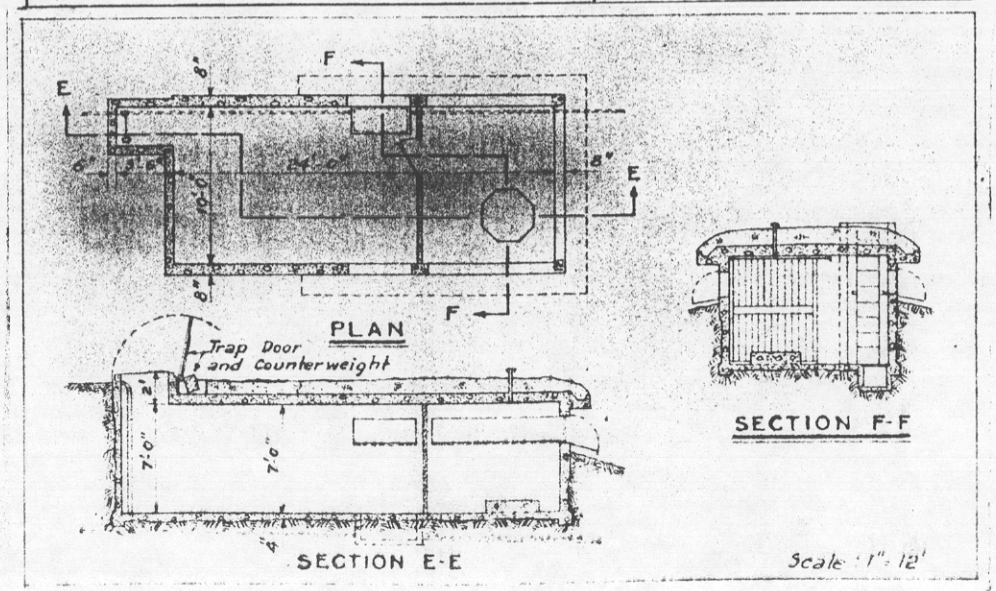
Form 2. Corrected to **December 1, 1939**

STRUCTURE:	
Location	Kahuku, Oahu, T. H.
Date of transfer	May 9, 1939.
Cost to that date	$3,476.60
Type of construction	
(a) Roof	Rein. Concrete, earth cover
(b) Remainder of building	Reinforced concrete.
How concealed	Station set into ground, earth cover on roof.
How protected	Same
Height above concealment	None
Height above protection	None
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source of	None
Kilowatts required	None
Type of lighting fixtures	None
HEAT:	
How heated	Not required
WATER AND SEWER:	
Connected to water mains	Not connected
Connected to sewer	Not connected.
Type of latrine	None
Permanent or temporary inst'ln	--
Present condition	--
REFERENCE:	
Reference of site	367.5 ft. above sea level
Reference of instrument axis	372.5 ft. above sea level.
Type and capacity of crane	None
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type



Engr. 665 Subject: Transfer of Completed Fortification Works.

3rd Ind.

Headquarters, Hawaiian Department, Fort Shafter, T.H., May 9, 1939.
To: Commanding General, H.S.C.A. Brigade, Fort DeRussy, T.Y.

1. The two fire control stations at Station "K", Kahuku, having been inspected and found satisfactory and suitable for the purpose for which intended, have been accepted under the provisions of paragraph 18, Army Regulations 100-20 (See Incls. Nos. 1 and 2, herewith).

2. These elements are hereby assigned to the Commanding General, Hawaiian Separate Coast Artillery Brigade, for control and for assignment by him for use and maintenance to appropriate units or organizations under his jurisdiction.

By command of Major General HERRON:

COLONEL, [illegible]
ACTG. ASST. [illegible]

2 Incls.
Incl. 1-Letter from H.D. of P.H., 3/11/39 w/2 Inds.
" 2-Letter from Maj. H.S.Johnson, 55th C.A., 3/14/39 w/2 Inds.

WAR DEPARTMENT

UNITED STATES ENGINEER OFFICE

214 FEDERAL BUILDING

Foot of Channel Street

HONOLULU, T. H.

In reply refer to: 2013

February 7, 1939.

Subject: Transfer of completed fortification works.

To: The Commanding General,
Hawaiian Department,
Fort Shafter, T. H.

1. The two fire control stations at Station "K", Kahuku, have been completed and are ready for transfer to troops for use and care.

2. Acceptance of this work is requested in accordance with Par. 18, A.R. 100-20.

P. E. Bermel,
Major, Corps of Engineers,
District Engineer.

CC to H.D.of P.H.

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.

LAIE, OAHU, T. H.
BATTERY: See below.
No. of guns: None
2 Emplacements for 240 m.m. Howitzers

Form No. 1. Corrected to February 20, 1932

Battery commenced	March 23, 1931	Source of electric current	None
Battery completed	May 29, 1931		
Date of transfer	January 22, 1932	Max. kw. required for lights:	
		" " motors:	
Material of construction	Concrete		
Portland or Rosendale Cement	Portland	Present condition of battery:	Good
Cost to date of transfer	$5,487.76	Rooms wet or dry	None provided
Connected to water supply	No.		
Connected to sewer	No.	Now ventilated	Not required
Type of latrine	None	REMARKS:	Armament in storage at
Type of data transmission	None		Hawaiian Ordnance Depot

ARMAMENT

None mounted.

HOISTS

None.

MOTOR

None.

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

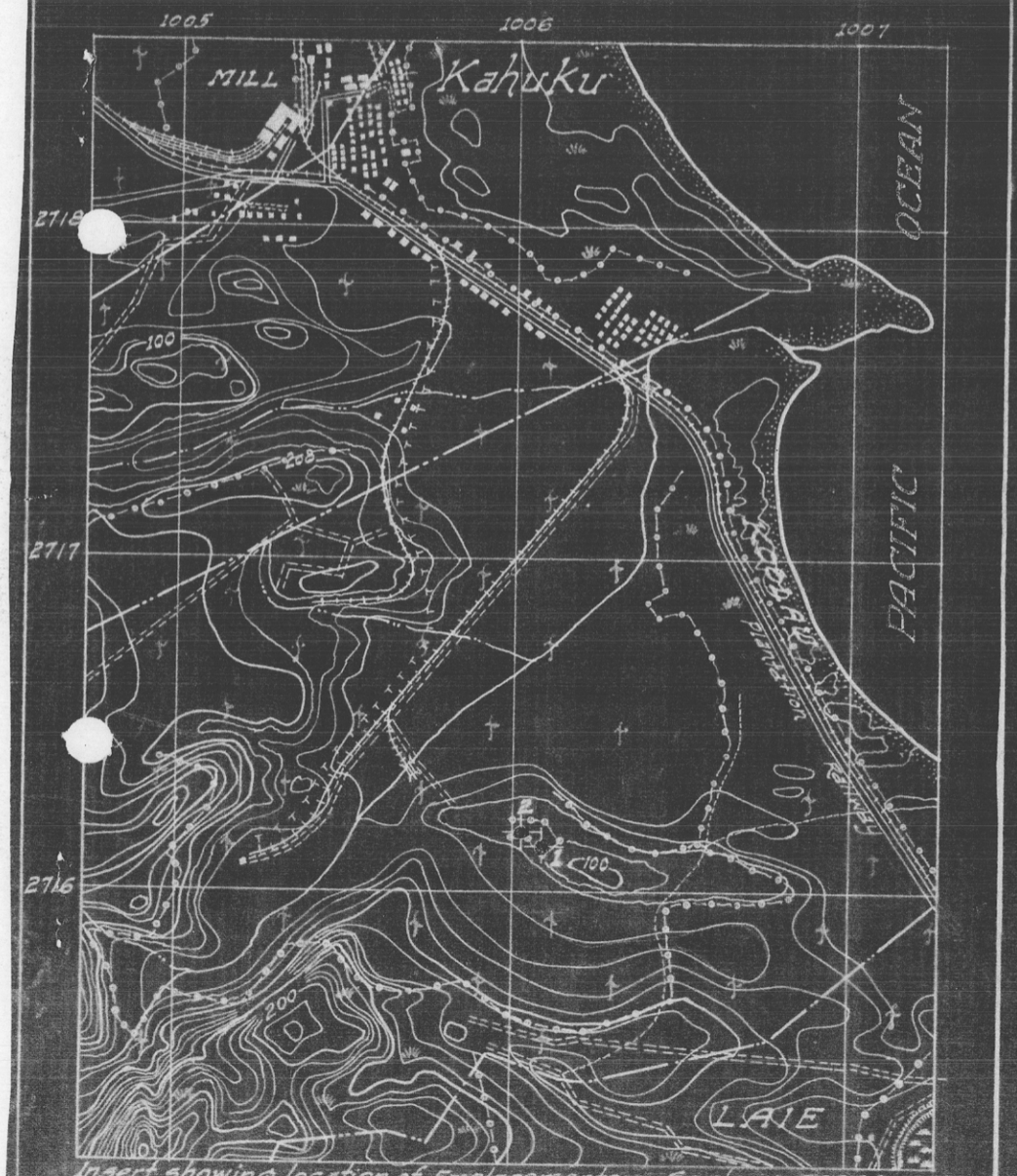
LAIE OAHU, T.H.

2-240 M.M. Howitzer Emplacements

Graphic Scales

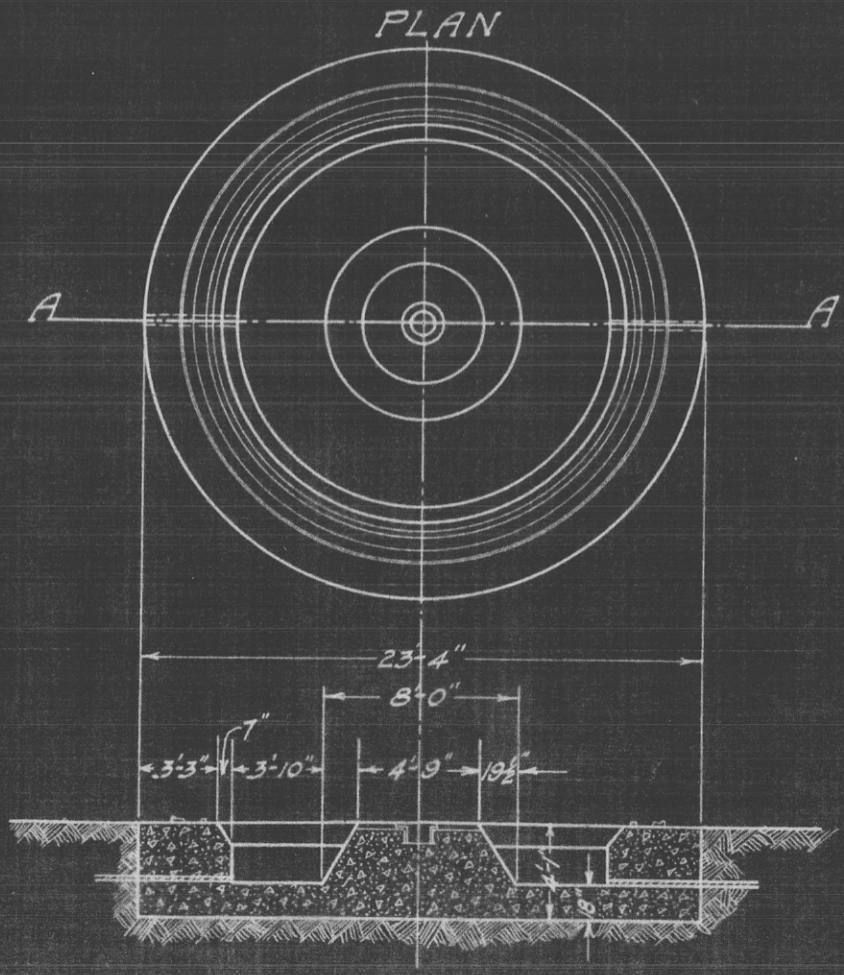
0 500' 1000' 2000' 3000'

0 8" 5' 10' 15'



Insert showing location of Emplacements Scale 1:20000

Insert from Fire Control Map Sheet No. 1-Kahuku-Island of Oahu-T.H.



SECTION A-A

SCALE: 1 inch = 8 feet

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

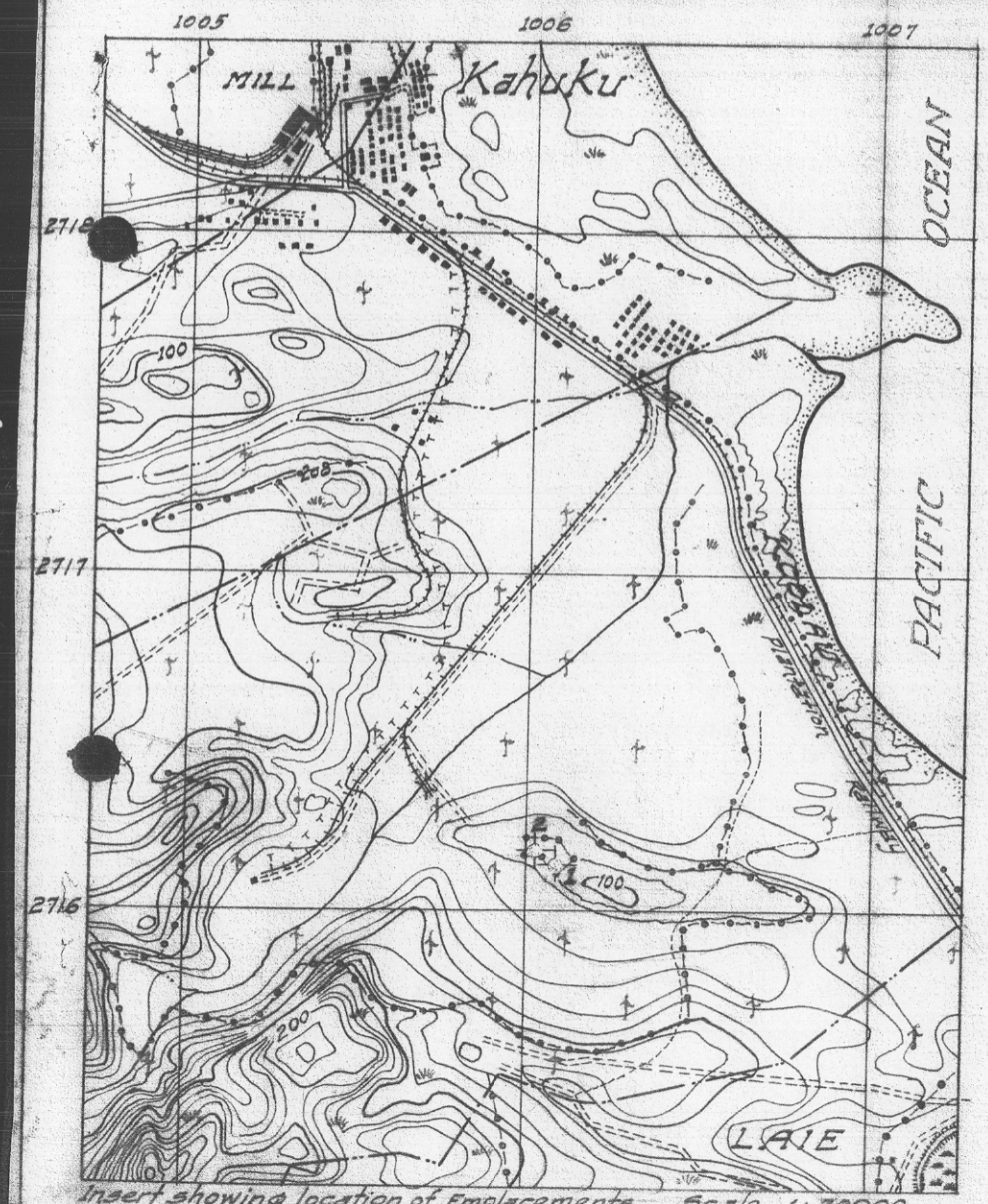
LAIE OAHU, T.H.

2-240 M.M. Howitzer Emplacement

Graphic Scales

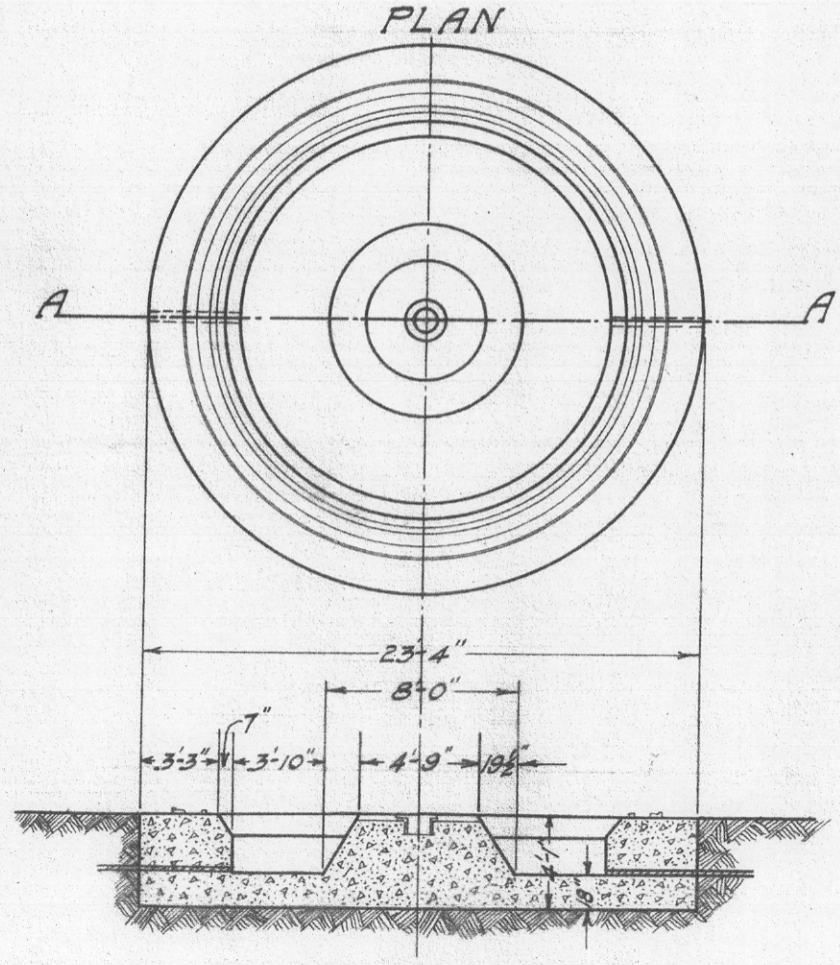
0 500' 1000' 2000' 3000'

12" 0 5' 10' 15'



Insert showing location of Emplacements Scale 1: 20000

Insert from Fire Control Map Sheet No. 1-Kahuku-Island of Oahu-T.H.



SECTION A-A

SCALE: 1 inch = 8 feet

G-445

COPY NO. 5 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Assigned to: Commanding General, Schofield Barracks, T. H.

HARBOR DEFENSES OF
FORT Ashley Military Reservation
BATTERY Panama Mounts
No. of guns: 4 Caliber: 155 m.m. Carriage: Split Trail

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	October 18, 1939		
Date of transfer	January 3, 1940	Max. kw. required for lights	-
Cost to date of transfer	$2,957.00 (Troop labor & equipment)	Max. kw. required for motors	-
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	-
Elevation contour of conc. empl.	Gun 1 245.673/Gun 3 243.709	Type of data transmission	Telephone
~~Trunnion elevation in bery.~~	Gun 2 245.846/Gun 4 240.699		
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Meter
				Armament is not permanently emplaced							

Emplacement No.	Type	Delivery	Motors: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
None										

UNCLASSIFIED RESTRICTED SECRET CONFIDENTIAL
HOISTS
REGRADED
ORDER SEC ARMY
BY TAG OSS 07
TOP SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7

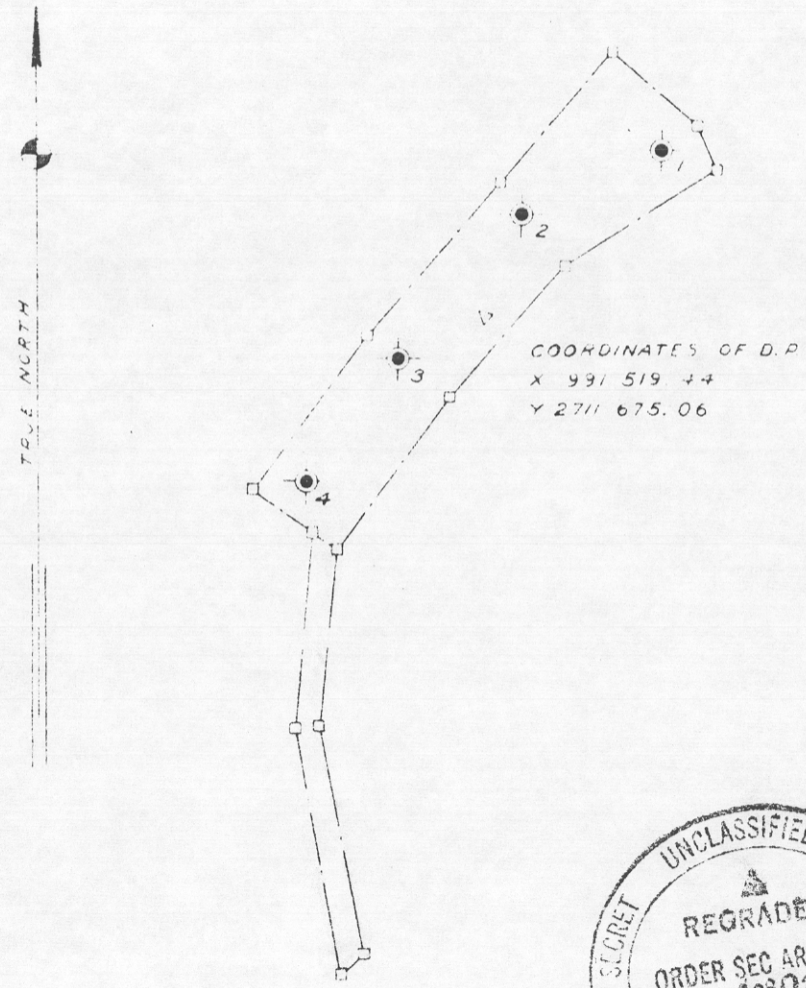
CORRECTED TO JULY 1, 1940

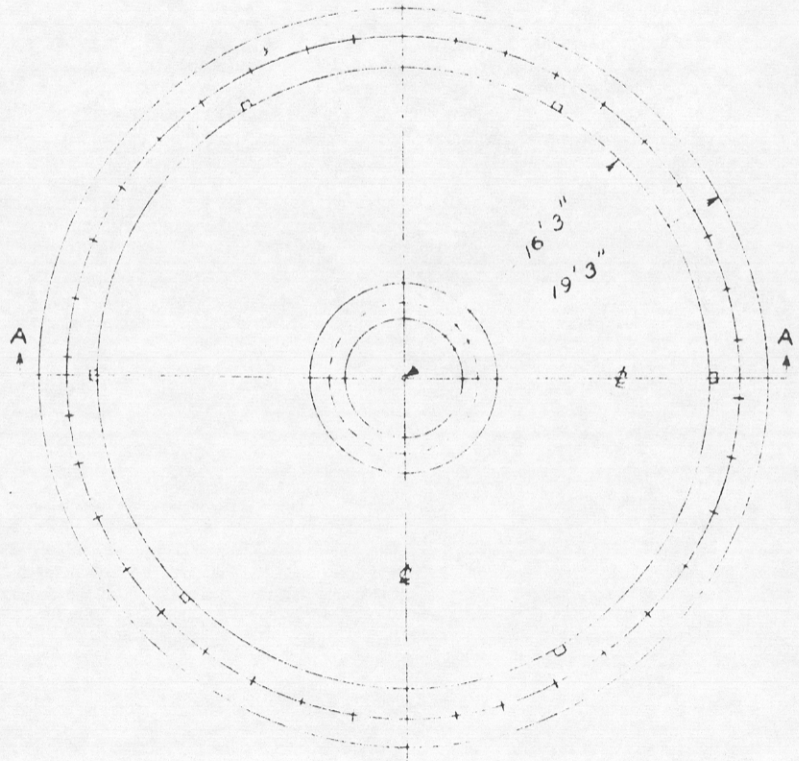
HARBOR DEFENSES OF HONOLULU, T. H.
ASHLEY MILITARY RESERVATION
4 - PANAMA MOUNTS FOR 155 MM GUNS

GRAPHIC SCALES

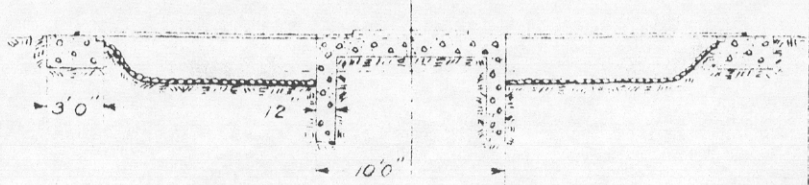
10 0 10 20 30 FT.

150 0 150 300 450 FT.





PLAN



SECTION A-A

SCALE 1" = 10'0"

SECRET UNCLASSIFIED RESTRICTED CONFIDENTIAL
REGRADED
ORDER SEC ARMY
BY TAG 9331
SECRET

File 611

COMPLETION REPORT

Form 2-Oper. Off.

COMPANY " A " THIRD ENGINEERS
Schofield Barracks, T. H.
DATE December 5 1939

155

PROJECT NO. _____ : TITLE "Correction of Erosion at Ashley Station ~~240MM~~ Emplacements"

1. Description of Project and Location:

2. Work Started Nov 20 1939 ; Work Completed Nov 30 1939 .

3. Plans and Specifications: Prepared by: _____
Approved by: _____

4. Officer in immediate charge Captain VERE A. BEERS, 3rd Engineers

5. Labor, Man Hours:

CO. PERSONNEL	H & S CO.	OTHERS	TOTAL	TOTAL COST
536	148	----	684	$273.60

6. Use of Construction Plant:

MACHINE	GAS		OIL		GREASE		COAL		TOTAL COST
	Gals.	Cost	Qts.	Cost	Lbs.	Cost	Lbs.	Cost	
1-Tractor, Small	30	2.12	16	.80					$2.92
1-Tractor, Large	34	2.41	16	.80					3.21
6-1½ Ton Trucks	93	6.59	7	.35					6.94
1-4 Ton Truck	56	3.97	3	.15					4.12
1-½ Ton Truck	18	1.28	-	--					1.28
1-Bulldozer	39	2.77	12	.60					3.37
1-Road Grader	--	---	-	--					-----
									$21.84

7. Materials and Supplies:

ITEM	Unit	Amount	UNIT COST		TOTAL COST	
			WO / Sol. Labor	W / Sol. Labor	WO / Sol. Labor	W / Sol. Labor

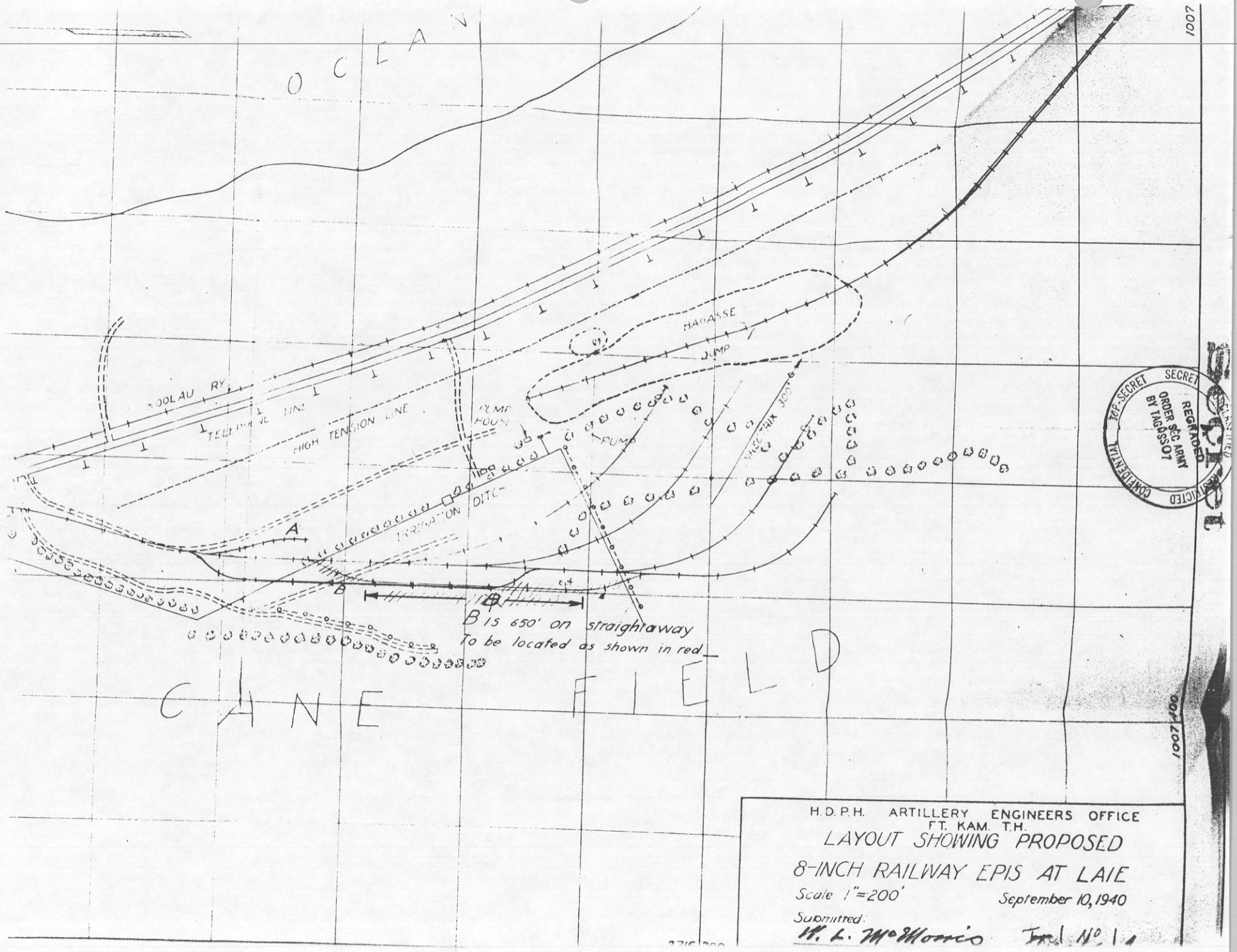
8. Total Cost of Project:

	Labor	Construction Plant	Materials & Supplies	TOTAL COST
WO / Soldier Labor	-----	$21.84	-----	$21.84
W / Soldier Labor	$273.60	$21.84	-----	$295.44

9. Further imformation as required by Paragraph 2 d (2) Memo. No. 1, Third Engineers, May 4, 1934 is attached hereto, and consists of _____ sheets.

(Sgd) VERE A. BEERS,
(Typed) VERE A. BEERS

Captain 3rd Engrs.
Commanding

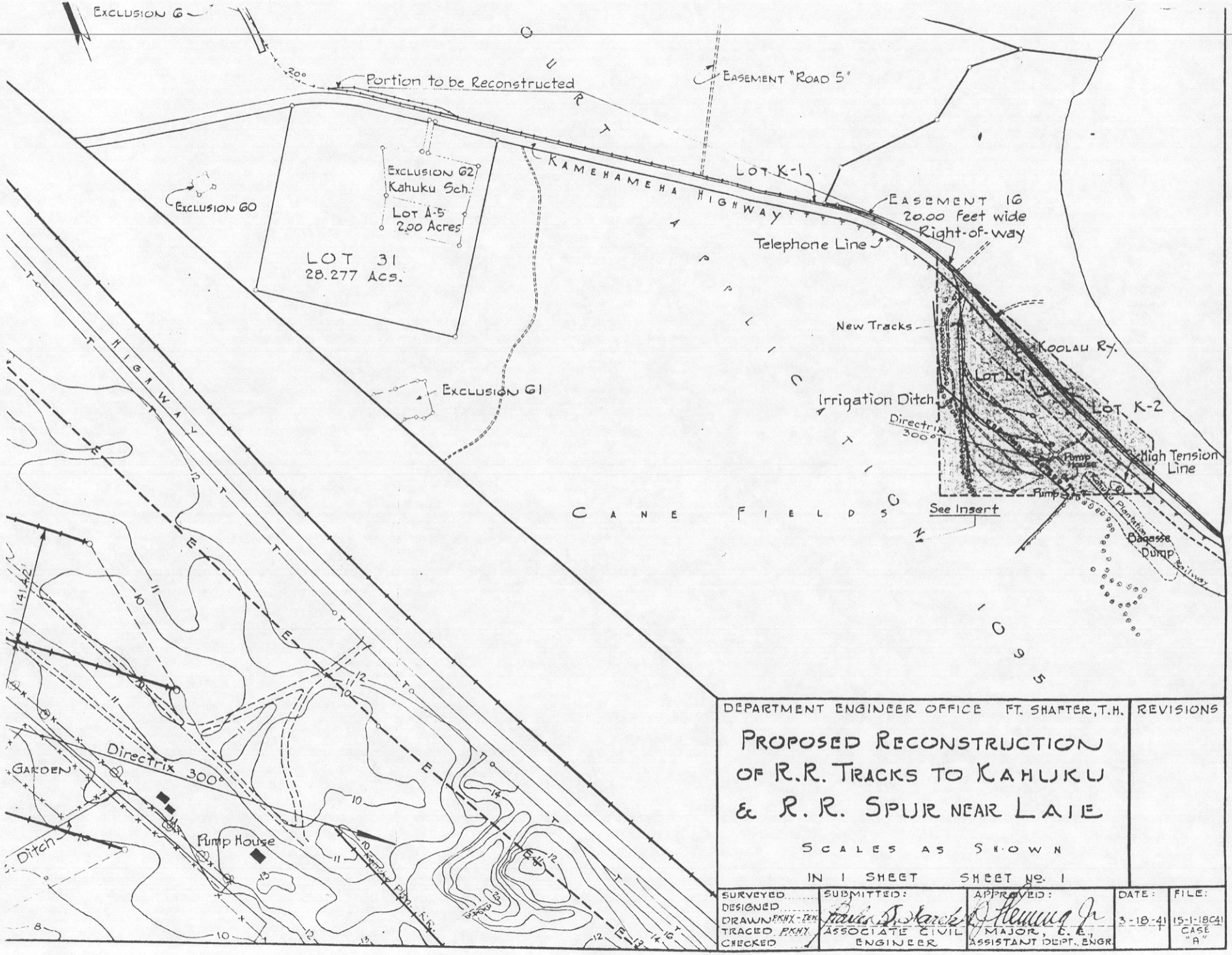


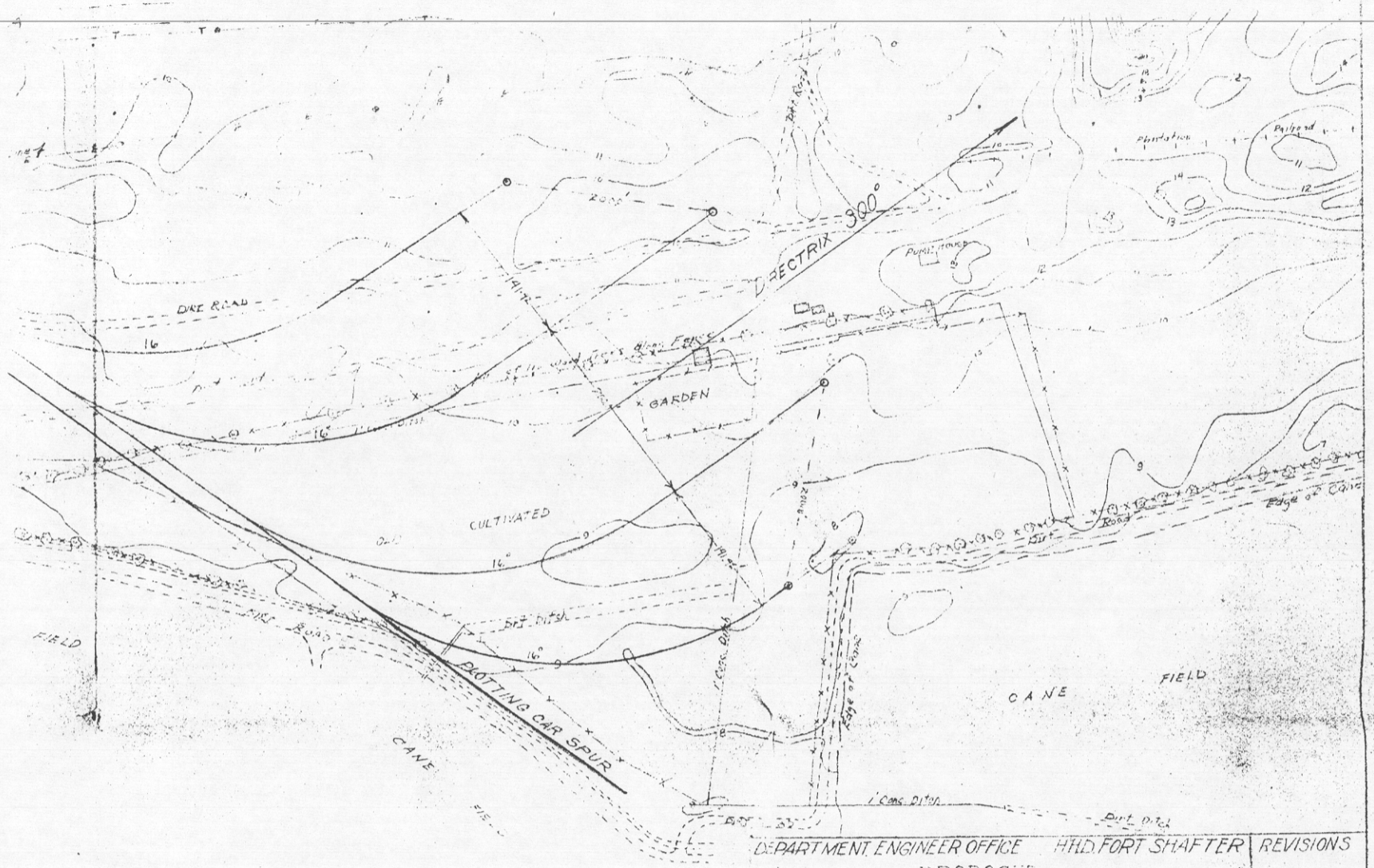
H.D.P.H. ARTILLERY ENGINEERS OFFICE
FT. KAM. T.H.

LAYOUT SHOWING PROPOSED
8-INCH RAILWAY EPIS AT LAIE

Scale 1"=200' September 10, 1940

Submitted: W. L. McMorris Encl No. 1


EXCLUSION 6
Portion to be Reconstructed
EASEMENT "ROAD 5"
KAMEHAMEHA HIGHWAY
LOT K-1
EXCLUSION 62
Kahuku Sch.
LOT A-5
2.00 Acres
EXCLUSION 60
LOT 31
28.277 Acs.
EASEMENT 16
20.00 feet wide
Right-of-way
Telephone Line
New Tracks
KOOLAU Ry.
LOT A-1
LOT K-2
Irrigation Ditch
Directrix 300°
EXCLUSION 61
High Tension Line
Pump House
Pump
See Insert
CANE FIELDS
Bagasse Dump
Railway
HIGHWAY
141.42'
Directrix 300°
GARDEN
Ditch
Pump House
DEPARTMENT ENGINEER OFFICE FT. SHAFTER, T.H.
REVISIONS
PROPOSED RECONSTRUCTION OF R.R. TRACKS TO KAHUKU & R.R. SPUR NEAR LAIE
SCALES AS SHOWN
IN 1 SHEET SHEET No. 1
SURVEYED
DESIGNED
DRAWN PKHY - TEN.
TRACED PKHY.
CHECKED
SUBMITTED:
ASSOCIATE CIVIL ENGINEER
APPROVED:
MAJOR, C. E., ASSISTANT DEPT. ENGR.
DATE: 3-18-41
FILE: 15-1-1804
CASE "A"


DIKE ROAD
DIRECTRIX 300°
GARDEN
CULTIVATED
FIELD
CANE
FIELD
CANE
PLOTTING CAR SPUR
Edge of Cane
Edge of Cane
Public Toilets
Plantation
Playground
Road
Ditch
Ditch
Ditch

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Corrected to October 4, 1927.

KAAAWA (Near Kahana)
BATTERY See Below
No. of Guns None Caliber ___ Carriages
1 Emplacement for 240 MM Howitzer

Battery commenced	March 3, 1927		
Battery completed	April 7, 1927	Source of electric current	None
Date of transfer	Sept. 27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosenda le cement	Portland	Present condition of battery	Good
Cost to date of transfer	$2,267.51 *	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	How ventilated	Not required
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail. Part of materials hauled by Q.M.C. remainder needed purchased locally.

A R M A M E N T

None mounted

H O I S T S

None

M O T O R

None

REPORT OF COMPLETED WORKS

(General Plan)

August 1927.

Form T.

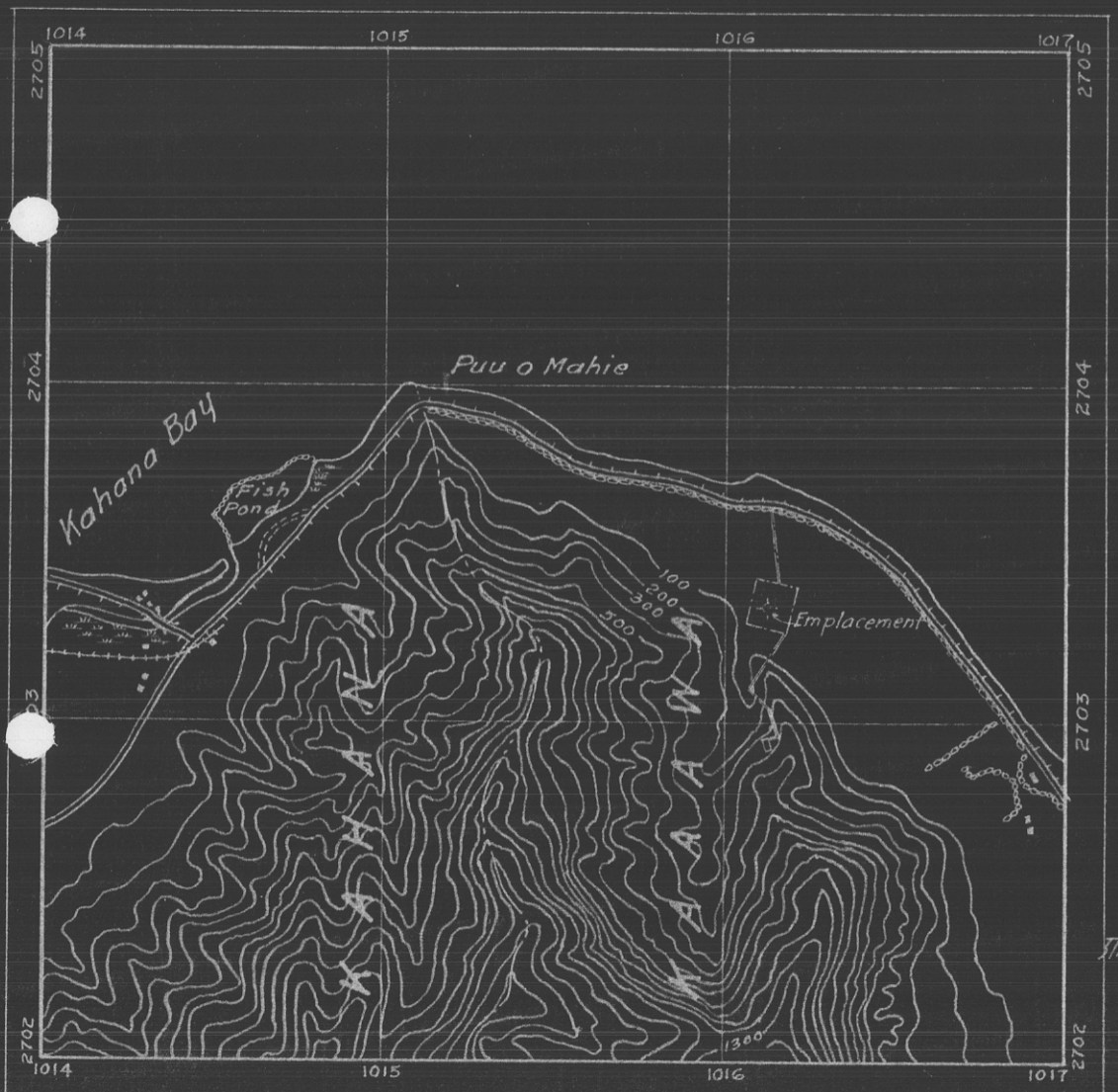
KAAAWA (Near Kahana)

1 EMPLACEMENT

(Graphic Scales)

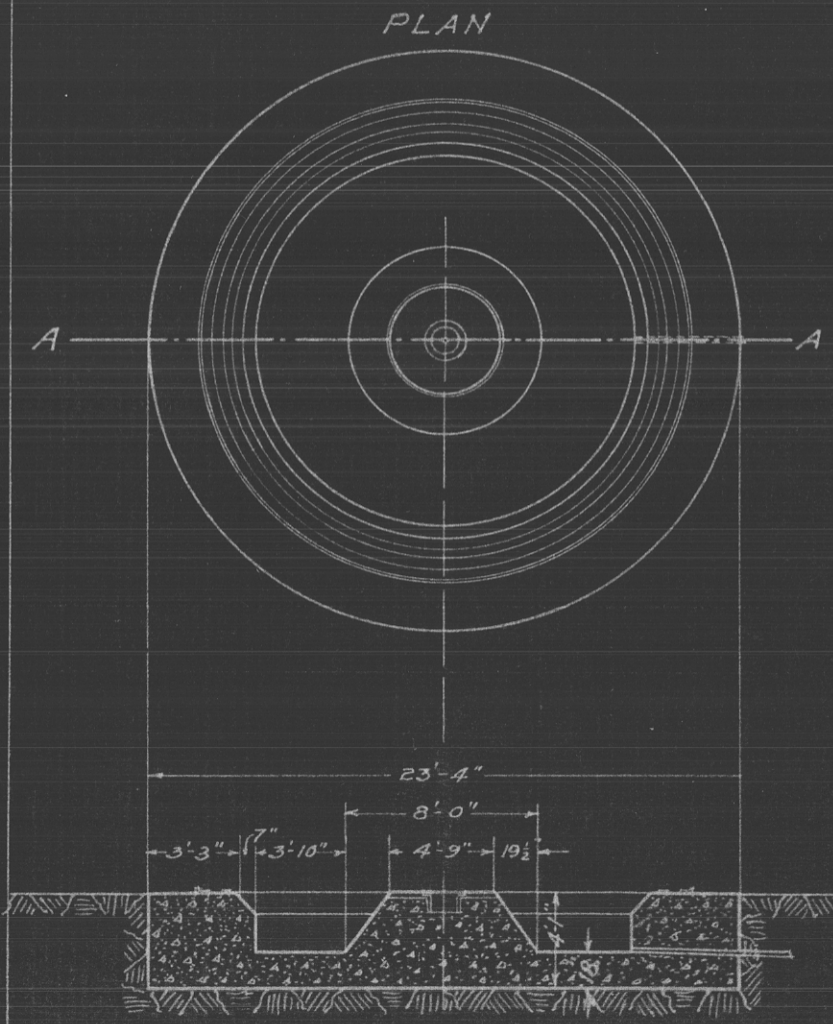
0 500' 1000' 2000' 3000' 4000'

12" 0 5' 10' 15' 20'



Insert showing location of Emplacement Scale: 1: 20000

PLAN



SECTION A-A

Scale: 1"=8'-0"

REPORT OF COMPLETED WORKS

(General Plan)

August 1927.

Form 7.

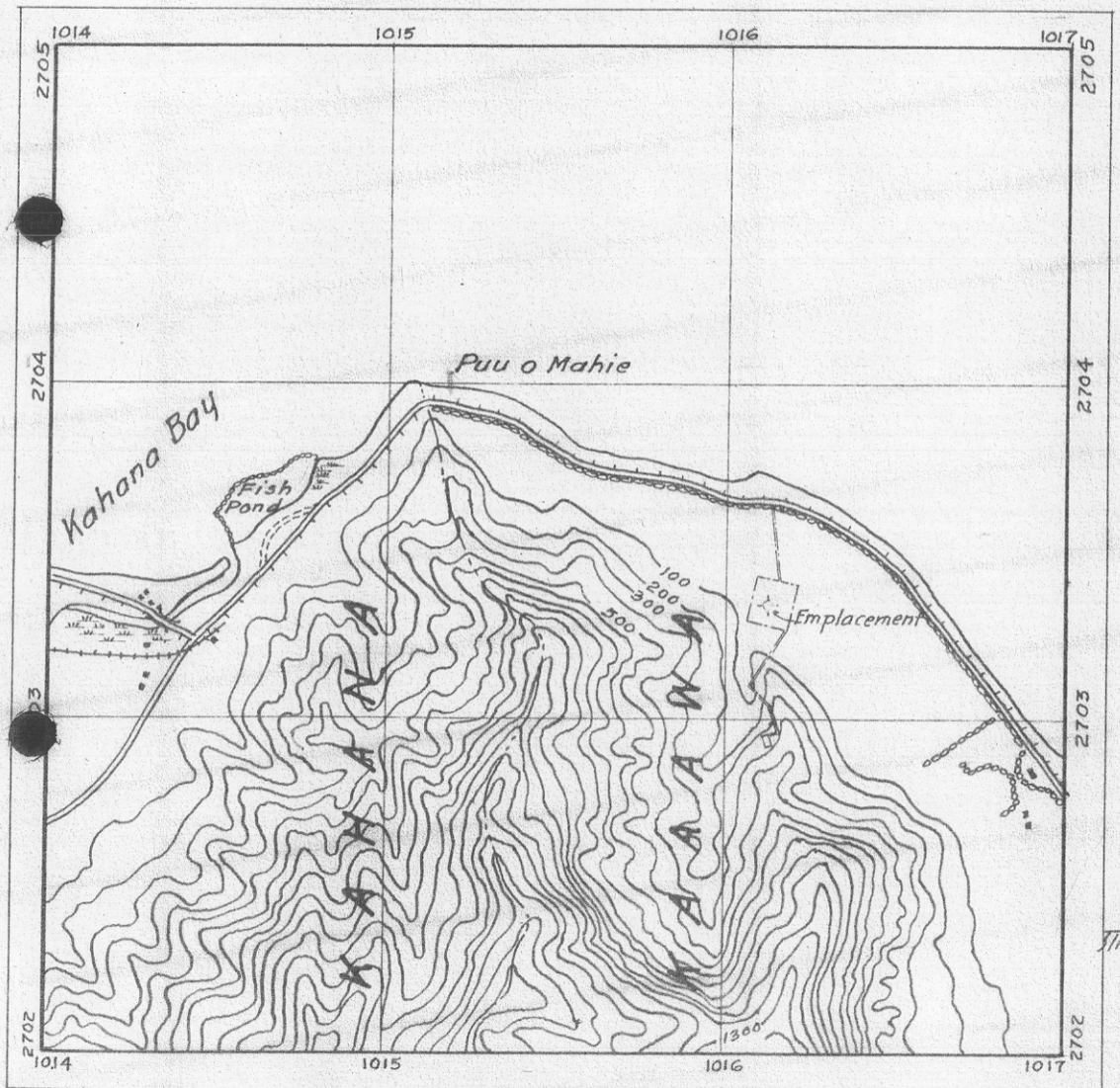
KAAAWA (Near Kahana)

1 EMPLACEMENT

(Graphic Scales)

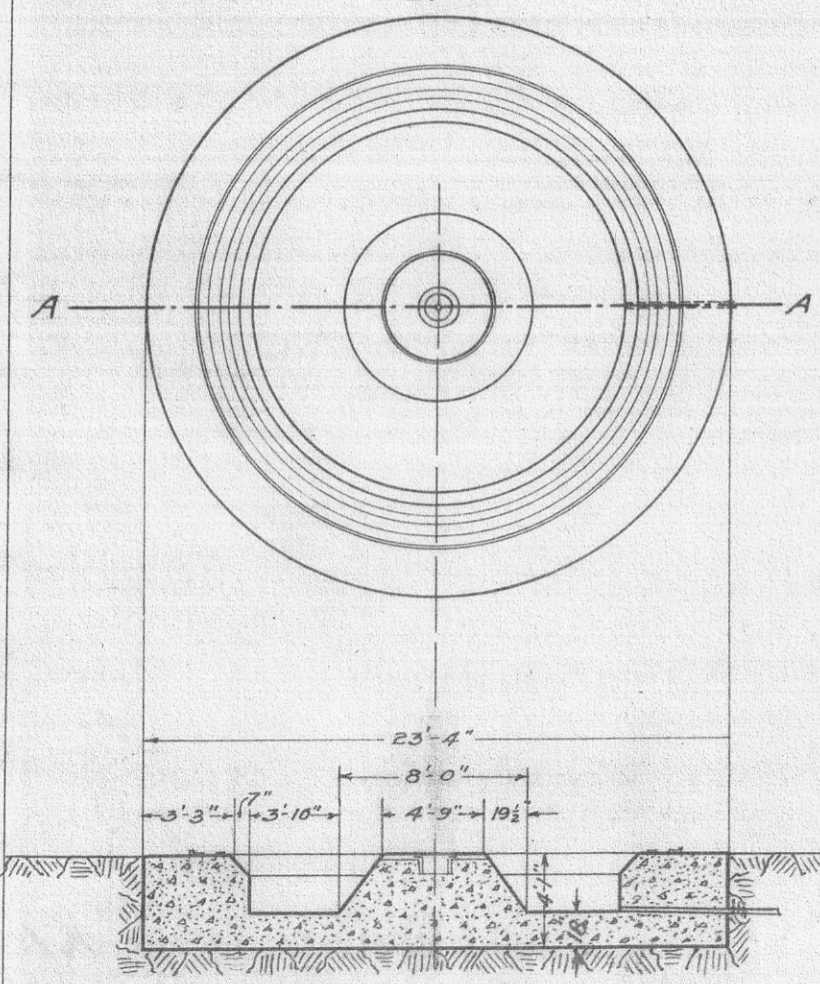
0 500' 1000' 2000' 3000' 4000'

12" 0 5' 10' 15' 20'



Insert showing location of Emplacement Scale: 1: 20000

PLAN



SECTION A-A

Scale: 1"=8'-0"

With 662 B (Oahu) 206

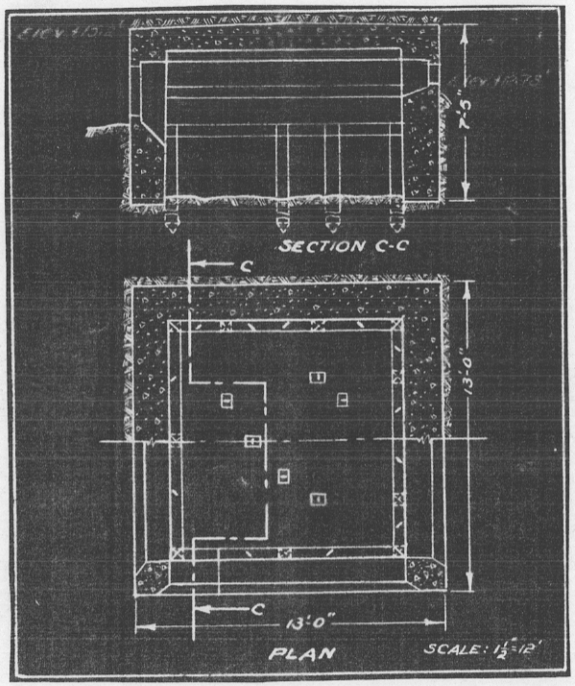
REPORT OF COMPLETED WORK -- SEACOAST DEFENSES, HAWAII

Structure- CONCRETE MACHINE GUN EMPLACEMENT

Form No.2

Unit No. 10, Waialua, Oahu.

Location	Grid Coordinates - U. S. Zone System 85,856 - 06,890
Date of transfer	July 9, 1934
Cost to date	$1109.00 complete
Type of construction:	
(a) Roof & walls	Reinforced concrete
(b) Firing doors	1½" sheet boiler plate
How concealed	Camouflage paint on walls- sod on roof
How protected	Dug in type
Source of electric current	Not lighted
Kilowatts required	None
Type of lighting fixtures	None
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Reference of site	11.2' above mean lower low water
How ventilated	Not required



U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
AUG 15 1934
SAN FRANCISCO, CAL.

See O.C.E Dwg #22-90-14 A

G-669

3026

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~XXXXXXXXXXXXXXXXXXXX~~

SECRET

HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
STRUCTURE FIRE CONTROL STATION "L" NEAR KAAAWA.

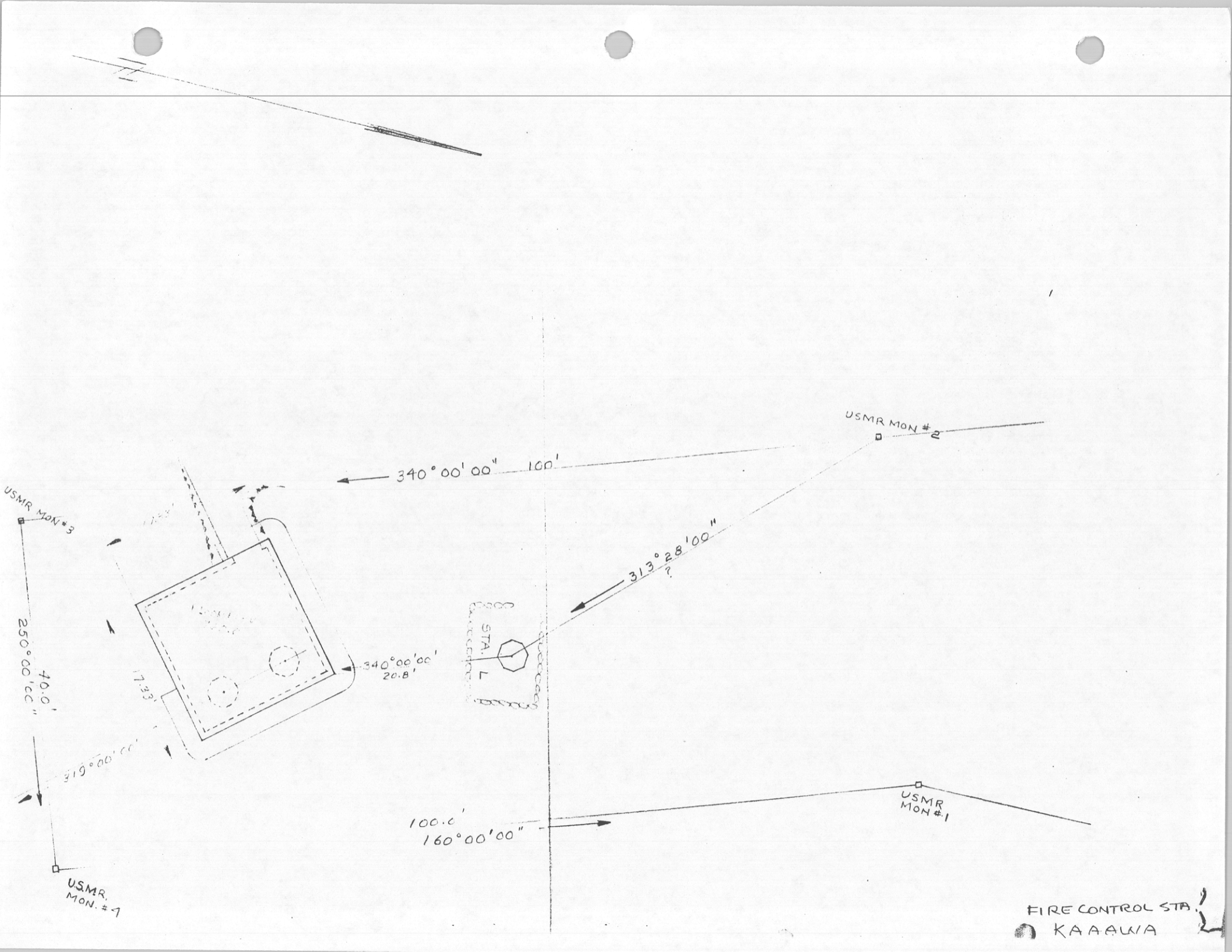
Form 2. Corrected to

STRUCTURE:	
Location	
Date of transfer	September 3, 1941
Cost to that date	
pe of construction	
(a) Roof	Concrete
(b) Remainder of building	Concrete
How concealed	
How protected	
Height above concealment	
Height above protection	
Conspicuous at yards	
ELECTRIC CURRENT:	
√Source of	
√Kilowatts required	
√Type of lighting fixtures	
HEAT:	
√How heated	No Heat
WATER AND SEWER:	
onnected to water mains	No
√Connected to sewer	No
√Type of latrine	Out House
√Permanent or temporary inst'ln	
√Present condition	
REFERENCE:	
√Reference of site	SEE ATTACHED SKETCH.
√Reference of instrument axis	[illegible]
√Type and capacity of crane	NONE
√Max. dim. of reel handled	

INSTRUMENTS AND EQUIPMENT:	
√Type of observing inst.	
√Type of plotting board	
DATA TRANSMISSION:	
√Type of	
√Date of transfer	
√Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling. Refer to Drawing F-3110, Sheet 3

SECRET


USMR MON #2
340° 00' 00" 100'
USMR MON #3
313° 28' 00"
?
STA.
340° 00' 00"
20.8'
17.33'
250° 00' 00"
40.0'
319° 00' 00"
100.0'
160° 00' 00"
USMR MON #1
USMR MON. #4
FIRE CONTROL STA.
KAAAWA

HONOLULU HARBOR, T.H.

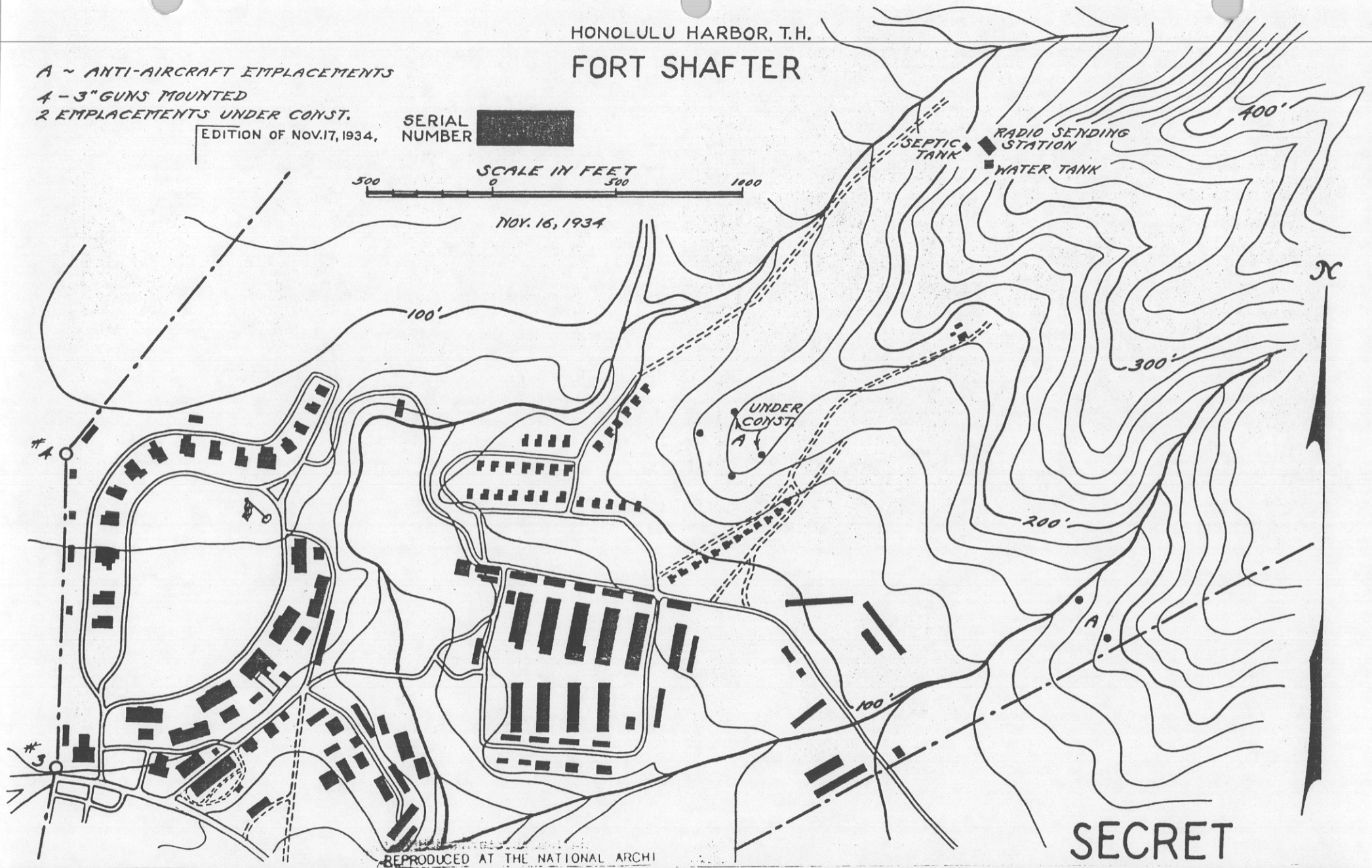
FORT SHAFTER

A ~ ANTI-AIRCRAFT EMPLACEMENTS
4 - 3" GUNS MOUNTED
2 EMPLACEMENTS UNDER CONST.

EDITION OF NOV. 17, 1934, SERIAL NUMBER [redacted]

SCALE IN FEET
500 0 500 1000

NOV. 16, 1934



SECRET

REPRODUCED AT THE NATIONAL ARCHI

With 660 B (Honolulu) 22.

U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
DEC 19 1934
SAN FRANCISCO, CAL.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Harbor Defenses of Honolulu
Fort Shafter, T. H.
No. of guns: None
Two 3" Anti-Aircraft Emplacements.

Form No. 1. Corrected to December 6, 1934.

Battery commenced	August 15, 1934	Source of electric current	None required
" completed	September 15, 1934	Max. KW required for lights	None
Date of transfer	November 19, 1934	" " " " motors	"
Material of construction	Reinforced concrete		
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$1,456.58	Rooms wet or dry	No rooms
Connected to water supply	No	How ventilated	---
" " sewer	No		
Type of latrine	None	Remarks	These two emplacements complete a 4-square battery.
" " data transmission	"		

A R M A M E N T

None mounted.

H O I S T S

None

M O T O R S

None

Part 1
16

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

GENERAL PLAN

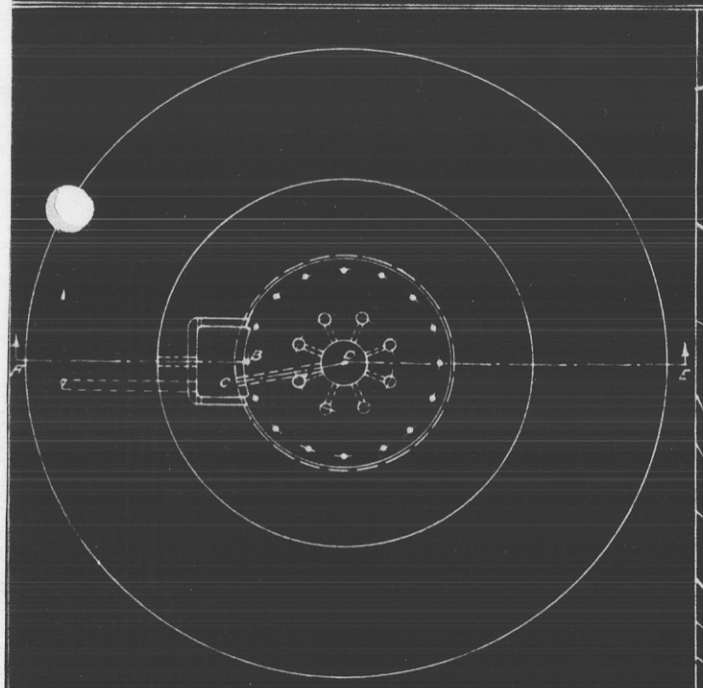
HARBOR DEFENSES OF HONOLULU

FORT SHAFTER

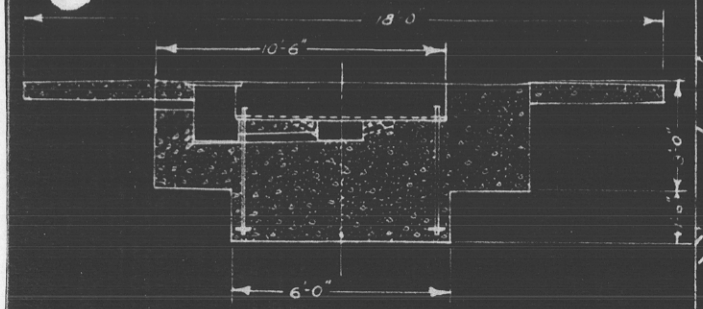
2-EMP. FOR 3" ANTI-AIRCRAFT GUNS

FORM 7 CORRECTED TO DEC. 6, 1934.

GRAPHIC SCALE

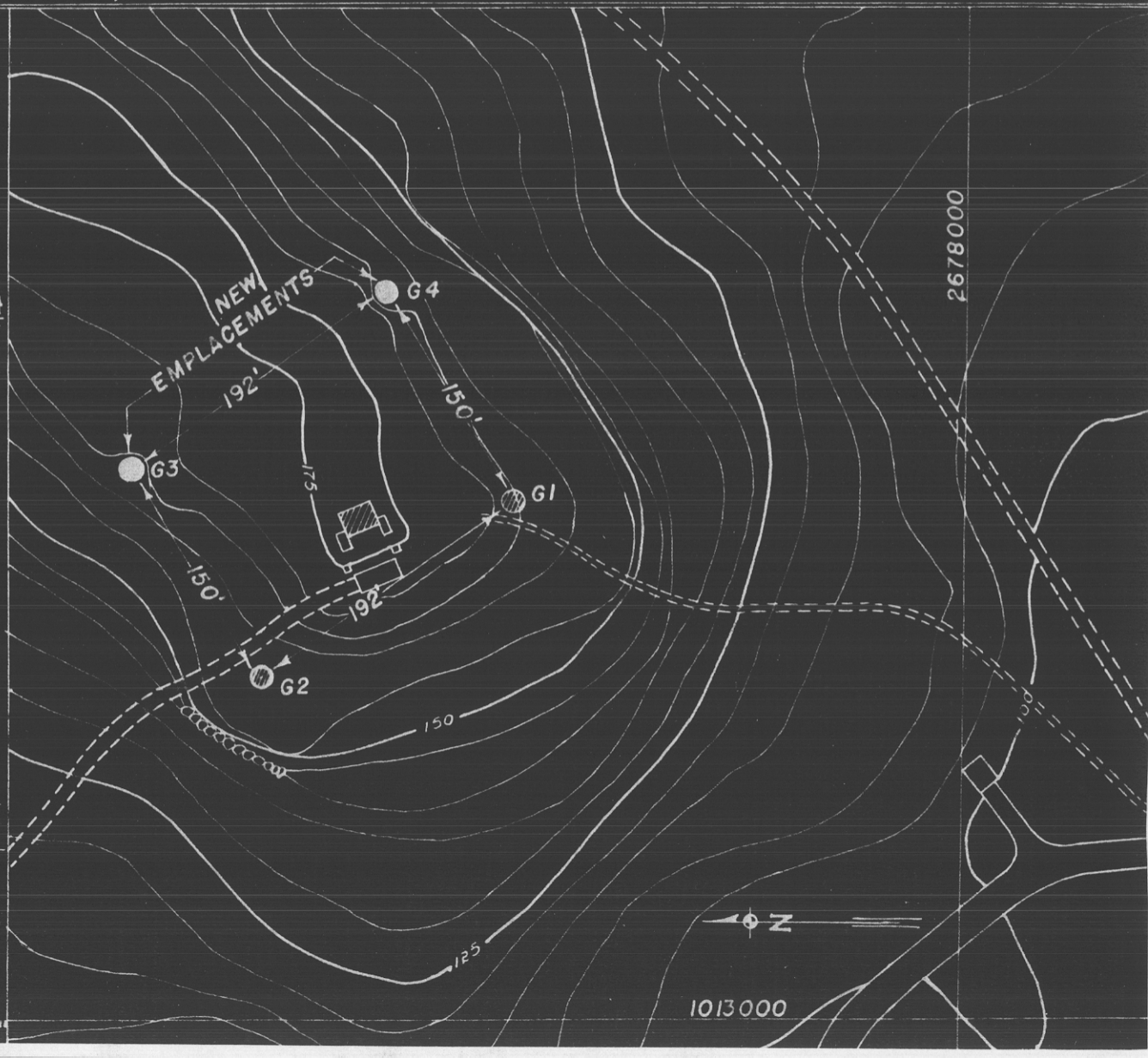


PLAN



SECTION A-B-C-D-E

SCALE: $\frac{3}{16}$" = 1'-0"



REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Motar Batteries)

Form 1. Corrected to December 31, 1925.

HARBOR DEFENSES OF HONOLULU.
Fort SHAFTER.
BATTERY See Below.
No. of Guns None Caliber __ Carriage.
4 Emplacements and 2 magazines for Anti-Aircraft Guns.

Battery commenced	July, 1917		
Battery completed	September, 1917.	Sources of electric current	None.
Date of transfer	Jan. 17, 1918.		
		Max. kw. required for lights	None.
Material of construction :		" " " " motors	None.
Emplacement	Concrete		
Magazine	Wooden frame covered w/corrugated iron.	Present condition of battery	Emp. & Mag. good.
		Rooms wet or dry.	Dry.
Portland or Rosendale	Portland.		
Cost to date of transfer	Emp. $ 1,664.69	How ventilated.	6" opening under roof.
	Mag. 573.80		
Connected to water supply	No.	REMARKS:	
Connected to sewer	No.		
Type of latrine	None.		
Type of data transmission	None.		

ARMAMENT.

Emplacement or Mottars No.:	
1	ARMAMENT NOT MOUNTED.
2	
3	
4	

HOISTS.

None.

Recommended that this 4 gun fixed battery be moved to Fort Barrette.
660.283/Oahu/43.
Radiogram No. 9662, Dec. 9, 1936.

REPORT OF COMPLETED WORKS HARBOR FORTIFICATIONS

(General Plan)

Corrected to October 31, 1925.

Form. 7

HARBOR DEFENSES OF HONOLULU

FORT SHAFTER

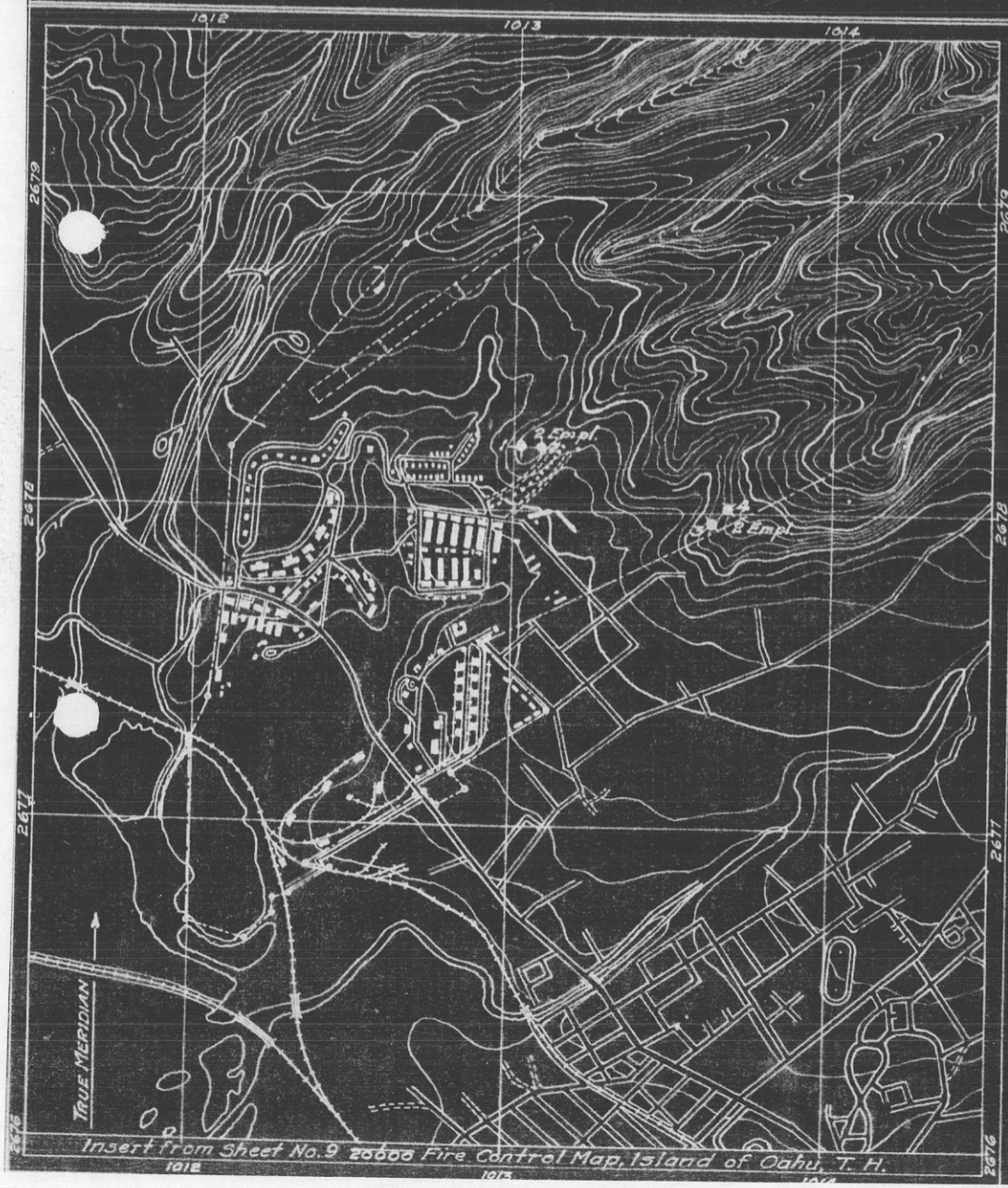
4 EMPLACEMENTS

None mounted.

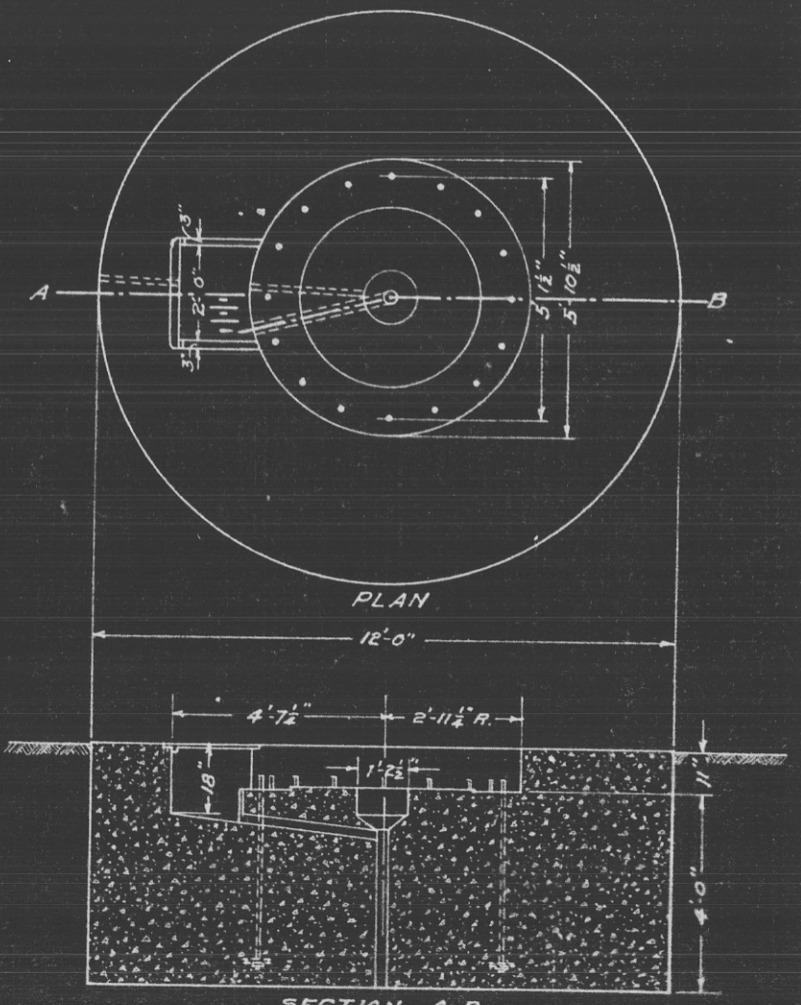
(Graphic Scales)

12" 0 5' 10'

100'0 1000' 2000' 3000' 4000' 5000'



Insert from Sheet No. 9 20000 Fire Control Map, Island of Oahu, T. H.



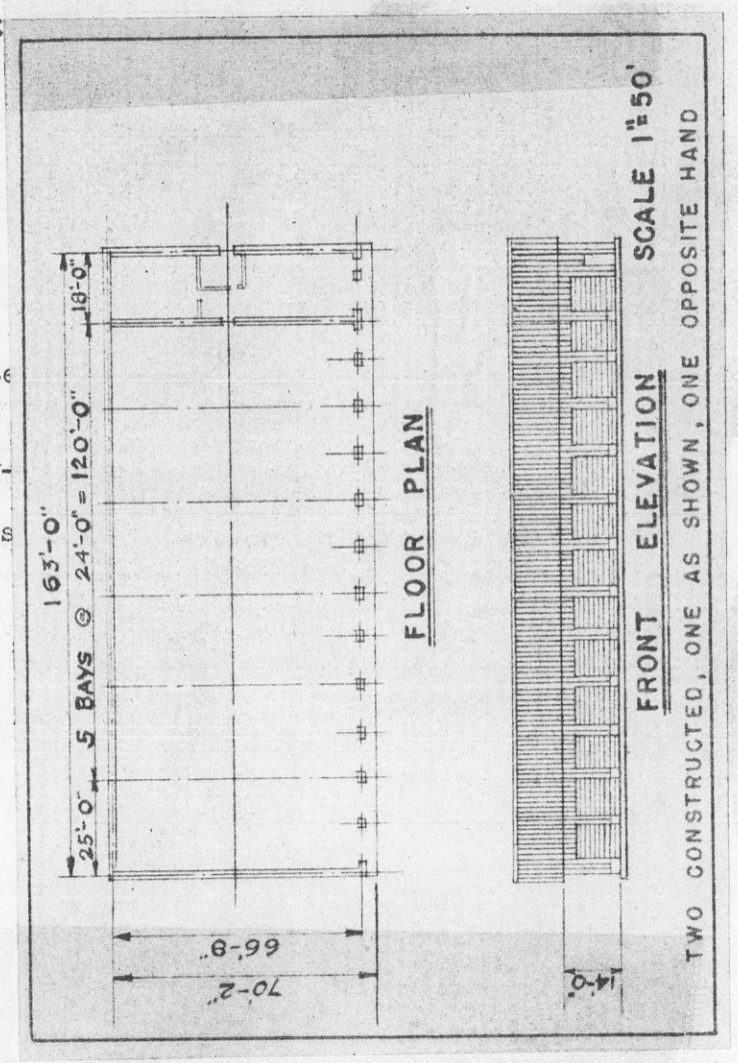
With 660 B (Honolulu) 121

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR
FORT SHAFTER, OAHU, T. H.

Form 6 Corrected to December 1, 1939.

Item: TWO SEARCHLIGHT SHELTERS
Description: Structural steel frame, corrugated iron buildings 163 ft.long and 66'-8" wide, each with a storeroom, shop and latrine.
Use: Searchlight storage.
Date completed: August 4, 1939.
Date of transfer: September 14, 1939.
Cost: $35,700.00.
Type of roof: Galvanized corrugated iron, 22 gauge, on structural steel frame.
Type of walls: Galvanized corrugated iron, 24 gauge, on structural steel frame with thirteen vertical steel rolling doors 10 ft. wide by 12 ft. high.
Floor: Reinforced concrete floor in shop and storeroom; reinforced concrete apron in front of searchlight storage area; earth floor in searchlight storage area but provision made for future concreting of entire floor.
Lighting System: Overhead lighting fixtures connected to Post electric power distribution system,utilizing commercial power.
Ventilating System: Steel rolling doors for searchlight storage area; doors and windows for shop.
Water Supply: Water supply connected to Post water system.
Sanitary System: Two toilets, one urinal, two wash basins, in each building, connected to Post sewerage system.
Drainage System: Surface drainage into drain pipe inlets, thence to large drainage ditch through the Post.
Type of Protection: None.
Type of Concealment: None.
Reference: Floor is 121.5 feet above mean lower low water.



Transfer Drwg. - See O.C.E. Map #9-105-28 a.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Fire control or Torpedo Structures)

Form 2. Corrected to March 20, 1935.

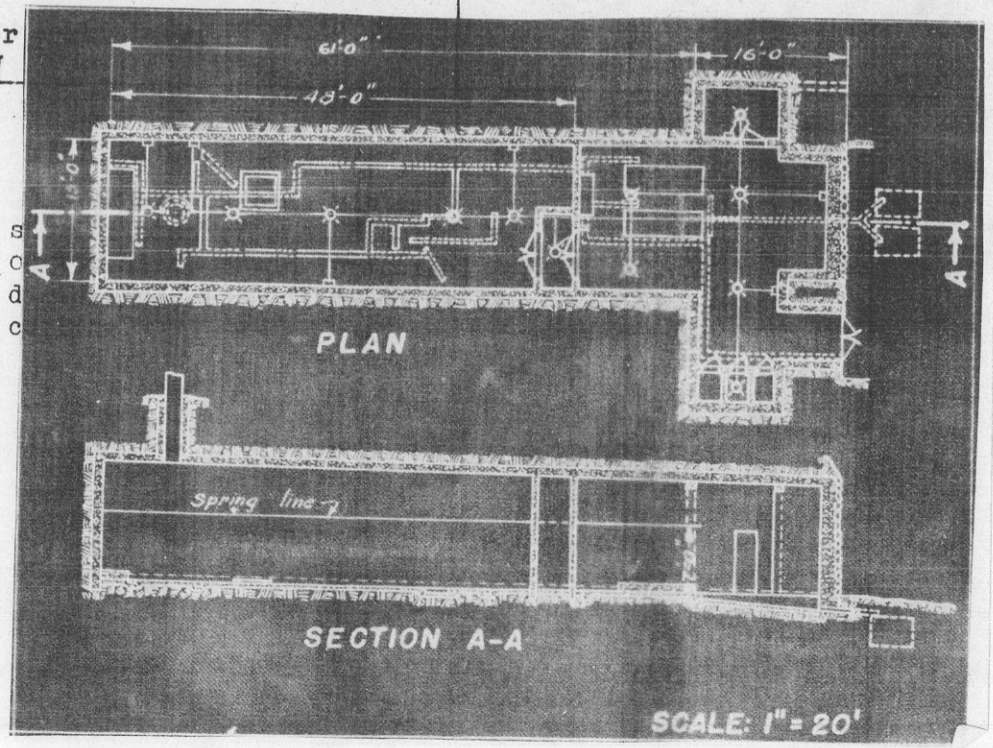
HARBOR DEFENSES OF HONOLULU & ~~PEARL HARBOR~~
FORT SHAFTER
STRUCTURE RADIO SENDING STATION

U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
MAR 28 1935
SAN FRANCISCO, CAL.

STRUCTURE:	
Location	Fort Shafter Military Reservation
Date of transfer	November 16, 1934
Cost to that date	$29,000.00
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of bldg.	do
w concealed	Tunnelled into hillside
How protected	By about 50' of rock covering
Height above concealment	Not above
Height above protection	do
Conspicuous at ..100.. yards	No
ELECTRIC CURRENT:	
Source of	Commercial & 2-25 KW sets for
Kilowatts required	Lights 1.6 KW, Power 32.5 KW
Type of lighting fixtures	Commercial
HEAT:	
How heated	Not required
WATER & SEWER:	
Connected to water mains	Yes (thru Water Tank)
nected to sewer	Septic tank
Type of latrine	Syphon, flush valve
manent or temporary inst'ln	Permanent
Present condition	Good
REFERENCE:	
Reference of site	230' above m.l.l.w.
Reference of instrument axis	
Type and capacity of crane	
Max. dim. of reel handled	

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible.	
For dormitories give sta. served	
For cable hut give S.C. type	

See 660 B (Honolulu) 93;
The following gasproofing construction and installation completed & transferred to Signal Officer;
Operations room, transmitter station, with one collective protector installed.



Superseded:- See Form 2, corrected to April 1, 1938

Hist 660B (Honolulu) 100

COPY NO. 1 OF 6

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

SECRET

HARBOR DEFENSES OF **Honolulu & Pearl Harbor**
FORT **Shafter**
STRUCTURE **Radio Sending Station**

Form 2. Corrected to **April 1, 1938.**

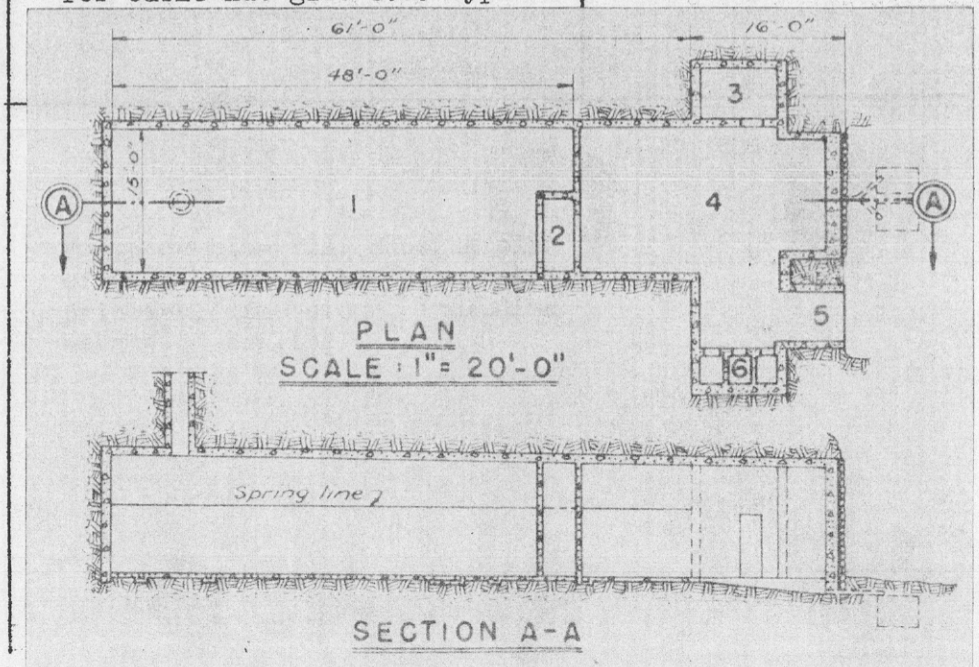
STRUCTURE:	
Location	**Fort Shafter**
Date of transfer **(11-16-34)**	**April 1, 1938**
Cost to that date	**$ 29,200.00 #**
Type of construction	
(a) Roof	**Reinf. concrete arch**
(b) Remainder of building	**Reinforced concrete**
How concealed	**Tunnelled into hillside**
How protected	**By about 50 feet of rock covering.**
Height above concealment	**Not above.**
Height above protection	**Not above.**
Conspicuous at **100** yards	**No.**
ELECTRIC CURRENT:	
Source of	**(Commercial connection &**
Kilowatts required	**(2-25KW auxilliary sets.**
Type of lighting fixtures	**Lights 1.6; power 32.9**
HEAT:	**Commercial.**
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Yes**
Connected to sewer	**Septic tank**
Type of latrine	**Syphon, flush valve**
Permanent or temporary inst'ln	**Permanent**
Present condition	**Good**
REFERENCE:	
Reference of site	**230 feet, m.l.l.w.**
Reference of instrument axis	
Type and capacity of crane	
Max. dim. of reel handled	

 # Does not include cost of CWS equipment.

Gasproofing Installation; See Transfer Drwg. O.C.E. Map # 9-105-1 C.

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

(Correcting report of March 20, 1935, to include installation of gas-proofing equipment)



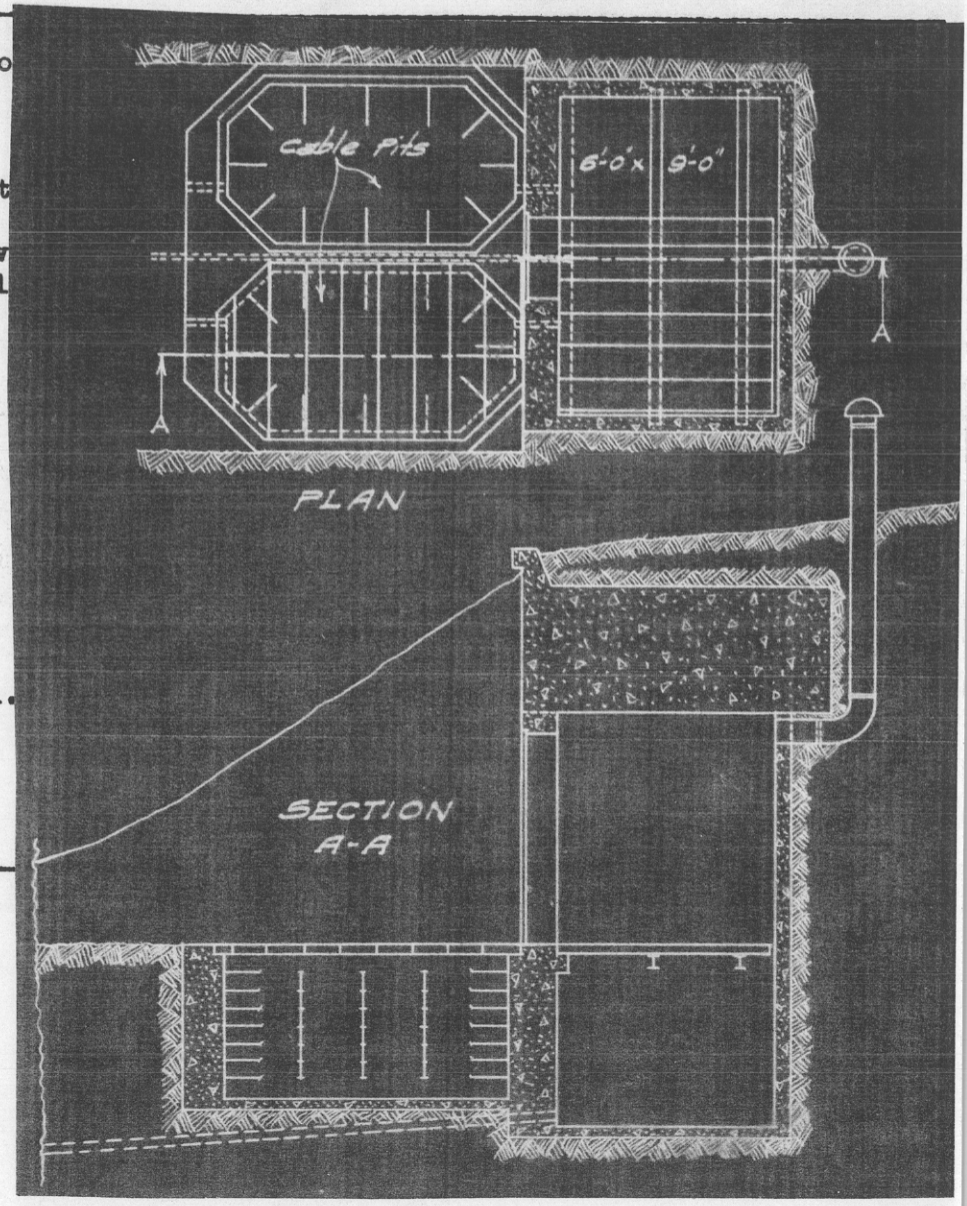
SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to February 20, 1932.

STRUCTURE: Terminal Hut X, Fort Shafter, Oahu, T. H.

Location	Tripler General Ho
Date of transfer	January 22, 1932
Cost to date	$1,363.41
Type of construction:	
(a) Roof	Reinforced concret
(b) Remainder of building	Concrete
How concealed	Earth overhead cov
How protected	Built into rock sl
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	None required
Kilowatts required	---
Type of lighting fixtures	None
How heated	Not heated
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	15 ft. above m.l.l.
Reference of instr. axis	No instruments
Type of observing instr.	None
Type of plotting board	None
Type of data transmission	None



Note :— Does not show on Index Plat

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS
(Gun and Mortar Batteries)

Superseded

LAND DEFENSES OF OAHU
FORT SHAFTER
BATTERY see below
No. of guns_____Caliber_____Carriage
4 emplacements and 2 magazines for anti-aircraft guns

Form 1 Corrected to March 31, 1919

Battery commenced	Emp. & Mag. July, 1917		
Battery completed	Emp. & Mag. Sept. 1917	Sources of electric current	none
Date of transfer	Emp. & Mag. Jan. 17, 1918	Max. kw. required for lights	no lights
Material of construction	concrete and wooden frames covered with corrugated iron	Max. kw. required for motors	no motors
Portland or Rosendale cement	Portland		
Cost to date of transfer	Emp. XXXXXX $ 1,664.69 Mag. $ 573.80	Present condition of battery	Emp. & Mag. good
		Rooms wet or dry	dry
Connected to water supply	no		
Connected to sewer	no	How ventilated	6" opening under roof
Type of latrine	none		
Type of data transmission	none	Remarks	
Trunnion elevation in battery datum plane	Mean low low water		

ARMAMENT

Emplacement or Mortar No.	Guns or Morters					Carriages				
	Cal	length	model	Serial No	manufacturer	mounted	Type	model	Serial No	manufacturer	motor
1											
2											
3											
4											

HOISTS

Emplacement Number			Motor						Date of transfer	Remodeled for long points
	Type	Delivery	Serial No.	Maker	HP	Volts	RPM	type of control		

Superseded — See Form 1, corrected to Dec. 31, 1925

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

ANTI-AIRCRAFT DEFENSES

FORT SHAFTER
SEARCHLIGHT SHELTER

Form 6 Corrected to (November 29, 1940.)

Item: SEARCHLIGHT SHELTER

Description: A metal fireproof building 80 feet wide by 140 feet long.

Use: To shelter portable and mobile searchlight units.

Cost: $20,000

Type of Floor: Concrete

Lighting System: Overhead lighting fixtures and utility outlets connected to existing post power system.

Ventilating System: None.

Water Supply: 1½" wrought iron pipe taps post water supply system.

Sanitary System: None.

Drainage System: 6" Concrete drain provided to drain entire floor.

Type of Protection: None

Reference of site: Finished floor at doors is 119.0 feet above mean sea level.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Form 1. Corrected to

Assigned to C. G., Schofield Bks -

HARBOR DEFENSES OF
FORT Ashley Military Reservation -
BATTERY Panama mounts
No. of guns: 4 Caliber: 155 m/m Carriage: Split Trail

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	Oct 18, 1939		
Date of transfer	Jun 3, 1940	Max. kw. required for lights	—
Cost to date of transfer	$2,957.00 (Troop Labor + Equipment)	Max. kw. required for motors	—
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No Rooms
Connected to sewer	"		
Type of latrine	None	How ventilated	—
Elev. center of conc. emplacement	Gun 1, 245.673 / Gun 3, 243.709	Type of data transmission	Telephone
Trunnion elevation in btry.	" 2, 245.846 / " 4, 240.699		
Datum plane	MLLW	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor

Armament is not permanently emplaced.

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

None

with 660A (Honolulu) 127

COPY NO. 1 OF 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

SECRET

Assigned to: Commanding General,
Schofield Barracks, T. H.

FORT Ashley Military Reservation
BATTERY Panama Mounts
No. of guns: 4 Caliber: 155-m.m. Carriage: Split Trail

Form 1. Corrected to July 1, 1940

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	October 18, 1939		
Date of transfer	January 3, 1940	Max. kw. required for lights	-
Cost to date of transfer	$2,957.00 (Troop labor & equipment)	Max. kw. required for motors	-
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	-
Elevation contour of conc. empl.	Gun 1 245.673/Gun 3 243.709 Gun 2 245.846/Gun 4 240.699	Type of data transmission	Telephone
~~Trunnion elevation in btry.~~			
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

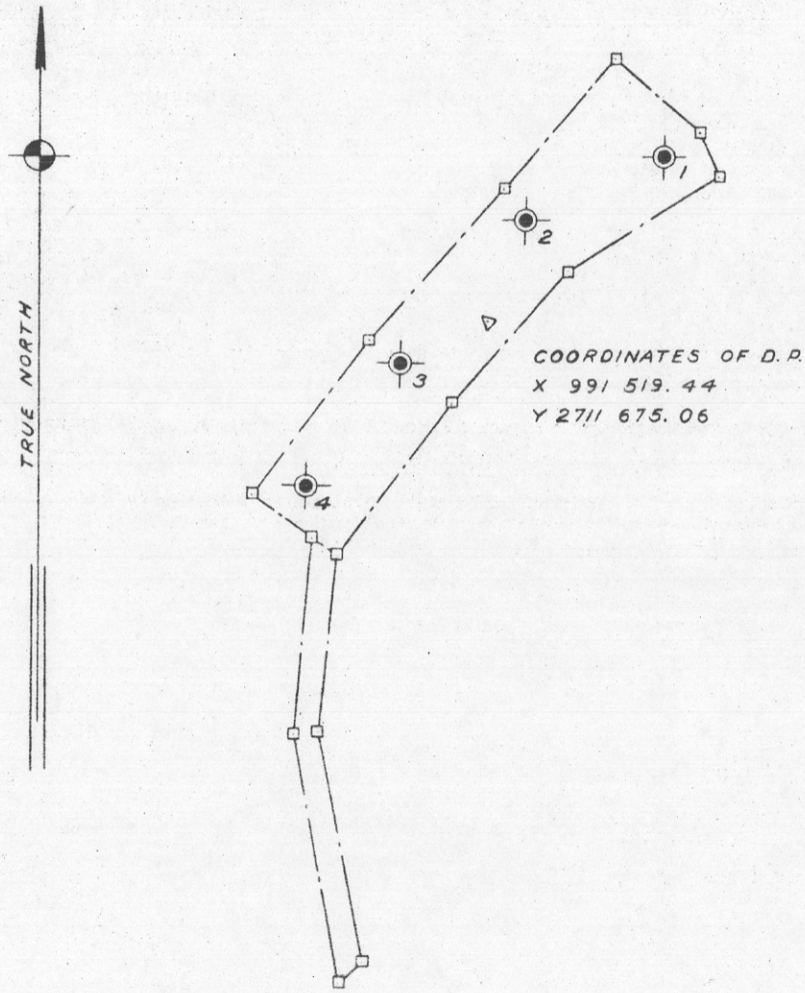
FORM 7

CORRECTED TO JULY 1, 1940

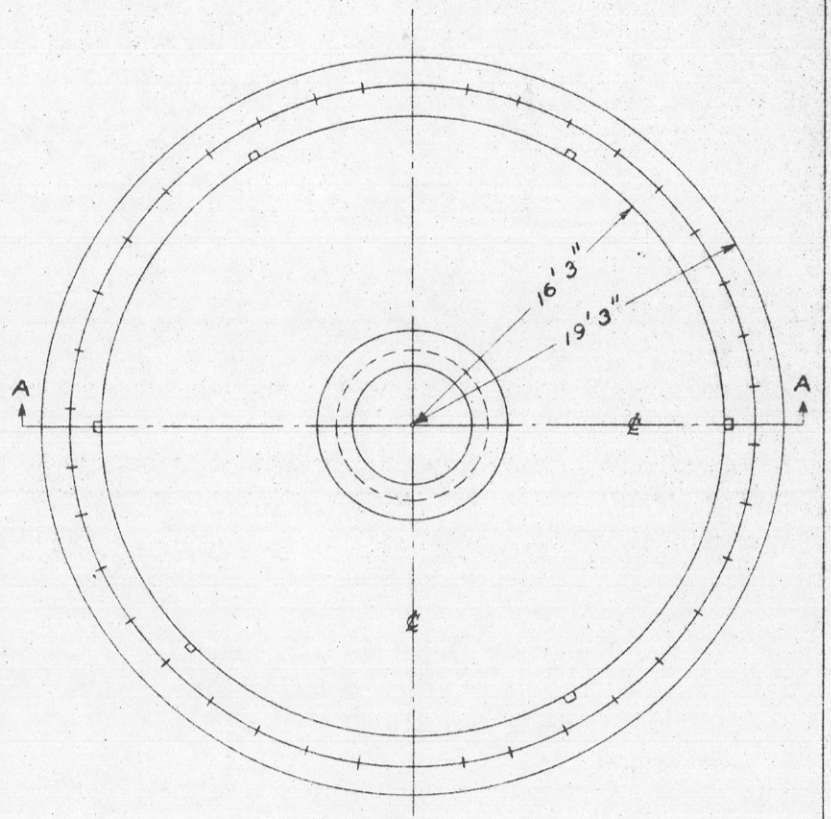
HARBOR DEFENSES OF HONOLULU T.H.
ASHLEY MILITARY RESERVATION
4 - PANAMA MOUNTS FOR 155 MM GUNS

GRAPHIC SCALES

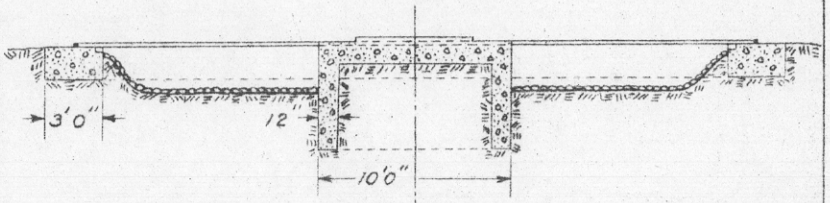
10 0 10 20 30 FT.
150 0 150 300 450 FT.



SECRET



PLAN



SECTION A-A

SCALE : 1" = 10'0"

with 660B(Honolulu)127

SECRET

COPY NO. 1 of 7

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Assigned to: Commanding General,
Schofield Barracks, T. H.

FORT Kawailoa Military Reservation
BATTERY Panama Mounts
No. of guns: 4 Caliber: 155-m.m. Carriage: Split Trail

Form 1. Corrected to July 1, 1940

GENERAL:		**ELECTRIC CURRENT:**	
Battery commenced	May 17, 1939	Sources of	None
Battery completed	October 18, 1939		
Date of transfer	January 3, 1940	Max. kw. required for lights	-
Cost to date of transfer	$3,107.00 (Troop labor & equipment)	Max. kw. required for motors	-
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	-
Elevation contour of conc. empl.	Gun 1 241.805/Gun 3 234.550 " 2 239.117/Gun 4 235.230	Type of data transmission	Telephone
~~Trunnion elevation in btry.~~			
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
				Armament is not permanently emplaced							

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

None

SECRET

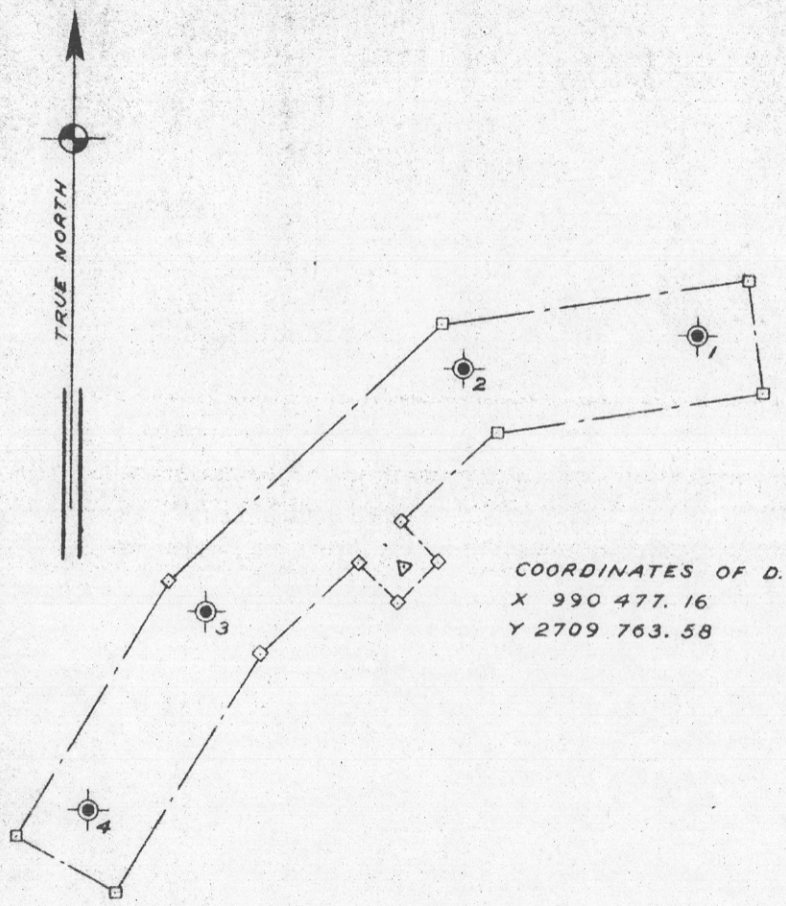
REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7 CORRECTED TO JULY 1, 1940

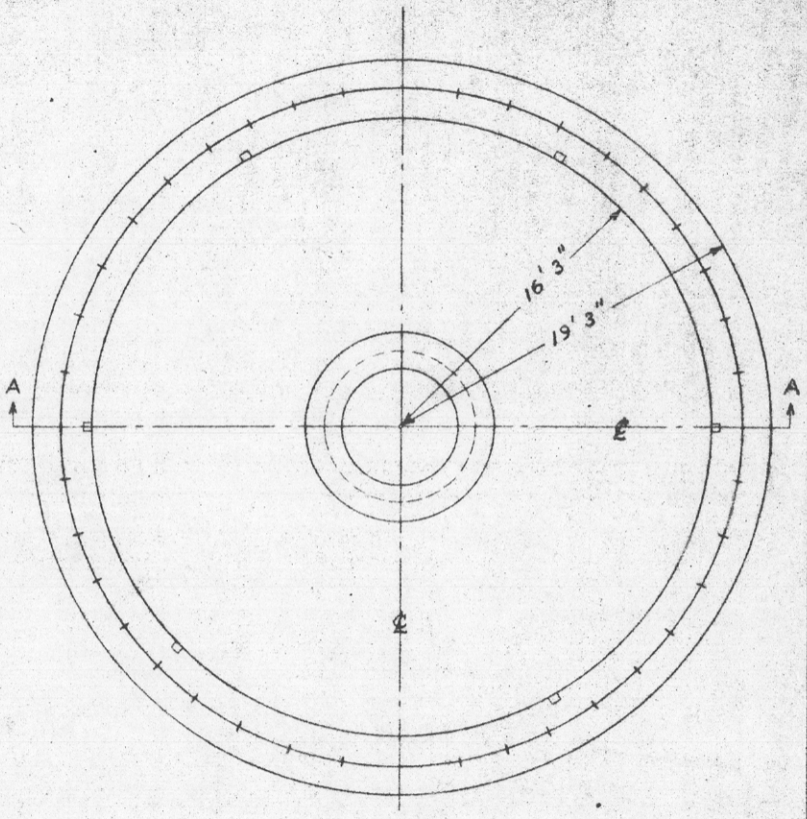
HARBOR DEFENSES OF HONOLU[illegible], T.H.
KAWAILOA MILITARY RESERVATION
4 – PANAMA MOUNTS FOR 155 MM GUNS
GRAPHIG SCALES

10 0 10 20 30 FT.
100 0 100 200 300 FT

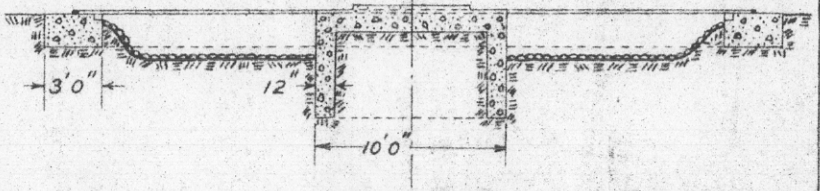


COORDINATES OF D.P.
X 990 477. 16
Y 2709 763. 58

SECRET



PLAN



SECTION A-A
SCALE: 1" = 10'

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS
(Gun and Mortar Batteries)

Form 1 Corrected to March 31, 1919

Superseded

LAND DEFENSES OF OAHU
FORT SCHOFIELD RESERVATION
BATTERY see below
No. of guns_____ Caliber_____ Carriage
4 emplacements and 2 magazines for anti-aircraft guns

Battery commenced	Emp. & Mag. Sept. 1917		
Battery completed	Emp. & Mag. Oct. 1917	Sources of electric current	none
Date of transfer	Emp. & Mag. Jan. 23,1918	Max. kw. required for lights	
Material of construction	concrete and wooden frames covered with corrugated iron	Max. kw. Required for motors	
Portland or Rosendale cement	Portland	Present condition of battery	Magazine, good
Cost to date of transfer	Emp. $ 1,503.73 Mag. $ 759.44	Rooms wet or dry	dry
Connected to water supply	no		
Connected to sewer	no		
Type of latrine	none	How ventilated	6" openings under galv. iron roof
Type of data transmission	none		
		Remarks	
Trunnion elevation in battery patum plane	Mean low low water		

ARMAMENT

Emplacement or Mortar No	Guns or Mortars: Cal	length	model	Serial No	manufacturer	Carriage: mounted	Type	model	Serial No	manufacturer	motor
1											
2											
3											
4											

HOISTS

Emplacement Number	Type	Delivery	Motor: Serial No	Maker	HP	Volts	RPM	Type of control	Date of transfer	Remodeled for long points

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIXED WORKS.
(Gun and Mortar Batteries)

Form 1. Corrected to December 31, 1925.

SCHOFIELD BARRACKS.
BATTERY See Below.
No. of Guns None Caliber __ Carrieages
4 Emplacements & 2 Magazines for
Anti-Aircraft Guns.

Battery commenced	September, 1917		
Battery Completed	October, 1917.		
Date of Transfer	Jan. 23, 1918.	Sources of electric current	None.
Material of Construction:		Max. kw. required for lights:	
Emplacements	Concrete.	Max. kw. " " motors:	
Magazines	Wooden frame covered w/corrugated iron	Present condition of battery:	Magazine, good.
Portland or Rosendale cement	Portland		
Cost to date of transfer	Emp. $ 1,503.73 Mag. 759.44	Rooms wet or dry	Dry.
Connected water supply	No.		
Connected to sewer	No.	How ventilated	6" openings under galv. iron roof.
Type of latrine	None.		
Type of data transmission	None.	Remarks?	

ARMAMENT

Armament not mounted.

HOISTS.

none.

Note :- 2 Magazines do not show on Index Plat

REPORT OF COMPLETED WORKS

(General Plan)

Corrected to October 31, 1925

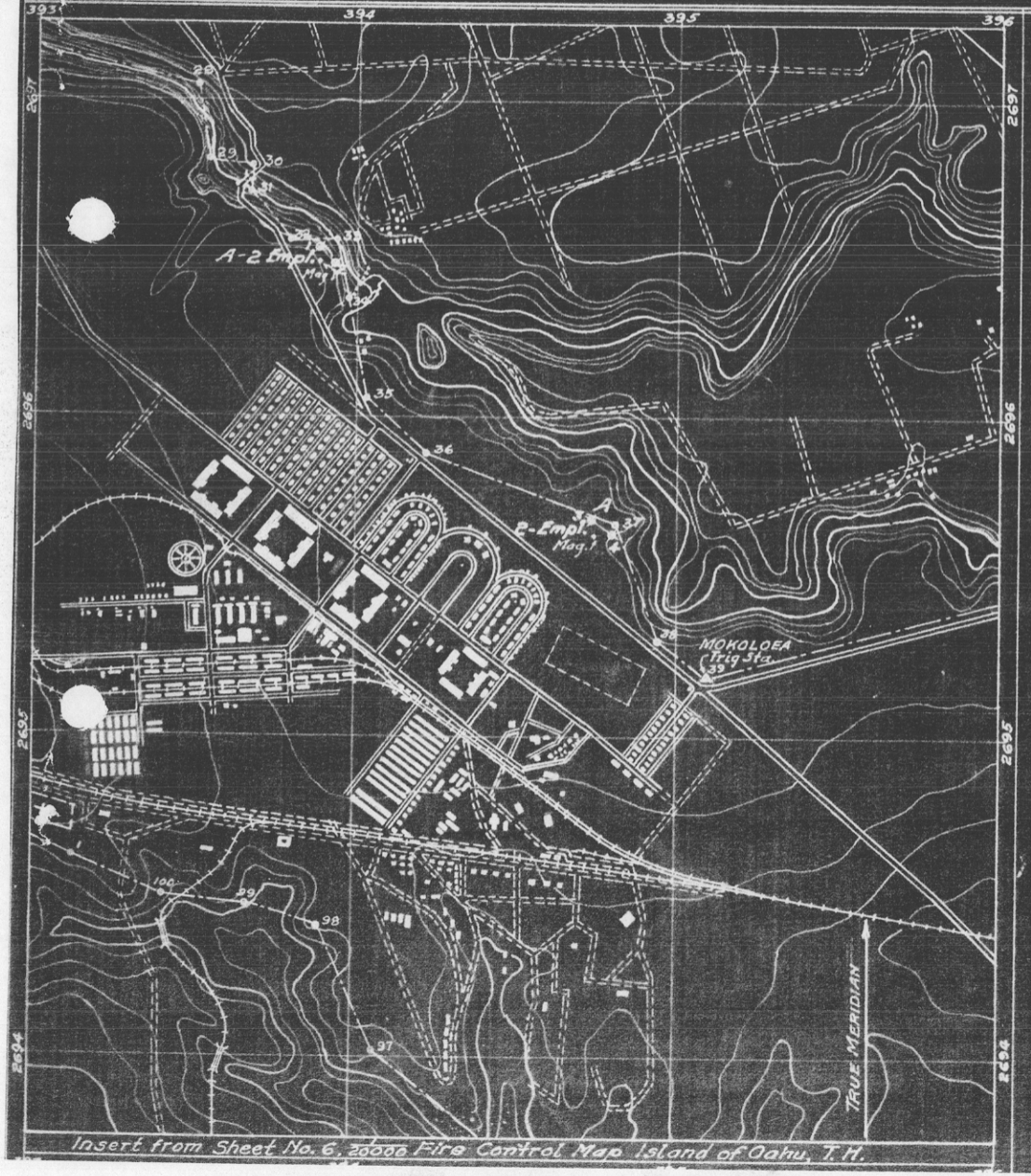
Form. 7

SCHOFIELD BARRACKS.
4 EMPLACEMENTS.
None mounted.

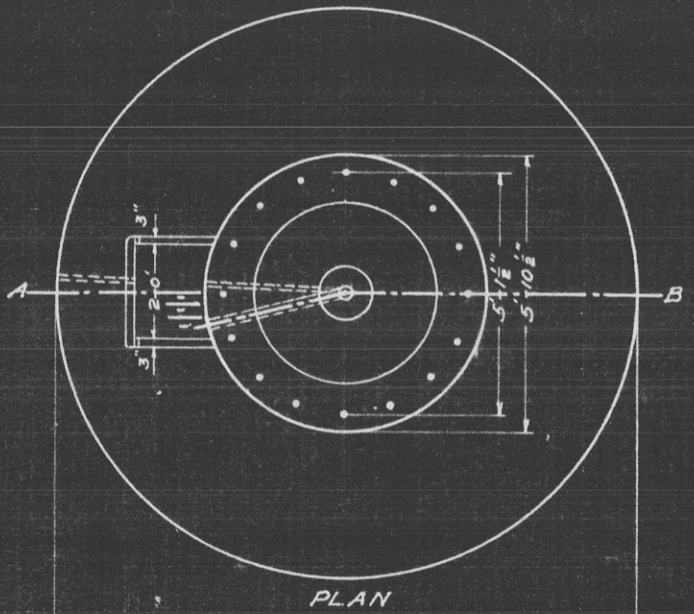
(Graphic Scales)

12" 0 5' 10'

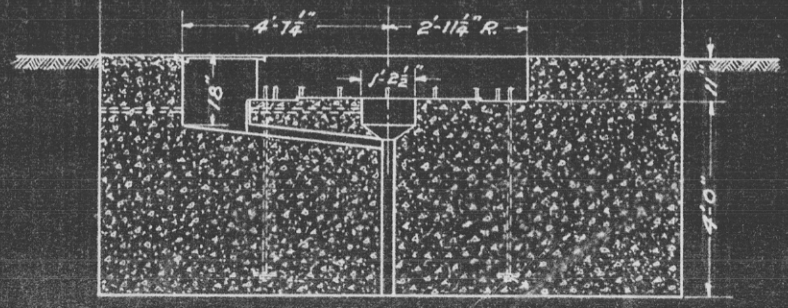
100'0 1000' 2000' 3000' 4000' 5000'



Insert from Sheet No. 6, 20000 Fire Control Map Island of Oahu, T.H.



PLAN



SECTION A-B

REPORT OF COMPLETED WORKS

(General Plan)

Corrected to October 31, 1925

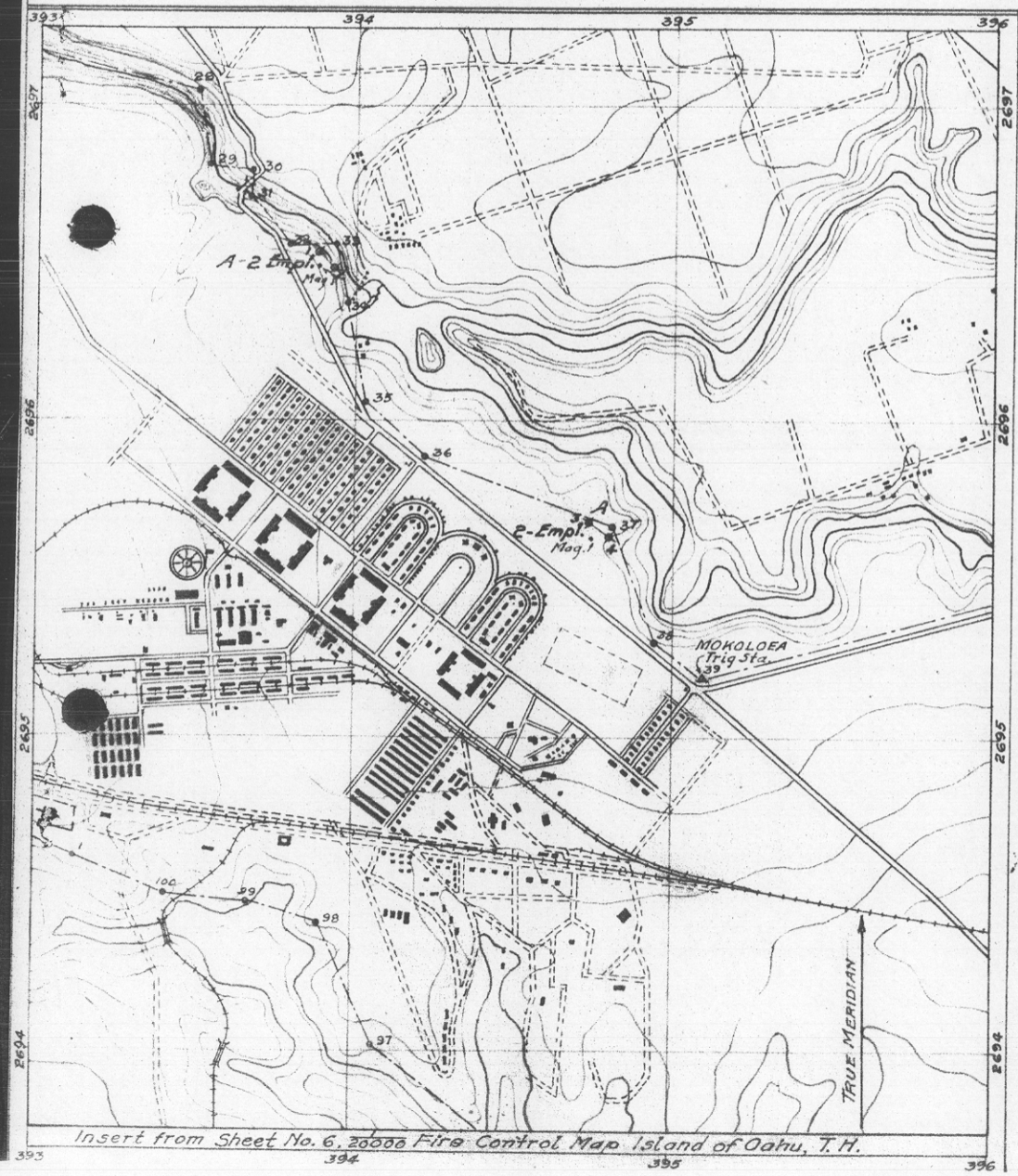
Form 7

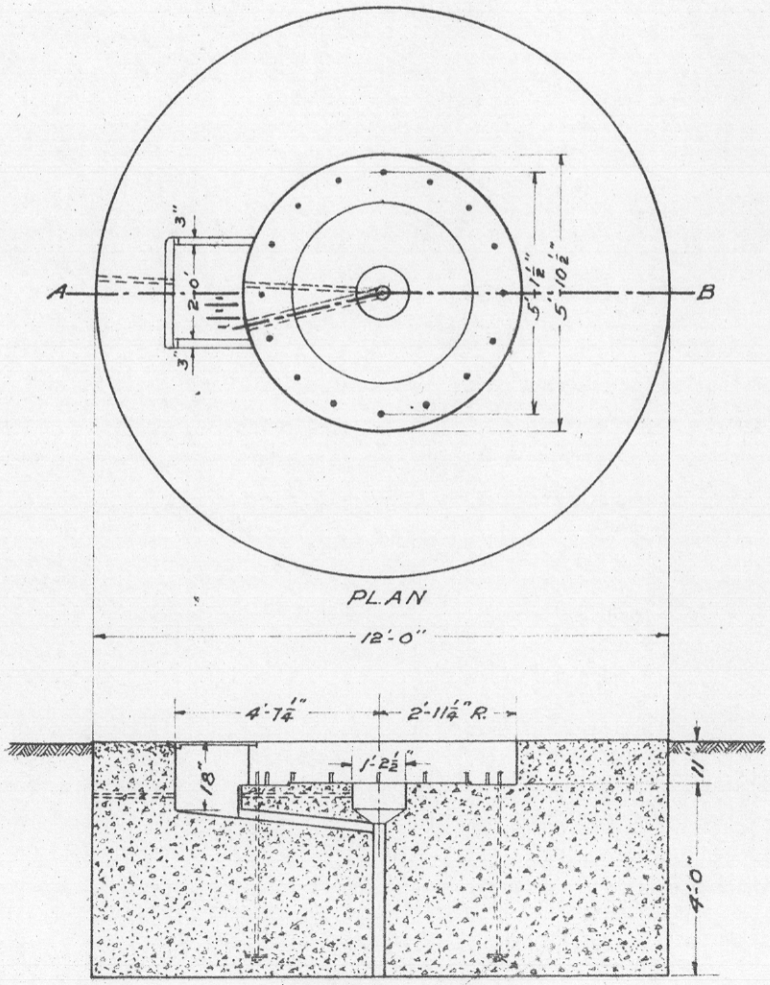
SCHOFIELD BARRACKS.
4 EMPLACEMENTS.
None mounted.

(Graphic Scales)

12" 0 5' 10'

100'0 1000' 2000' 3000' 4000' 5000'





REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

SCHOFIELD BARRACKS.

BATTERY See Below
No. of Guns None.
Calibar ____ Carriages
4 Emplacements for 3" Anti-Aircraft Guns.

Form 1. Corrected to October 11, 1927.

Battery commenced	February 5, 1927		
Battery completed	February 28, 1927	Source of electric current	6-V. Edison storage battery.
Date of transfer	September 27,1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	none.
Portland or Rosendale cement	Portland	Present condition of battery	Good.
Cost to date of transfer	2,042.14 #	Rooms wet or dry	None provided.
Connected to water supply	No.		
Connected to sewer	No	How ventilated	Not required.
Type of latrine	None.	REMARKS:	Armament mounted in.
Type of data transmission	None.		

Materials hauled by Q. M. C.; common labor performed by soldier detail.

A R M A M E N T.

Emplacement or	GUNS OR MORTARS						CARRIAGES				
Mortar No.	Cal	Length	Model	Serial No.	Manufacture	Mounted	Type	Model	Serial No.	Manufacture	Motor
1	3"	174.65"	1917	141	Watertown	Yes		1917	109	Watertown	
2	3"	"	"	155		"		"	119		None
3	3"	"	"	126	Arsenal	"		"	108	Arsenal	
4	3"	"	"	161		"		"	142		

H O I S T S

None.

M O T O R

None.

REPORT OF COMPLETED WORKS

(General Plan)

September 1927

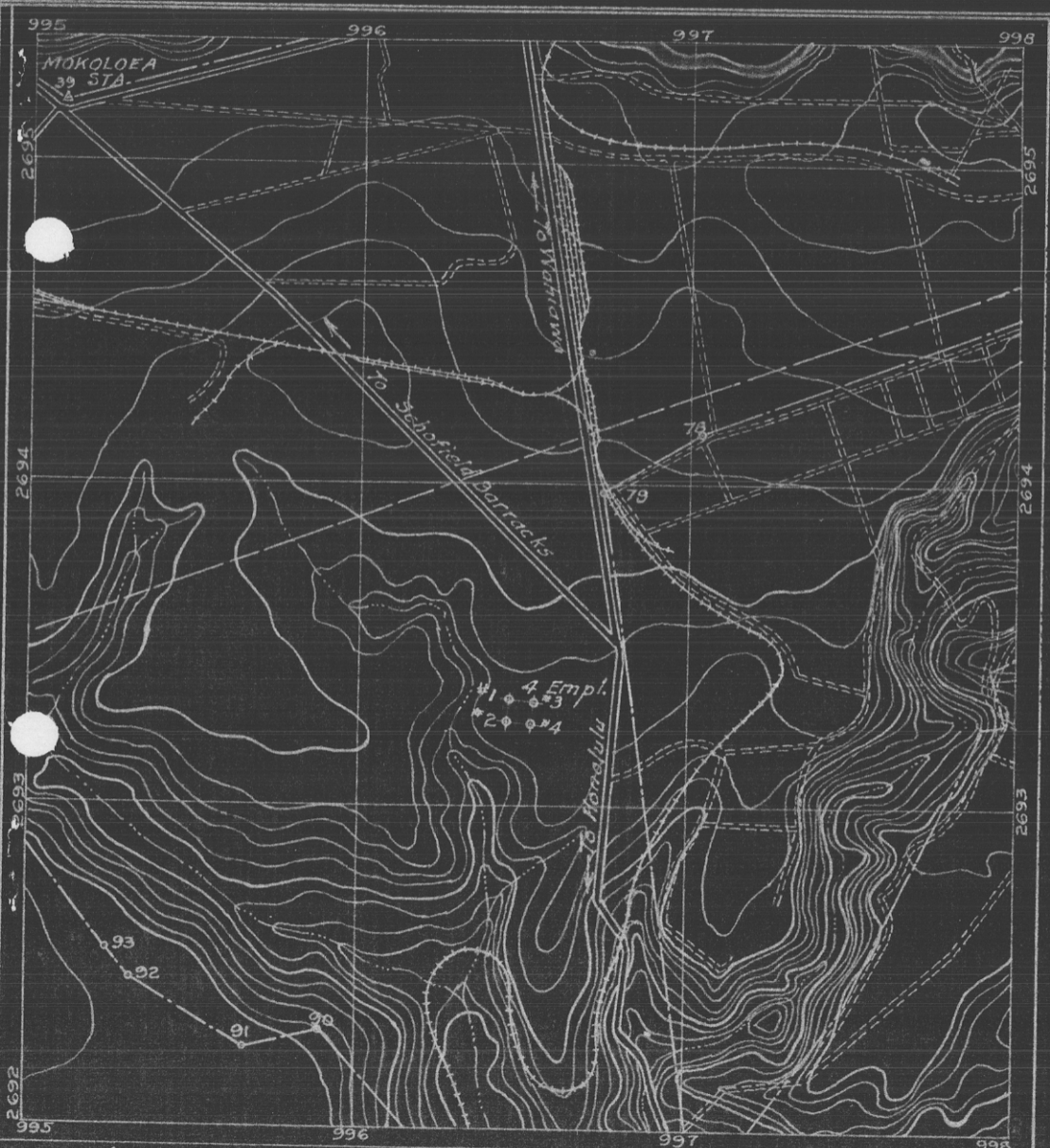
Form T.

SCHOFIELD BARRAKS
4 EMPLACEMENTS
4-3" ANTI-AIR CRAFT GUNS

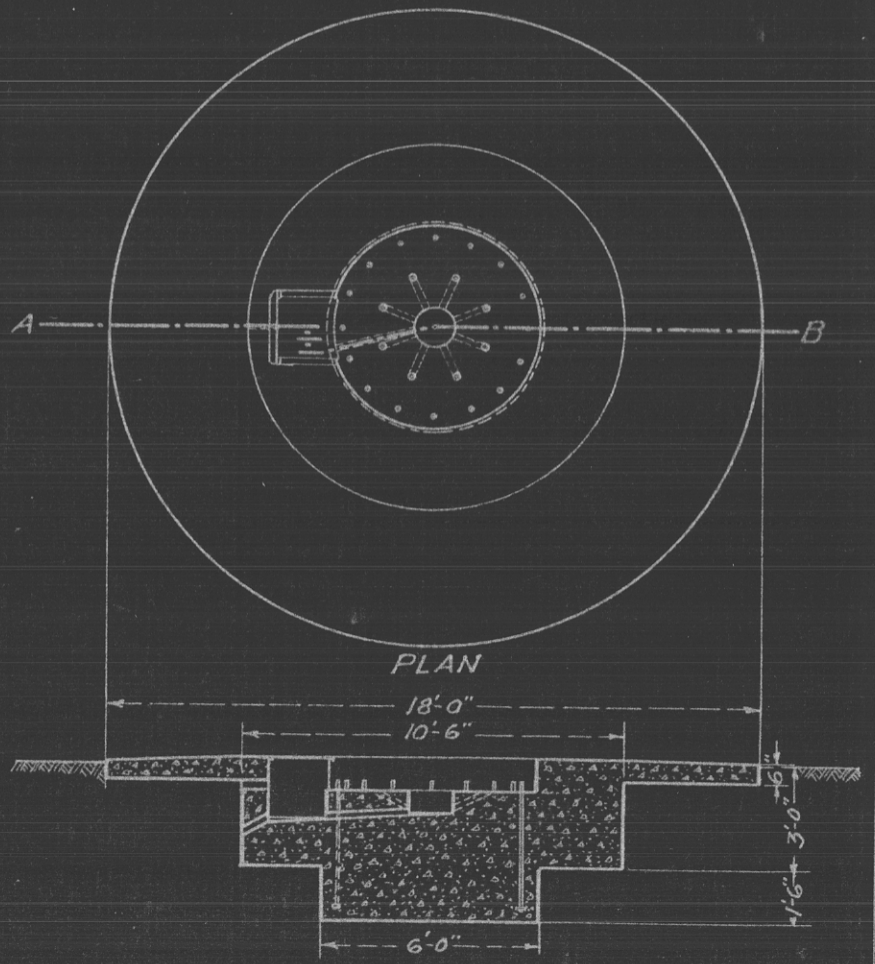
(Graphic Scales)

12" 0 1'

100' 0 100' 200' 300' 400' 500'



Insert showing location of Emplacements Scale: 1:20000



SECTION A-B

Scale: 1" = 8'-0"

REPORT OF COMPLETED WORKS

(General Plan)

September 1927

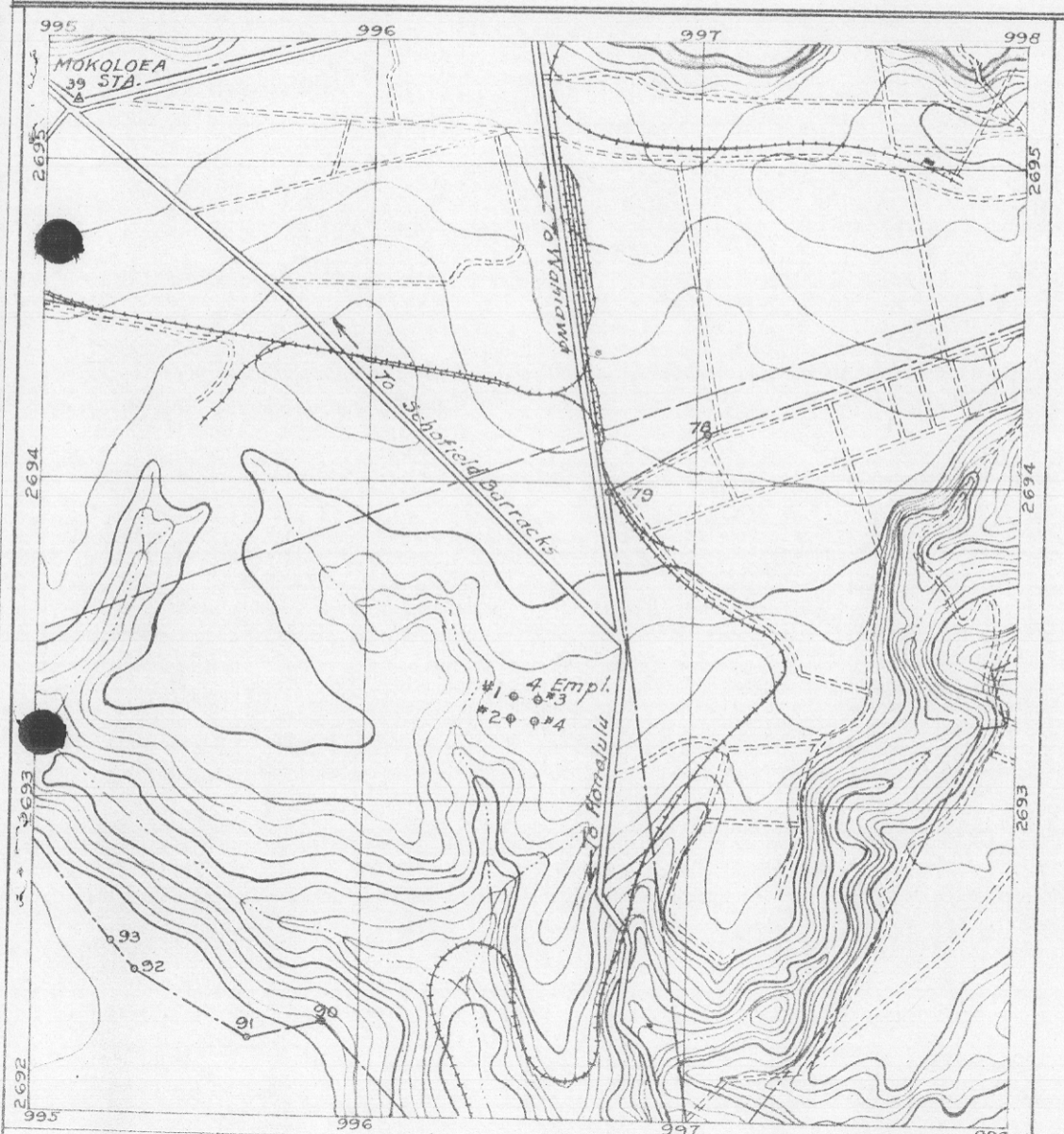
Form 7.

SCHOFIELD BARRAKS
4 EMPLACEMENTS
4-3" ANTI-AIR CRAFT GUNS

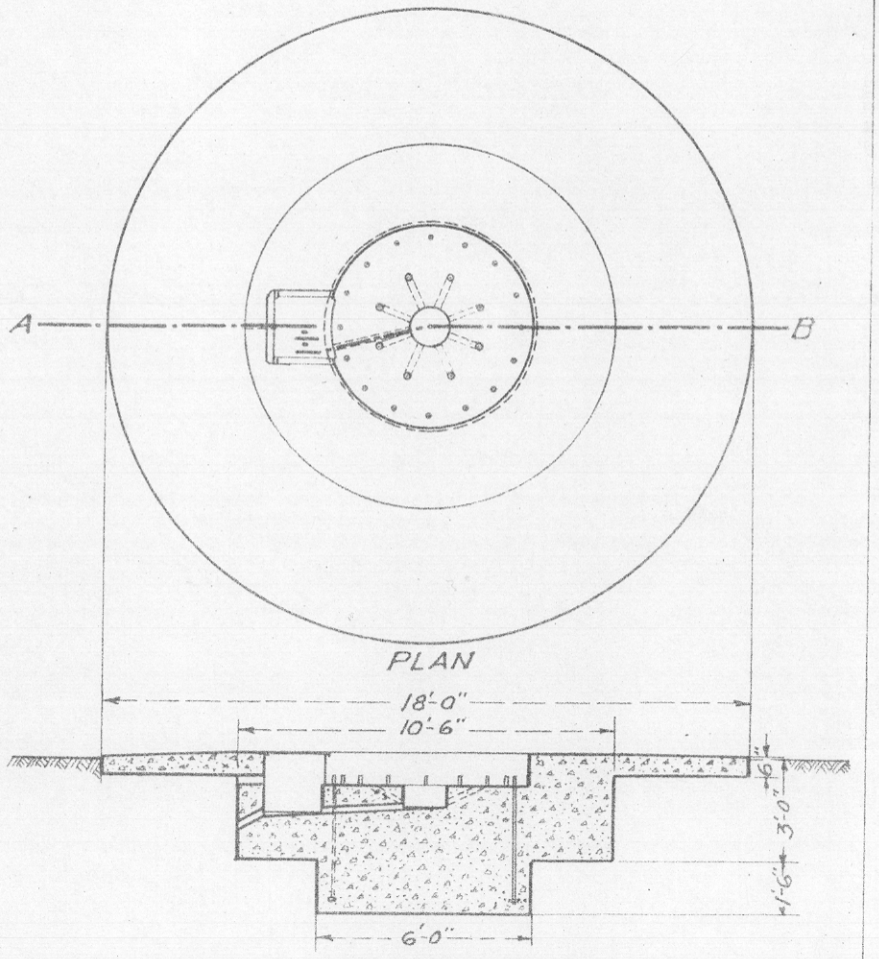
(Graphic Scales)

12" 0 5 10'

100' 0 100' 200' 300' 400' 500'



Insert showing location of Emplacements Scale: 1:20000



SECTION A-B

Scale: 1" = 8'-0"

See 660B(Honolulu)109

CHEMICAL STORAGE PROJECT

SCHOFIELD BARRACKS

OAHU, T.H.

The following elements constructed to complete the underground chemical storage project are hereby accepted and transferred to the Dept. Chemical Officer;

See Trans for Drugs. O.C.E. Map # 238-2-13 & 13d.

6 open-face magazines (Nos. 14, 18, 20, 22, 24, 26)
5 cut-cover magazines (Nos. 13, 17, 19, 23, 25)
Bituminous road, (0.8 miles)
Stairway
Electric system
Water and drainage system
Manproof fence
300 steel cars

See 660B(Honolulu)112

Form 6, corrected to April 1, 1939, Report of Completed Works for the following magazines:-

Magazine Nos. 13, 14, 17, 18, 19, 20, 22, 23, 24, 25, 26.

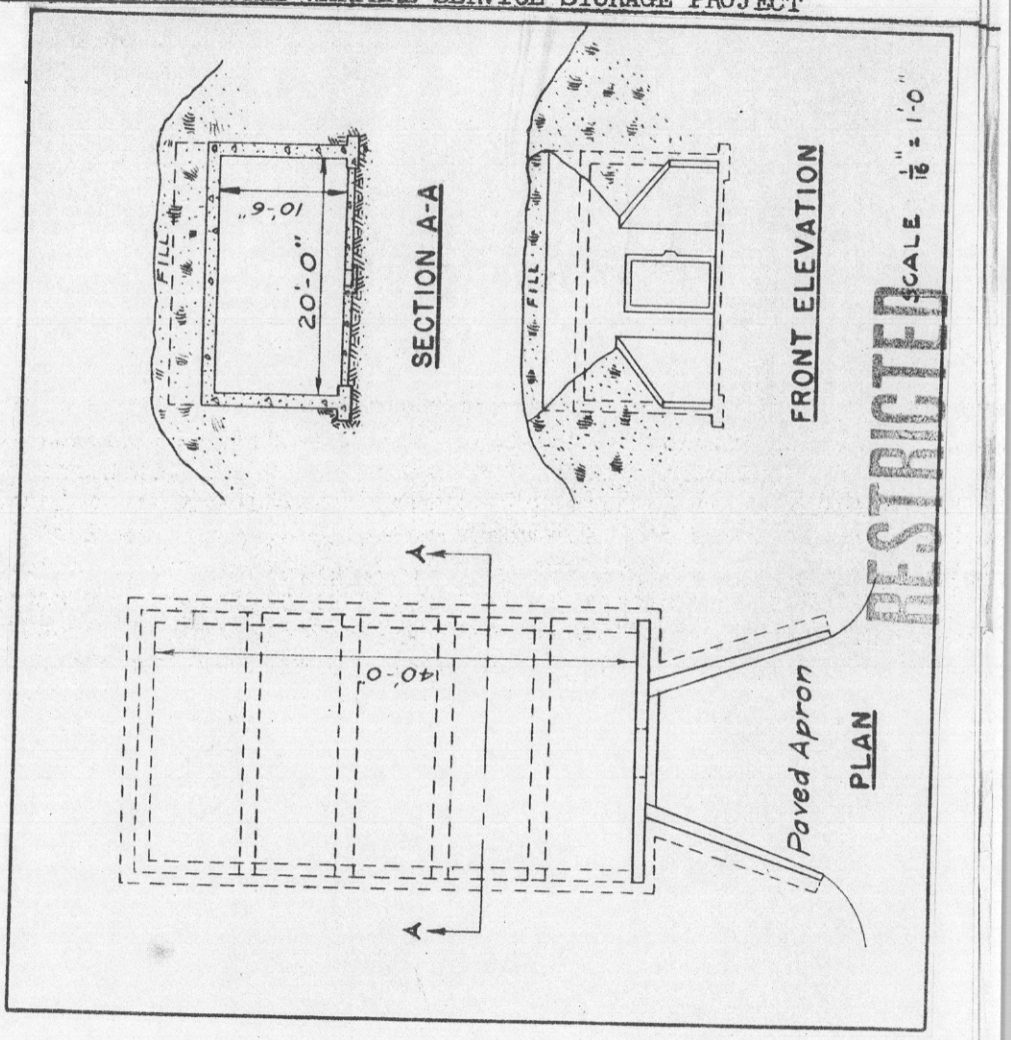
Hist 660B (Honolulu) #2

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form 6. Corrected to April 1, 1939.

Item: MAGAZINE NO. 13
Description: A reinforced concrete magazine of the dimensions shown, constructed in the side of a hill and covered with earth, and served by a paved road connecting all magazines to the main Post highway.
Use: Storage of dangerous chemicals.
Date completed: June 1938.
Date of transfer: August 27, 1938.
Cost: $6,785.74
Type of roof: Reinforced concrete 12" thick with inverted T-beams.
Type of walls: Reinforced concrete.
Type of floor: Reinforced concrete.
Lighting system: Vapor-proof type, overhead lighting fixtures connected to Post electric power distribution system utilizing commercial power.
Ventilating system: Fittings are installed in front wall to permit connection to a portable mechanical blower unit. Discharge of gases is possible through drain trench in floor.
Water supply: None
Sanitary system: None
Drainage system: 4-inch tile drain extends across the rear and along each side of the magazine. A 6 inch x 18 inch drain trench covered with precast concrete blocks extends along the center of the floor the full length of the magazine, emptying into a 10 inch underground drain pipe.
Type of protection and concealment: Magazine is built in side of hill with minimum earth cover of 4 feet, on which is planted natural vegetation. Concrete wing walls and earth fill partially protect the front, and the entrance is closed by a gas-tight steel plate door.
Reference of site: 1058 feet above mean lower low water.

HAWAIIAN DIVISION
SCHOFIELD BARRACKS
CHEMICAL WARFARE SERVICE STORAGE PROJECT



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HAWAIIAN DIVISION
SCHOFIELD BARRACKS
CHEMICAL WARFARE SERVICE STORAGE PROJECT

Form 6. Corrected to April 1, 1939.

Item: MAGAZINE NO. 18

Description: An open face magazine 155 feet long, constructed of reinforced concrete in 14 bays, located in the side of a hill, covered with earth, and served by a paved road connecting all magazines to the main Post highway. Narrow gauge cars, numbering 2 per bay, to support the chemical drums, operate on rails extending from the back of the magazine out onto the concrete apron in front of the magazine.

Use: Storage of chemicals in drums.

Date completed: June 1938.

Date of transfer: August 27, 1938.

Cost: $9,653.50

Type of Roof: Reinforced concrete, 12inches thick.

Type of walls: End walls and rear wall are of reinforced concrete; front of the magazine is open.

Type of floor: Floor and apron of reinforced concrete, fitted with rails for operation of narrow gauge cars.

Lighting system: Vapor-proof type overhead lighting fixtures located on face of magazine are connected to the Post power distribution system, utilizing commercial power.

Ventilating system: Not required.

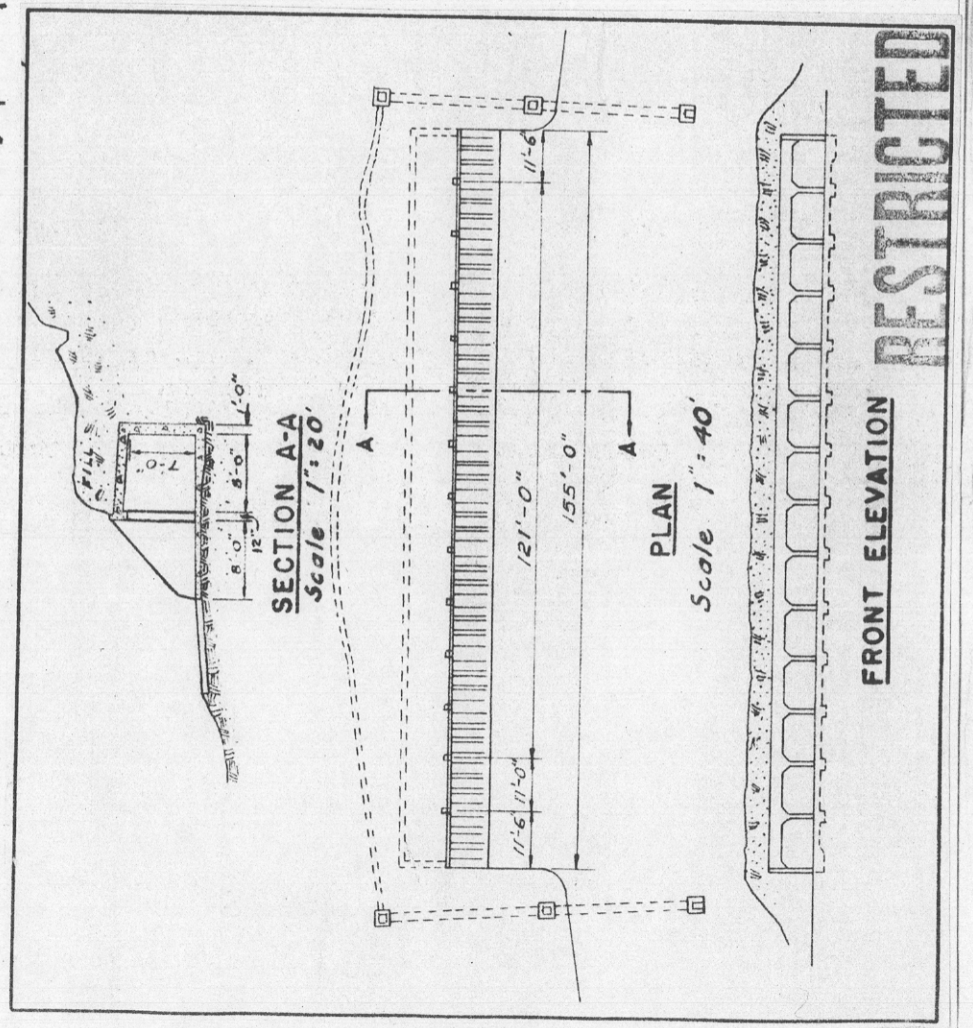
Water supply: None

Sanitary system: None.

Drainage system: 4-inch tile drain extends along back and both sides of magazine for underground drainage. Surface drainage is accomplished by an open ditch cut into the hill behind the magazine, extending its full length and emptying into a 24-inch corrugated iron culvert.

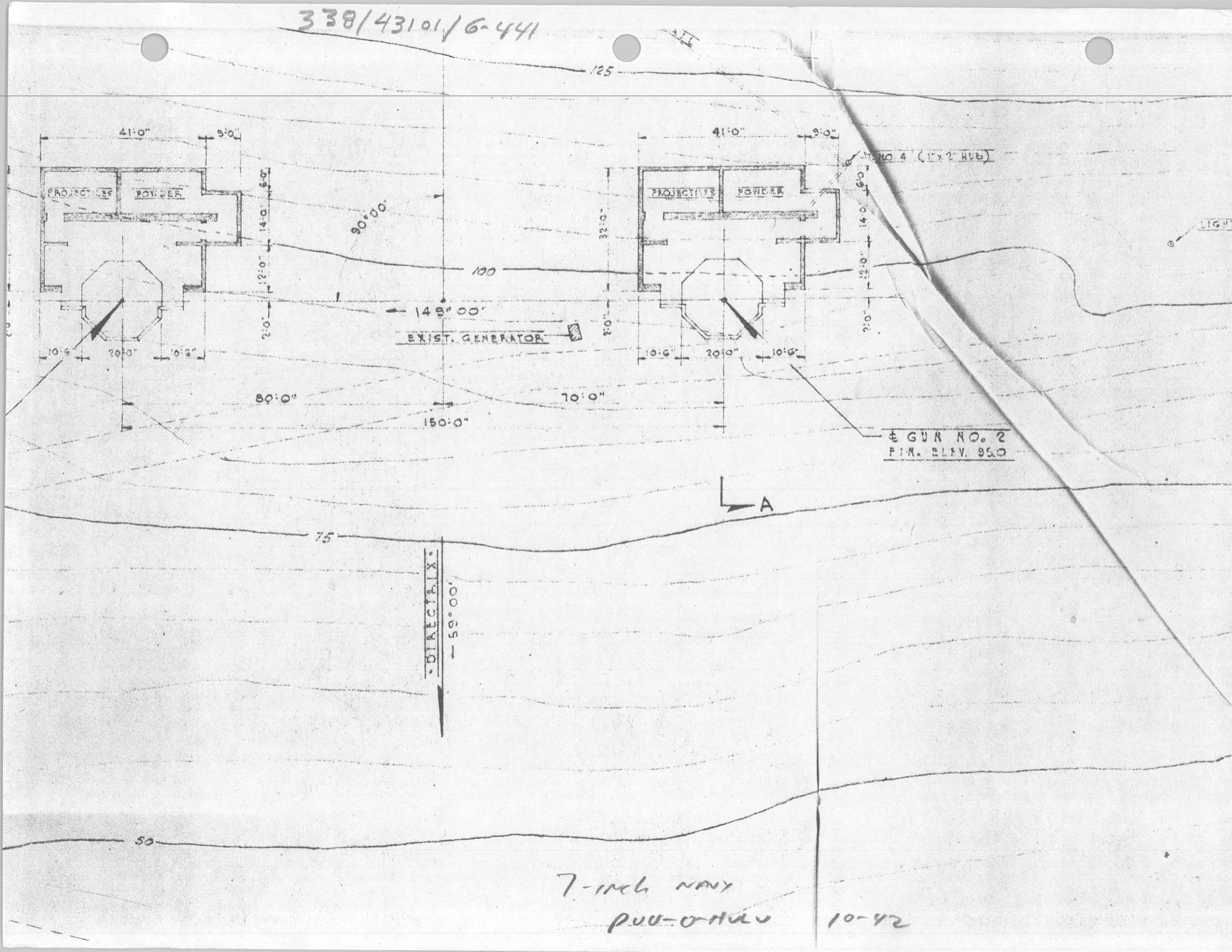
Type of protection: Minimum earth cover on reinforced concrete roof is 4 feet.

Reference of site: 1050 feet above mean lower low water.



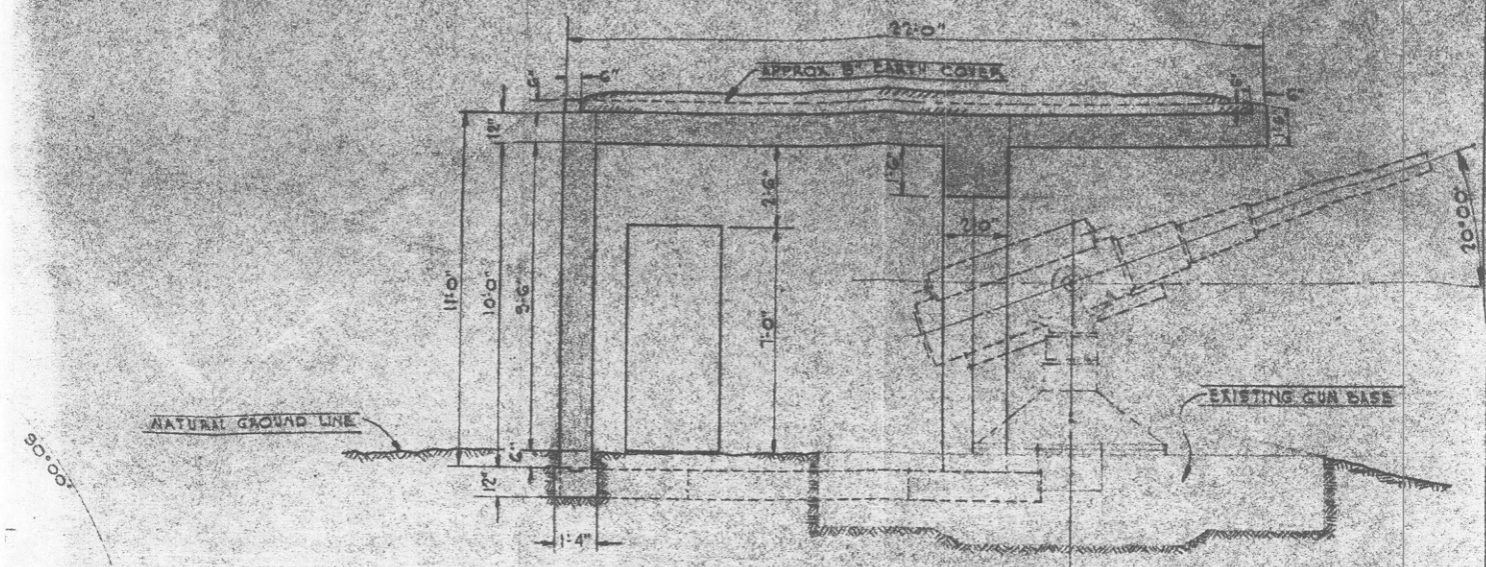
RESTRICTED

338/43101/6-441

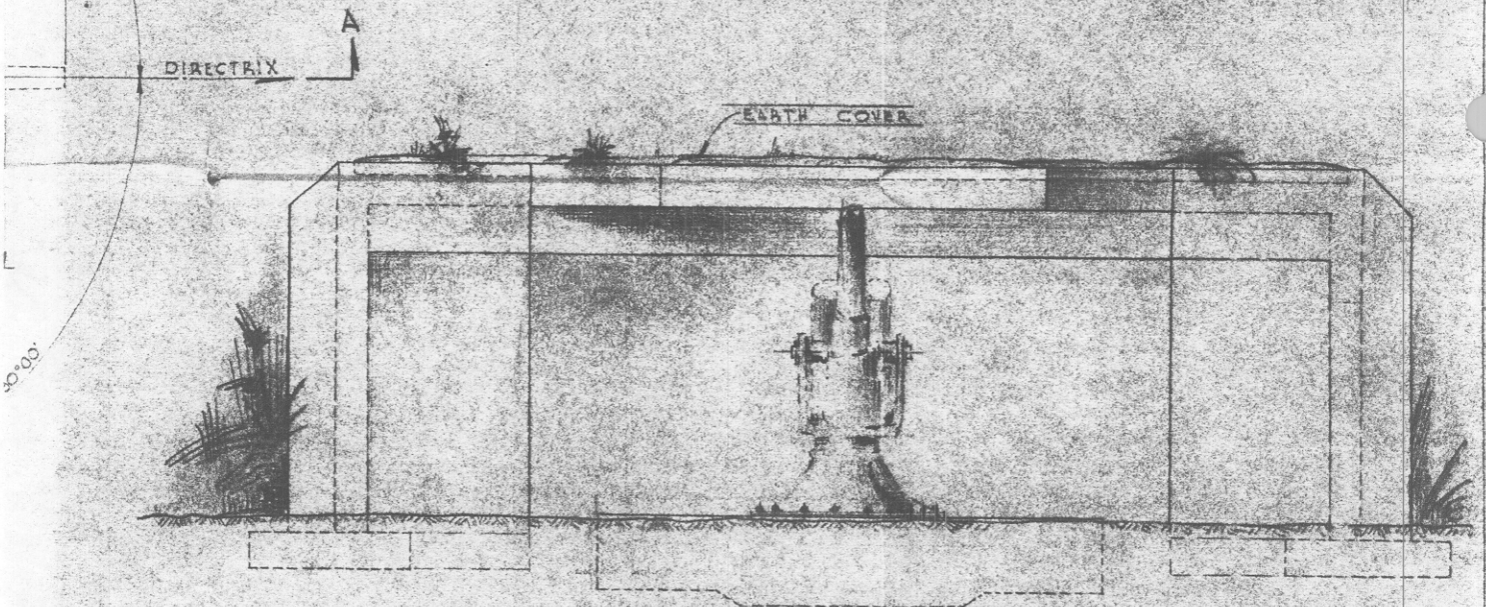


Authority NND 833517
By WDP NARA Date 12/20/01
Reproduced at the National Archive

CORPS OF ENGINEERS, U. S. ARMY



SECTION "A-A"
SCALE: 1/4" = 1'-0"



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

ESTIMATED QUANTITIES

CONCRETE	57 Cu. Yds.
REINF. STEEL	8800 Pounds.

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

FIVE INCH NAVAL GUN POSITIONS
ONEULA & AHUA, OAHU, T.H.

SPLINTERPROOF - CASEMATING

SCALE AS SHOWN | IN SHEETS | SHEET NO.

U.S. ENGINEER OFFICE, HONOLULU, T.H. MAY, 1942

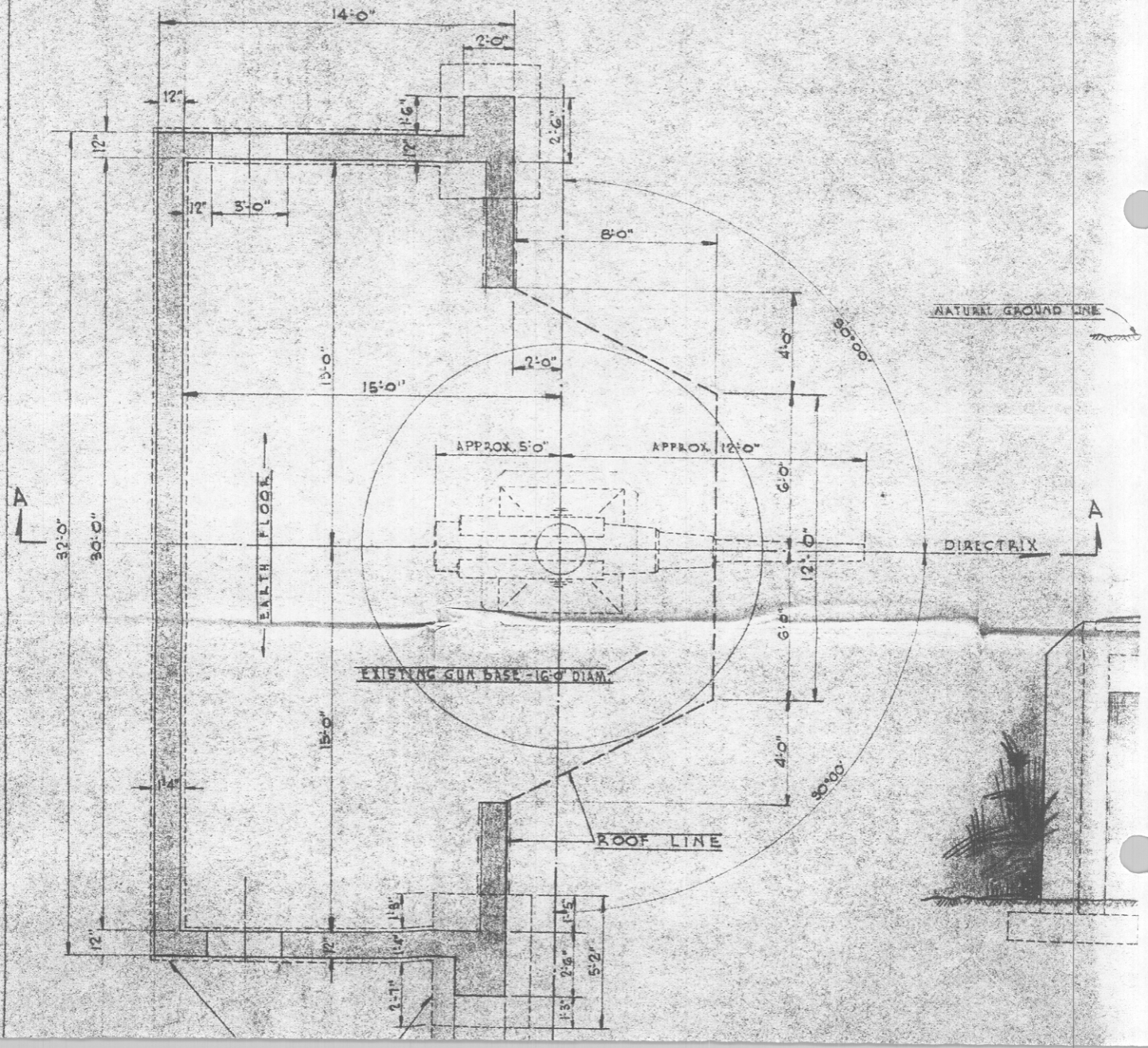
SUBMITTED	RECOMMENDED	APPROVED
PRINCIPAL ENGINEER, CIVIL CHIEF ENGINEERING DIVISION	CAPT., CORPS OF ENGINEERS ASST. DEPT. ENGINEER	COLONEL, CORPS OF ENGINEERS DEPARTMENT ENGINEER

DESIGNED: J.K.B. | DRAWN: H.S.P. | CHECKED: J.K.B. | TO ACCOMPANY _____ | FILE NO. F-45/54

JOB ORDER NO. 494-W.

CORRESPONDENCE SERIAL NO. _____

WAR DEPARTMENT



#12

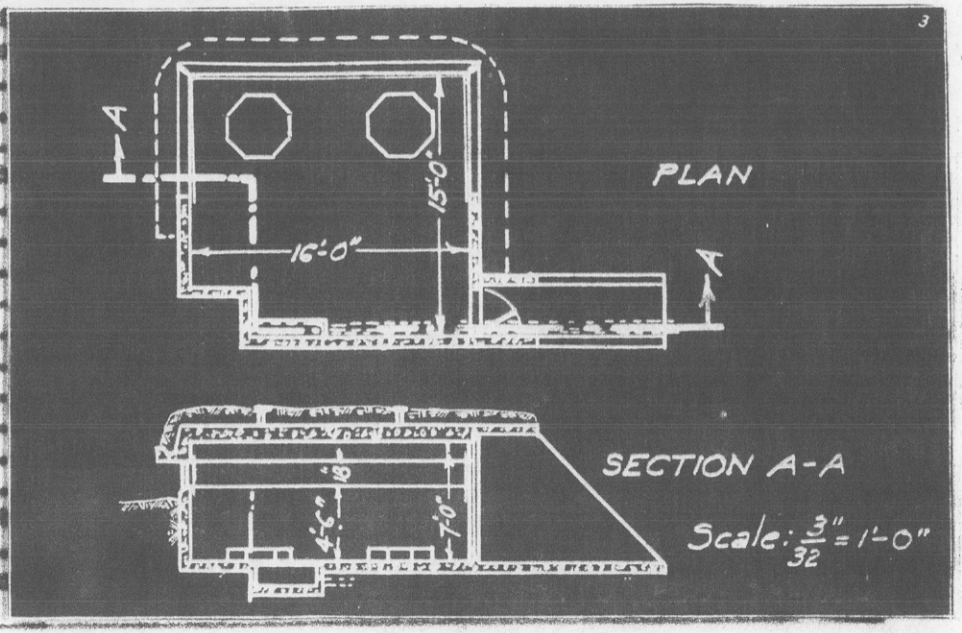
REPORT OF COMPLETED WORKS OF COAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

Form 2, Corrected to July 14, 1924

STRUCTURE: FIRE CONTROL STATION "U" PUU-O-HULU
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

Location	U. S. Gov't., Trig. Station Puu-O-Hulu 5'- S 10° W.
Date of transfer	July 2, 1934
Cost to date	$3,384.67 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	841.65'
Reference of instrumental axis	842.3'/
Type of observing instrument	D.P. F. instrument
Type of plotting board	None
Type of data transmission	Telephone (By Sig



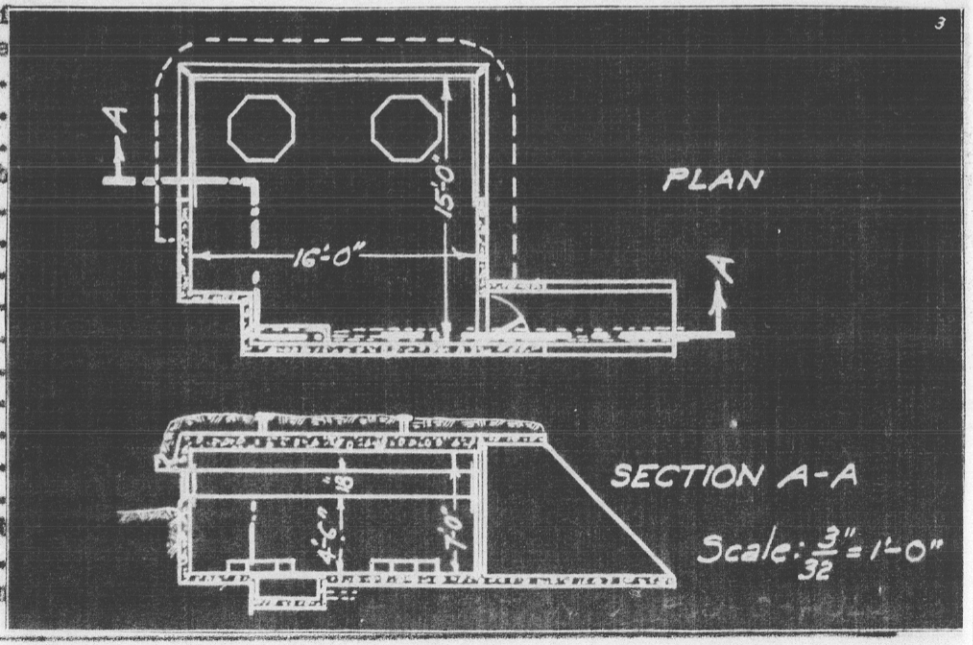
orig 662 B (Oahu) 201

REPORT OF COMPLETED WORKS OF COAST FORTIFICATIONS — HARBOR DEFENSES OF PEARL HARBOR

Form 2, Corrected to July 14, 1934

STRUCTURE: FIRE CONTROL STATION "U" PUU-O-HULU
FOR BATTERY ~~KOLEKOLE~~ HATCH
FORT ~~KAMEHAMEHA~~, T.H.
BARRETTE

Location	U. S. Gov't., Trig. Station Puu-O-Hulu 5'- S 10' W.
Date of transfer	July 2, 1934
Cost to date	$3,364.67 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage b
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	841.65'
Reference of instrumental axis	842.8'±
Type of observing instrument	D.P. F. instrument
Type of plotting board	None
Type of data transmission	Telephone (By Sign



See Report of Operations, Fortification Work, March, 1936, Honolulu, T.H., page 5 — "Installed 2 D.P.F. instruments".

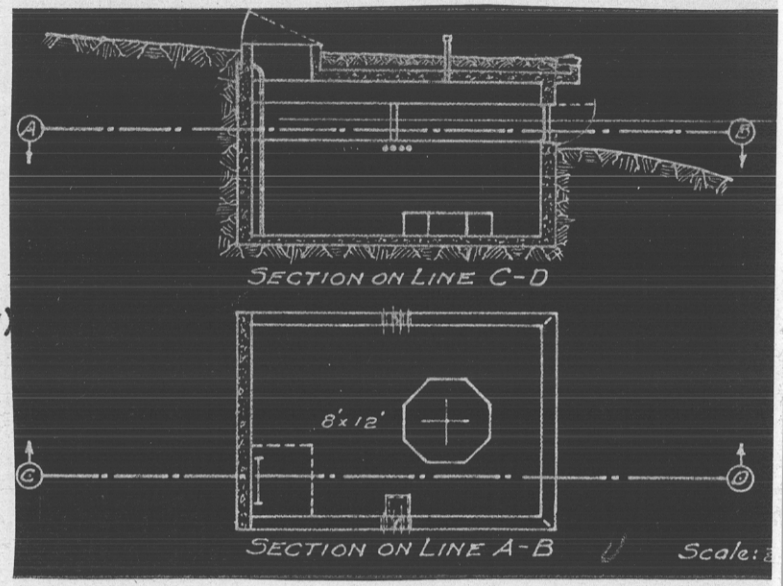
Grid 2

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2 Corrected to May 19, 1924.

COAST DEFENSES OF PEARL HARBOR
FORT WEAVER
STRUCTURE: FIRE CONTROL STATION U
FOR BATTERY WILLISTON

Location	: Puu o hulu. (3-1/2 Miles S.E. of Waianae)
Date of transfer	: April 7, 1924.
Cost to that date	: $ 5,226.24
Type of construction:	
(a) Roof	: Reinforced concrete.
(b) Remainder of building	: " " .
How concealed	: Light earth covering.
How protected	: Dug-out type.
Height above concealment	: Not above.
Height above protection	: Not above.
Conspicuous at 500 yards.	: No.
Source of electric current	: Local battery (Wet, Edison #207)
Kilowatts required	: Instrument lights only.
Type of lighting fixtures	: Flash lights.
How heated	: None required.
Connected to water mains	: No.
Connected to sewer	: No.
Type of latrine	: None.
Permanent or temporary installation	: Permanent.
Present condition	: Good.
Reference of site	: 856.5 Ft. (Top of earth cover)
Reference of instrumental axis	: 853.45 ". (M.L.L.W.) Subject to check.
Type of observing instrument	: D. P. F. intended.
Type of plotting board	: None.
Type of data transmission	: Telephones intended.

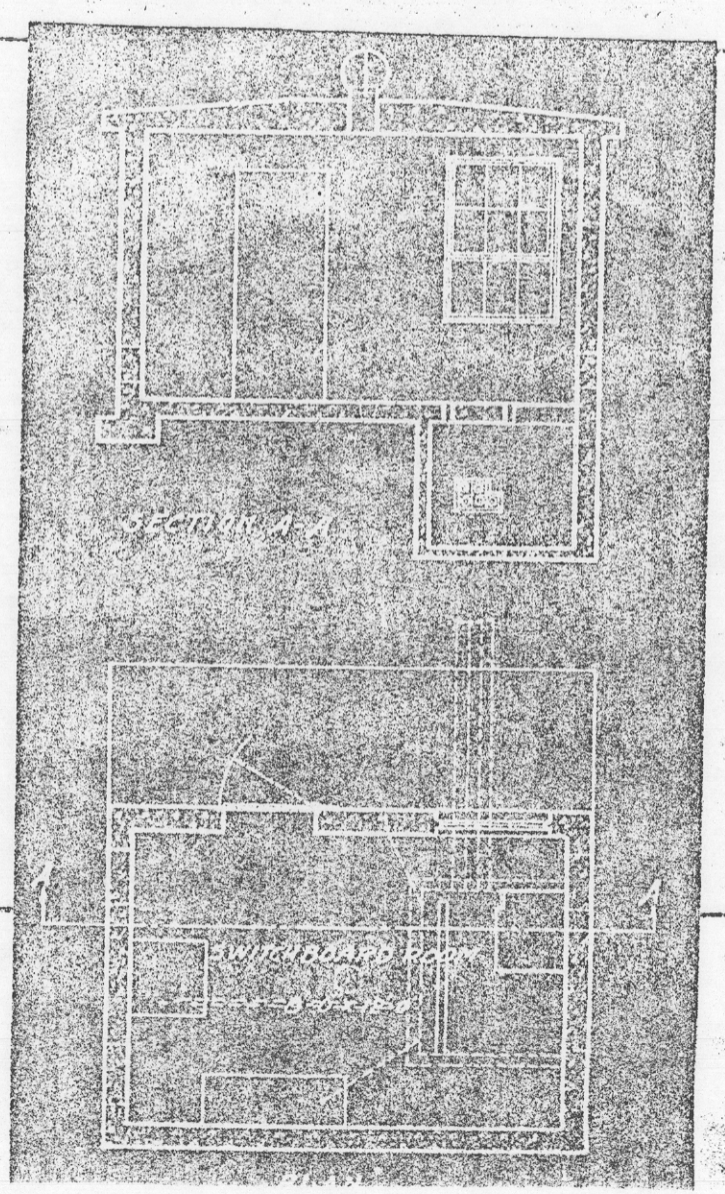


REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July, 1929.

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: FIRE CONTROL SWITCHBOARD ROOM,
MAILI ~~(MAILE)~~ MILITARY RESERVATION.

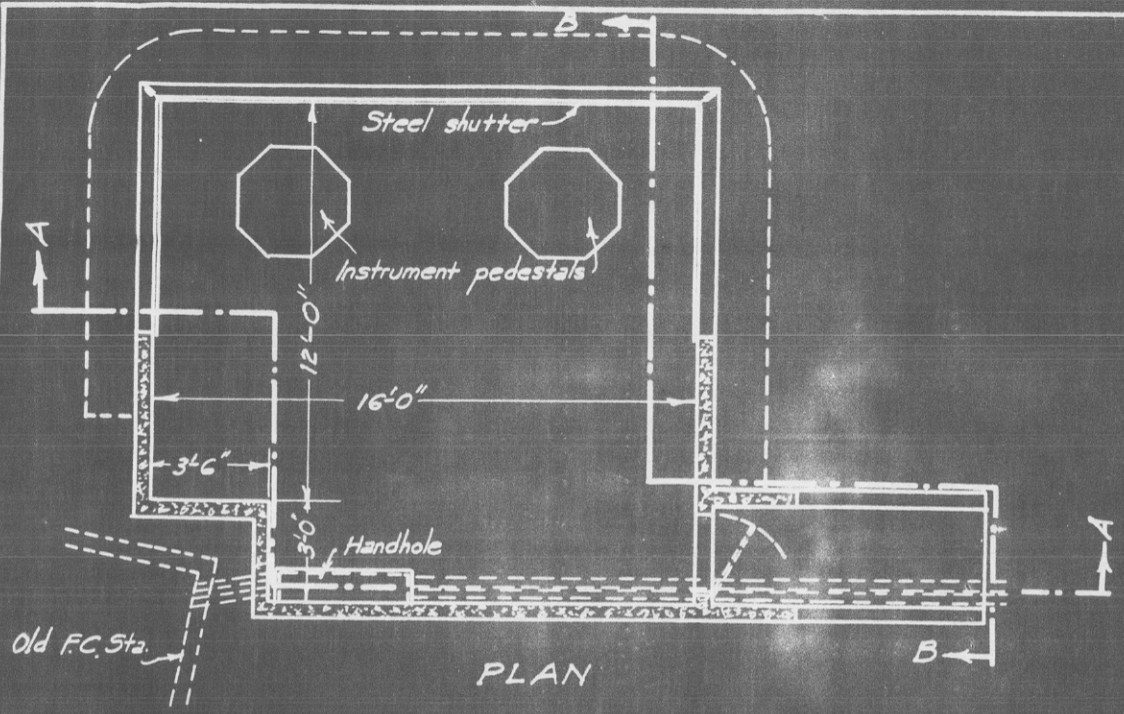
Location	Mailo Military Resvn.
Date of transfer	July 19, 1929
Cost to date	$4,381
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	" "
How concealed	Mound and trees
How protected	Dug-in type
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	1/2 K. W. Delco Set
Kilowatts required	0.12 K. W.
Type of lighting fixtures	E. D. Standard
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	25
Reference of instr. axis	--
Type of observing instr.	None
Type of plotting board	None
Type of data transmission	Telephones



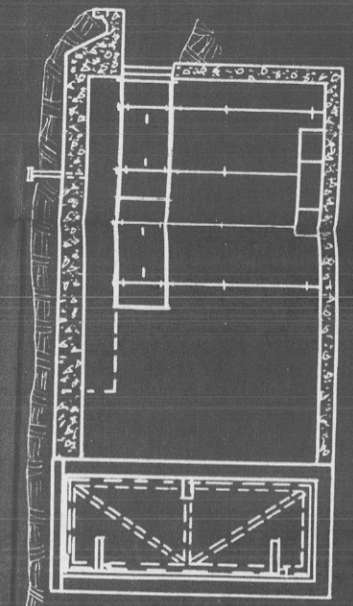
Does not show on any Index Plat

WAR DEPARTMENT

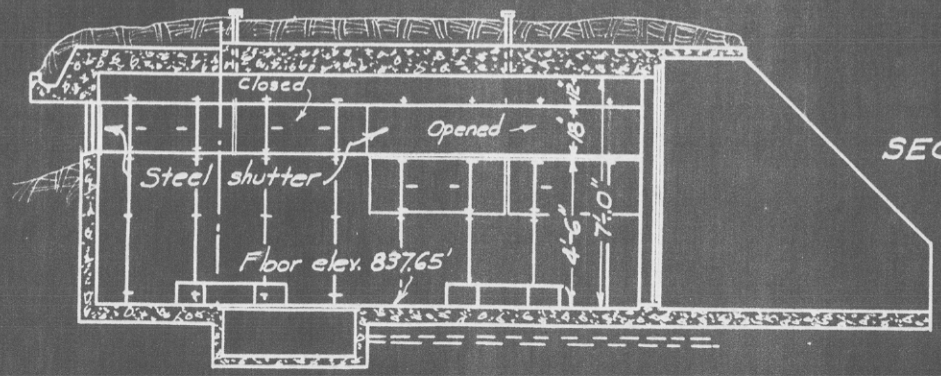
CORPS OF ENGINEERS, U.S. ARMY



PLAN



SECTION B-B



SECTION A-A

U. S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
STATION "U", PUU - O - HULU
KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

IN 1 SHEET

REVISIONS

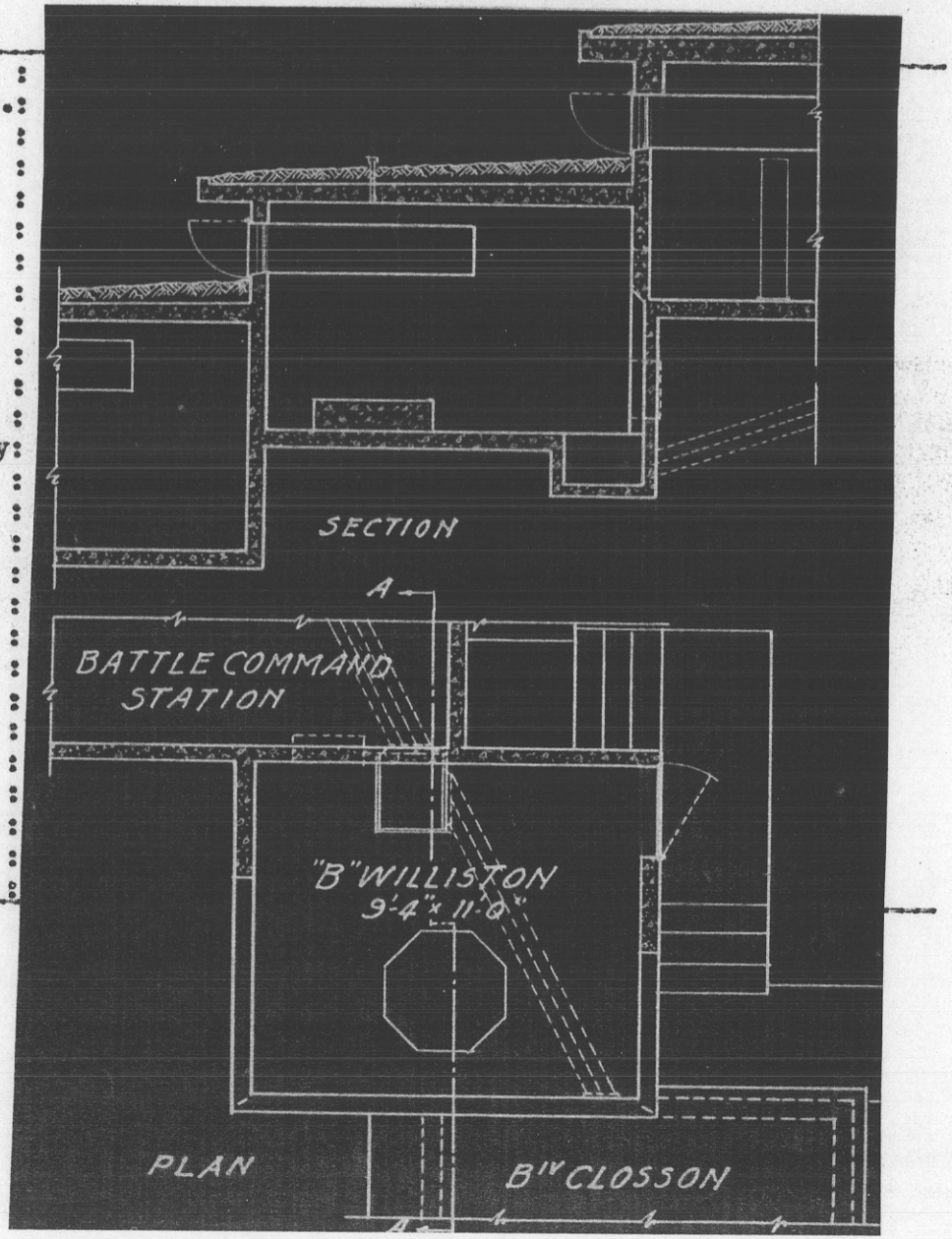
SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED:				
DRAWN:				
TRACED:				
CHECKED:	ASSOC. ENGINEER	MAJOR, C.E., DIST. ENGR.	6/29/39	F1043T

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July, 1929.

Location	Puu Palailai Military Rsvn.
Date of transfer	July 19, 1929
Cost to date	$1,834
Type of construction	Reinforced concrete
(a) Roof	Reinforced concrete
(b) Remainder of building	Plain concrete
How concealed	Light earth covering
How protected	Dug-out type
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	6-v. Edison Storage battery
Kilowatts required	0.1
Type of lighting fixtures	Instrument lights only
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	481.8
Reference of instr. axis	483.29
Type of observing instr.	D. P. F.
Type of plotting board	None
Type of data transmission	Telephones

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: FIRE CONTROL STATION "B" FOR BATTERY WILLISTON, FORT WEAVER.



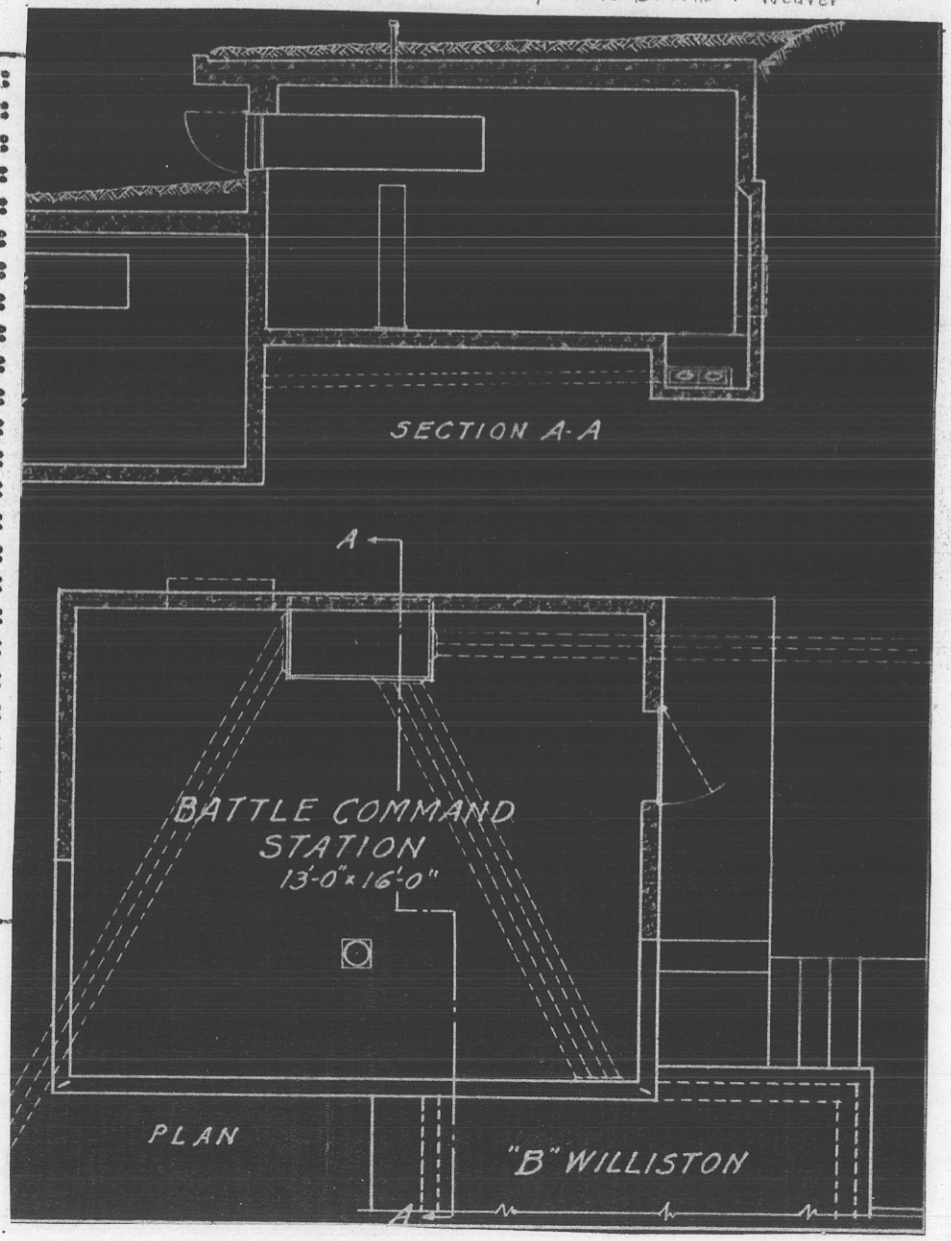
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July, 1929.

Location	Puu Palailai Military Rsvn.
Date of transfer	July 19, 1929
Cost to date	$3,056
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Plain concrete
How concealed	Light earth covering
How protected	Dug-out type
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	6-v. Edison Storage battery
Kilowatts required	0.1
Type of lighting fixtures	Instrument & 1 drop light
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	485.6
Reference of instr. axis	487.08
Type of observing instr.	Observing and azimuth
Type of plotting board	None
Type of data transmission	Telephones

Does not show on any Index Plat

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: BATTLE COMMAND STATION
Batteries Hatch & Williston, Forts Barrette & Weaver



Orith 662B (Oahu) 201

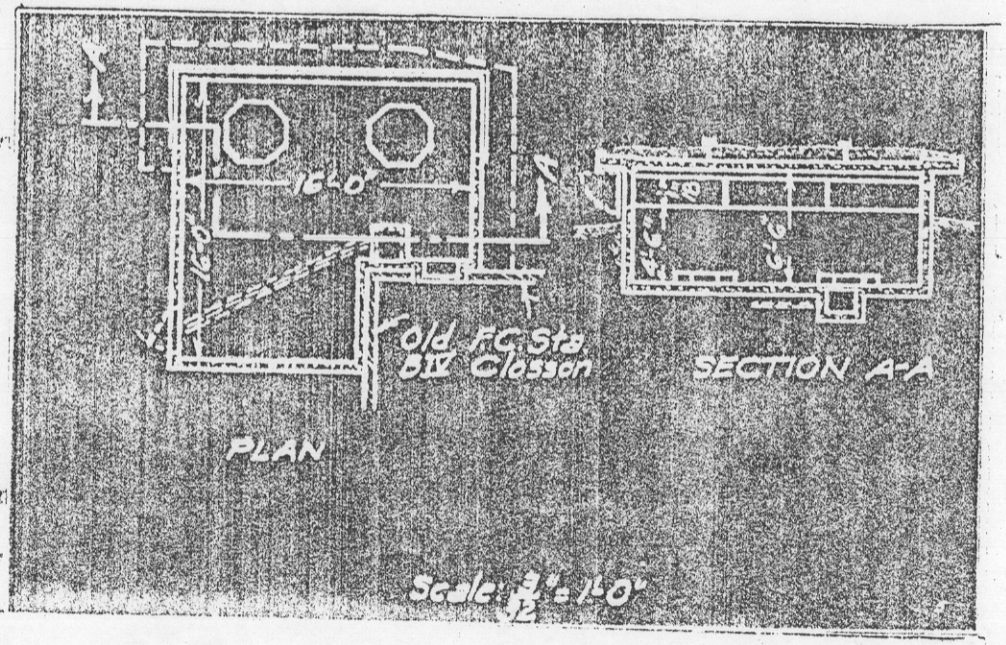
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR,

FORM 2. Corrected to July 14, 1934.

STRUCTURE: FIRE CONTROL STATION "B" PUU PALAILAI, FOR BATTERY ~~[illegible]~~ HATCH FORT ~~[illegible]~~ BARRETTE, T. H.

Location	U.S. Govt. Trig. Station 50' S 10' E.
Date of transfer	July 8, 1934
Cost to date	$2,528.03 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable store
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of Latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	450.7
Reference of instrumental axis	472.70±
Type of observing instrument	D.P. F. instru
Type of plotting board	None
Type of data transmission	Telephones (By



There was also a note of acceptance of a Battle Command station for Hatch + Willist on at Puu Palailai] ✓ [illegible] See 2 pages later

REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7

CORRECTED TO JUNE 30, 1937

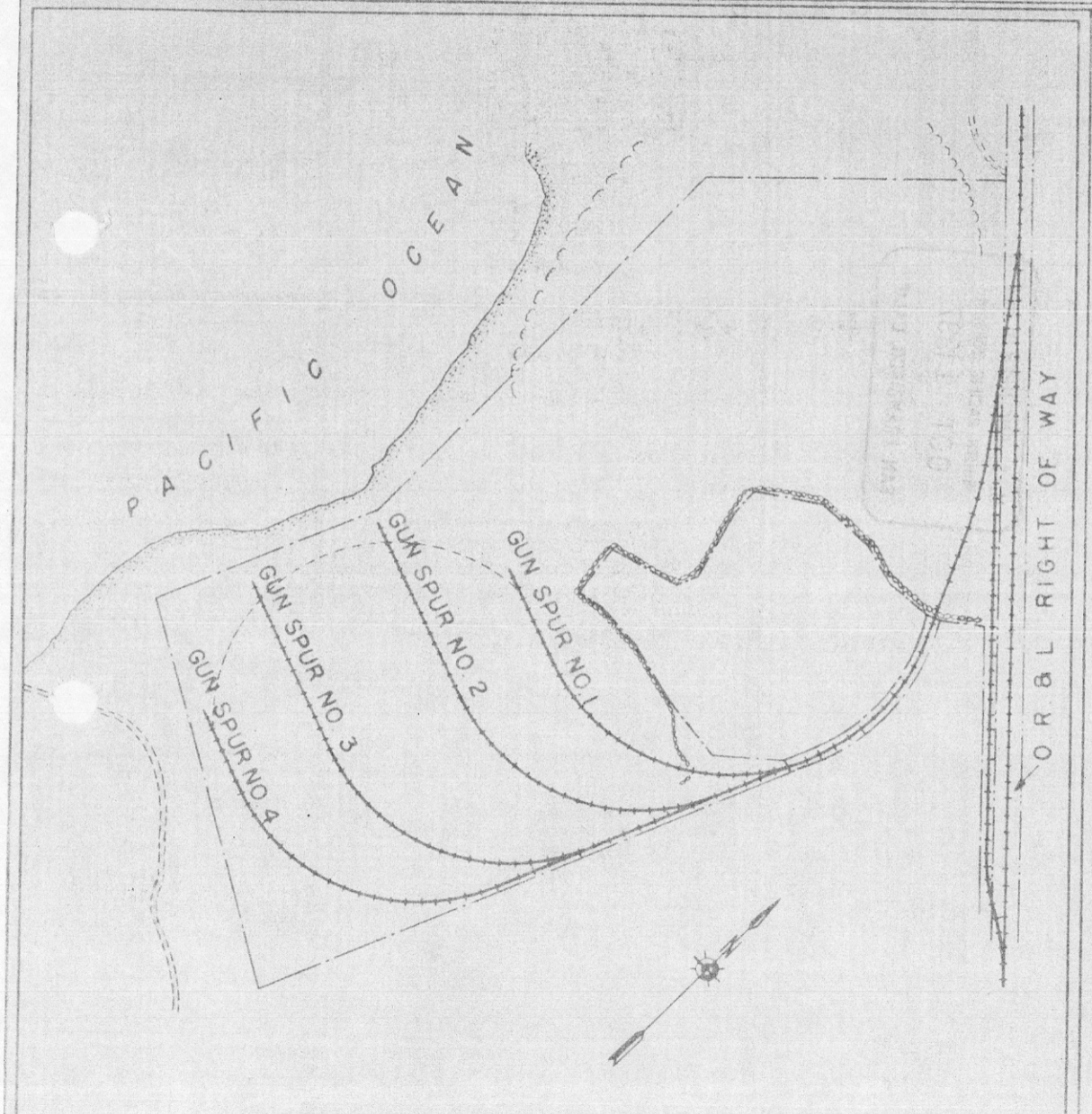
SEACOAST DEFENSES OF OAHU

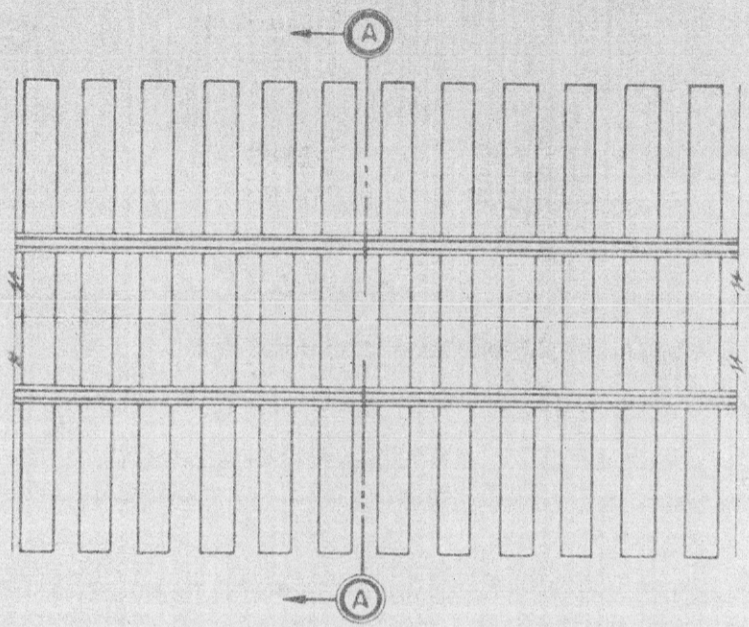
BROWN'S CAMP

8 IN. RAILWAY FIRING POSITION

GRAPHIC SCALE

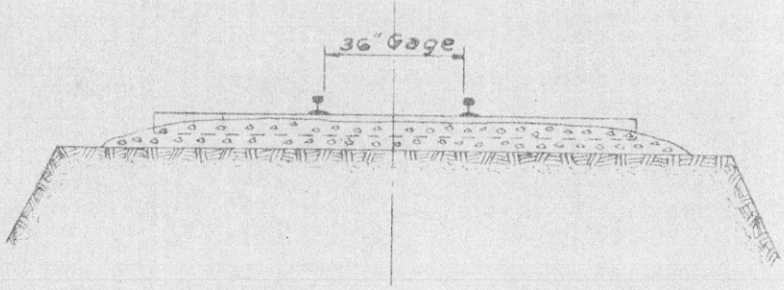
250 0 250 500 FT.





PLAN

SCALE 1/4" = 1'-0"



SECTION A-A

SCALE 1/4" = 1'-0"

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ BROWN'S CAMP
BATTERY 8-inch Railway Guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Form 1. Corrected to June 30, 1937

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 3, 1937	Sources of	None
Battery completed	June 26, 1937		
Date of transfer	August 19, 1937	Max. kw. required for lights	None
Cost to date of transfer	$29,500.00	Max. kw. required for motors	---
Materials of construction	60-pound rail		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry.	29.0, 21.5, 15.0, and 8.1		
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
None										

644-9

REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7

CORRECTED TO JUNE 30, 1937

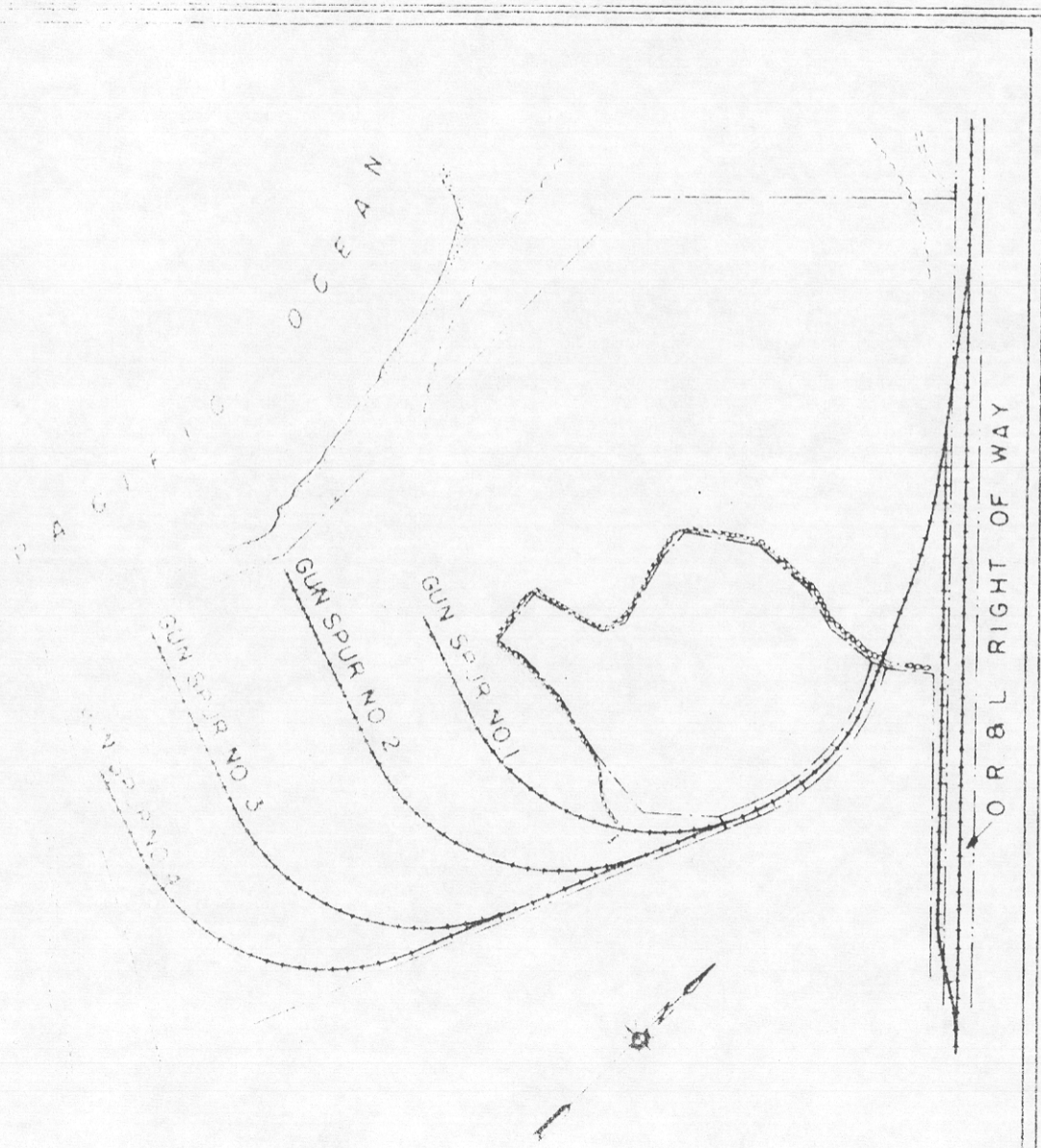
SEACOAST DEFENSES OF OAHU

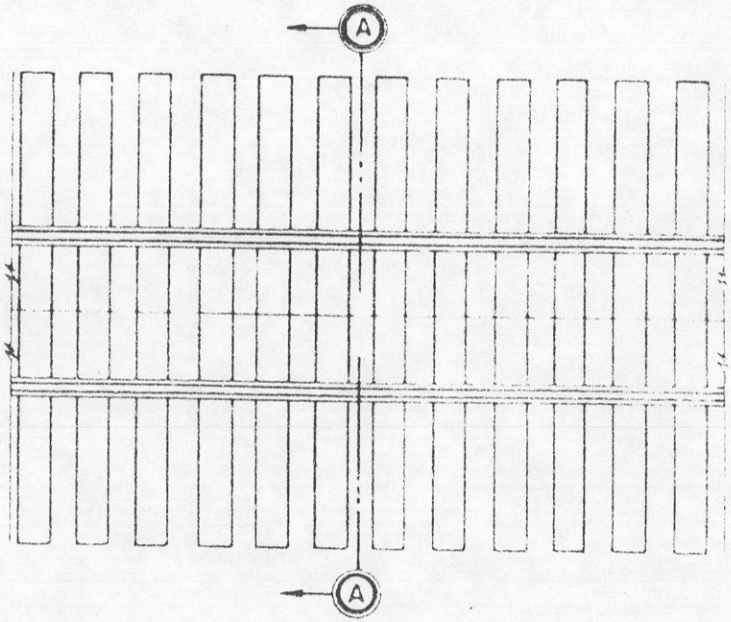
BROWN'S CAMP

8 IN. RAILWAY FIRING POSITION

GRAPHIC SCALE

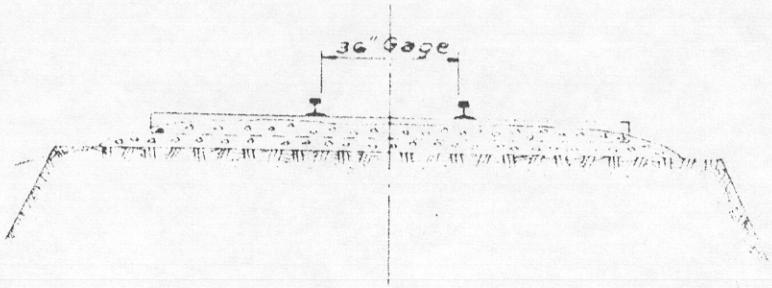
250 0 250 500 FT





PLAN

SCALE 1/4" = 1'-0"



SECTION A-A

SCALE 1/4" = 1'-0"

WPA 6608 (June) 37

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Form 1. Corrected to June 30, 1937

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ BROWN'S CAMP
BATTERY 8-inch Railway Guns
No. of guns: 4 Caliber: 8" Carriage: Railway

Near Ft. Barrette

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	May 3, 1937	Sources of	None
Battery completed	June 26, 1937		
Date of transfer	August 19, 1937	Max. kw. required for lights	None
Cost to date of transfer	$29,500.00	Max. kw. required for motors	---
Materials of construction	60-pound rail		
Type of cement	None		
WATER AND SEWER:		Present condition of battery	Good
Connected to water supply	No	Rooms wet or dry	No rooms
nnected to sewer	No		
Type of latrine	None	How ventilated	---
		Type of data transmission	Telephone
Trunnion elevation in btry.	29.0, 21.5, 23.0, and 24.1		
Datum plane	M.l.l.w.	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

(660 Honolulu) - 143

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
BATTERY BROWN'S CAMP (AWANUI)
No. of guns: 4 Caliber:155MM Carriage:Split Trail

Form 1. Corrected to

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	10-15-40	Sources of	)
Battery completed	11-27-40		) None
Date of transfer	7-15-41	Max. kw. required for lights	)
Cost to date of transfer	$5,844.20	Max. kw. required for motors	)
Materials of construction	Reinforced Concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	)
Connected to water supply	)	Rooms wet or dry	) None
Connected to sewer	)None		
Type of latrine	)	How ventilated	Open
		Type of data transmission	Field Telephone
Trunnion elevation in btry.	(1) 17.31' (3) 17.23'		
	(2) 17.25' (3) 17.25'	Remarks	Guns not permanently emplaced.
Datum plane	M.L.L.W.		

#1 of 5

SECRET

By Authority of the District Engineer, Honolulu, T. H.

12-26-41 Date — Officer Affixing

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Armament is not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points

NONE

SECRET

SECRET

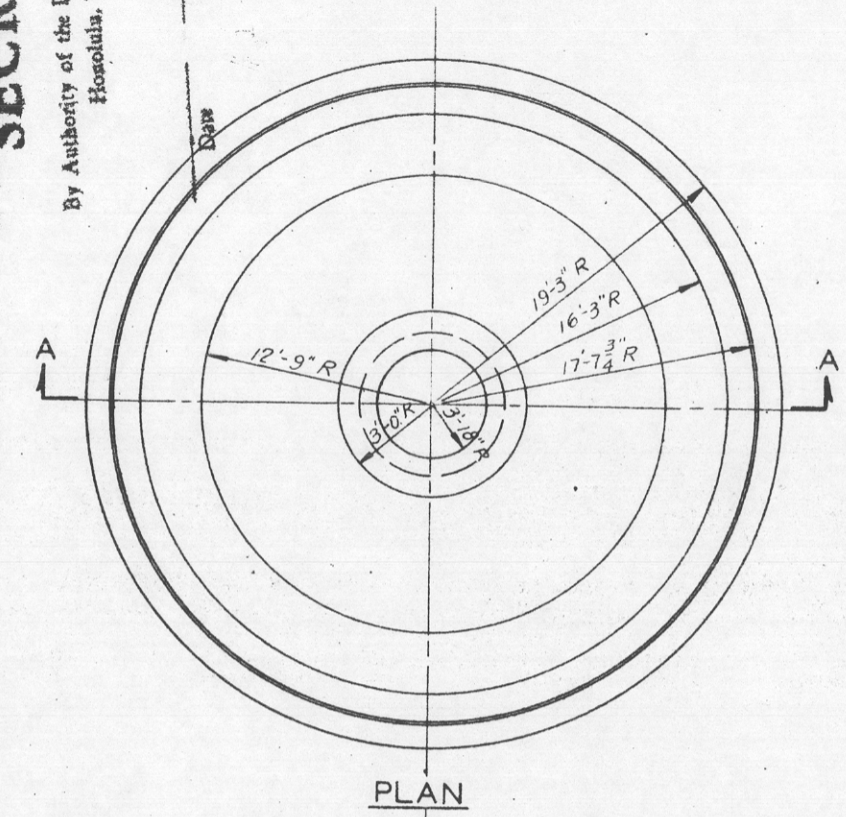
By Authority of the District Engineer, Honolulu, T. H.

Officer Affixing

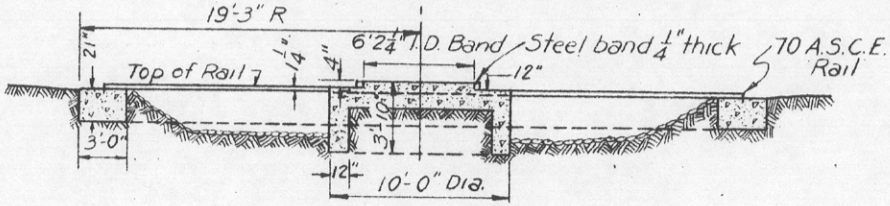
Date

w/ 660B (Honolulu) -143

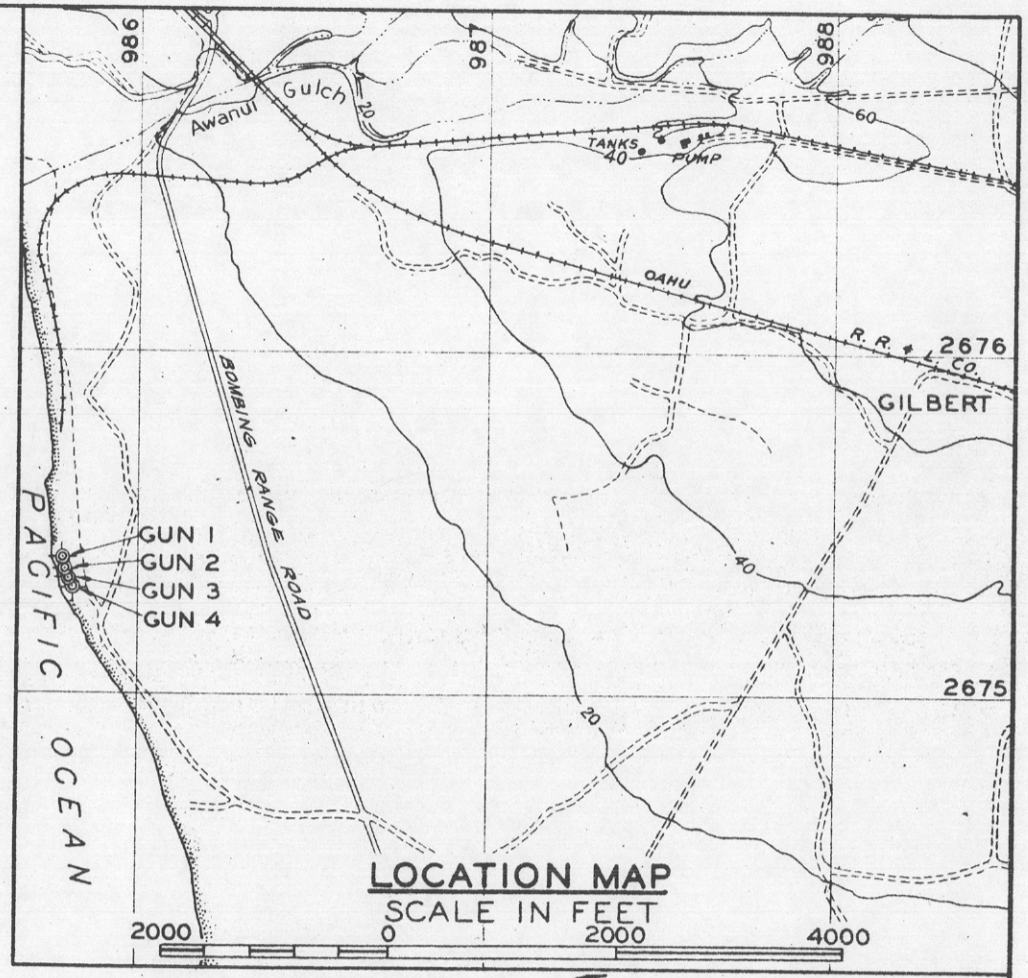
Chief



PLAN



SECTION A-A



LOCATION MAP

SCALE IN FEET

SERIAL NO. I

COPY NO. 1

(SECRET)

SEACOAST DEFENSES HAWAIIAN DEPARTMENT

AWANUI CAMP, OAHU, T. H.

155 MM GUN POSITIONS

LOCATION AND DETAIL

U. S. ENGINEER OFFICE HONOLULU, T. H.

SECRET

FILE NO. F-1/93

6-633

REPORT OF COMPLETED WORKS -- SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Form 1. Corrected to

HARBOR DEFENSES OF **PEARL HARBOR**
FORT **KAMEHAMEHA**
BATTERY **BROWN'S CAMP (AWANUI)**
No. of guns: **4** Caliber: **155MM** Carriage: **Split Trail**

GENERAL:	
Battery commenced	10-15-40
Battery completed	11-27-40
Date of transfer	7-15-41
Cost to date of transfer	$5,844.20
Materials of construction	Reinforced Concrete
Type of cement	Portland
WATER AND SEWER:	
Connected to water supply	)
Connected to sewer	) None
Type of latrine	)
Trunnion elevation in btry.	(1) 17.31' (3) 17.23'
Datum plane	(2) 17.25' (4) 17.25' M.L.L.W.

ELECTRIC CURRENT:	
Sources of	)
	) None
Max. kw. required for lights	)
Max. kw. required for motors	)
Present condition of battery	)
Rooms wet or dry	) None
How ventilated	Open
Type of data transmission	Field Telephone
Remarks	Guns not permanently emplaced.

SECRET
By Authority of the District Engineer,
Honolulu, T. H.
12/26/41 (Date) (Officer Affixing)
#5 Of 5

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Armament is not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
			NONE							

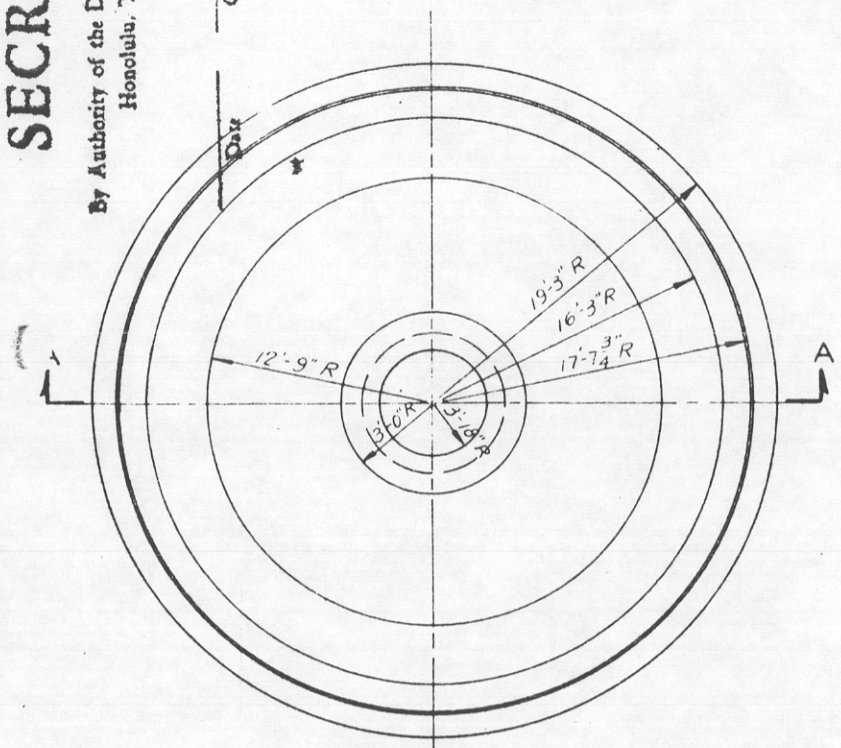
SECRET

SECRET

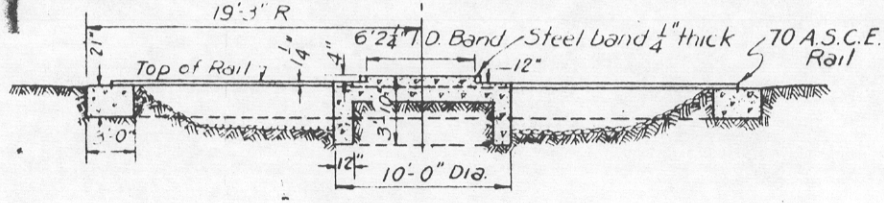
By Authority of the District Engineer,
Honolulu, T. H.

Officer Affixing

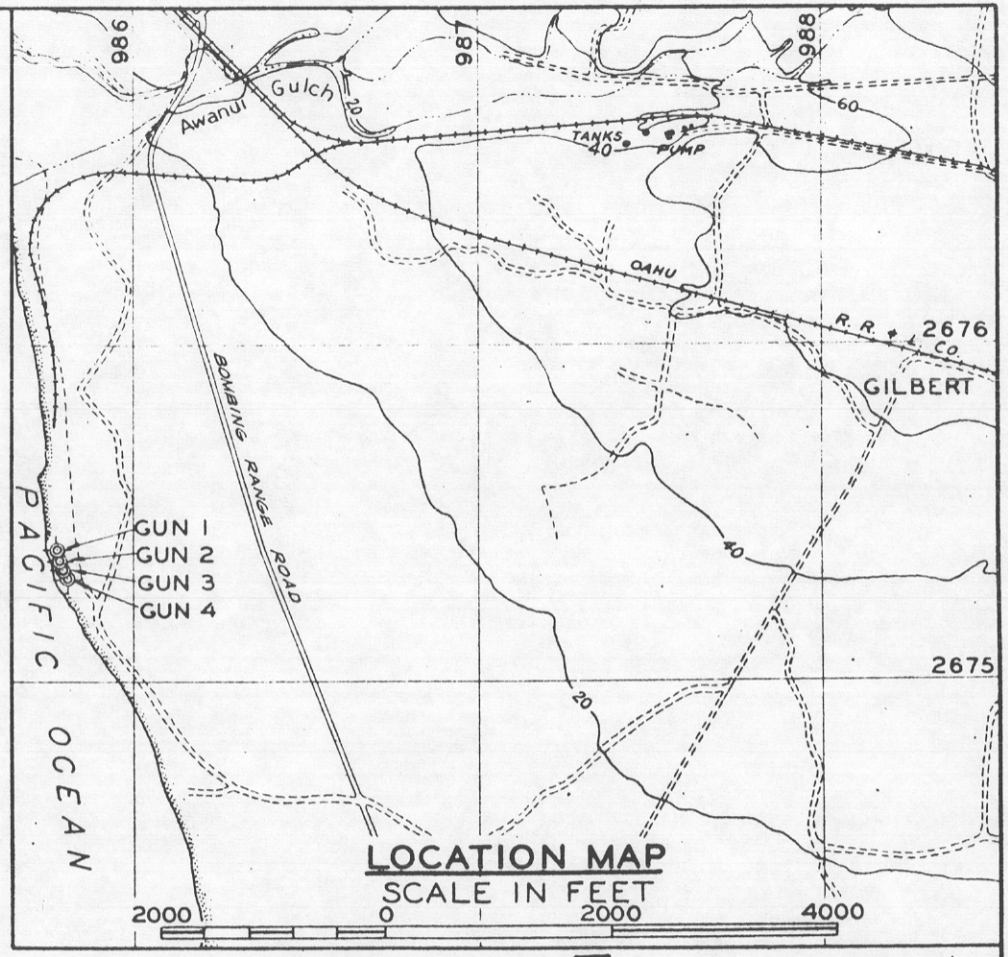
Date



PLAN



SECTION A-A



SERIAL NO. I
COPY NO. 4

(SECRET)

SEACOAST DEFENSES HAWAIIAN DEPARTMENT

AWANUI CAMP, OAHU, T. H.

155 MM GUN POSITIONS
LOCATION AND DETAIL

U. S. ENGINEER OFFICE HONOLULU, T. H.

SECRET

FILE NO. F-1/93

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)
With 660 B (Honolulu) 59
Form 1. Corrected to **June 30, 1937.**

HARBOR DEFENSES OF **PEARL HARBOR**
~~HONOLULU~~ **BARBERS POINT**
BATTERY **PANAMA MOUNTS**
No. of guns: **4** Caliber: **155 mm** Carriage: **Split trail**

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	**April 13, 1937**	Sources of	**None**
Battery completed	**June 30, 1937**		
Date of transfer	**August 16, 1937**	Max. kw. required for lights	**- - -**
Cost to date of transfer	**$5,174.79**	Max. kw. required for motors	**- - -**
Materials of construction	**Reinforced concrete**		
Type of cement	**Portland**		
WATER AND SEWER:		Present condition of battery	**Good**
Connected to water supply	**No**	Rooms wet or dry	**No rooms**
Connected to sewer	**No**		
Type of latrine	**None**	How ventilated	**- - -**
		Type of data transmission	**Telephone**
Trunnion elevation in btry.	**Approx. 10. feet**		
Datum plane	**M.l.l.w.**	Remarks	**Guns not permanently emplaced.**

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

REPORT OF COMPLETED WORKS – SEACOAST FORTIFICATIONS

GENERAL PLAN

SECRET

FORM 7 CORRECTED TO JUNE 30, 1937

HARBOR DEFENSES OF PEARL HARBOR

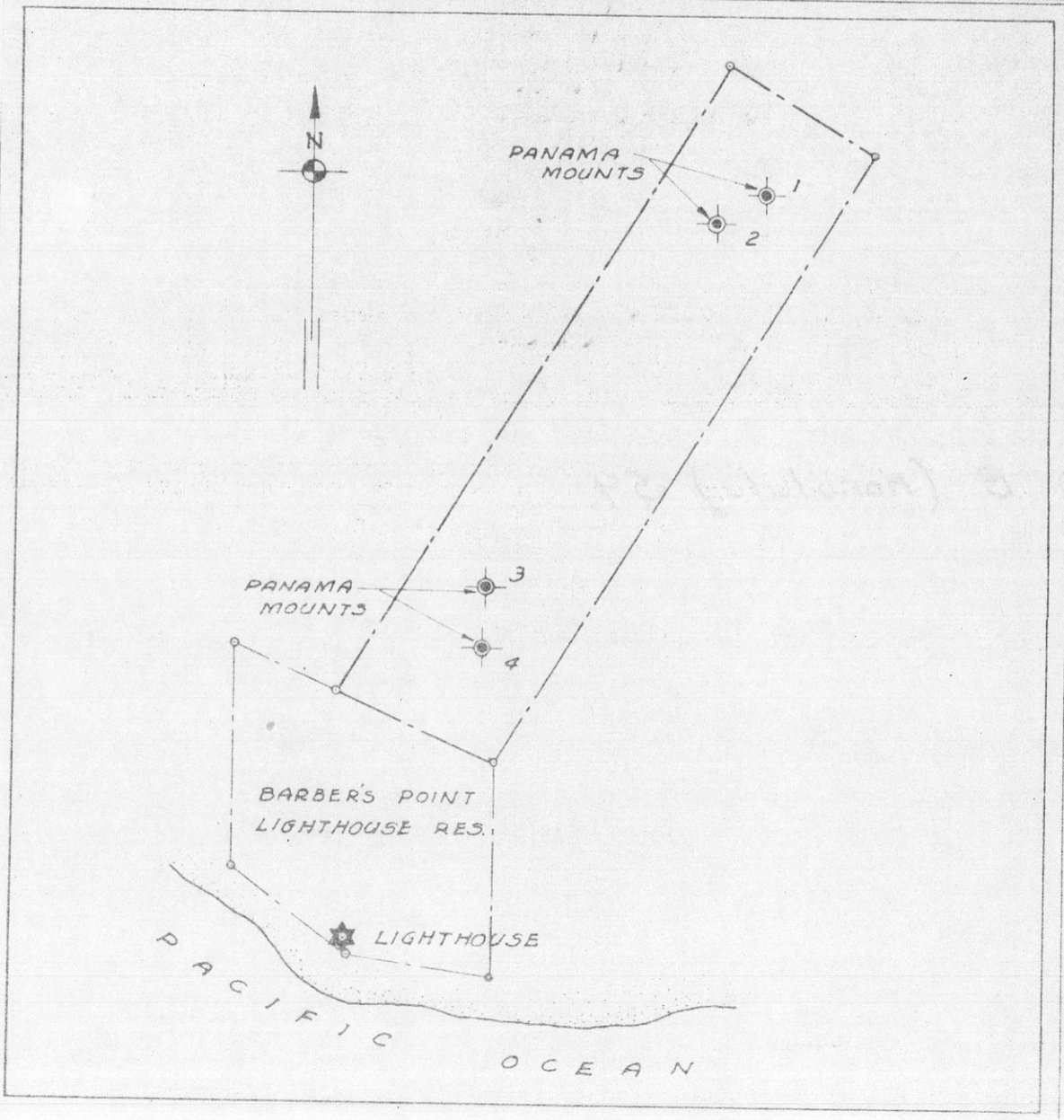
BARBER'S POINT

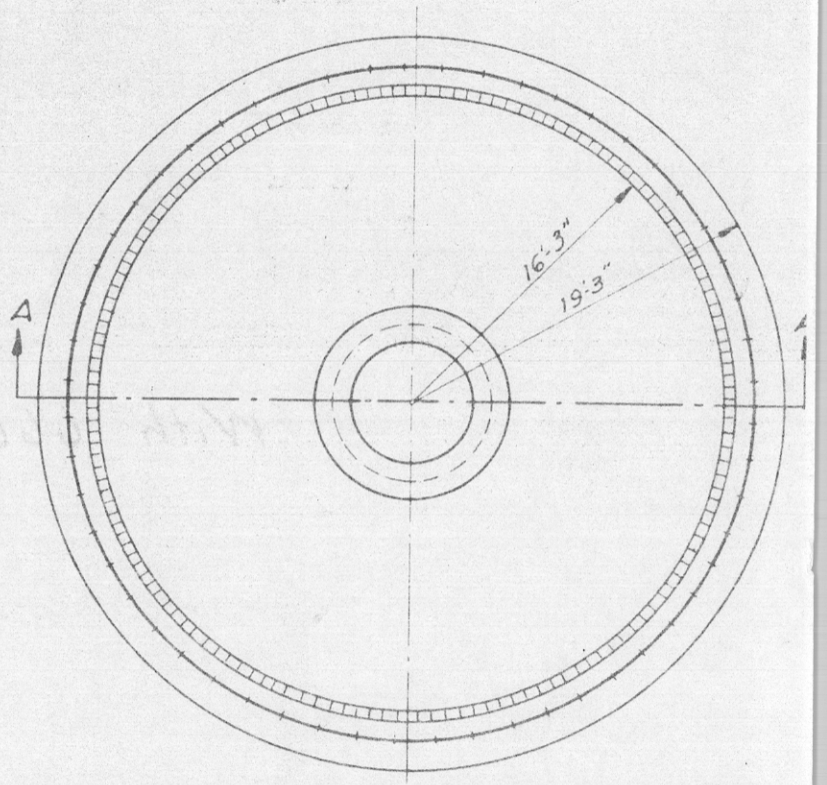
4 – PANAMA MOUNTS FOR 155 MM GUNS

GRAPHIC SCALES

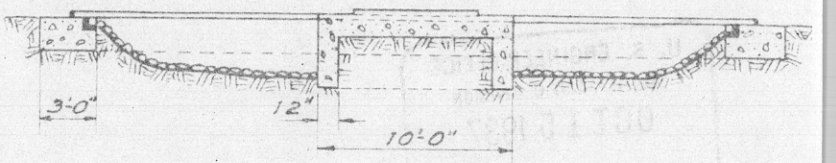
10 0 10 20 FT.

100 0 1 2 3 4 500 FT.





PLAN



SECTION A-A

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2, Corrected to July 21, 1932.

HARBOR DEFENSES OF PEARL HARBOR, BARBER'S POINT
No. 1, EAST OF BARBER'S POINT LIGHTHOUSE.

STRUCTURE: RANGE MARKER.

Location	See location plans herewith
Date of transfer	June 20, 1932
Cost to date	One hundred twenty dollars ($120.00)
Type of construction	Rough lumber and galvanized metal materials, set in concrete.
Reference of site	See plans attached

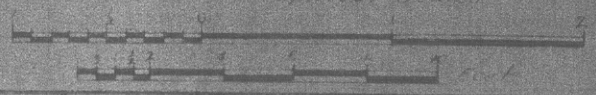
Navy Department

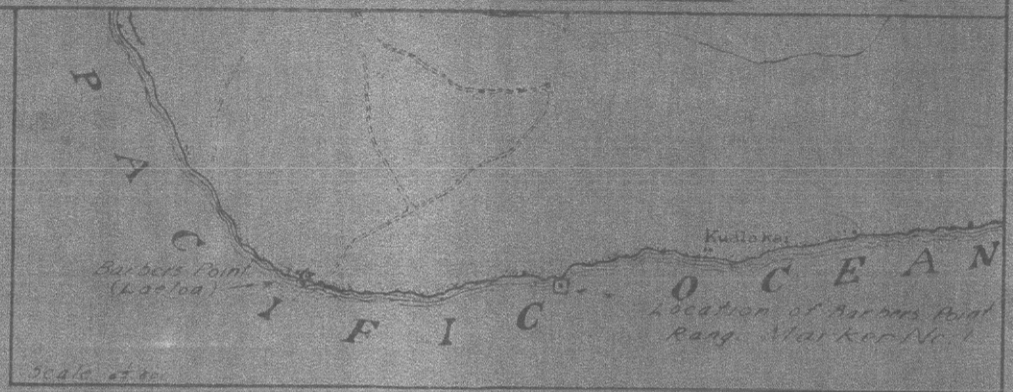
Bureau of Engineering, Army

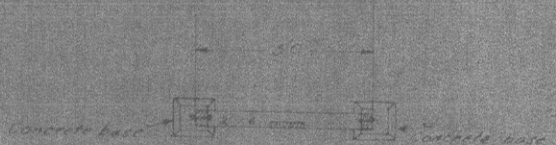
Report of Completed Works
General Plan
April 15, 1932

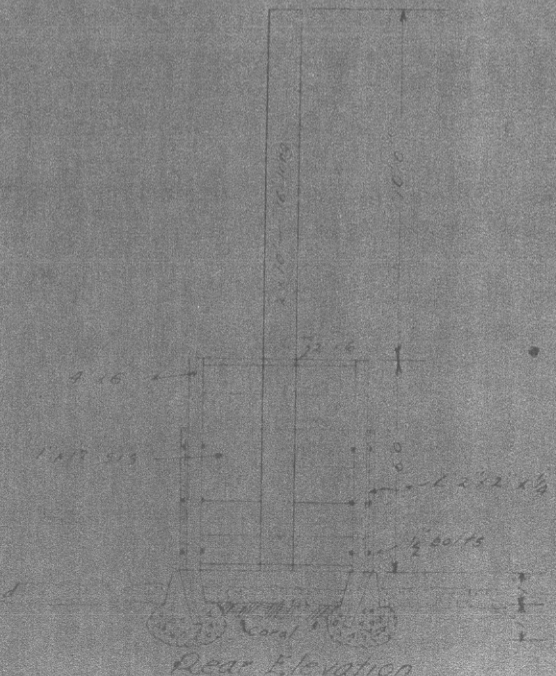
Form No. 7

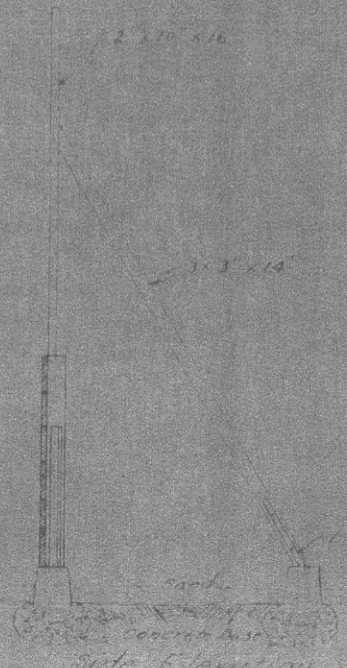
Temporary
Range Marker
Barbers Pt. No. 1
Graphical Scale

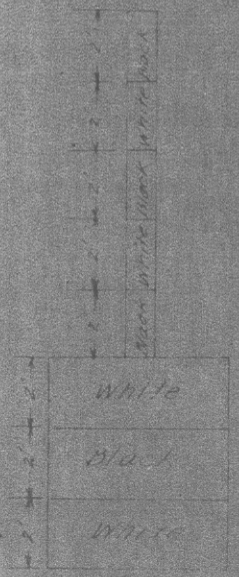












Face of the Target
painted Black and White
Scale 3/4" = 1'-0"

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July 21, 1932.

HARBOR DEFENSES OF PEARL HARBOR, BARBER'S POINT
No. 2, WEST OF BARBER'S POINT LIGHTHOUSE

STRUCTURE: RANGE MARKER.

Location	See location plans herewith
Date of Transfer	June 20, 1932
Cost to date	One hundred twenty dollars ($120.00)
Type of construction	Rough lumber and galvanized metal materials, set in concrete.
Reference of site	See plans attached

WAR DEPARTMENT — CORPS OF ENGINEERS, U.S. ARMY

REPORT OF COMPLETED WORKS
GENERAL PLAN
MAY 14, 1932.

FORM NO. 7

TEMPORARY RANGE MARKER BARBERS PT NO 2

GRAPHIC SCALE — MILES — FEET

LOCATION OF RANGE MARKER BARBERS PT NO 2
X 986930
Y 2672870

BARBERS POINT

PACIFIC OCEAN

PLAN

REAR ELEVATION

SIDE ELEVATION

FACE OF TARGET
PAINTED BLACK & WHITE

SCALE 3/4" = 1'0"

G-444

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
~~FORT~~ BARBERS POINT
BATTERY PANAMA MOUNTS
No. of guns: 4 Caliber: 155 mm Carriage: Split trail

Form 1. Corrected to June 30, 1937.

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	April 13, 1937	Sources of	None
Battery completed	June 30, 1937		
Date of transfer	August 16, 1937	Max. kw. required for lights	- - -
Cost to date of transfer	$5,174.79	Max. kw. required for motors	- - -
Materials of construction	Reinforced concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	Good
..nected to water supply	No	Rooms wet or dry	No rooms
Connected to sewer	No		
Type of latrine	None	How ventilated	- - -
		Type of data transmission	Telephone
Trunnion elevation in btry.	Approx. 10. feet		
Datum plane	M.l.l.w.	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
		Armament is not permanently emplaced and various guns may be emplaced.									

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		

None

REGRADED
...R SEC ARMY
OSS...

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

GENERAL PLAN

FORM 7 CORRECTED TO JUNE 30, 1937

SECRET

HARBOR DEFENSES OF PEARL HARBOR

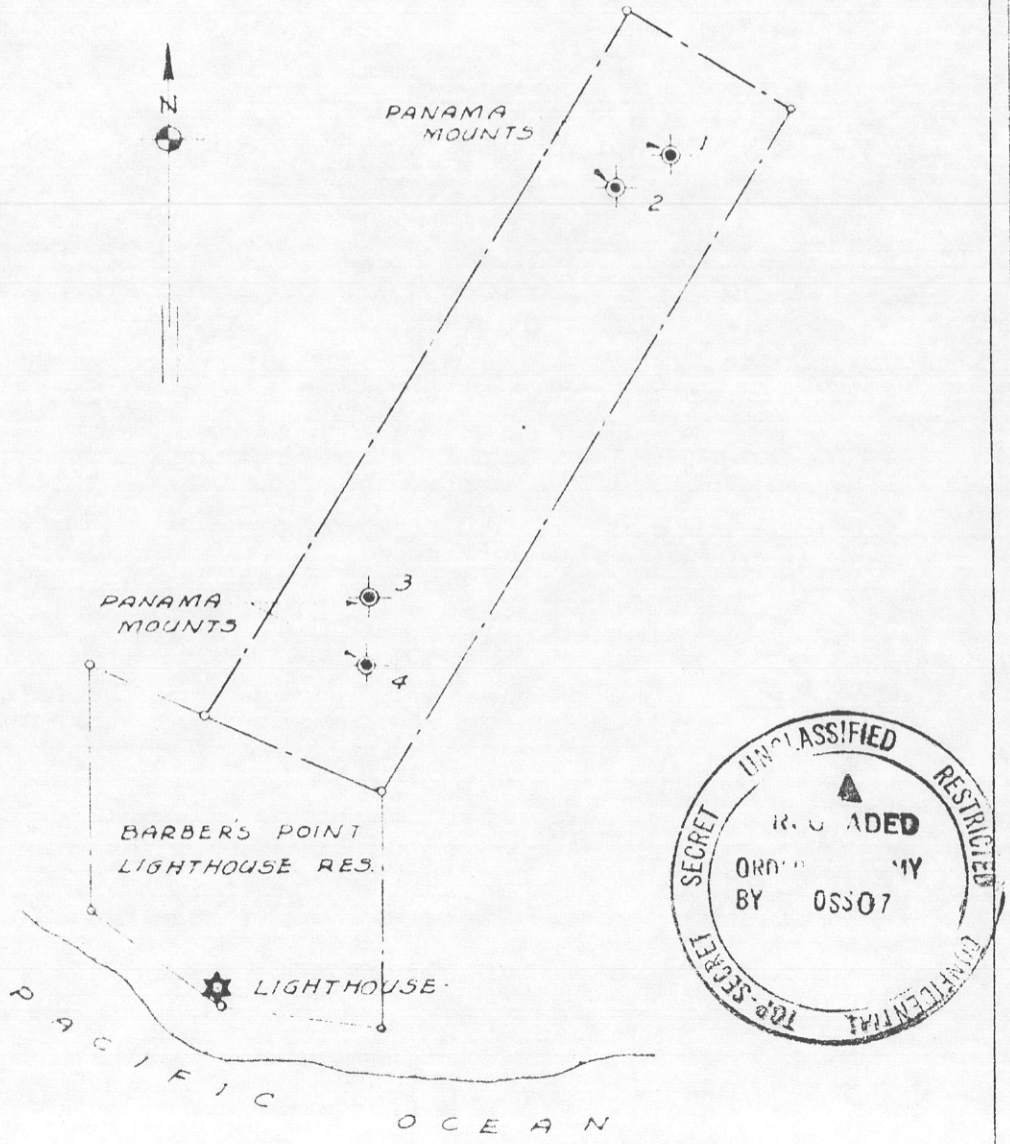
BARBER'S POINT

4 - PANAMA MOUNTS FOR 155 MM GUNS

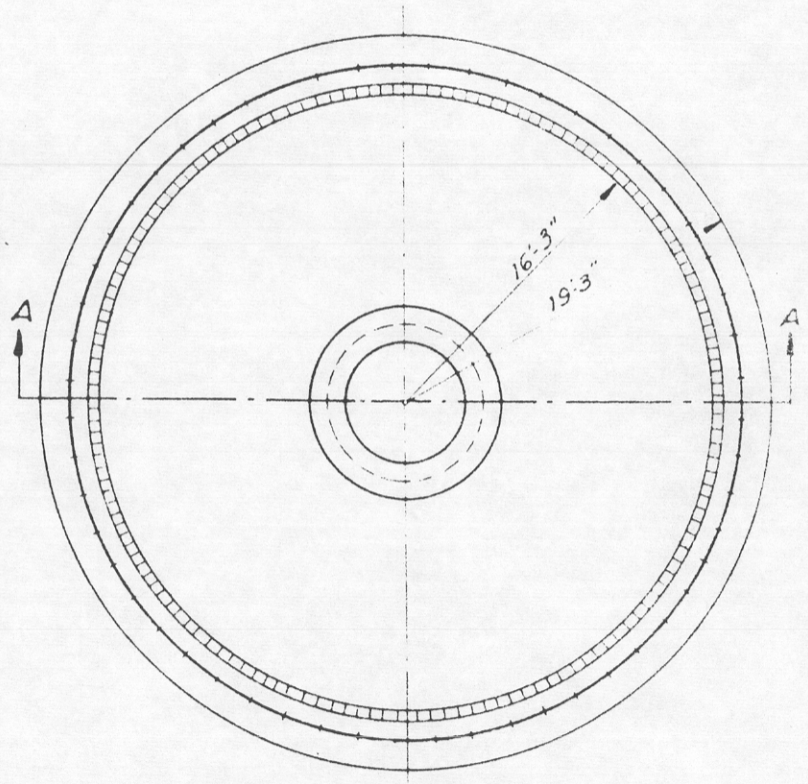
GRAPHIC SCALES

10 0 10 20 FT

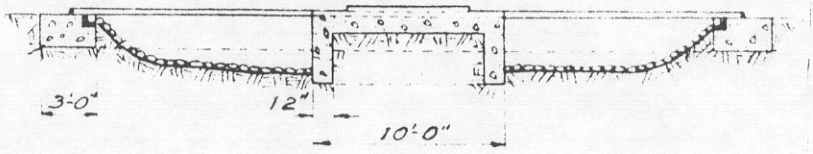
100 0 1 2 3 4 500 FT



TOP SECRET SECRET UNCLASSIFIED RESTRICTED CONFIDENTIAL
DECLASSIFIED
ORDER
BY OSS07



PLAN



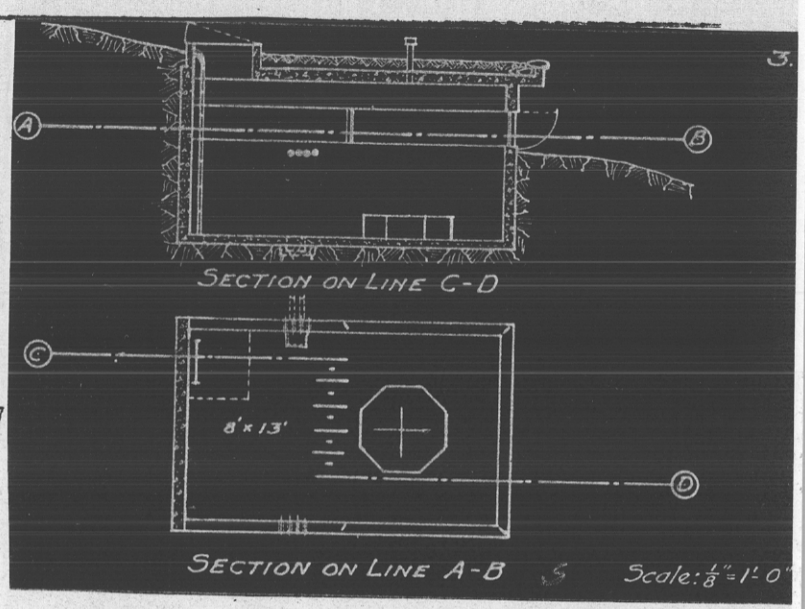
SECTION A-A

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2 Corrected to May 19, 1924.

COAST DEFENSES OF PEARL HARBOR
FORT WEAVER
STRUCTURE: FIRE CONTROL STATION S
FOR BATTERY WILLISTON

Loacation	: Kaena Point, Oahu, T. H.
Date of transfer	: April 10, 1924.
Cost to that date	: $ 3,334.94
Type of construction:	
(a) Roof	: reinforced concrete.
(b) Remainder of building	: " " .
How concealed	: Light earth covering.
How protected	: Dug-out type.
Height above concealment	: Not above.
Height above protection	: Not above.
Conspicuous at 500 yards	: No.
Source of electric current	: Local battery. (Wet, Edison #207
Kilowatts required	:Instrument lights only.
Type of lighting fixtures	: Flash lights.
How heated	: None required.
Connected to water mains	: No.
Connected to sewer	: No.
Type of latrine	: None.
Permanent or temporary installation	: Permanent.
Present condition	: Good.
Reference of site	: 576 Ft. (Top of Earth Cover)
Reference of instrument axis	: 573.01 Ft. (M. L. L. W ater)
Type of observing instrument	: D/ P. F. intended.
Type of plotting board	: None.
Type of data transmission	: Telephones intended.



See Report of Oper. Fortifications, June 1936, page 5, para. 4,
"Installed 1 D.P.F. Instrument and Bunks".

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "A", Manawahua.**
Station No. 1

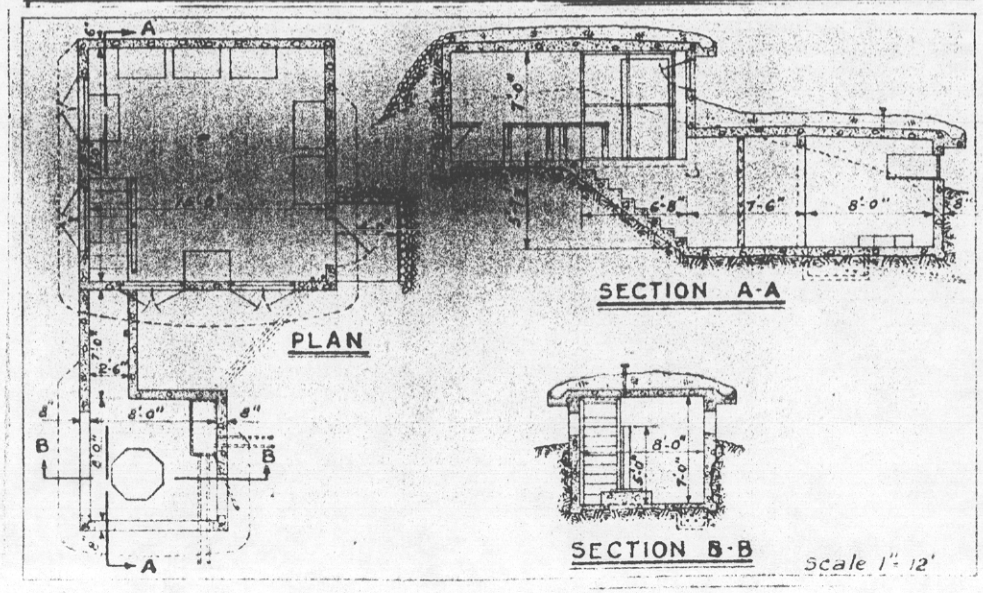
Form 2. Corrected to **December 1, 1939.**

STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939.**
Cost to that date	**$5,037.49**
Type of construction	
(a) Roof	**Rein. concrete, earth covered**
(b) Remainder of building	**Reinforced concrete.**
How concealed	**Set into ground, earth cover on roof, surrounded by trees.**
How protected	**Same**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at **500** yards	
ELECTRIC CURRENT:	
Source of	**Gas driven, 5 KW set**
Kilowatts required	**0.44 KW**
Type of lighting fixtures	**Overhead, vaporproof type**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	**--**
Present condition	**--**
REFERENCE:	
Reference of site	**2379 ft. above sea level.**
Reference of instrument axis	**2384 ft. above sea level.**
Type and capacity of crane	**None**
Max. dim. of reel handled	**--**

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF Pearl Harbor
FORT
STRUCTURE F.C. Station "A" Kamehameha
Station No. 2

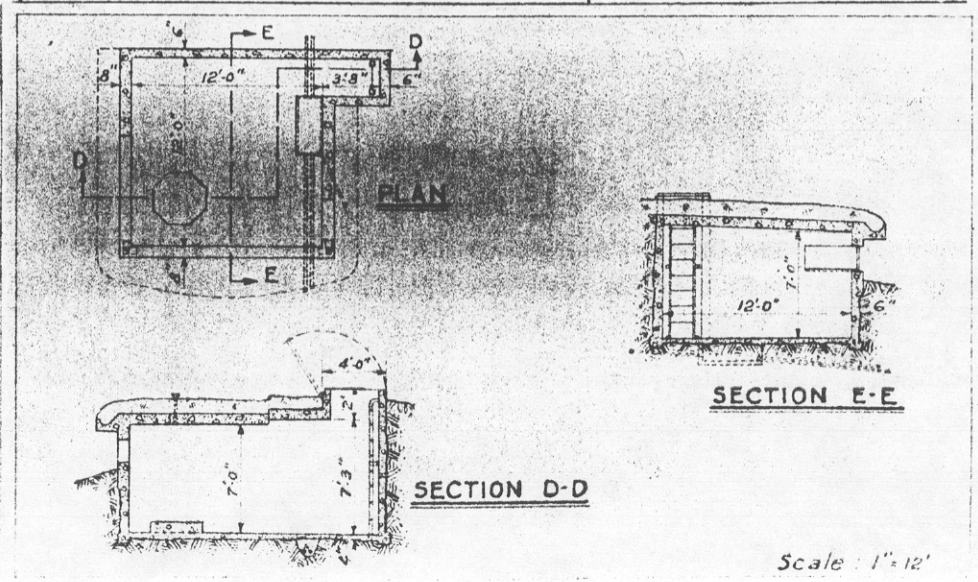
Form 2. Corrected to December 1, 1939

STRUCTURE:	
Location	Kamehameha, Oahu, T. H.
Date of transfer	November 15, 1939
Cost to that date	$2450.00
Type of construction	
(a) Roof	Mass. concrete, earth covered
(b) Remainder of building	Reinforced concrete.
How concealed	Set into ground, earth cover on roof.
How protected	None
Height above concealment	None
Height above protection	None
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	Gas driven 5 KW set.
Kilowatts required	0.04 KW
Type of lighting fixtures	Overhead vaporproof type.
HEAT:	
How heated	Not required.
WATER AND SEWER:	
Connected to water mains	Not connected.
Connected to sewer	Not connected.
Type of latrine	None
Permanent or temporary inst'l.	None
Present condition	—
REFERENCE:	
Reference of site	23.4 ft. above sea level.
Reference of instrument axis	23.9 ft. above sea level.
Type and capacity of crane	None
Max. dim. of reel handled	—

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF Pearl Harbor
FORT
STRUCTURE F. C. Station "A" Manawahua
Station No. 3.

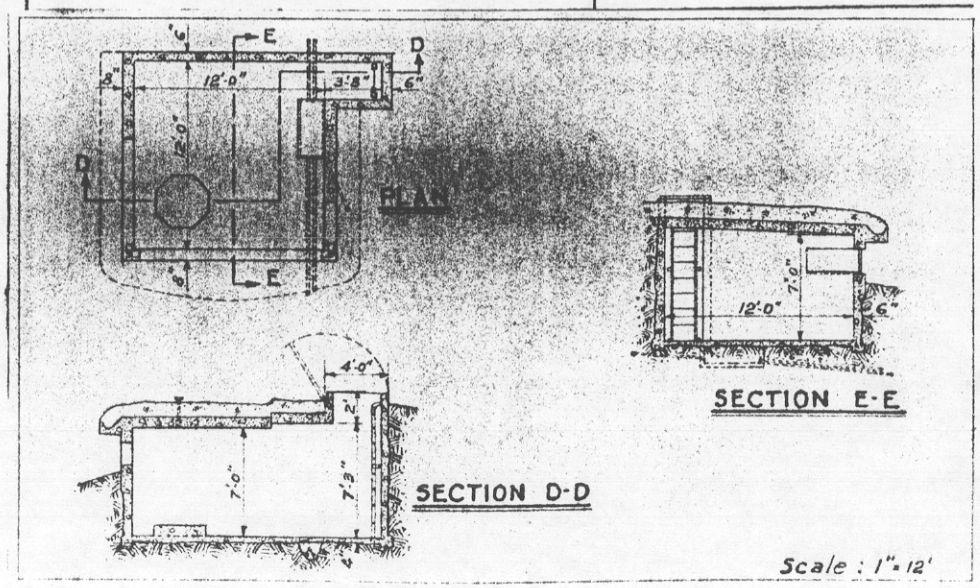
Form 2. Corrected to December 1, 1939.

STRUCTURE:	
Location	Manawahua, Oahu, T. H.
Date of transfer	November 15, 1939.
Cost to that date	$2450.00
Type of construction	--
(a) Roof	Reinf. concrete, earth covered
(b) Remainder of building	Reinforced concrete.
How concealed	Station set into ground, earth cover on roof.
How protected	Same
Height above concealment	None
Height above protection	None
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	Gas driven 5 KW set.
Kilowatts required	0.04 KW
Type of lighting fixtures	Overhead vaporproof type.
HEAT:	
How heated	Not required.
WATER AND SEWER:	
Connected to water mains	Not connected.
Connected to sewer	Not connected.
Type of latrine	None
Permanent or temporary inst'ln	None
Present condition	--
REFERENCE:	
Reference of site	2353 ft. above sea level
Reference of instrument axis	2361 ft. above sea level
Type and capacity of crane	None
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type



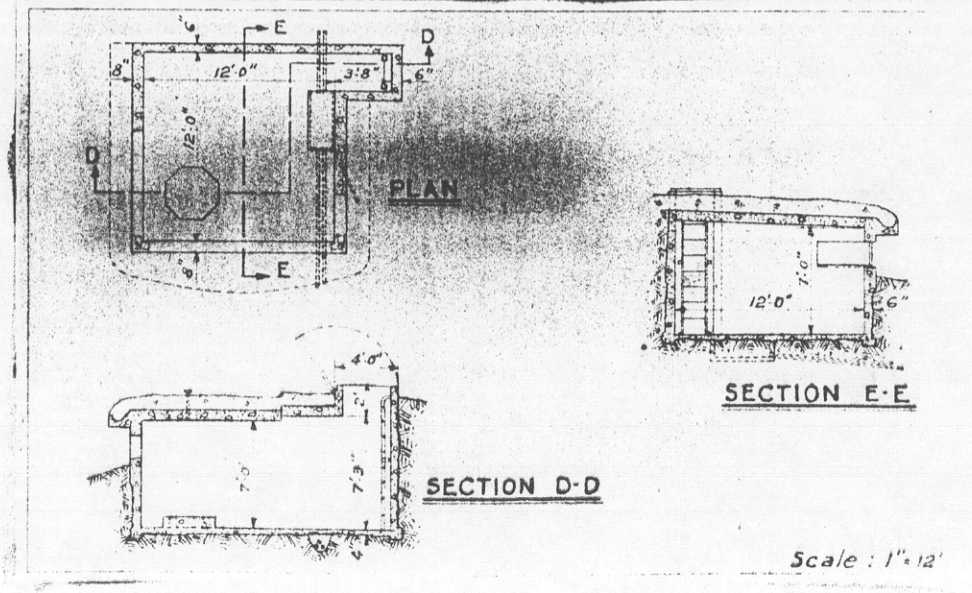
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF Pearl Harbor
FORT
STRUCTURE F. C. Station "A" Manawahua
Station No. 4

Form 2. Corrected to December 1, 1939

STRUCTURE:	
Location	Manawahua, Oahu, T. H.
Date of transfer	November 15, 1939.
Cost to that date	$2450.00
Type of construction	
(a) Roof	Rein. concrete, earth covered
(b) Remainder of building	Reinforced concrete.
How concealed	Station set into ground, earth cover on roof.
How protected	Same
Height above concealment	None
Height above protection	None
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	Gas driven 5 KW set
Kilowatts required	0.04 KW
Type of lighting fixtures	Overhead vaporproof type.
HEAT:	
How heated	Not required.
WATER AND SEWER:	
Connected to water mains	Not connected.
Connected to sewer	Not connected
Type of latrine	None
Permanent or temporary inst'ln	None
Present condition	--
REFERENCE:	
Reference of site	2347 ft. above sea level.
Reference of instrument axis	2352 ft. above sea level.
Type and capacity of crane	None
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	



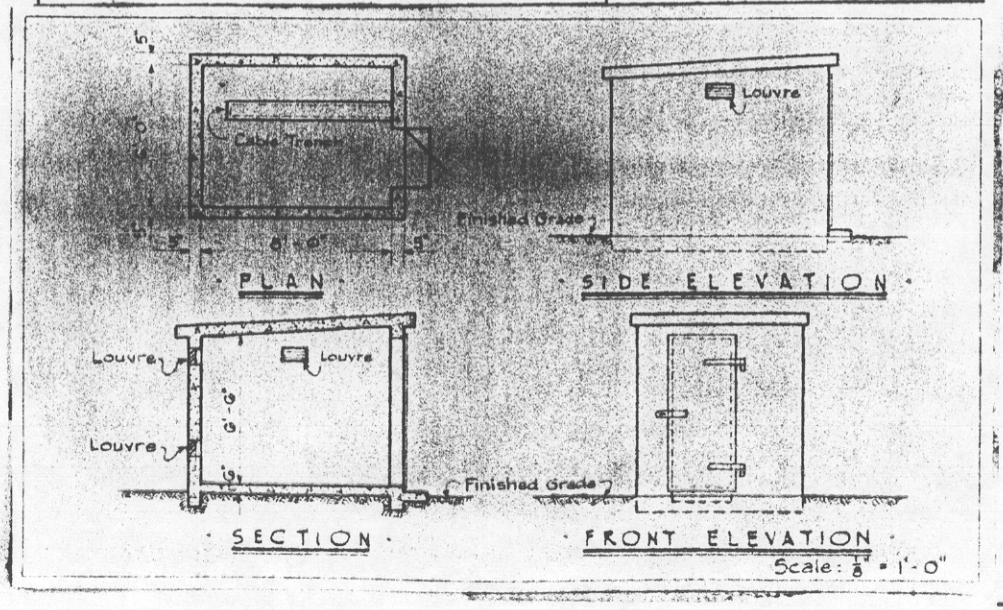
REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2. Corrected to **December 1, 1939.**

HARBOR DEFENSES OF **Pearl Harbor**
FORT —
STRUCTURE **F.C. Station "A" Manawahua, Power Plant**

STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939**
Cost to that date	**$1,959.31**
Type of construction	
(a) Roof	**Reinforced concrete**
(b) Remainder of building	**Reinforced concrete**
How concealed	**Natural vegetative growth.**
How protected	**None**
Height above concealment	**7 feet**
Height above protection	**None**
Conspicuous at **500** yards	
ELECTRIC CURRENT:	
Source of	**Gas driven 5 KW set**
Kilowatts required	**0.04 KW.**
Type of lighting fixtures	**Overhead vaporproof type**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	—
Present condition	—
REFERENCE:	
Reference of site	**2370 ft. above sea level.**
Reference of instrument axis	**None**
Type and capacity of crane	**None**
Max. dim. of reel handled	—

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	—
Type of plotting board	—
DATA TRANSMISSION:	
Type of	—
Date of transfer	—
Cost of data transmission equip.	—
For tide stations give description of tide gauge	—
For datum points give Forts from which visible	—
For dormitories give station served	—
For cable hut give S.C. type	—



with 660B (Honolulu) 120

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2. Corrected to **December 1, 1939**

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "A", Manawahua. Station No. 1**
(Command Post & F.C.)

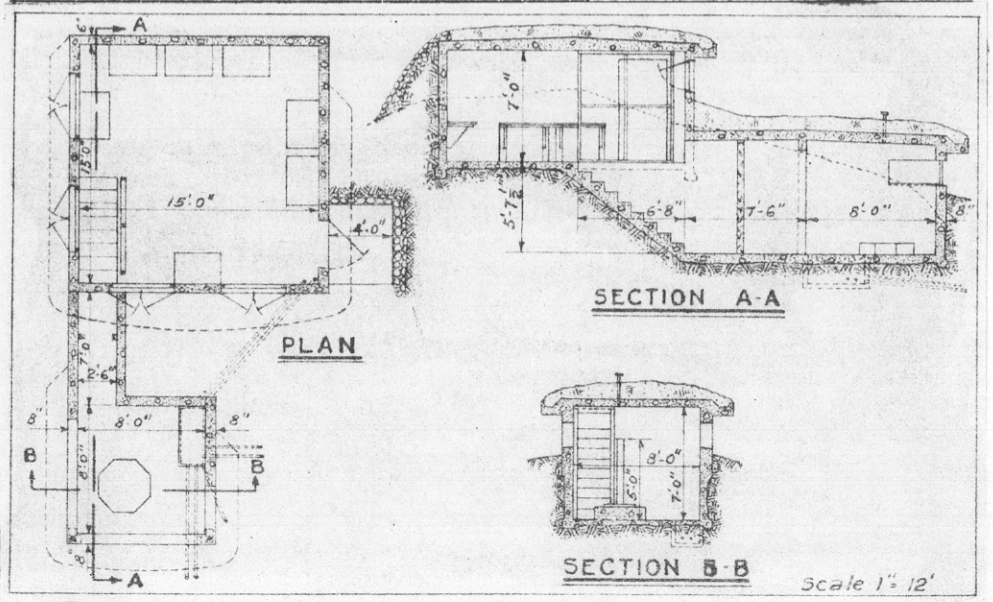
STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939**
Cost to that date	**$5,037.49**
Type of construction	
(a) Roof	**Rein. concrete, earth covered**
(b) Remainder of building	**Reinforced concrete.**
How concealed	**Set into ground, earth cover on roof, surrounded by trees.**
How protected	**Same**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at **500** yards	
ELECTRIC CURRENT:	
Source of	**Gas driven, 5 KW set**
Kilowatts required	**0.44 KW**
Type of lighting fixtures	**Overhead, vaporproof type**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	--
Present condition	--
REFERENCE:	
Reference of site	**2379 ft. above sea level.**
Reference of instrument axis	**2384 ft. above sea level.**
Type and capacity of crane	**None**
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type

Transfer Drwg. - See O.C.E. Map No. 9-105-39 (Sheet 1)



With 660B (Honolulu) 120

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

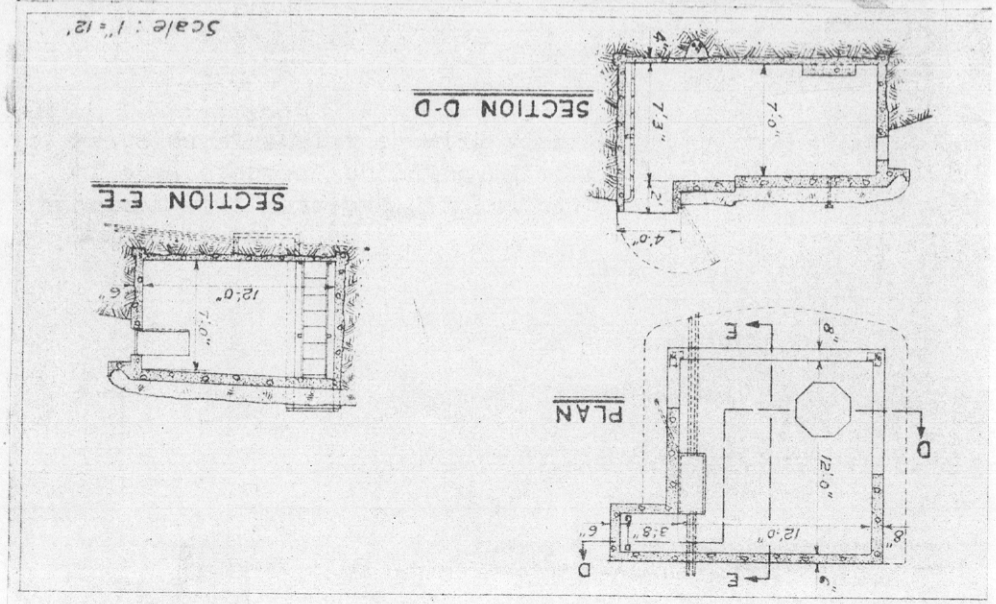
Form 2. Corrected to December 1, 1939

HARBOR DEFENSES OF Pearl Harbor
FORT
STRUCTURE F.C. Station "A" Manawahua
Station No. 2

STRUCTURE:	
Location	Manawahua, Oahu, T. H.
Date of transfer	November 15, 1939
Cost to that date	$2450.00
Type of construction	
(a) Roof	Rein. concrete, earth covered
(b) Remainder of building	Reinforced concrete.
How concealed	Set into ground, earth cover on roof.
How protected	Same
Height above concealment	None
Height above protection	None
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	Gas driven 5 KW set.
Kilowatts required	0.04 KW
Type of lighting fixtures	Overhead vaporproof type.
HEAT:	
How heated	Not required.
WATER AND SEWER:	
Connected to water mains	Not connected.
nnected to sewer	Not connected.
Type of latrine	None
Permanent or temporary inst'ln	None
Present condition	—
REFERENCE:	
Reference of site	2364 ft. above sea level.
Reference of instrument axis	2369 ft. above sea level.
Type and capacity of crane	None
Max. dim. of reel handled	—

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Transfer Drwg.- See O.C.E. Map No. 9-105-39 (sheet 2)



with 660 B (Honolulu), 20

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "A" Manawahua Station No. 3.**

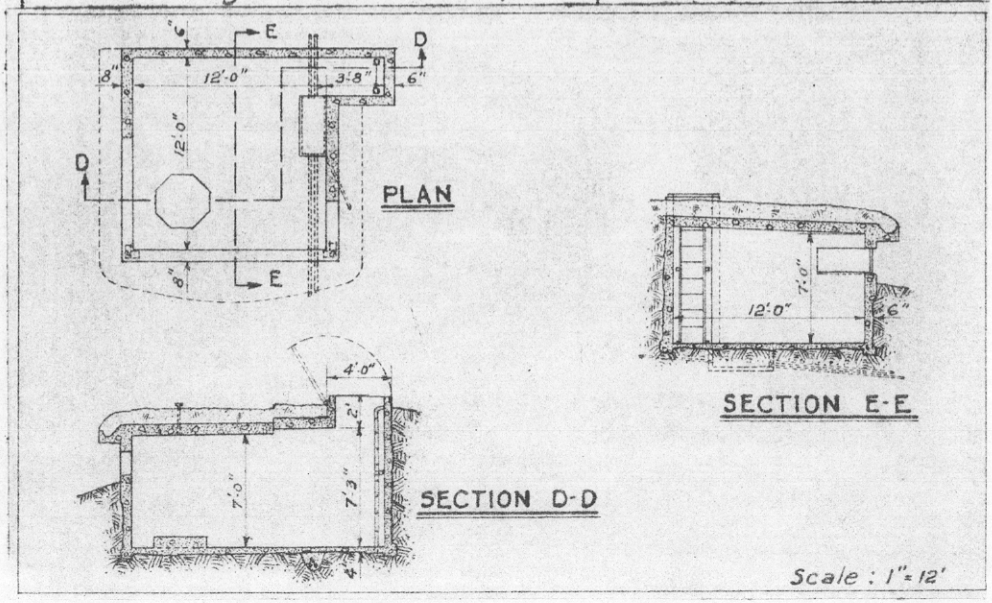
Form 2. Corrected to **December 1, 1939.**

STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939.**
Cost to that date	**$2450.00**
Type of construction	--
(a) Roof	**Rein. concrete, earth covered**
(b) Remainder of building	**Reinforced concrete.**
How concealed	**Station set into ground, earth cover on roof.**
How protected	**Same**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at **500** yards	
ELECTRIC CURRENT:	
Source of	**Gas driven 5 KW set.**
Kilowatts required	**0.04 KW**
Type of lighting fixtures	**Overhead vaporproof type.**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected.**
Connected to sewer	**Not connected.**
Type of latrine	**None**
Permanent or temporary inst'ln	**None**
Present condition	--
REFERENCE:	
Reference of site	**2356 ft. above sea level**
Reference of instrument axis	**2361 ft. above sea level**
Type and capacity of crane	**None**
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of
Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type

Transfer Drwg. - See O.C.E. Map No. 9-105-39 (sheet 2)



Hist 660B (Honolulu) 178

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

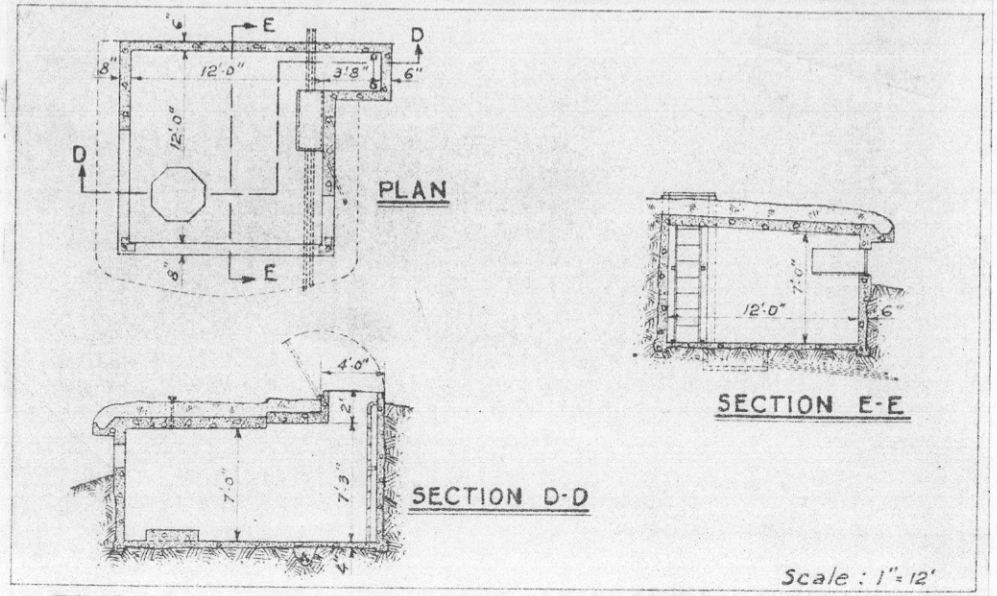
HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "A" Manawahua**
Station No. 4

Form 2. Corrected to **December 1, 1939**

STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939.**
Cost to that date	**$2450.00**
Type of construction	
(a) Roof	**Rein. concrete, earth covered**
(b) Remainder of building	**Reinforced concrete.**
How concealed	**Station set into ground, earth cover on roof.**
How protected	**Same**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	**Gas driven 5 KW set**
Kilowatts required	**0.04 KW**
Type of lighting fixtures	**Overhead vaporproof type.**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected.**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	**None**
Present condition	**--**
REFERENCE:	
Reference of site	**2347 ft. above sea level.**
Reference of instrument axis	**2352 ft. above sea level.**
Type and capacity of crane	**None**
Max. dim. of reel handled	**--**

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Transfer Drwg. - See O.C.E. Map No. 9-105-39 (sheet 2)



with 660 B (Honolulu) 120

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

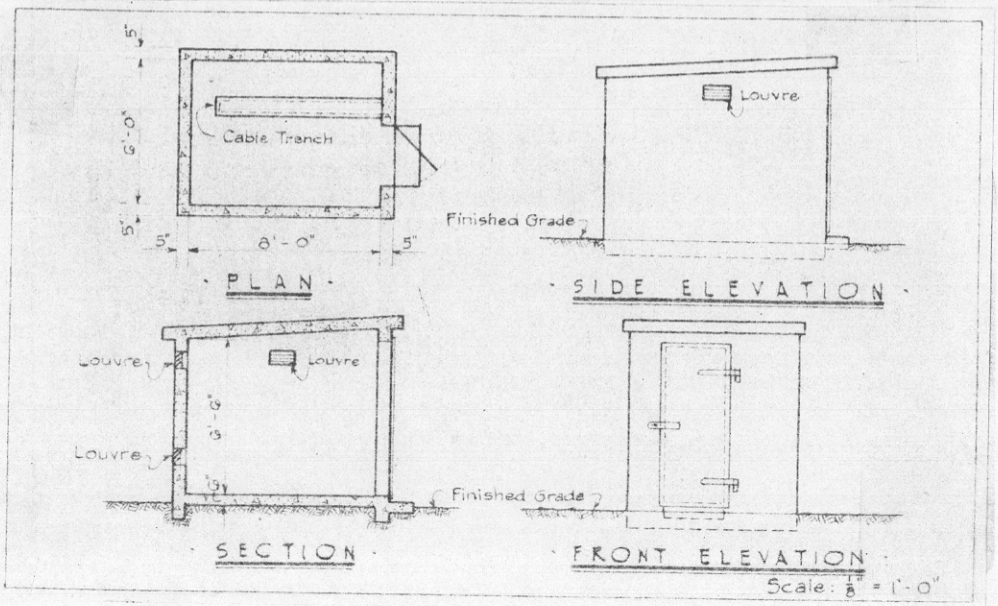
Form 2. Corrected to **December 1, 1939**

HARBOR DEFENSES OF **Pearl Harbor**
FORT --
STRUCTURE **F.C. Station "A" Manawahua, Power Plant**

STRUCTURE:	
Location	**Manawahua, Oahu, T. H.**
Date of transfer	**November 15, 1939**
Cost to that date	**$1,959.31**
Type of construction	
(a) Roof	**Reinforced concrete**
(b) Remainder of building	**Reinforced concrete**
How concealed	**Natural vegetative growth.**
How protected	**None**
Height above concealment	**7 feet**
Height above protection	**None**
Conspicuous at 500 yards	
ELECTRIC CURRENT:	
Source of	**Gas driven 5 KW set**
Kilowatts required	**0.04 KW.**
Type of lighting fixtures	**Overhead vaporproof type**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	--
Present condition	--
REFERENCE:	
Reference of site	**2370 ft. above sea level.**
Reference of instrument axis	**None**
Type and capacity of crane	**None**
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	--
Type of plotting board	--
DATA TRANSMISSION:	
Type of	--
Date of transfer	--
Cost of data transmission equip.	--
For tide stations give description of tide gauge	--
For datum points give Forts from which visible	--
For dormitories give station served	--
For cable hut give S.C. type	--

Transfer Drwg - See O.C.E. Map No. 9-105-39 (Sheet 3)



Site 660 B (Honolulu) 120

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

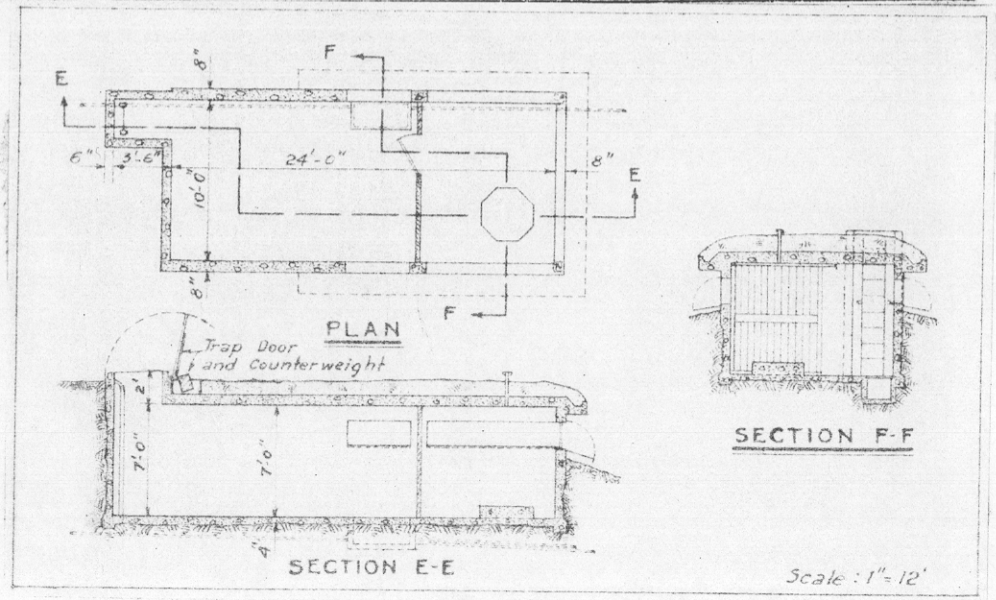
Form 2. Corrected to **December 1, 1939**

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F. C. Station "K" Kahuku Lower Station**

STRUCTURE:	
Location	**Kahuku, Oahu, T. H.**
Date of transfer	**May 9, 1939.**
Cost to that date	**$3,476.60**
Type of construction	
a) Roof	**Rein. Concrete, earth cover**
b) Remainder of building	**Reinforced concrete.**
How concealed	**Station set into ground, earth cover on roof.**
How protected	**Same**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source of	**None**
Kilowatts required	**None**
Type of lighting fixtures	**None**
HEAT:	
How heated	**Not required**
WATER AND SEWER:	
Connected to water mains	**Not connected**
Connected to sewer	**Not connected.**
Type of latrine	**None**
Permanent or temporary inst'ln	--
Present condition	--
REFERENCE:	
Reference of site	**367.5 ft. above sea level**
Reference of instrument axis	**372.5 ft. above sea level.**
Type and capacity of crane	**None**
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	
Type of plotting board	
DATA TRANSMISSION:	
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Transfer Drwg - See O.C.E. Map No. 9-105-40 (Sheet 2)



Hawaii 660B (Honolulu) 120

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

HARBOR DEFENSES OF **Pearl Harbor**
FORT
STRUCTURE **F.C. Station "K" Kahuku**
Upper Station

Form 2. Corrected to **December 1, 1939**

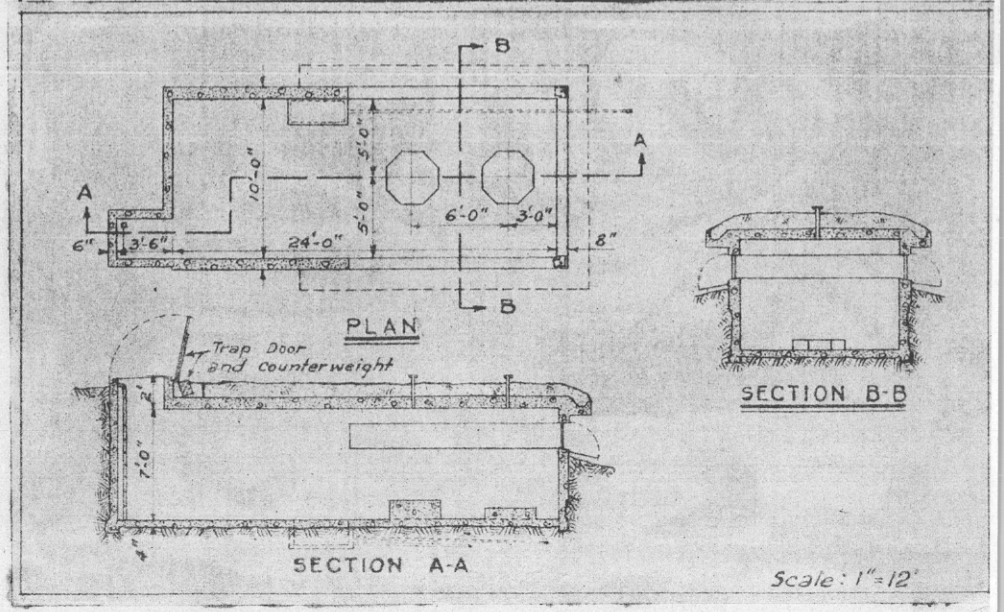
STRUCTURE:	
Location	**Kahuku, Oahu, T. H.**
Date of transfer	**May 9, 1939.**
Cost to that date	**$3,476.60**
Type of construction	
(a) Roof	**Rein. Concrete, earth cover.**
(b) Remainder of building	**Reinforced concrete**
How concealed	**Station set into ground, earth cover on roof.**
How protected	**Same.**
Height above concealment	**None**
Height above protection	**None**
Conspicuous at **2000** yards	
ELECTRIC CURRENT:	
Source of	**None**
Kilowatts required	**None**
Type of lighting fixtures	**None**
HEAT:	
How heated	**Not required.**
WATER AND SEWER:	
Connected to water mains	**Not connected.**
Connected to sewer	**Not connected**
Type of latrine	**None**
Permanent or temporary inst'ln	--
Present condition	--
REFERENCE:	
Reference of site	**375.0 ft. above sea level**
Reference of instrument axis	**380.0 ft. above sea level**
Type and capacity of crane	**None**
Max. dim. of reel handled	--

INSTRUMENTS AND EQUIPMENT:
Type of observing inst.
Type of plotting board

DATA TRANSMISSION:
Type of

Date of transfer
Cost of data transmission equip.
For tide stations give description of tide gauge
For datum points give Forts from which visible
For dormitories give station served
For cable hut give S.C. type

Transfer Drwg. - See O.C.E. Map No. 9-105-40 (Sheet 1)



REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.

Form No. 1. Corrected to February 20, 1932

MAKUA, OAHU, T. H.
BATTERY: See below
No. of Guns: None
3 Emplacements for 240 m.m. Howitzers.

Battery commenced	July 17, 1930	Source of electric current	None provided
Battery completed	November 29, 1930		
Date of transfer	January 22, 1932	Max. kw. required for lights	
		" " motors	
Material of construction	Concrete		
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost of transfer to date	$9,150.51	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	Now ventilated	Not required
Type of latrine	None provided	REMARKS:	Armament in storage at
Type of data transmission	None		Hawaiian Ordnance Depot

ARMAMENT

None mounted

HOISTS

None

MOTOR

None

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

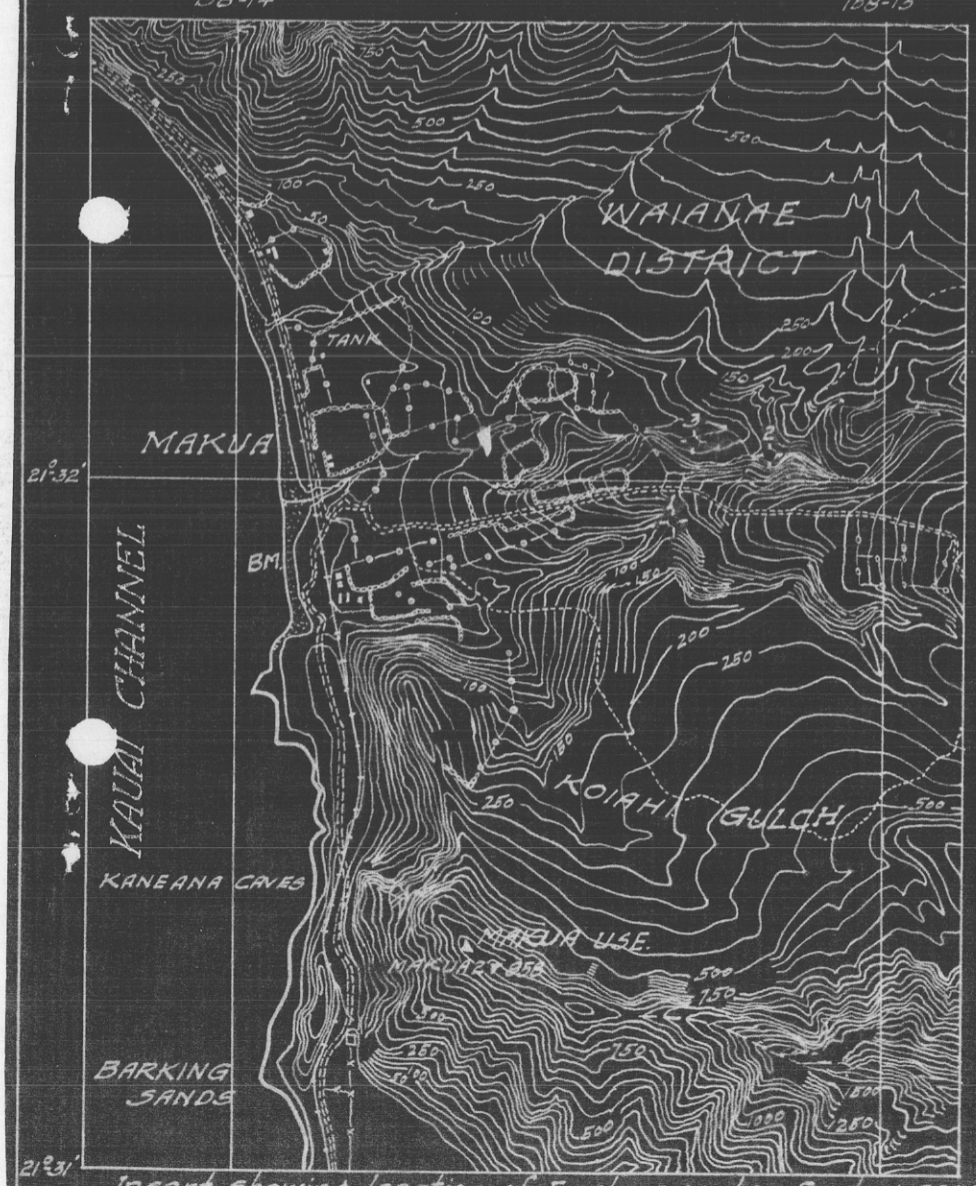
Graphic Scales

0 500' 1000' 2000' 3000'

12" 0 5' 10' 15'

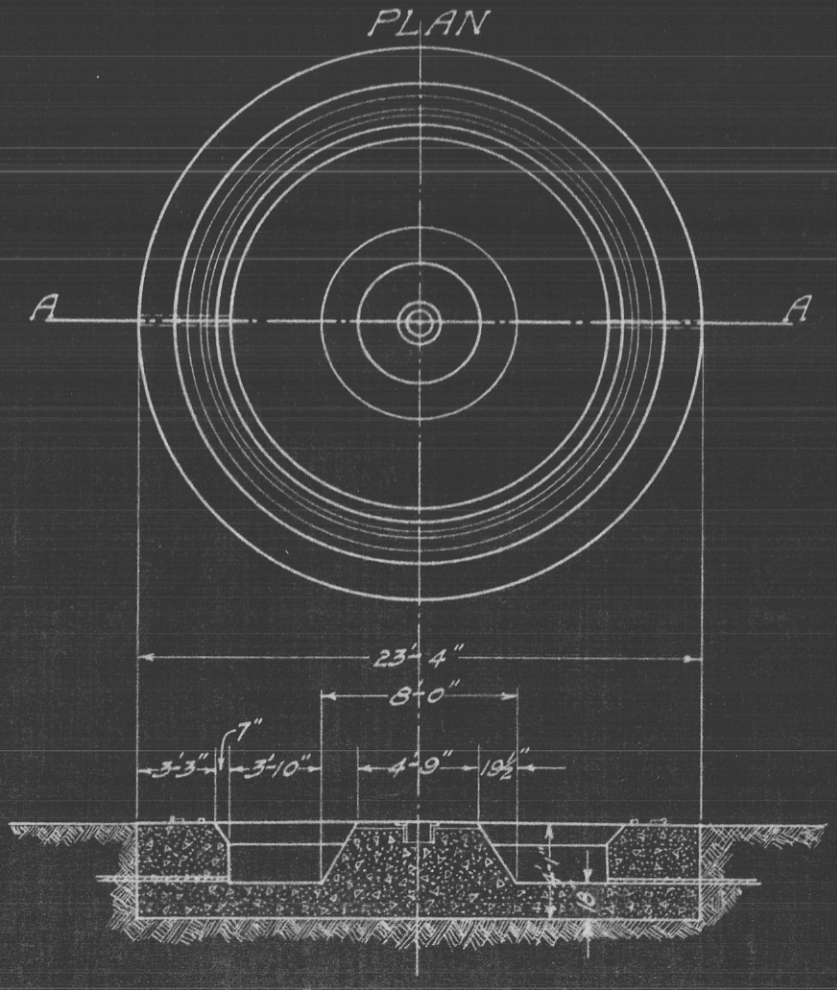
MAKUA OAHU, T.H.

3-240 M.M. Howitzer Emplacements.



Insert showing location of Emplacements Scale: 1:20000

Insert from U.S.G.S map:-Kaena Quadrangle-Island of Oahu - T.H.



SECTION A-A

SCALE = 1 inch = 8 feet

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

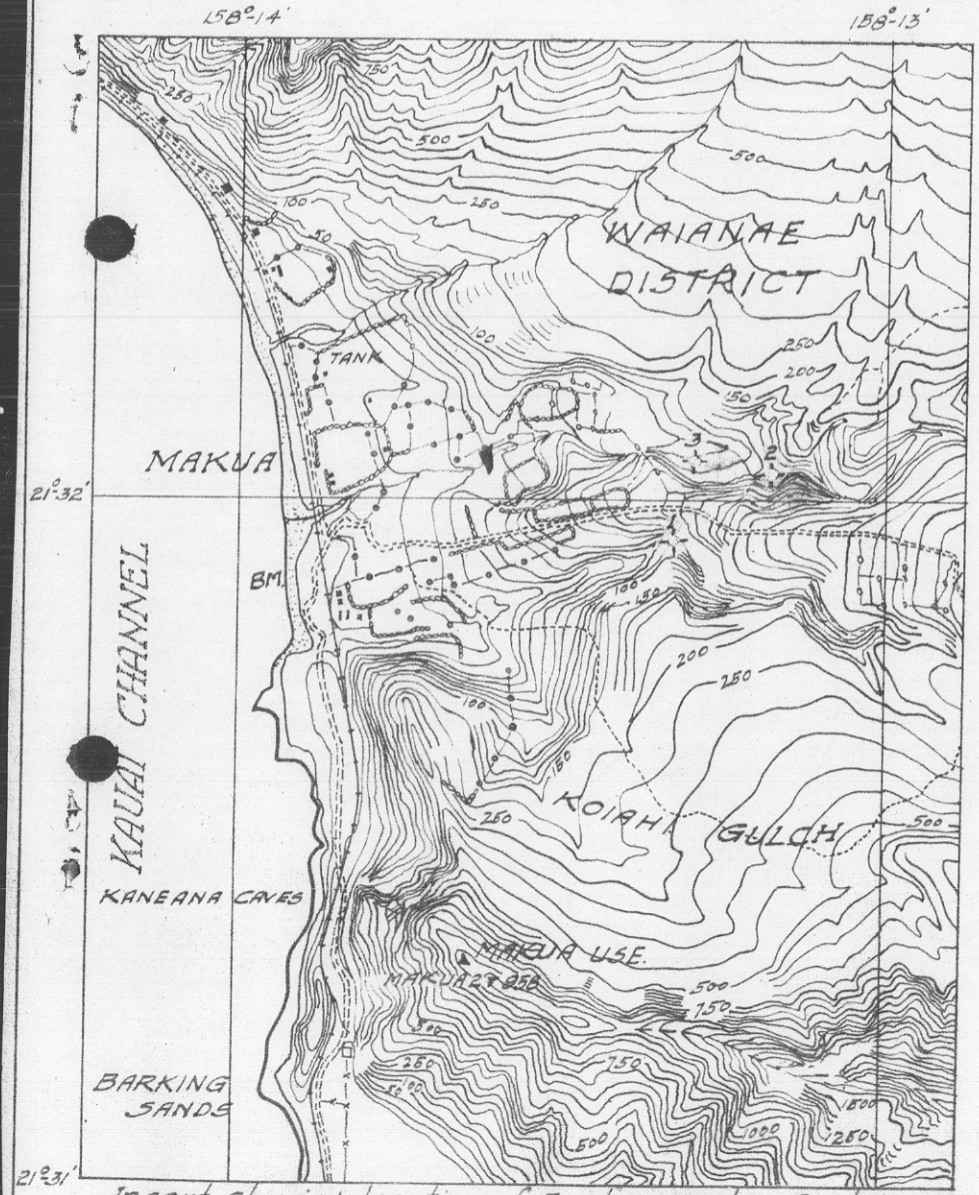
Graphic Scales

0 500' 1000' 2000' 3000'

12" 0 5' 10' 15'

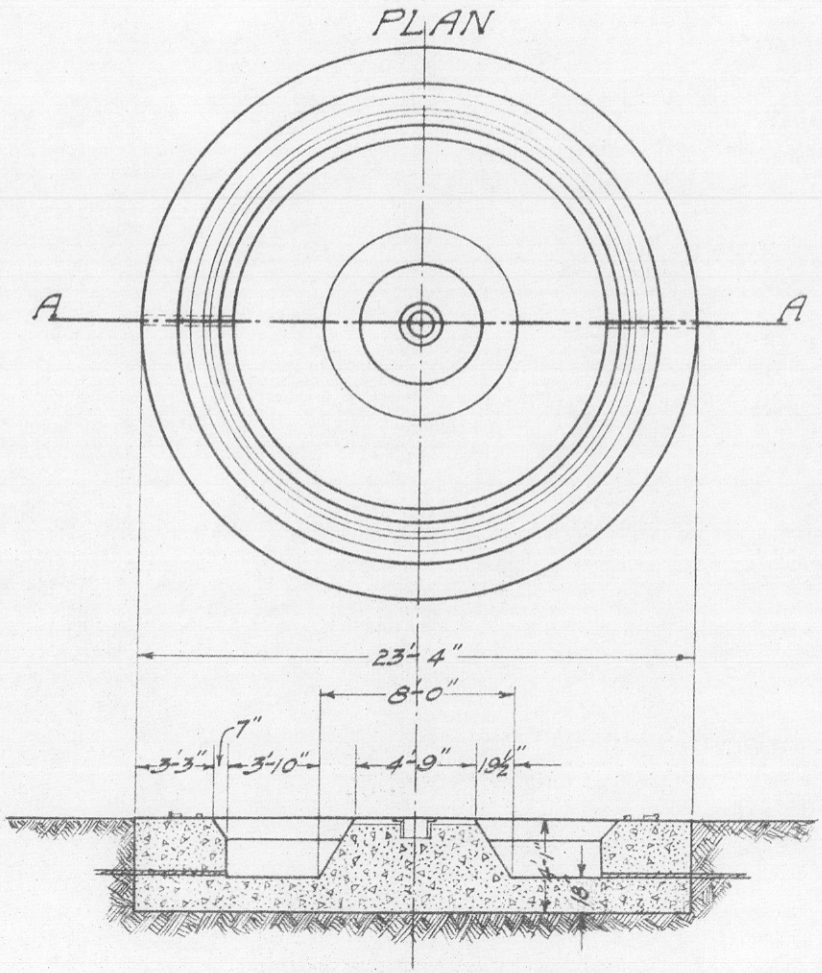
MAKUA OAHU, T.H.

3-240 M.M. Howitzer Emplacements.



Insert Showing location of Emplacements Scale: 1:20000

Insert from U.S.G.S map: Kaena Quadrangle - Island of Oahu - T.H.



SECTION A-A

SCALE = 1 inch = 8 feet

660 (Oahu) CM 19487

11/9/42

Oahu

155 mm Batteries

9 - 155 mm. Emplacements, Makua

with ammunition shelters and BC station

Note: above description is assumed to be correct; no record of a battery at this location.

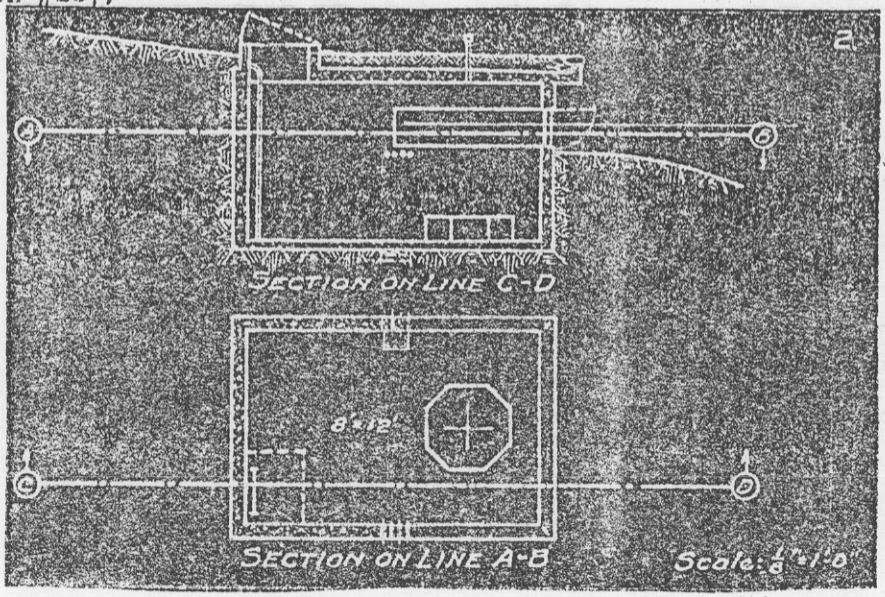
Above completed works accepted for use and care by troops Nov. 9, 1942.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2 Corrected to May 1[illegible] 1924.

COAST DEFENSES OF PEARL HARBOR
FORT WEAVER
STRUCTURE: F. C. STATION S' FOR
BATTERY WILLISTON.

Location	: Kepuhi Point.(4 miles N.W. of Waianae)
Date of Transfer	: April 10, 1924.
Cost to that date	: $ 4,626.00
Type of Construction:	
(a) Roof	: Reinforced concrete.
(b) Remainder of building	: " " .
How concealed	: Light earth covering.
How protected	: Dug-Out type
Height above concealment	: Not above.
Height above protection	: " " .
Conspicuous at 500 yards.	: No.
Source of electric current	: Local battery (Wet,Edison #207)
Kilowatts required	: Instruments only.
Type of lighting fixtures.	: Flash lights.
How heated	: None required.
Connected to water mains	: No.
Connected to sewer	: No.
Type of latrine	: None.
Permanent or temporary installation	: Permanent.
Present condition	: Good.
Reference of site.	: 1160 (Approx.)
Reference of instrument axis	: 1157 "
Type of observing instrument	: D. P. F. intended.
Type of plotting board	: None.
Type of data transmission	: Telephones intended.



10

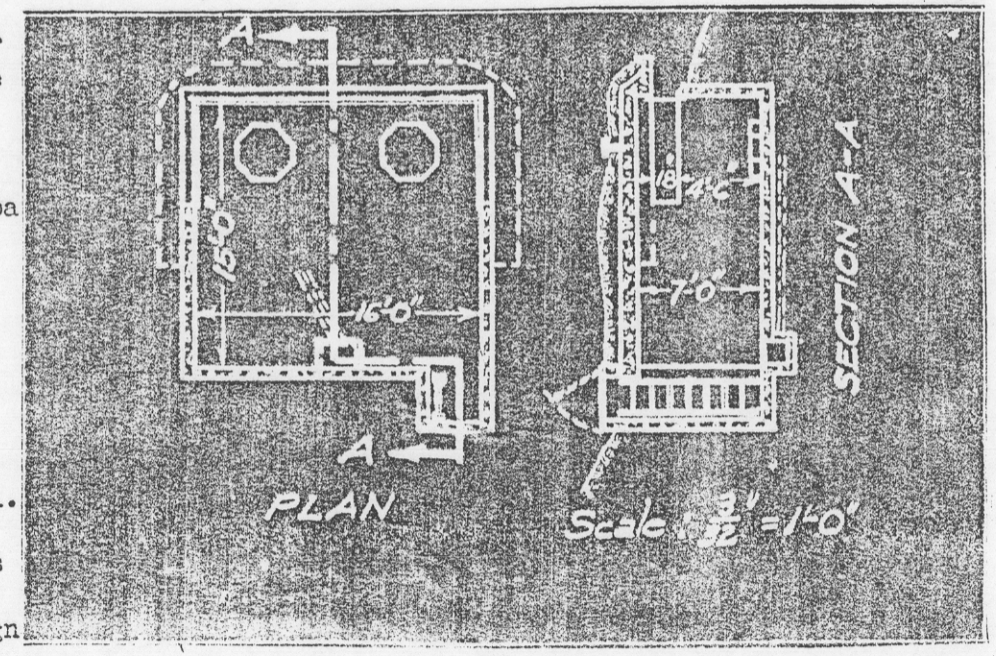
U. S. ENGINEER OFFICE
SOUTH PACIFIC DIVISION
DEC 19 1934
SAN FRANCISCO, CAL.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

FORM NO. 2. Corrected to Dec. 5, 1934.

HARBOR DEFENSES OF PEARL HARBOR
Structure: Fire Control Station "S'" Kepuhi
for Battery Hatch, Fort BARRETTE, T. H.

Location	U.S. Gov't. Trig. Sta. Kepuhi Az. 53° 00' - Dist. 51.2'
Date of transfer	November 30, 1934
Cost to date	$4,089.19
Type of construction:	
(a) Roof	Reinforced concrete
(b) Remainder of building	" "
How concealed	Earth fill on roof
" protected	Cut and cover type
Height above concealment	Not above
" " protection	" "
Conspicuous at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1 KW
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
" " sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	1,261.0' above m.l.
" " instrumental axis	1,262.0' m.l.l.w.
Type of observing instrument	D.P.F. instruments
" " plotting board	None
" " data transmission	Telephones (by Sign



See Report of Operations, Fortification Work, March, 1936, Honolulu, T.H., page 5 — "Installed D.P.F. instrument".

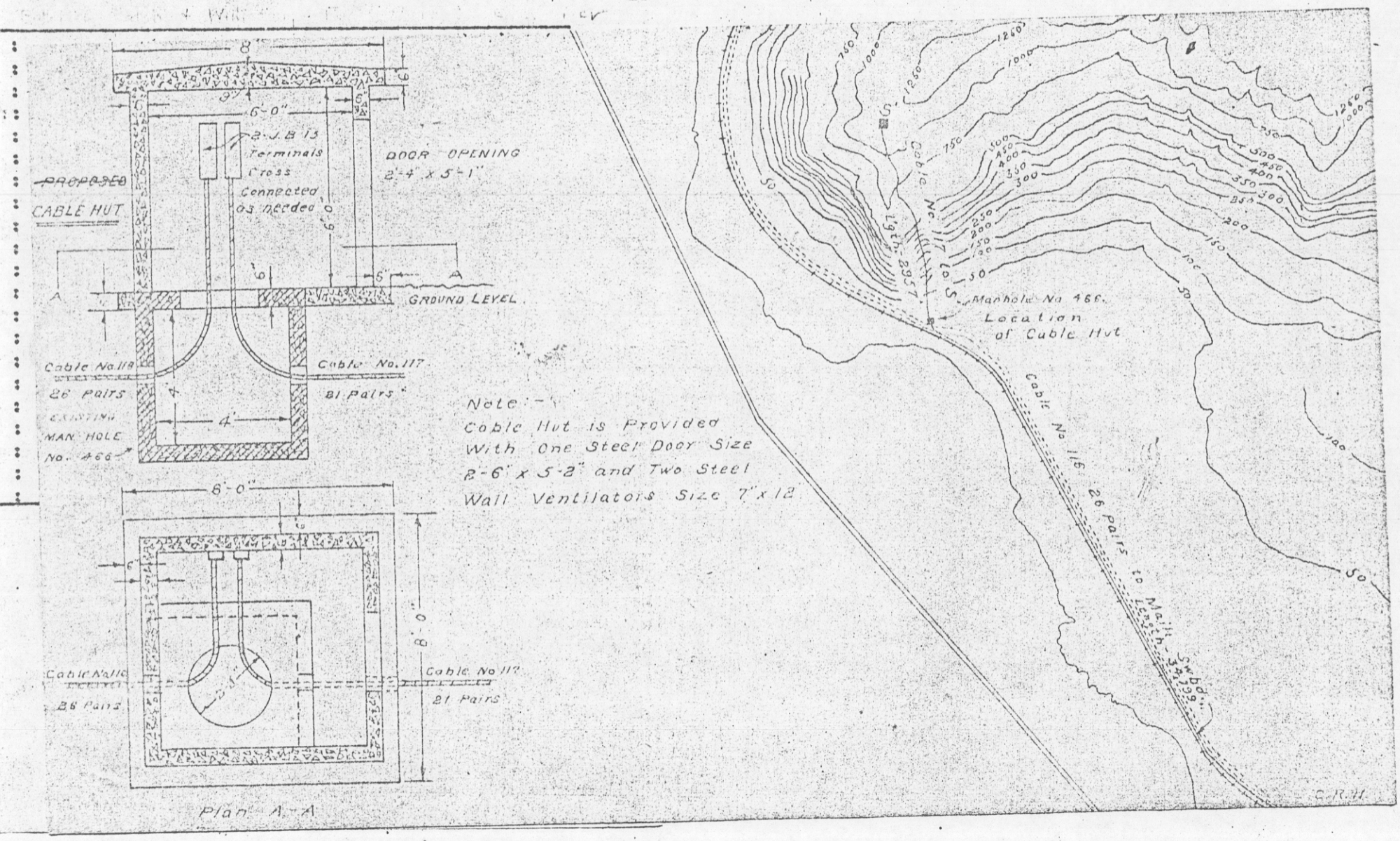
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to January 4, 1931

Authority	14th Ind.,letter C.O.,H.D.P.H. to C.G.,H.S.C.A.B.,Ft. De Russy, Dec. 11, 1930, file 676.1.
Location	Makaha Land Section, District of Waianae, Oahu, T. H.
Type of construction:	Concrete
How ventilated:	2 Wall Ventilators 7" x 12"
Cost to date:	
a. Labor	$243.29
b. Material	156.71
Total cost	$400.00
Date of transfer	December 19, 1931

HARBOR DEFENSES OF PEARL HARBOR

St. ture: Cable Hut, Makaha



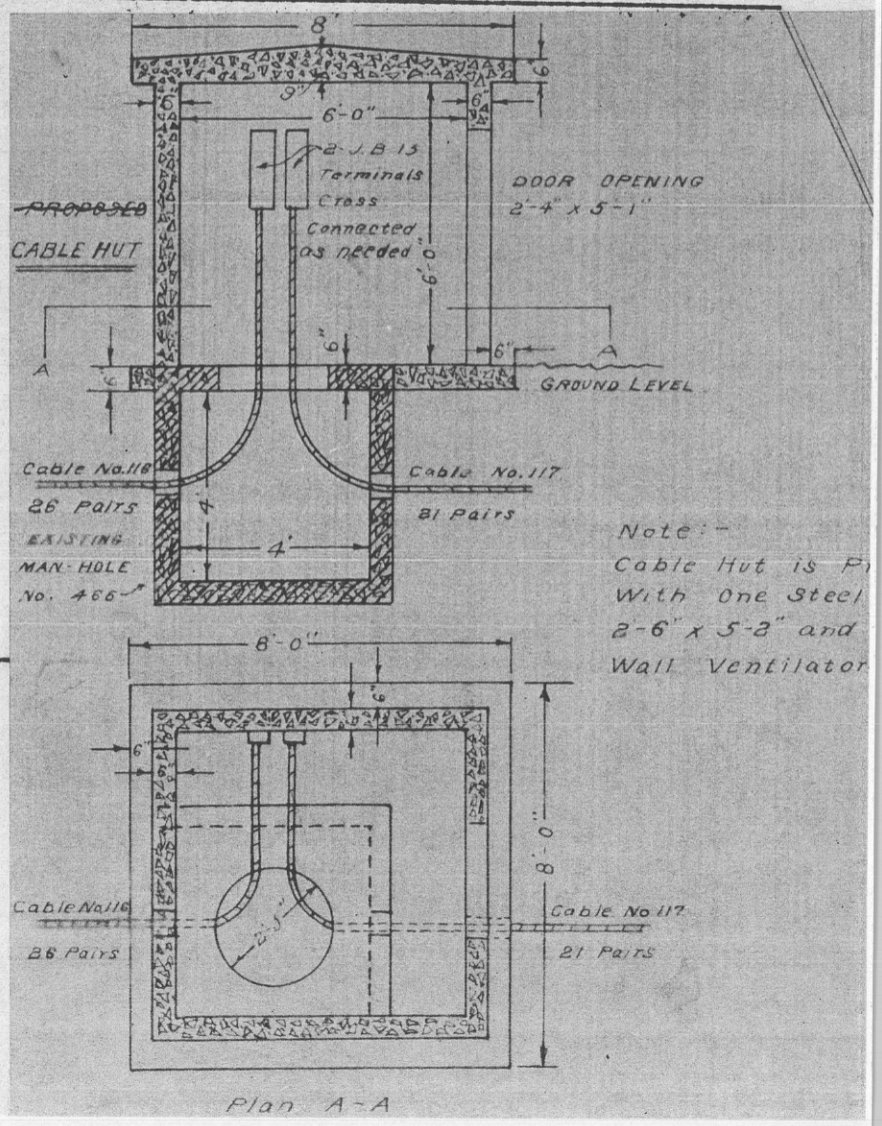
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to January 4, 1931

HARBOR DEFENSES OF PEARL HARBOR

Structure: Cable Hut, Makaha

Authority	14th Ind.,letter C.O.,H.D.P.H. to C.G.,H.S.C.A.B.,Ft. De Russy, Dec. 11, 1930, file 676.1.
Location	Makaha Land Section, District of Waianae, Oahu, T. H.
Type of construction:	Concrete
How ventilated:	2 Wall Ventilators 7" x 12"
Cost to date:	
a. Labor	$243.29
b. Material	156.71
Total cost	$400.00
Date of transfer	December 19, 1931



665(Pearl Harbor) 86

Ref 660B (Honolulu) -143

REPORT OF COMPLETED WORKS -- SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
BATTERY KOLEKOLE
No. of guns: 2 Caliber: 240MM Carriage: 240MM Howitzer Model 1918 (Schneider)

Form 1. Corrected to

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	June 15, 1939	Sources of	None
Battery completed	Mar. 30, 1941	Max. kw. required for lights	
Date of transfer	Apr. 3, 1941	Max. kw. required for motors	
Cost to date of transfer	$293.75 *		
Materials of construction	Reinforced Concrete	Present condition of battery	None 12-26-41 (Date)
Type of cement	Portland	Rooms wet or dry	
WATER AND SEWER:			
Connected to water supply	None	How ventilated	Open
Connected to sewer		Type of data transmission	Telephone
Type of latrine			
Trunnion elevation in btry.	(1) 1465.55 (2) 1447.92	Remarks	Guns not permanently placed
Datum plane	M.L.L.W.		

#1 of 5

SECRET

By Authority of the District Engineer
Honolulu, T. H.

Officer Affixing

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
		Armament is not permanently emplaced. Guns of various type and caliber may be emplaced.									

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
NONE										

*Total cost as of September, 1941, is $545.91.

SECRET

660B (Honolulu) - 143

WAR DEPARTMENT

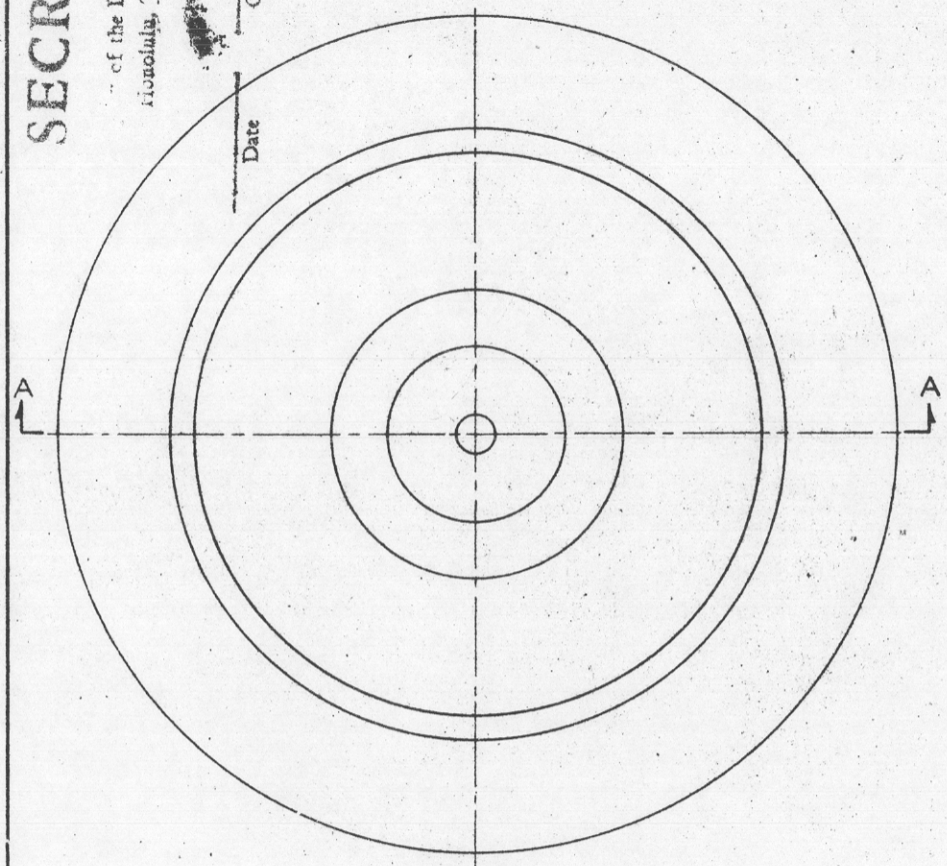
CORPS OF ENGINEERS, U.S. ARMY

SECRET

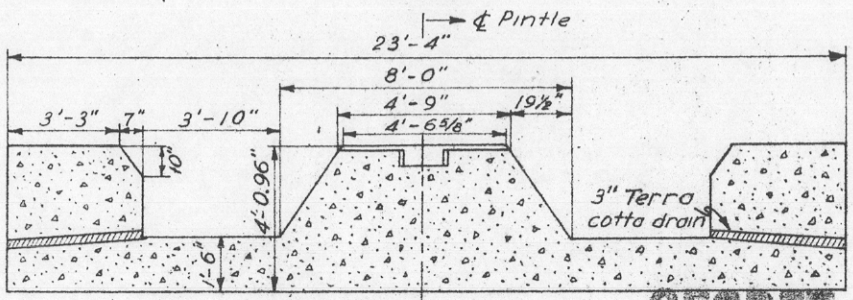
... of the Dist... Engineer,
Honolulu, T. H.

Off...

Date

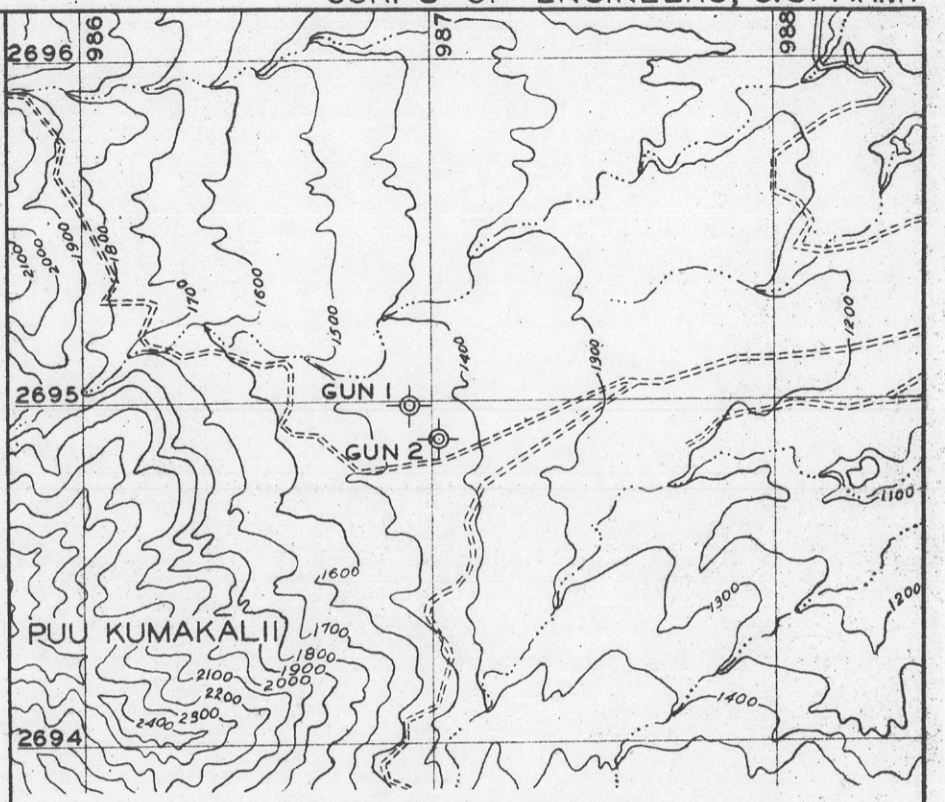


PLAN



SECTION . A-A

SECRET



LOCATION MAP

SCALE IN FEET

2000 0 2000 4000

SERIAL NO. I (SECRET)

COPY NO. 1

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

KOLE KOLE PASS, OAHU, T.H.

240MM GUN POSITIONS

LOCATION AND DETAIL

U. S. ENGINEER OFFICE HONOLULU, T. H.

FILE NO. F-1/86

6-633

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Form 1. Corrected to

HARBOR DEFENSES OF **PEARL HARBOR**
FORT **KAMEHAMEHA**
BATTERY **KOLEKOLE**
No. of guns: **2** Caliber: **240 MM** Carriage: **240MM Howitzer Model 1918 (Schneider)**

GENERAL:	
Battery commenced	**June 15, 1939**
Battery completed	**Mar. 30, 1941**
Date of transfer	**Apr. 3, 1941**
Cost to date of transfer	**$293.75 ***
Materials of construction	**Reinforced Concrete**
Type of cement	**Portland**
WATER AND SEWER:	
Connected to water supply	**None**
Connected to sewer	
Type of latrine	
Trunnion elevation in btry.	**(1) 1465.55 (2) 1447.92**
Datum plane	**M.L.L.W**

ELECTRIC CURRENT:	
Sources of	**None**
Max. kw. required for lights	
Max. kw. required for motors	
Present condition of battery	**None**
Rooms wet or dry	
How ventilated	**Open**
Type of data transmission	**Telephone**
Remarks	**Guns not permanently placed.**

SECRET

By Authority of the District Engineer
Honolulu, T. H.

Date Officer

#5 of 5

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Armament is not permanently emplaced. Guns of various type and caliber may be emplaced.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points

*** Total cost as of September, 1941 is $545.91**

NONE

SECRET

WAR DEPARTMENT

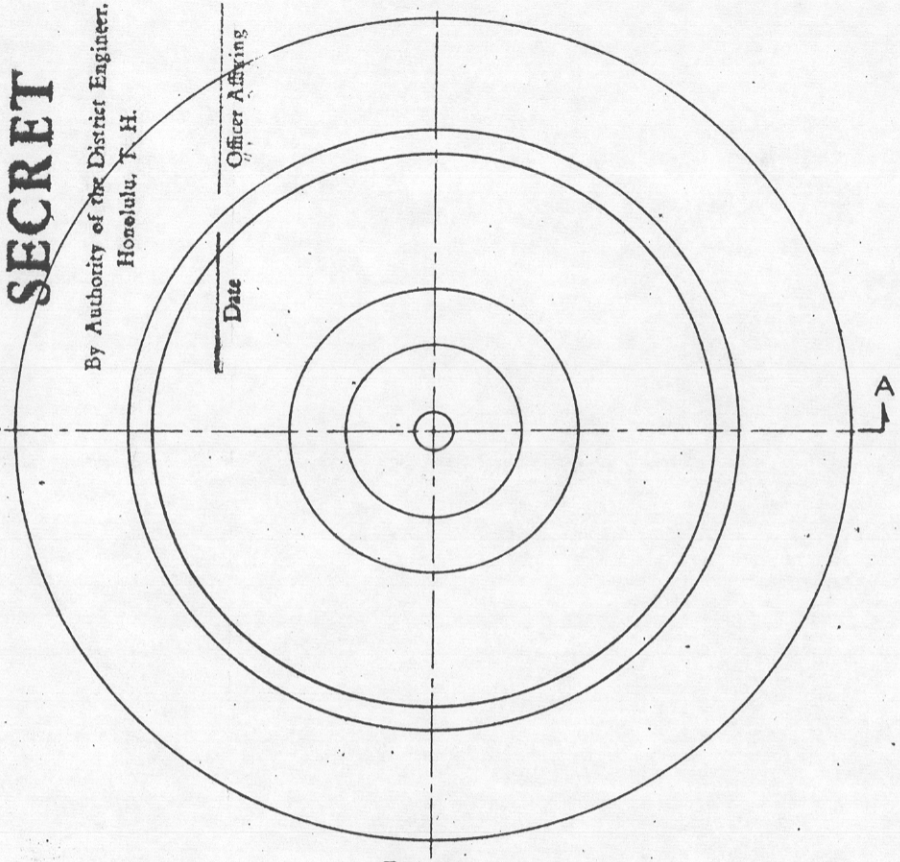
CORPS OF ENGINEERS, U.S. ARMY

SECRET

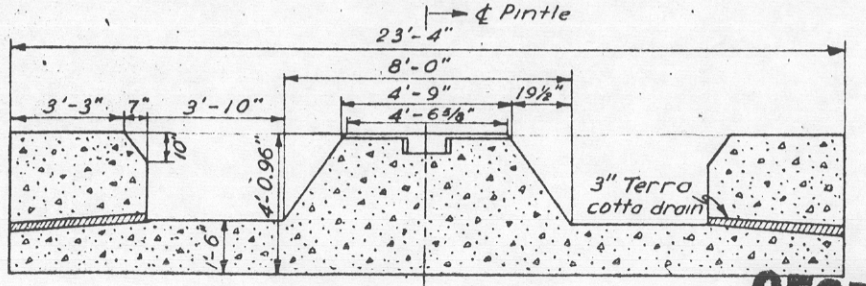
By Authority of the District Engineer.
Honolulu, T. H.

Officer Acting

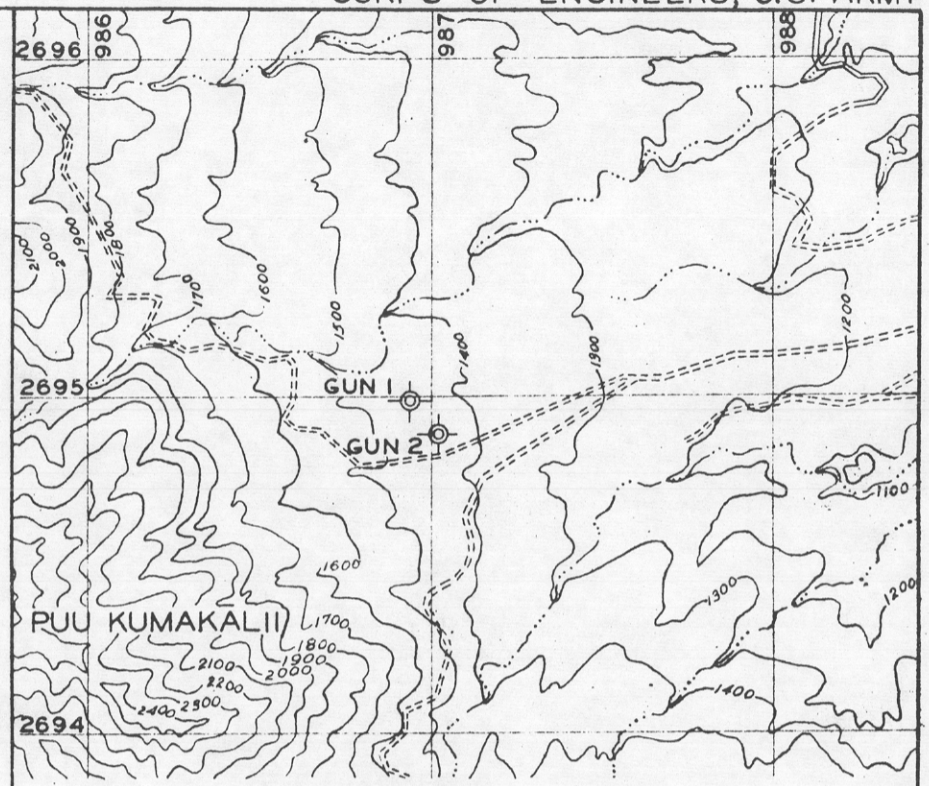
Date



PLAN



SECTION A-A



LOCATION MAP

SCALE IN FEET

2000 0 2000 4000

SERIAL NO. I (SECRET)

COPY NO. 4

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

KOLE KOLE PASS, OAHU, T.H.

240MM GUN POSITIONS

LOCATION AND DETAIL

U. S. ENGINEER OFFICE HONOLULU, T. H.

SECRET

FILE NO. F-1/86

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF **Pearl Harbor**
FORT **Kamehameha**
BATTERY **Kunia**

Set #1 of 4

240 MM Howitzer

Form 1. Corrected to

No. of guns: **2** Caliber: **240 mm** Carriage: **Model 1918 (Schneider)**

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	3 - 24 - 41	Sources of	
Battery completed	5 - 20 - 41		
Date of transfer	10 - 28 - 41	Max. kw. required for lights	None
Cost to date of transfer	$ 4,689.39*	Max. kw. required for motors	
Materials of construction	Reinforced Concrete		
Type of cement	Portland		
WATER AND SEWER:	None	Present condition of battery	None
Connected to water supply		Rooms wet or dry	
Connected to sewer			
Type of latrine		How ventilated	Open
		Type of data transmission	Field Telephone
Trunnion elevation in btry.	No. 1 Gun 776.66' No. 2 Gun 764.66'		
Datum plane	Mean sea level	Remarks	Guns are not permanently emplaced

SECRET

By Authority of the District Engineer
Honolulu, T. H.

Date _____ Officer Affixing _____

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
	Guns are not permanently emplaced. Different guns of the same caliber may be used.										

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

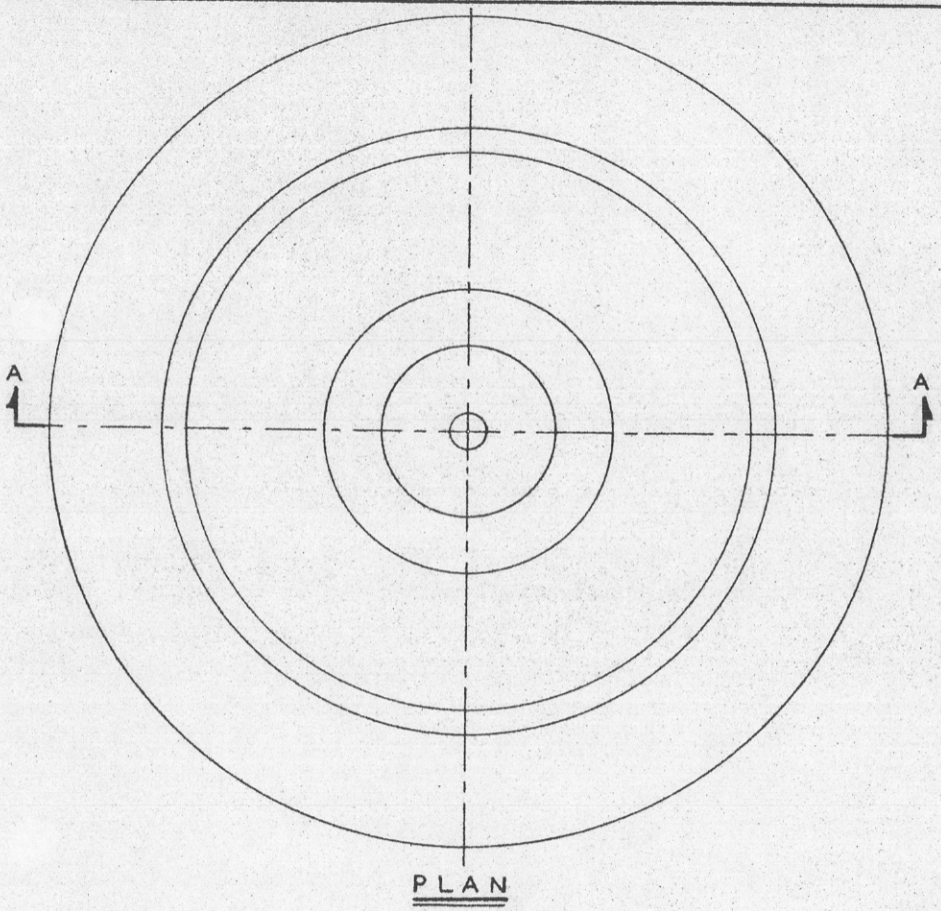
* Represents cost chargeable to the Department Engineer Office.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

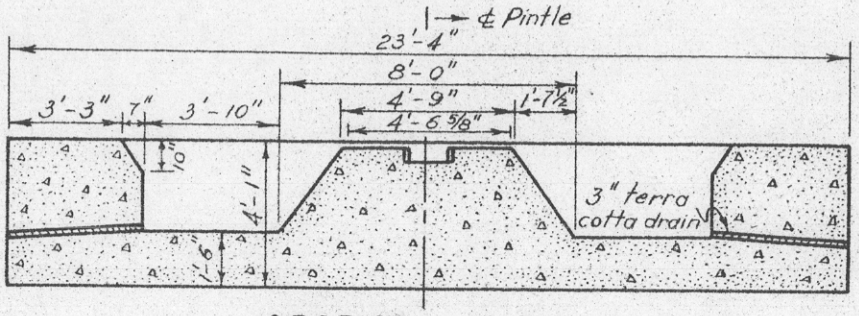
Form 7. Corrected to

HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
BATTERY KUNIA
No. of guns: 2 Caliber: 240 mm. Carriage: 240 mm. Howitzer Model 1918 (Schneider)
Graphic Scales: 0 5 10 feet; 0 20 40 60 80 100 feet

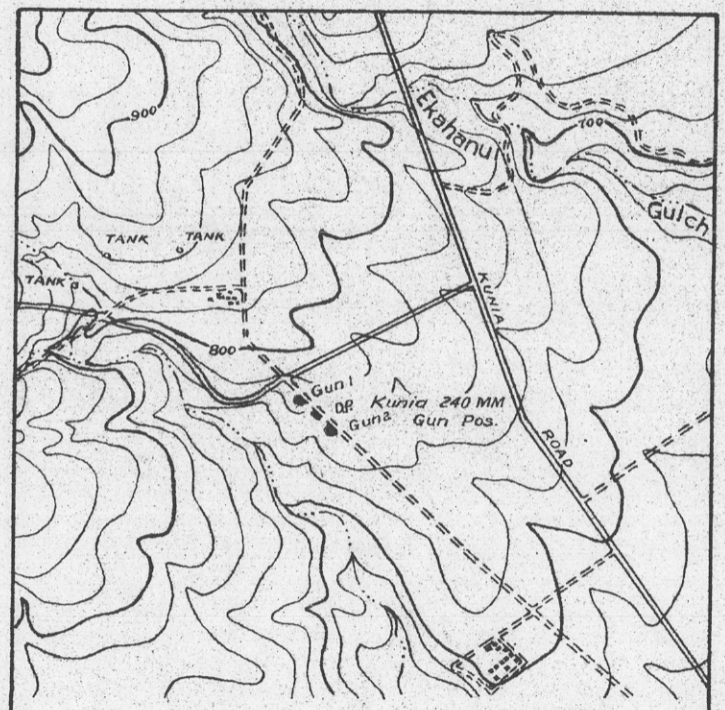
Set #1 of 4



PLAN



SECTION A-A



LOCATION MAP

(FOR REFERENCE SEE WAR DEPARTMENT CORPS OF ENGINEERS, U.S. ARMY · TERRAIN MAP · WAIPAHU QUADRANGLE, ISLAND OF OAHU, TERRITORY OF HAWAII.)

SECRET SERIAL NO. I
COPY NO. 1

F-55/53

6 445

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF Pearl Harbor
FOR Kamehameha
BATTERY Kunia
No. of guns 2 Calib 240 mm Carria Model 1918 (Schneider)

Set #3 of 4

240 mm Howitzer

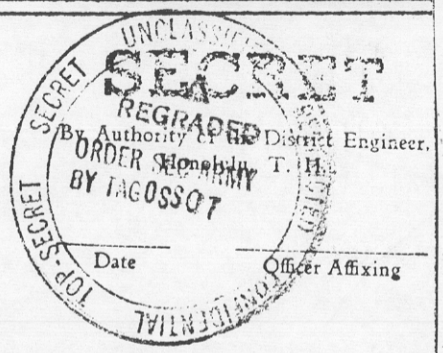
Form 1. Corrected to

GENERAL:

Battery commenced	3 - 24 - 41
Battery completed	5 - 20 - 41
Date of transfer	10 - 28 - 41
Cost to date of transfer	$ 4,689.39
Materials of construction	Reinforced Concrete
Type of cement	Portland
WATER AND SEWER:	None
Connected to water supply	
Connected to sewer	
Type of latrine	
Trunnion elevation in btry	No. 1 Gun 776.66' No. 2 Gun 764.66'
Datum plane	Mean sea level

ELECTRIC CURRENT:

Sources of	
Max. kw. required for lights	None
Max. kw. required for motors	
Present condition of battery	None
Rooms wet or dry	
How ventilated	Open
Type of data transmission	Field Telephone
Remarks	Guns are not permanently emplaced



ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
Guns are not permanently emplaced. Different guns of the same caliber may be used.											

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
None										

5/56

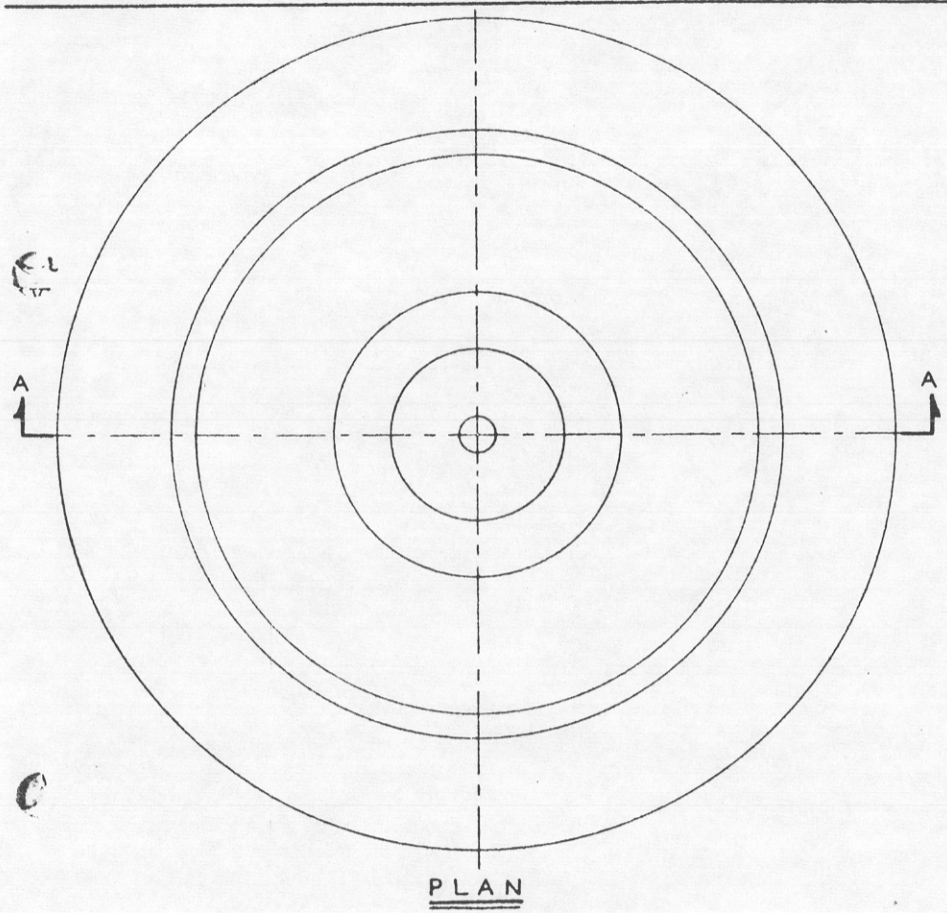
* Represents cost chargeable to the Department Engineer Office.

OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Battery Plan)

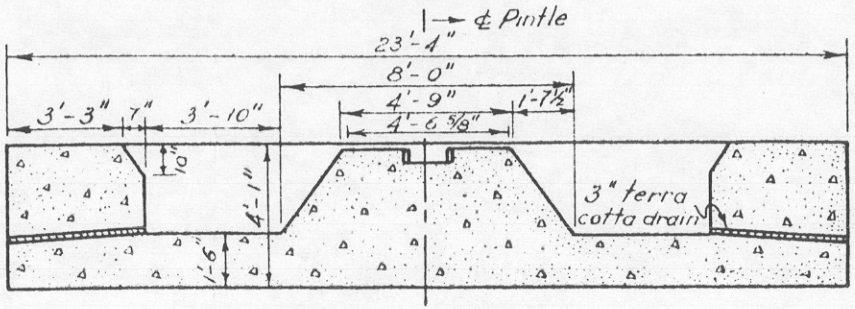
HARBOR DEFENSES OF PEARL HARBOR
FORT KAMEHAMEHA
BATTERY KUNIA
No. of guns: 2 Caliber: 240 mm. Carriage: 240 mm. Howitzer Model 1918 (Schneider)
Graphic Scales:

Set #3 of 4

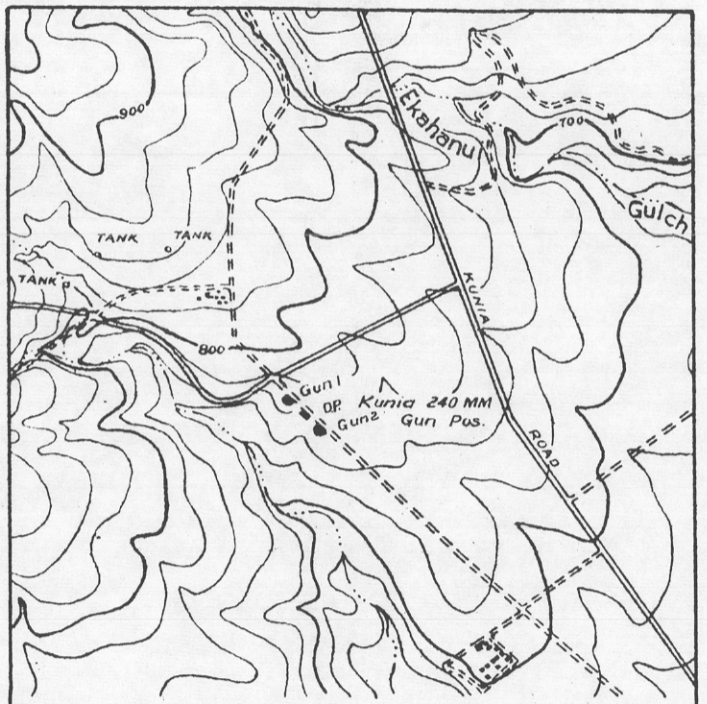
Form 7. Corrected to



PLAN



SECTION A-A



LOCATION MAP

(FOR REFERENCE SEE WAR DEPARTMENT CORPS OF ENGINEERS, U.S. ARMY · TERRAIN MAP · WAIPAHU QUADRANGLE, ISLAND OF OAHU, TERRITORY OF HAWAII.)

True North

TOP SECRET SECRET UNCLASSIFIED
REGRADED
ORDER SEC ARMY
BY TAG 0507

SECRET SERIAL NO. I
COPY NO. 3

F-55/53

6-451

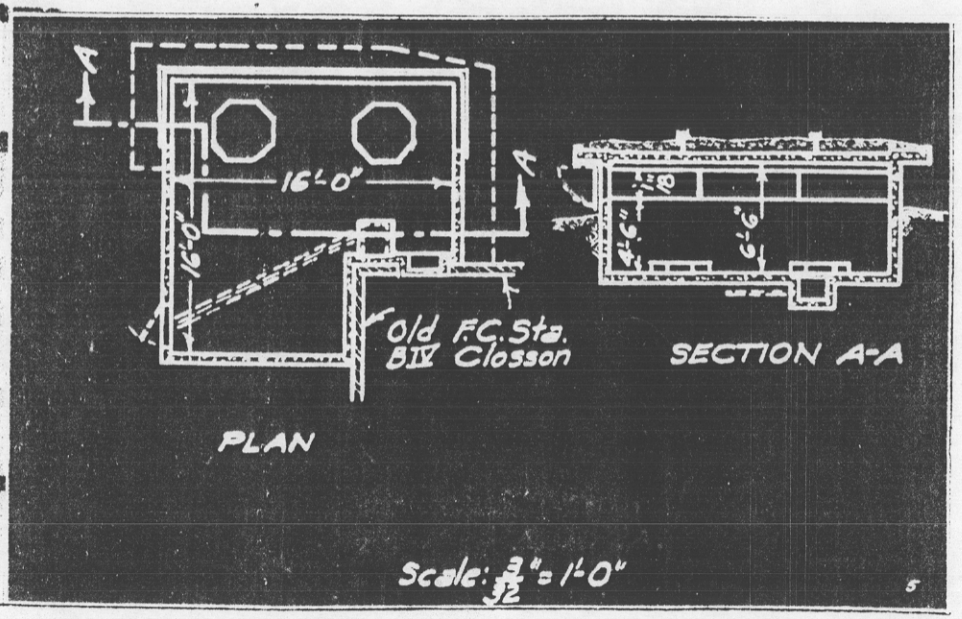
REPORT OF COMPLETED WORK, SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR,

FORM 2. Corrected to July 14, 1934.

STRUCTURE: FIRE CONTROL STATION "B" PUU PALAILAI, FOR BATTERY KAPOLEI FORT KAMEHAMEHA, T. H.

Location	U.S. Govt. Trig. tation 50' S 10' E.
Date of transfer	July 2, 1934
Cost to date	$2,578.03 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover t
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storag
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of Latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	450.7
Reference of instrumental axis	472.70/
Type of observing instrument	D.F. F. instrum
Type of plotting board	None
Type of data transmission	Telephones (By



With 662-B (Oahu) 201

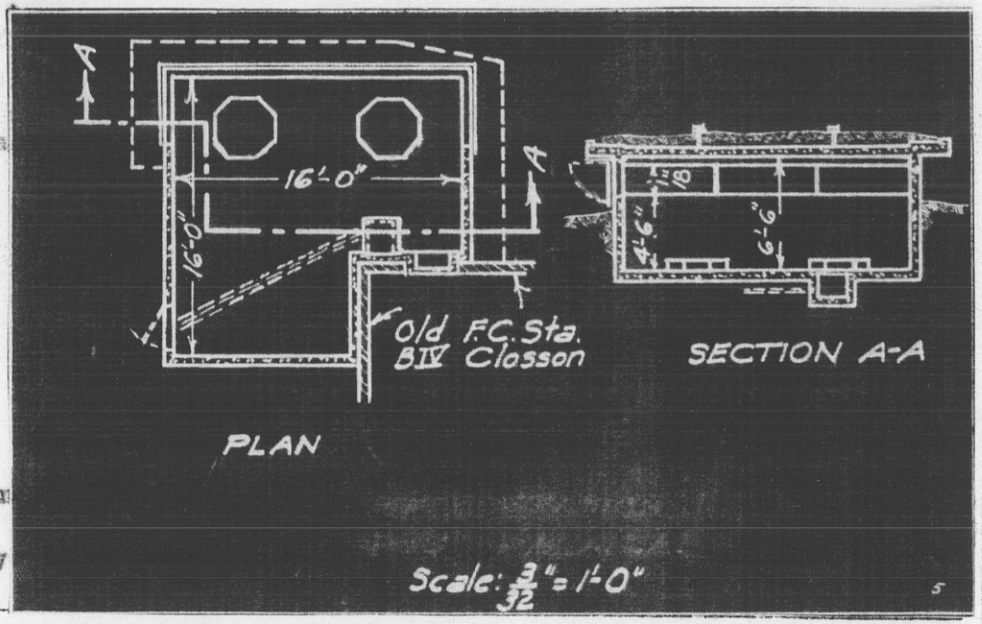
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR,

FORM 2. Corrected to July 14, 1934.

STRUCTURE: FIRE CONTROL STATION "B" PUU PALAILAI, FOR BATTERY ~~[illegible]~~ HATCH FORT ~~[illegible]~~, T. H.
BARRETTE

Location	U.S. Govt. Trig. Station 50' S 10' E.
Date of transfer	July 2, 1934
Cost to date	$2,528.03 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable store
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of Latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	450.7
Reference of instrumental axis	472.70
Type of observing instrument	D.P. F. instru
Type of plotting board	None
Type of data transmission	Telephones (By

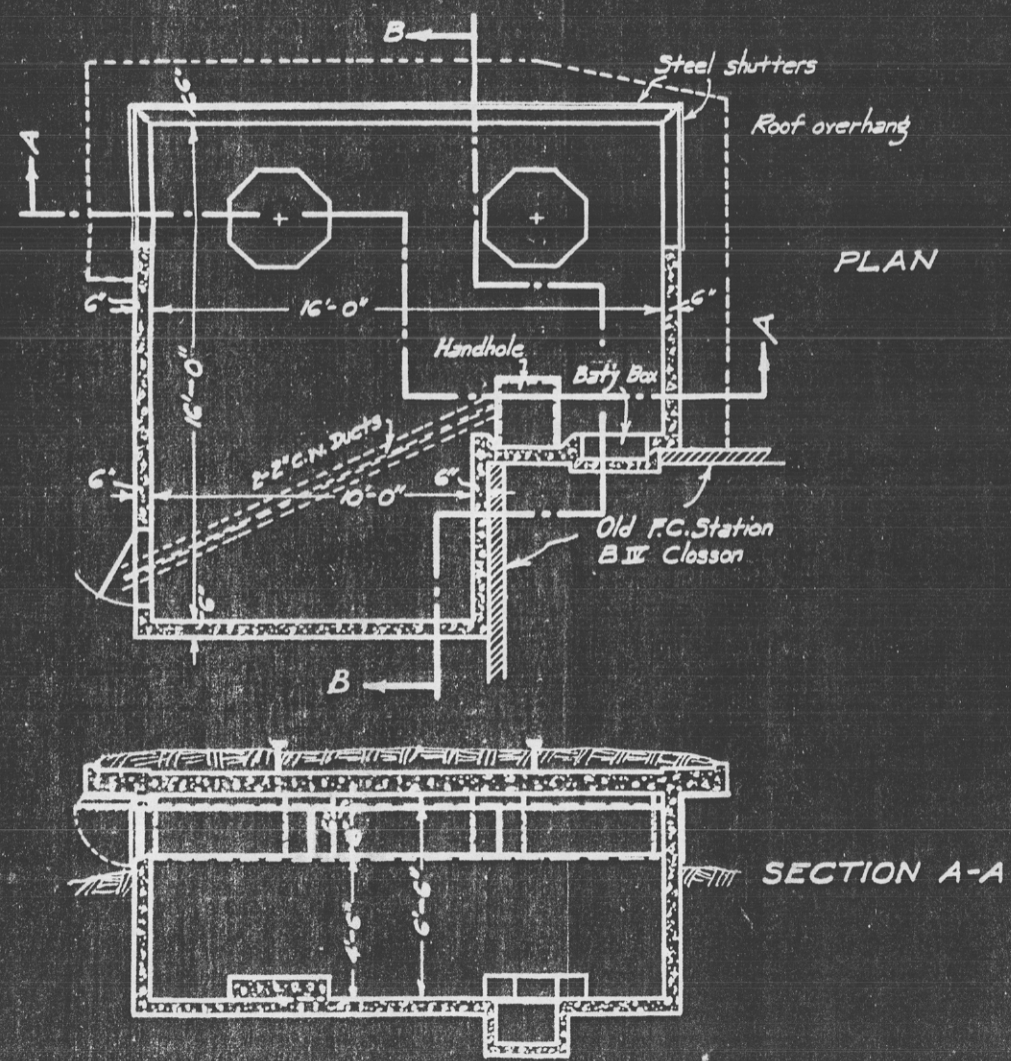


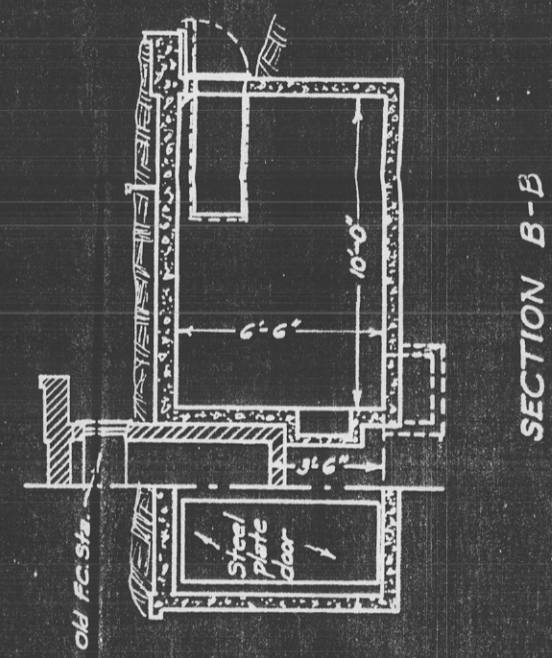
5

6-451

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY





U.S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
PUU PALAILAI
KAPOLEI, OAHU, T.H.
Scale: 1/4" = 1'-0"

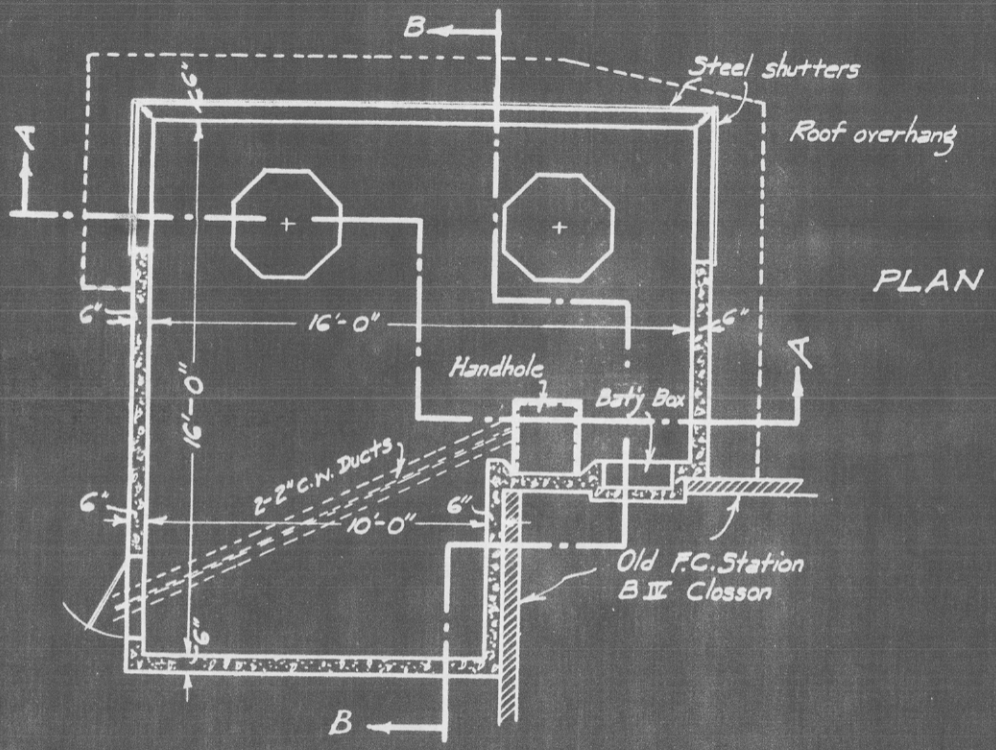
IN 1 SHEET

REVISIONS

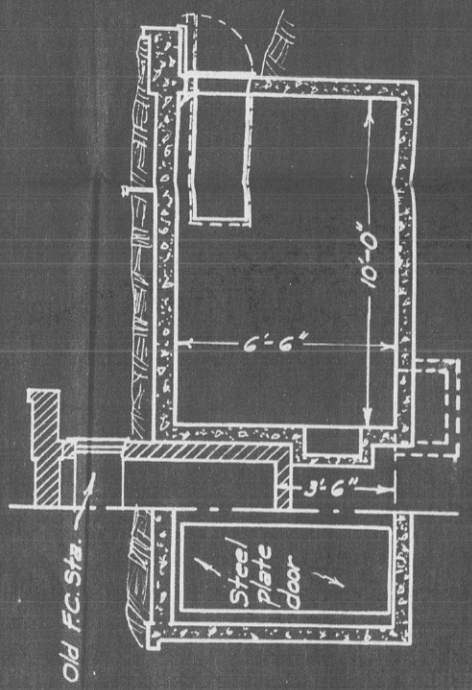
SURVEYED: DESIGNED: LWC DRAWN: K.M. TRACED: K.M. CHECKED:	SUBMITTED: ASSOC. ENGINEER	APPROVED: MAJOR, C.E., DIST. ENGR.	DATE 6/29/34	FILE F10207

WAR DEPARTMENT

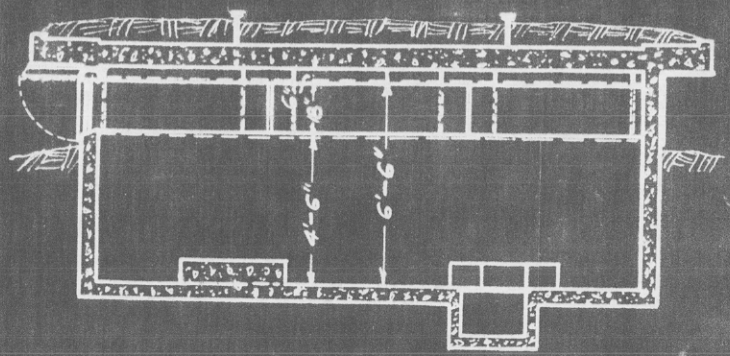
CORPS OF ENGINEERS, U.S. ARMY



PLAN



SECTION B-B



SECTION A-A

U.S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
PUU PALAILAI

KAPOLEI, OAHU, T.H.

Scale: 1" = 1'-0"

IN 1 SHEET

REVISIONS

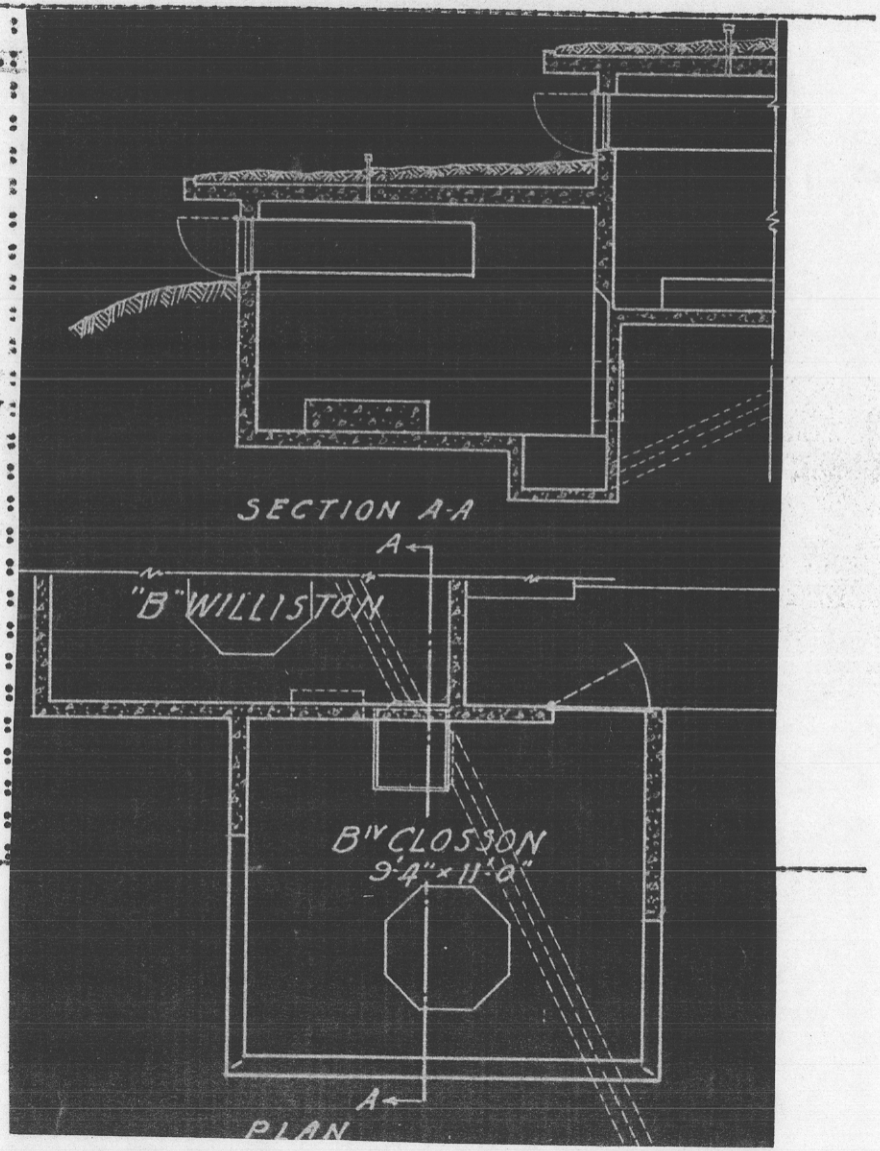
SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED: L.W.R.				
DRAWN: K.M.				
TRACED: K.M.				
CHECKED: T.C.M.	ASSOC. ENGINEER	MAJOR, C.E., DIST. ENGR.	6/29/34	F1029T

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July, 1929.

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: Fire Control Station "B^{IV}" for Battery Closson, Fort Kamehameha.

Location	Puu Palailai Military Rsvn.
Date of transfer	July 19, 1929
Cost to date	$1,902
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Plain concrete
How concealed	Light earth covering
How protected	Dug-out type
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	6-v. Edison Storage battery
Kilowatts required	0.1
Type of lighting fixtures	Instrument lights only
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	478.3
Reference of instrument axis	479.75
Type of observing instrument	D. P. F.
Type of plotting board	None
Type of data transmission	Telephones



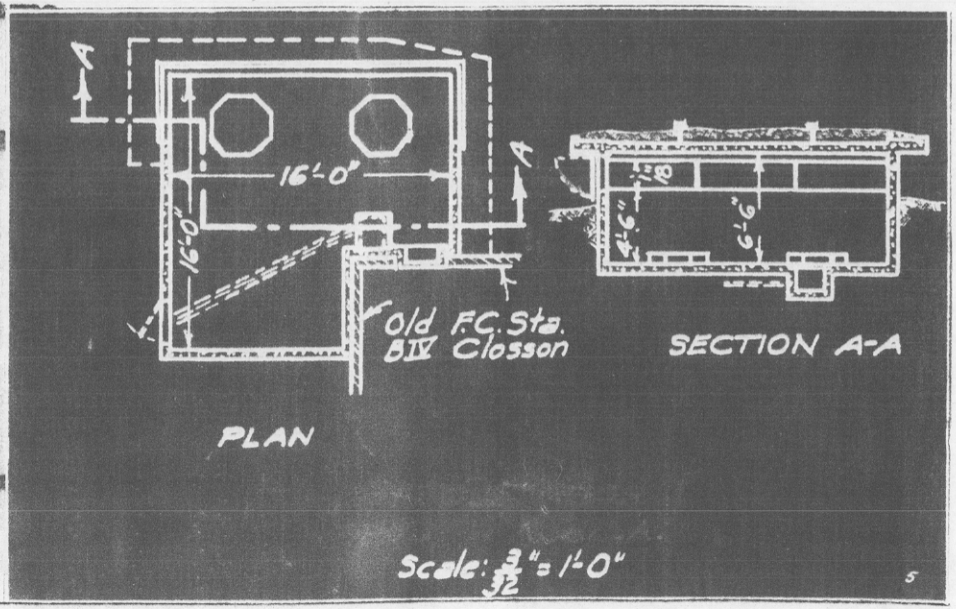
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR,

FORM 2. Corrected to July 14, 1934.

STRUCTURE: FIRE CONTROL STATION "B" PUU PALAILAI, FOR BATTERY KAPOLEI FORT KAMEHAMEHA, T. H.

Location	U.S. Govt. Trig. tation 50' S 10' E.
Date of transfer	July 2, 1934
Cost to date	$2,5[illegible]8.03 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover t[illegible]
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storag
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of Latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	450.7
Reference of instrumental axis	472.70±
Type of observing instrument	D.P. F. instrum
Type of plotting board	None
Type of data transmission	Telephones (By



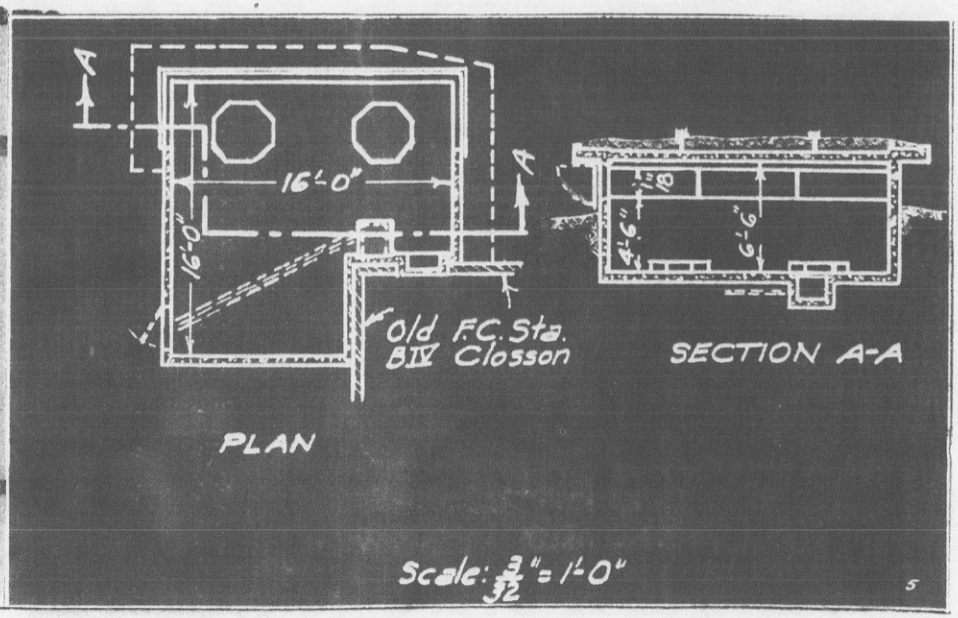
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR,

FORM 2. Corrected to July 14, 1934.

STRUCTURE: FIRE CONTROL STATION "B" PUU PALAILAI, FOR BATTERY KAPOLEI FORT KAMEHAMEHA, T. H.

Location	U.S. Govt. Trig. tation 50' S 10' E.
Date of transfer	July 2, 1934
Cost to date	$2,528.03 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover t
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storag
Kilowatts required	0.1 K.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of Latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	450.7
Reference of instrumental axis	472.70±
Type of observing instrument	D.P. F. instrum
Type of plotting board	None
Type of data transmission	Telephones (By



SECRET

Copy #3 of 5
By Authority of the District Engineer
Honolulu, T. H.

SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

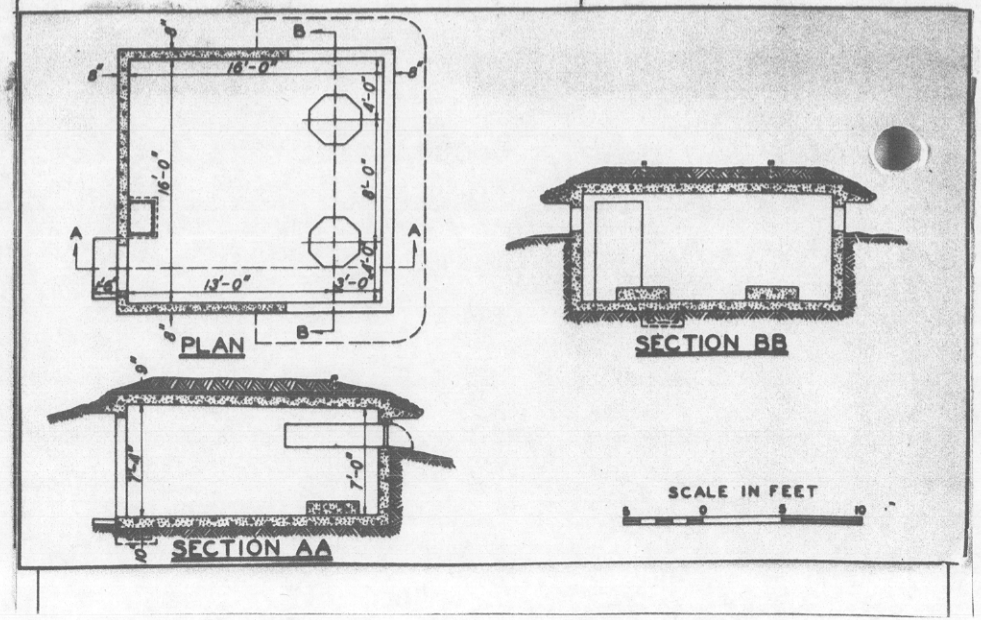
HARBOR DEFENSES OF PEARL HARBOR
FORT KAMAHAMEHA
STRUCTURE FIRE CONTROL STATION MAY 2 KONGAOLIO
Date Officer Affixing

Form 2. Corrected to

STRUCTURE:	
Location	Near town of Kaipapau Oahu, T. H.
Date of transfer	August 23, 1941
Cost to that date	$7,891.33
Type of construction	
(a) Roof	Rein. Concrete, earth cover
(b) Remainder of building	Rein. Concrete
How concealed	) Station set into ground, 12"
How protected	) earth cover on roof
Height above concealment	None
Height above protection	None
Conspicuous at 10,000 yards	Yes
ELECTRIC CURRENT:	
Source of	) Batteries (for telephone only)
Kilowatts required	)
Type of lighting fixtures	)
HEAT:	
How heated	Not required
WATER AND SEWER:	
Connected to water mains	Not connected
Connected to sewer	Not connected
Type of latrine	Outhouse
Permanent or temporary inst'ln	[illegible]
Present condition	
REFERENCE:	
Reference of site	495.5 ft. above sea level
Reference of instrument axis	496.45 ft. above sea level (elevation to top of instrument pedestal)
Type and capacity of crane	None
Max. dim. of reel handled	----

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	D.P.F. and Azimuth Instrument
Type of plotting board	None
DATA TRANSMISSION:	
Type of	Telephone
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Note: Station includes wooden bunk house.



UNCLASSIFIED RESTRICTED CONFIDENTIAL SECRET TOP SECRET
REGRADED
ORDER SEC ARMY
BY TAG OSE 281

#39

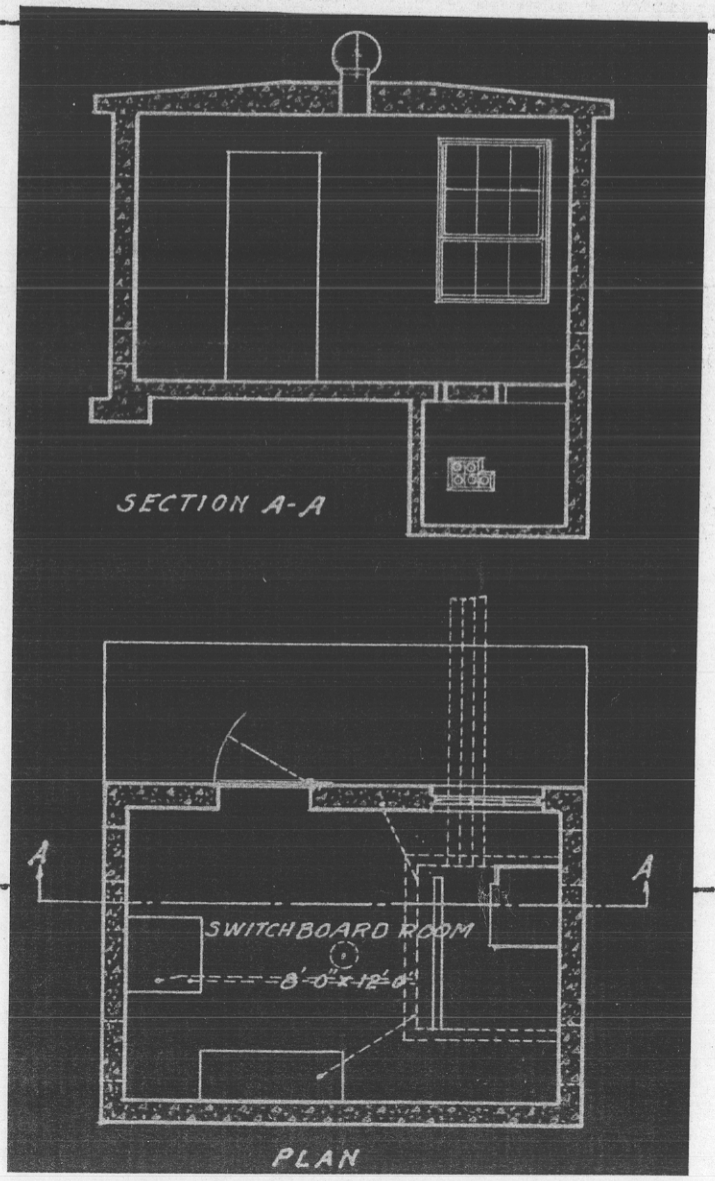
SECRET

REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

Form 2. Corrected to July, 1929.

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: FIRE CONTROL SWITCHBOARD ROOM,
MAILI ~~MAILE~~ MILITARY RESERVATION.

Location	Maile Military Rsvn.
Date of transfer	July 19, 1929
Cost to date	$4,381
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	" "
How concealed	Mound and trees
How protected	Dug-in type
Height above concealment	Not above
Height above protection	Not above
Conspicuous at 500 yards	No
Source of electric current	1/2 K. W. Delco Set
Kilowatts required	0.12 K. W.
Type of lighting fixtures	E. D. Standard
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	25
Reference of instr. axis	---
Type of observing instr.	None
Type of plotting board	None
Type of data transmission	Telephones



Does not show on any Index Plat

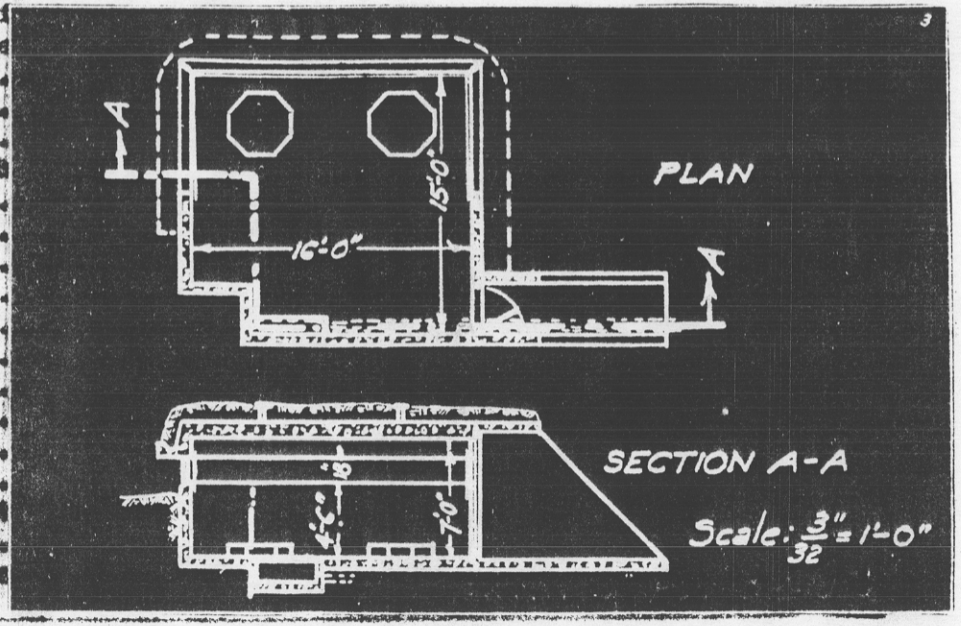
REPORT OF COMPLETED ONE ACCEPTANCE FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

Form 2, Corrected to July 14, 19 4

STRUCTURE: FIRE CONTROL STATION "U" PUU-O-HULU
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

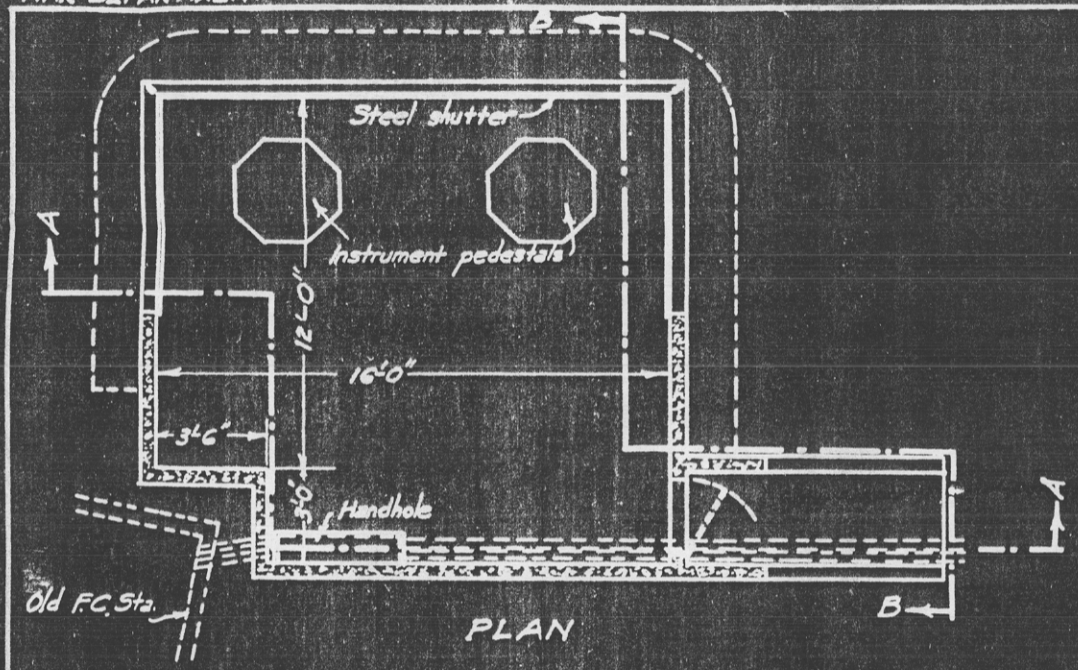
Location	U. S. Gov't., Trig. Station Puu-O-Hulu 5'- 3 10" N.
Date of transfer	July 2, 1934
Cost to date	$6,384.67 complete
Type of construction	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	841.65'
Reference of instrumental axis	842.8'±
Type of observing instrument	D.P. F. instrument
Type of plotting board	None
Type of data transmission	Telephone (By Sig



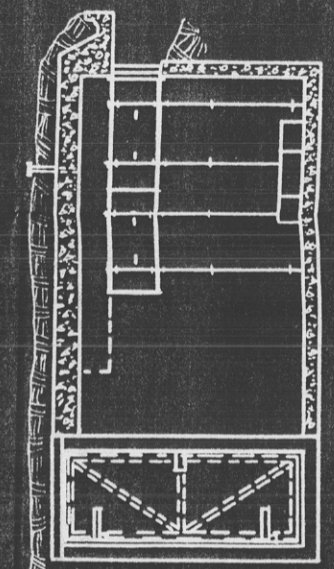
6-451

WAR DEPARTMENT

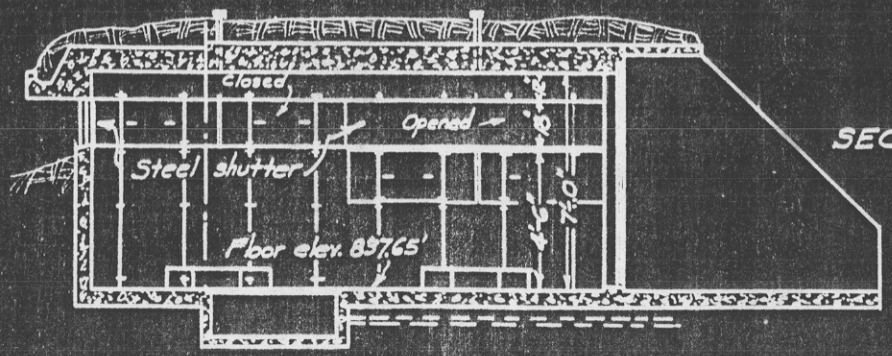
CORPS OF ENGINEERS, U.S. ARMY



PLAN



SECTION B-B



SECTION A-A

U. S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
STATION "U", PUU - O - HULU
KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

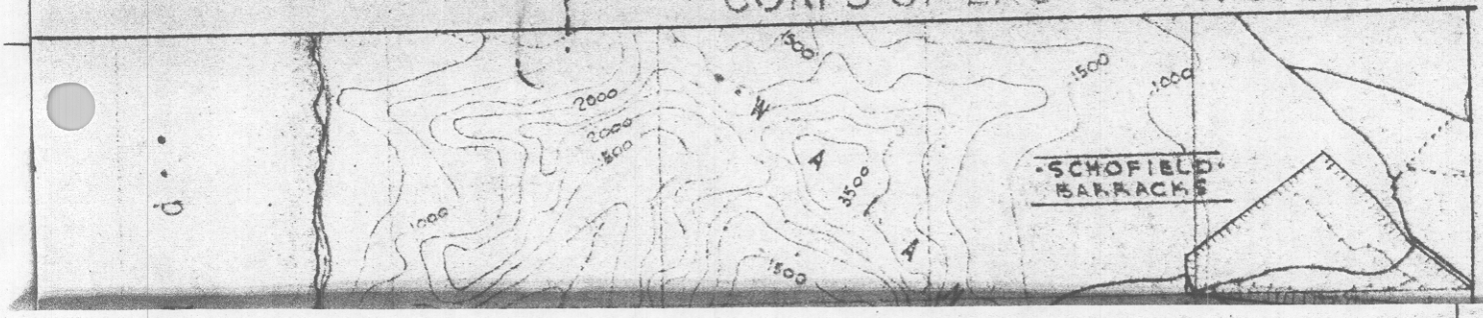
IN 1 SHEET

REVISIONS

APPROVED: DESIGNED: DRAWN: TRACED: CHECKED:	SUBMITTED: ASSOC. ENGINEER	APPROVED: MAJOR, C.E., DIST. ENGR.	DATE 6/25/34	FILE F-1043T

SECRETARY G/S
D/L # 17203

CORPS OF ENGINEERS, U. S. ARMY



338/43101/6-441

SERIAL NO. II

COPY NO. 9

SECRET
UNCLASSIFIED
RESTRICTED
CONFIDENTIAL
TOP SECRET
REGRADED
ORDER SEC ARMY
BY TAG DSS 07

BY AUTHORITY OF THE DISTRICT ENGINEER
HONOLULU, T. H.

10/23/42
DATE

OFFICER AFFIXING

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

SEVEN INCH NAVAL GUN POSITION
PUU-O-HULU, OAHU, T. H.

LAYOUT PLAN & VICINITY MAP

SCALE: AS SHOWN IN SHEETS SHEET NO. 1

U. S. ENGINEER OFFICE, HONOLULU, T.H. OCTOBER, 1942

SUBMITTED	RECOMMENDED	APPROVED
S. Perliter HEAD ENGINEER	MAJOR, CORPS OF ENGINEERS CHIEF, ENGINEERING DIVISION	[signature] BRIGADIER GENERAL, A.U.S. DISTRICT ENGINEER

DESIGNED	DRAWN	TRACED	CHECKED	TO ACCOMPANY	FILE NO.
	H. S. P.		[signature]	WORK ORDER NO. 600.118-A-17.0 CORRESPONDENCE SERIAL NO.	F-111/71

Error 661 Incl to II

4438

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF **PEARL HARBOR**
~~FORT~~ **ONEULA**
BATTERY **PANAMA MOUNTS**
No. of guns: **4** Caliber: **155 mm** Carriage: **Split trail.**

SECRET

Form 1. Corrected to **June 30, 1937**

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	**May 26, 1937**	Sources of	**None**
Battery completed	**June 30, 1937**		
Date of transfer	**Sept. 27, 1937**	Max. kw. required for lights	- - -
Cost to date of transfer	**$6,348.96**	Max. kw. required for motors	- - -
Materials of construction	**Reinforced concrete**		
Type of cement	**Portland**		
WATER AND SEWER:		Present condition of battery	**Good**
Connected to water supply	**No**	Rooms wet or dry	**No rooms**
Connected to sewer	**No**		
Type of latrine	**None**	How ventilated	- - -
		Type of data transmission	**Telephone**
Trunnion elevation in btry.	**Approx. 10. feet**		
Datum plane	**M.L.L.W.**	Remarks	**Guns not permanently emplaced.**

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

UNCLASSIFIED RESTRICTED
REGRADED
ORDER SEC ARMY
CONFIDENTIAL

REPORT OF COMPLETED WORKS — SEACOAST FORTIFICATIONS

GENERAL PLAN

SECRET

FORM 7 CORRECTED TO JUNE 30, 1937

HARBOR DEFENSES OF PEARL HARBOR

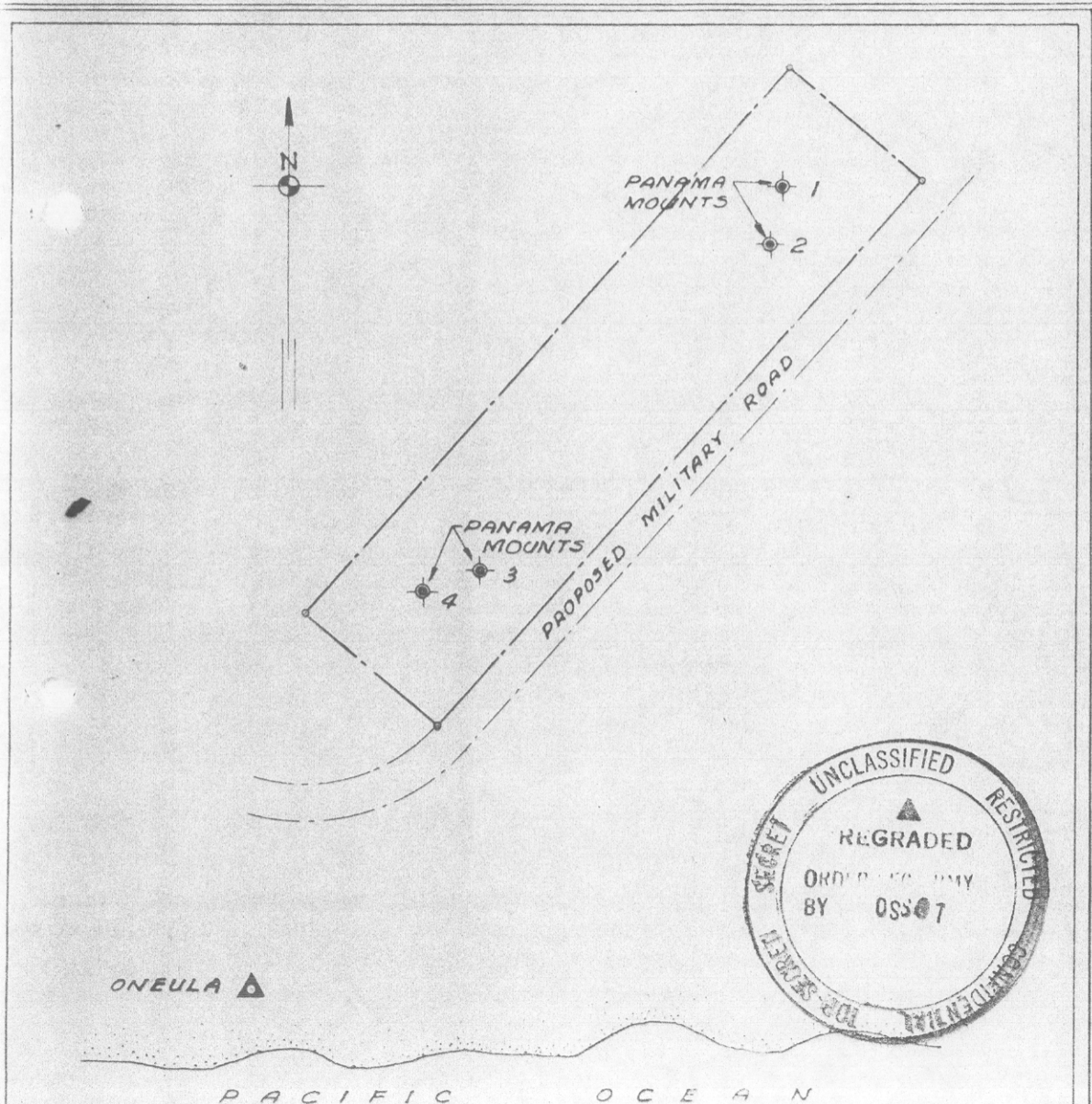
ONEULA

4-PANAMA MOUNTS FOR 155 MM GUNS

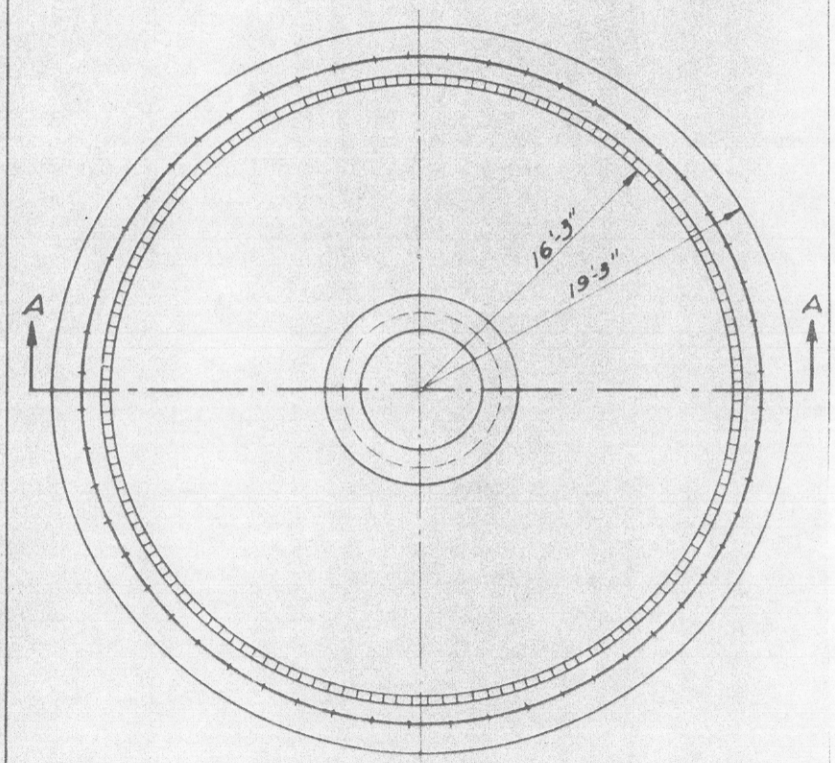
GRAPHIC SCALES

10 0 10 20 FT.

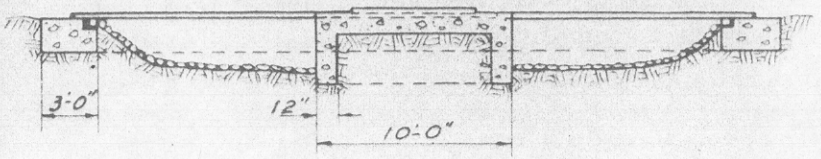
100 0 1 2 3 4 500 FT.



UNCLASSIFIED
RESTRICTED
CONFIDENTIAL
SECRET
TOP SECRET
REGRADED
ORDER OF ... BY OSS 7



PLAN



SECTION A-A

REPORT ON COMPLETED WORKS - LAND DEFENSES, FIELD WORKS

WAIMANALO, OAHU, T.H.
BATTERY: See below
No. of guns: None
2 Emplacements for 240 m.m. Howitzers

Form No. 1. Corrected to February 20, 1932.

Battery commenced (Remodeling)	October, 1929	Source of electric current	None provided
Battery completed	November, 1929		
Date of transfer	January 22, 1932	Max. kw. required for lights	
		" " motors	
Material of construction	Concrete		
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$1,501.73 *	Rooms wet or dry	None provided
Connected to water supply	No.		
Connected to sewer	No.	Now ventilated	Not required
Type of latrine	None provided	REMARKS:	Armament is storage at
Type of data transmission	None		Hawaiian Ordnance Depot

* Cost of remodeling only. Original emplacements were constructed by troop labor under supervision of the Department Engineer.

A R M A M E N T

None mounted.

H O I S T S

None.

M O T O R

None.

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

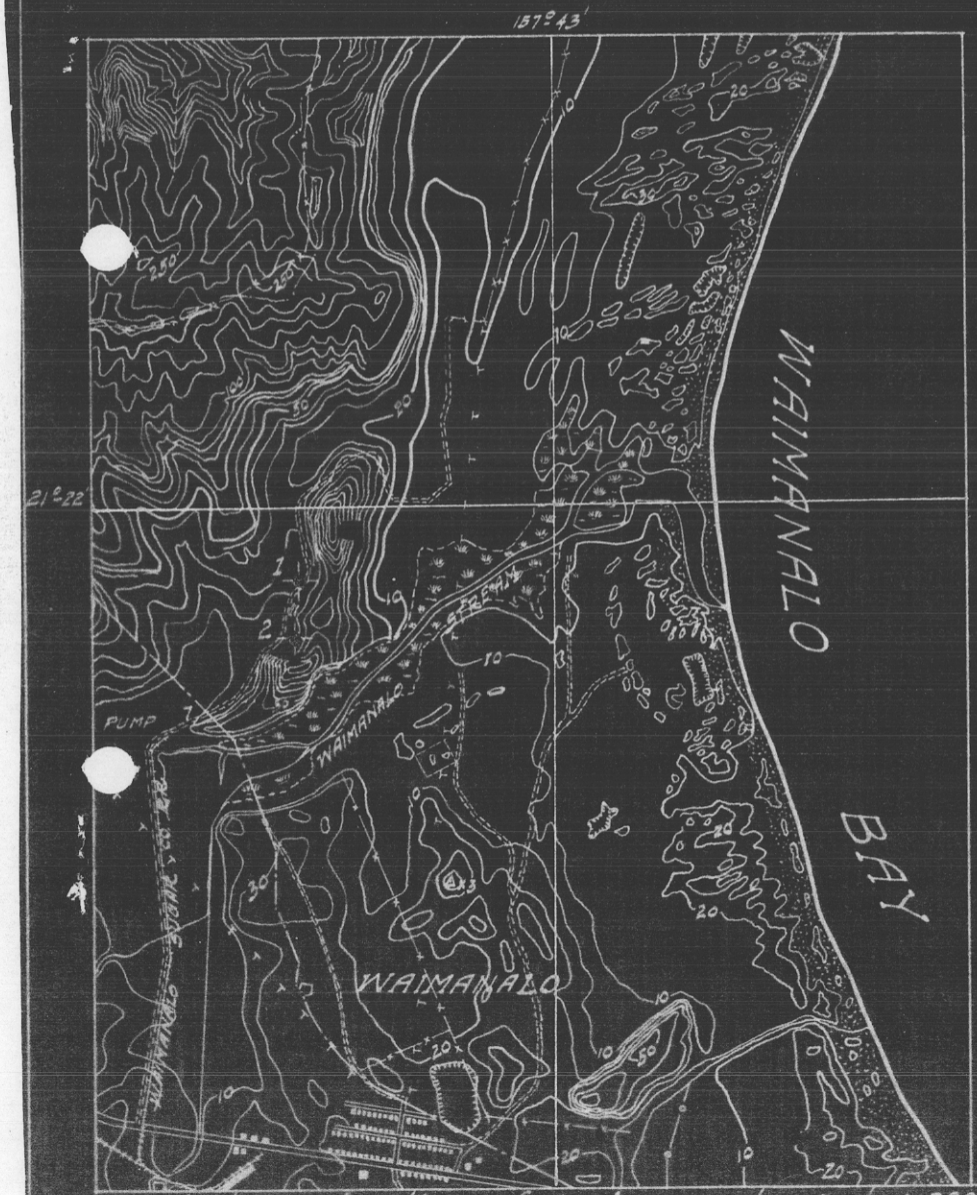
Graphic Scales

0 500' 1000' 2000' 3000'

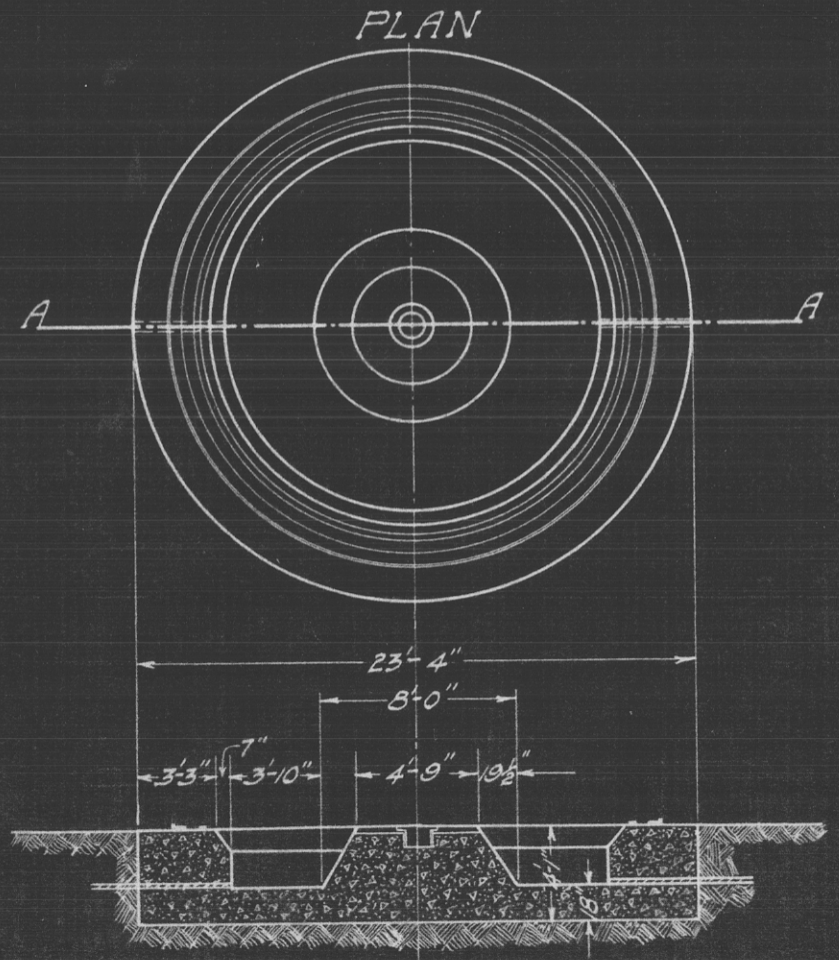
0 5' 10' 15'

WAIMANALO, OAHU, T.H.

2-240 M.M. Howitzer Emplacements



Insert showing location of Emplacements Scale 1:20000
Insert from U.S.G.S. MAP-Mokapu-Quadrangle-Island of Oahu T.H.



SECTION A-A

SCALE = 1 inch = 8 feet

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

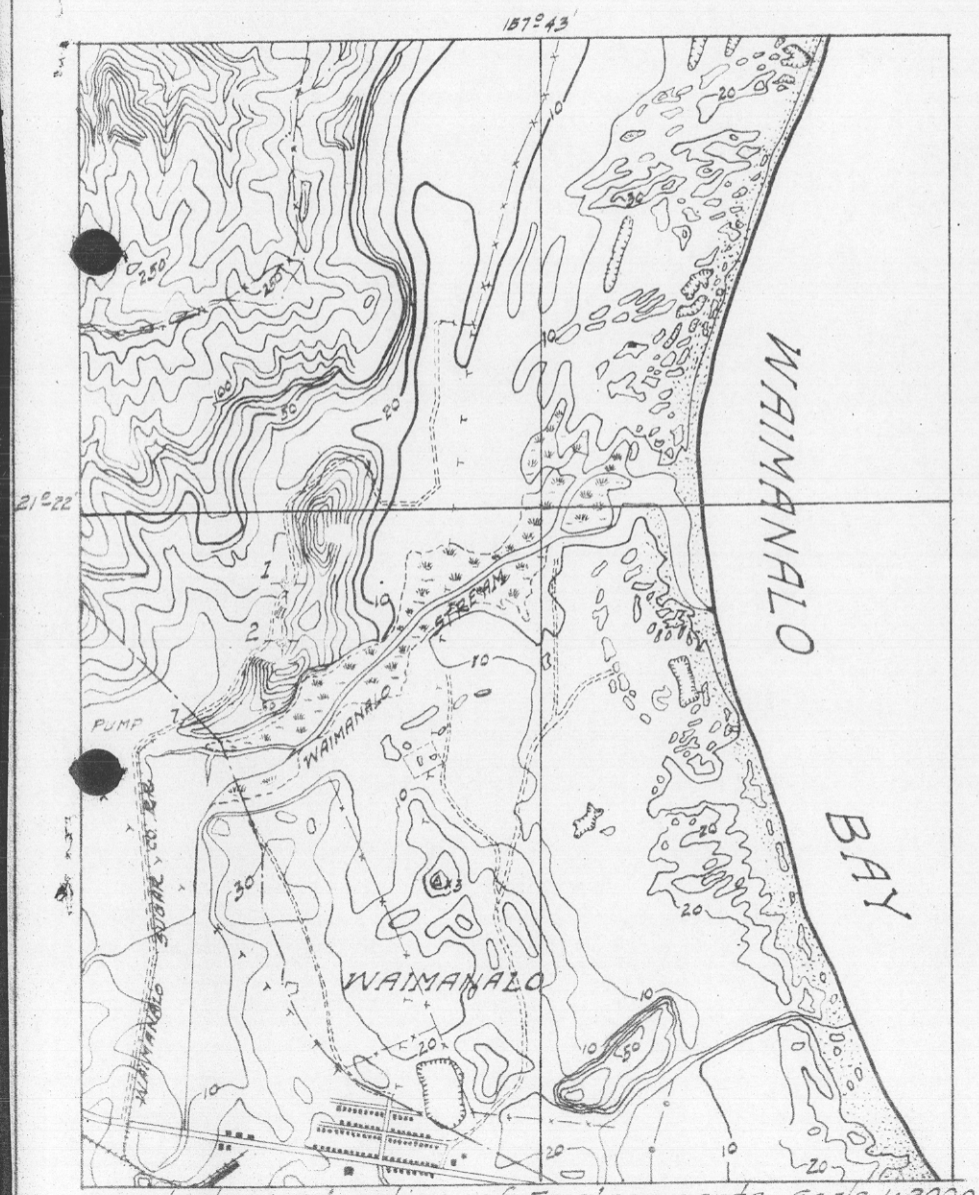
Graphic Scales

9 500' 1000' 2000' 3000'

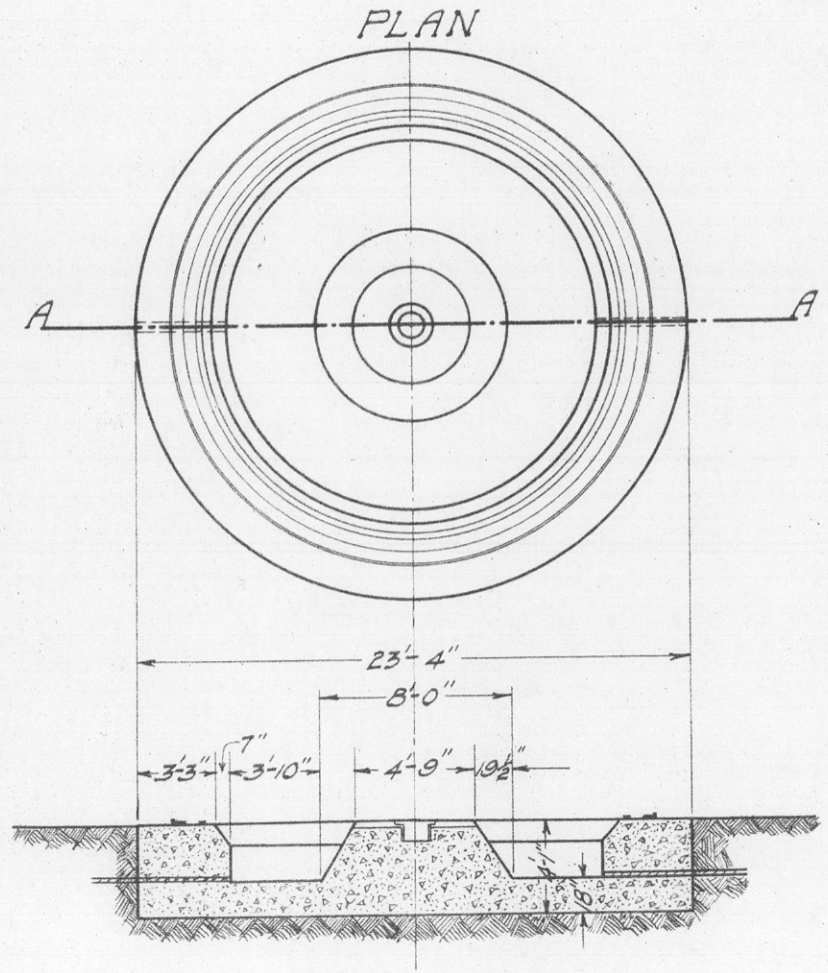
12" 9 5' 10' 15'

WAIMANALO, OAHU, T.H.

2-240 M.M. Howitzer Emplacements



Insert showing location of Emplacements Scale 1:20000
Insert from U.S.G.S. MAP-Mokapu-Quadrangle-Island of Oahu T.H.



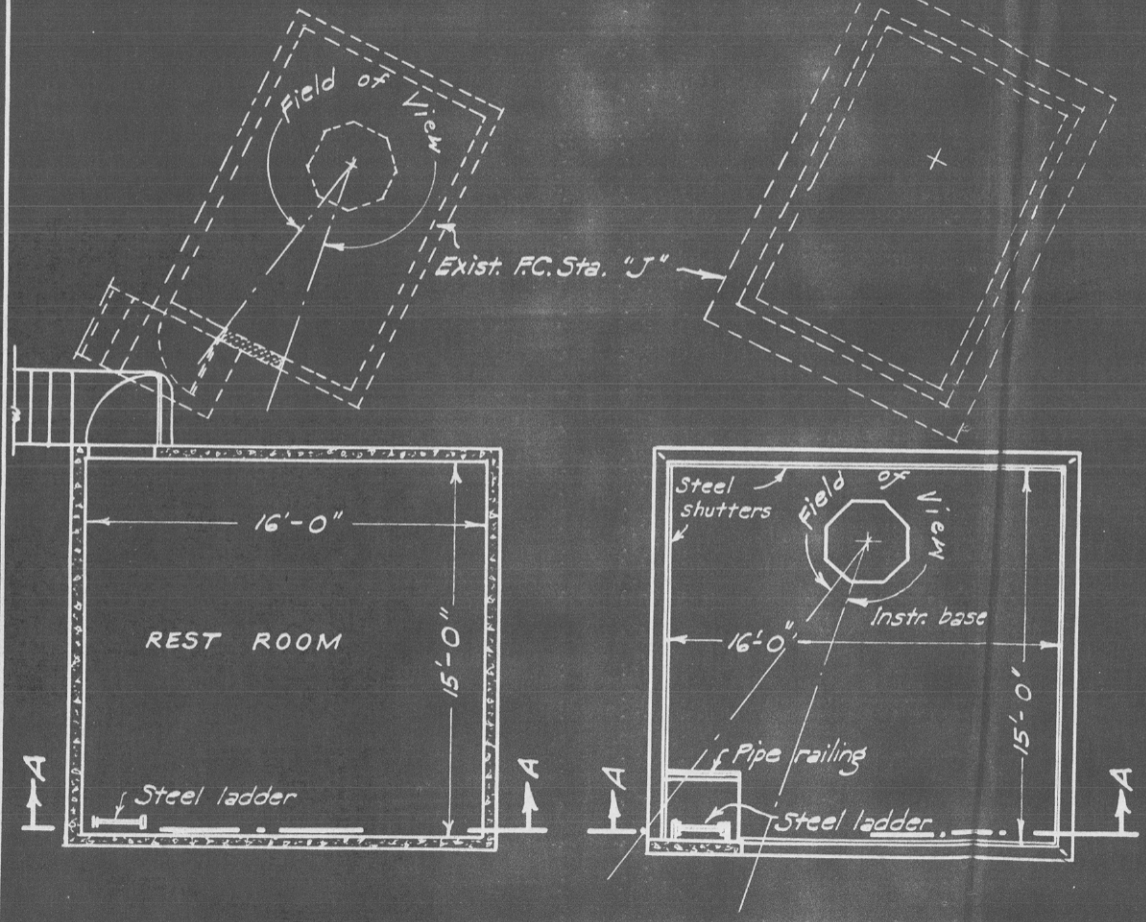
SECTION A-A

SCALE = 1 inch = 8 feet

338/23101/G-451

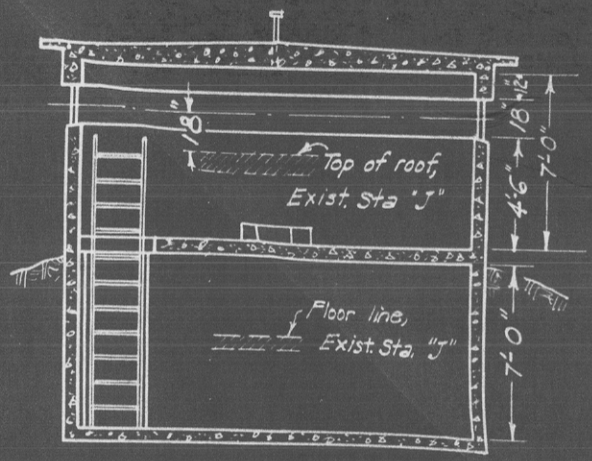
WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PLAN
LOWER FLOOR

PLAN
UPPER FLOOR



SECTION A-A

U. S. ENGINEER OFFICE
HONOLULU, T. H.

PROPOSED
FIRE CONTROL STATION
AND REST ROOM
ULUPAU HEAD, OAHU, T.H.

SCALE: 3/16" = 1'-0"
IN 1 SHEET

REVISIONS

SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED: J.C.M.				
DRAWN: K.M.				
TRACED: K.M.			8-30-35	F 1062
CHECKED:	ASSOC. ENGR.	MAJOR, C.E. DIST. ENGR.		

This is the Original
Plan for F.C. Sta
at Ulupau. Looks like
too much for 6450.
This would be very
Satisfactory

HAR

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Forrected to Oct. 4, 1927.

ULUPAU.
BATTERY See Below
No. of Guns, None. Caliber ____ Carriages
2 Emplacements for 240 MM Howitzer

Battery commenced	April 11, 1927		
Battery completed	May 20, 1927	Source of electric current	None
Date of transfer	Sept. 27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$4,515.75 *	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	How ventilated	Not required
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail; materials hauled by Q.M.C.

A R M A M E N T

None mounted

H O I S T S

None

M O T O R

None

22

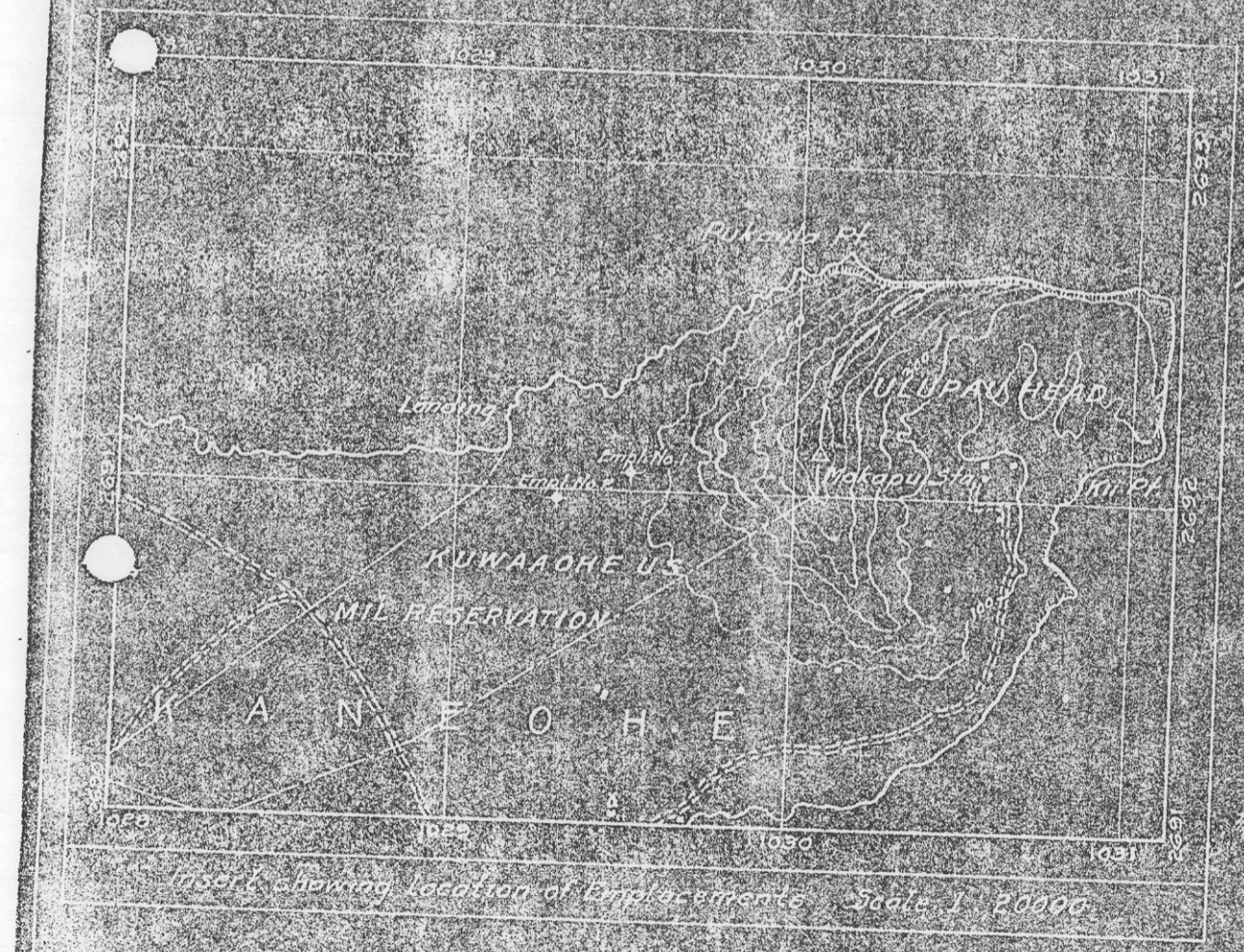
REPORT OF COMPLETED WORKS

(General Plan)

August 1917

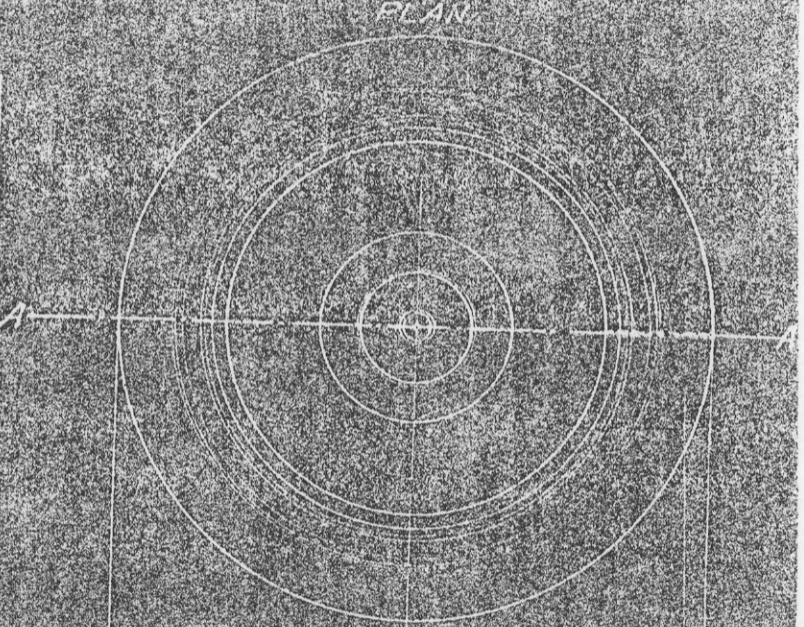
Fort H. T.

KULIPAU HEAD
2 EMPLACEMENTS



Tracing showing location of Emplacements Scale 1" 2000'

PLAN





SECTION A-A

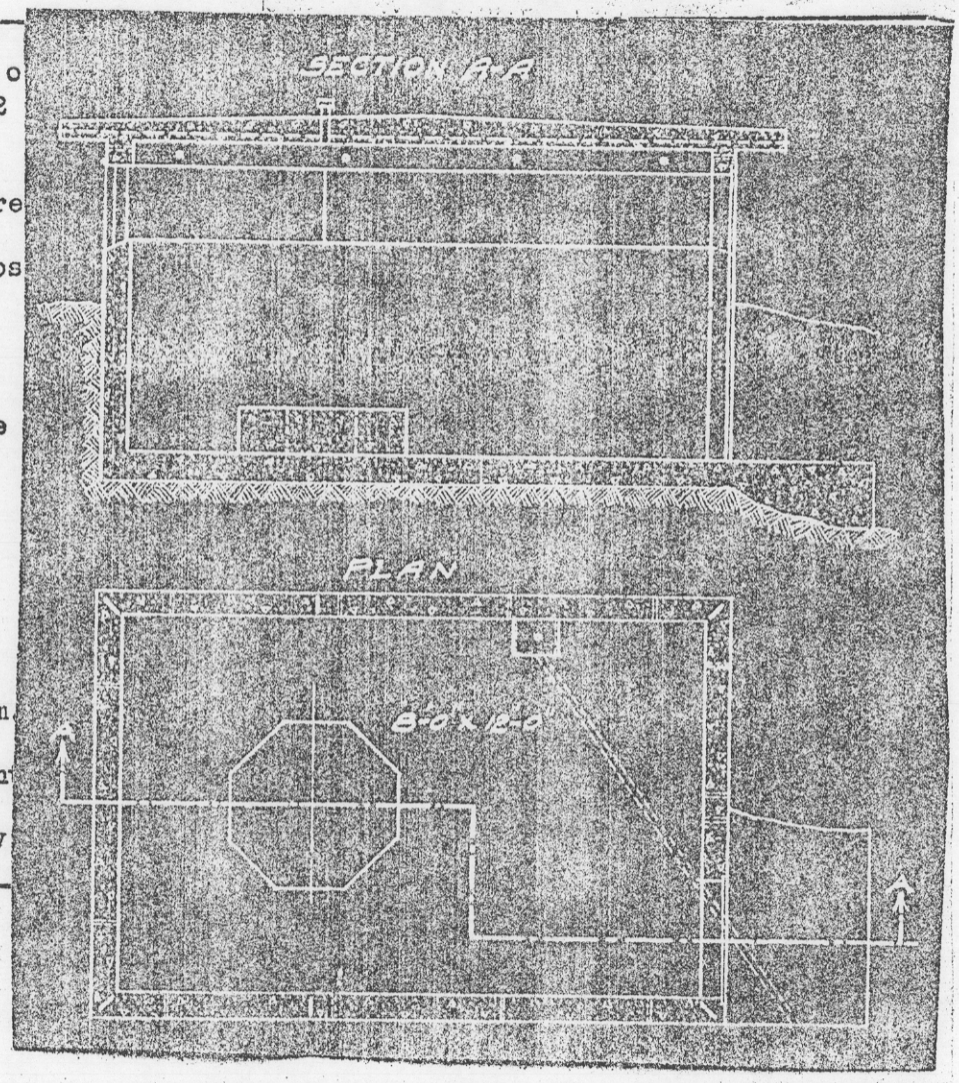
Scale 1" = 8'-0"

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to February 20, 1932

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: Fire Control Station J,
Ulupau Head, Oahu, T. H.

Location	: Northeast point o	Northeast point of Island of Oahu
Date of transfer	: January 22, 1932	January 22, 1932
Cost to date	: $3,162.86	$3,162.86
Type of construction:	:	
(a) Roof	: Reinforced concre	Reinforced concrete
(b) Remainder of building	: Concrete	Concrete
How concealed	: Upper 3 ft. expos	Upper 3 ft. exposed
How protected	: Dug-in type	Dug-in type
Height above concealment	: 3 ft.	3 ft.
Height above protection	: 3 ft.	3 ft.
Conspicuous at 500 yards	: Yes	Yes
Source of electric current	: Portable storage	Portable storage battery
Kilowatts required	: 0.1	0.1
Type of lighting fixtures	: Commercial	Commercial
How heated	: Not heated	Not heated
Connected to water mains	: No	No
Connected to sewer	: No	No
Type of latrine	: None	None
Permanent or temporary	: Permanent	Permanent
Present condition	: Good	Good
Reference of site	: 700± ft. above m	700± ft. above m.l.l.w.
Reference of instr. axis	: Not determined	Not determined
Type of observing instr.	: D.P.F. instrumen	D.P.F. instruments intended
Type of plotting board	: None	None
Type of data transmission	: None as yet prov	None as yet provided



660 B (Honolulu) 131

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~xxxxxxxxxxxxxxxxxxxx~~)

HARBOR DEFENSES OF PEARL HARBOR
~~XXXX~~ ULUPAU HEAD
STRUCTURE FIRE CONTROL STATION "J"

Form 2. Corrected to November 29, 1940

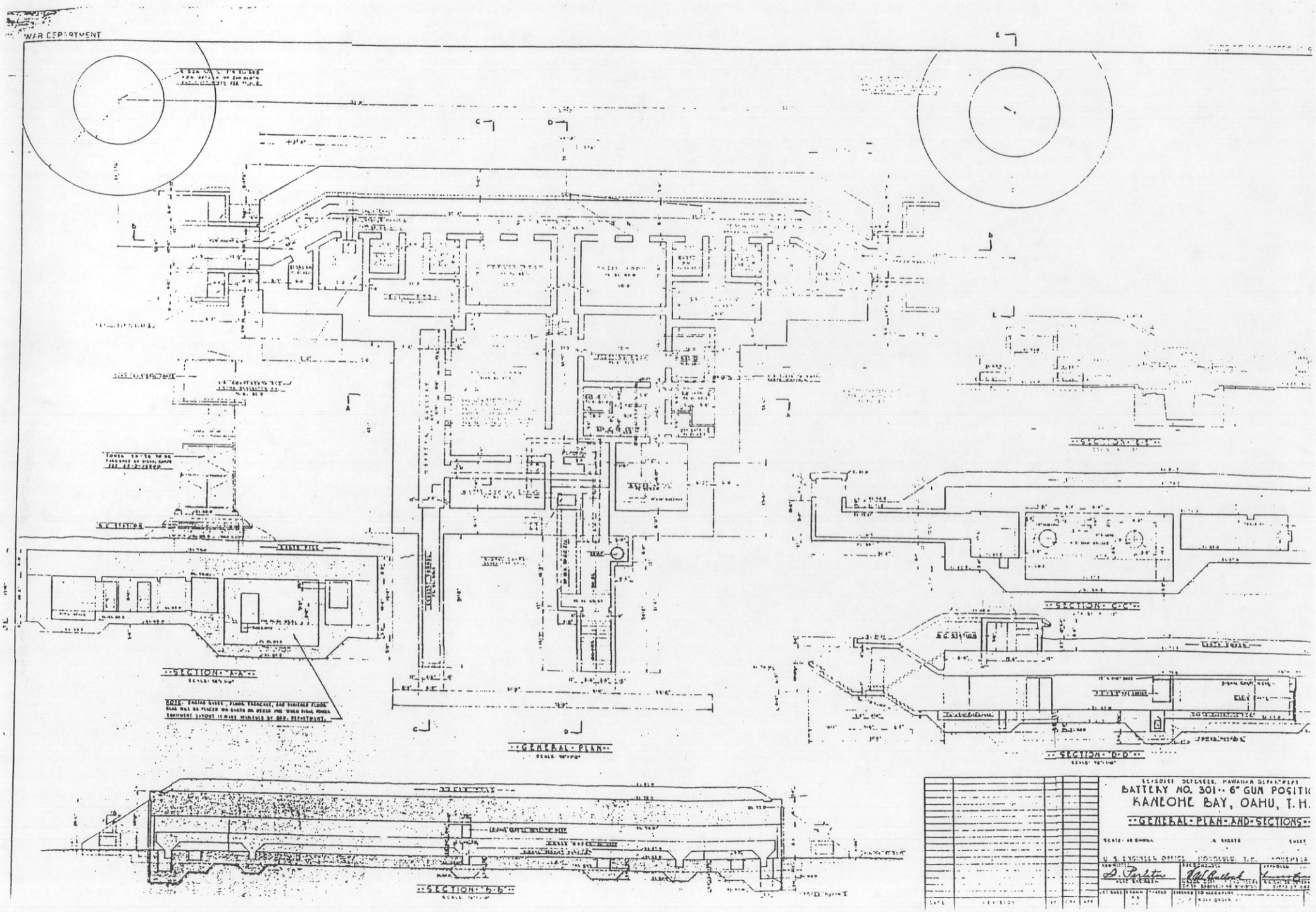
STRUCTURE:	
Location	Ulupau Head, Oahu, T. H.
Date of transfer	November 5, 1940
Cost to that date	$6,450
Type of construction Structure	
(a) ~~Xxxx~~ Fire Control	Reinforced Concrete (16'x15')
(b) Power Plant Bldg. ~~xxxxxxxxxxxxxxxxxxxx~~	Reinforced Concrete (6'x8')
(c) Barracks	Frame (10'x50')
How concealed	Partially concealed by rock
How protected	Partially protected by rock
Height above concealment	None
Height above protection	None
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source ~~xxx~~	D. C. power unit to be provided by troops.
Kilowatts required	1.5 kw.
Type of lighting fixtures	Overhead lighting fixtures connected to power plant.
HEAT:	
How heated	None
WATER AND SEWER:	
Connected to water mains	No
Connected to sewer	No
Type of latrine	Latrine to be provided by troops.
Permanent or temporary inst'ln	
Present condition	
REFERENCE:	
Reference of site	Approximately 650 feet above mean lower low water.
~~Reference of instrument xxxxx~~	
~~Type and capacity of crane xxxx~~	
~~Max. dim. of reel handled~~	

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	to be provided by troops.
Type of plotting board	
DATA TRANSMISSION:	
Type of	to be provided by troops.
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling.

12

WAR DEPARTMENT



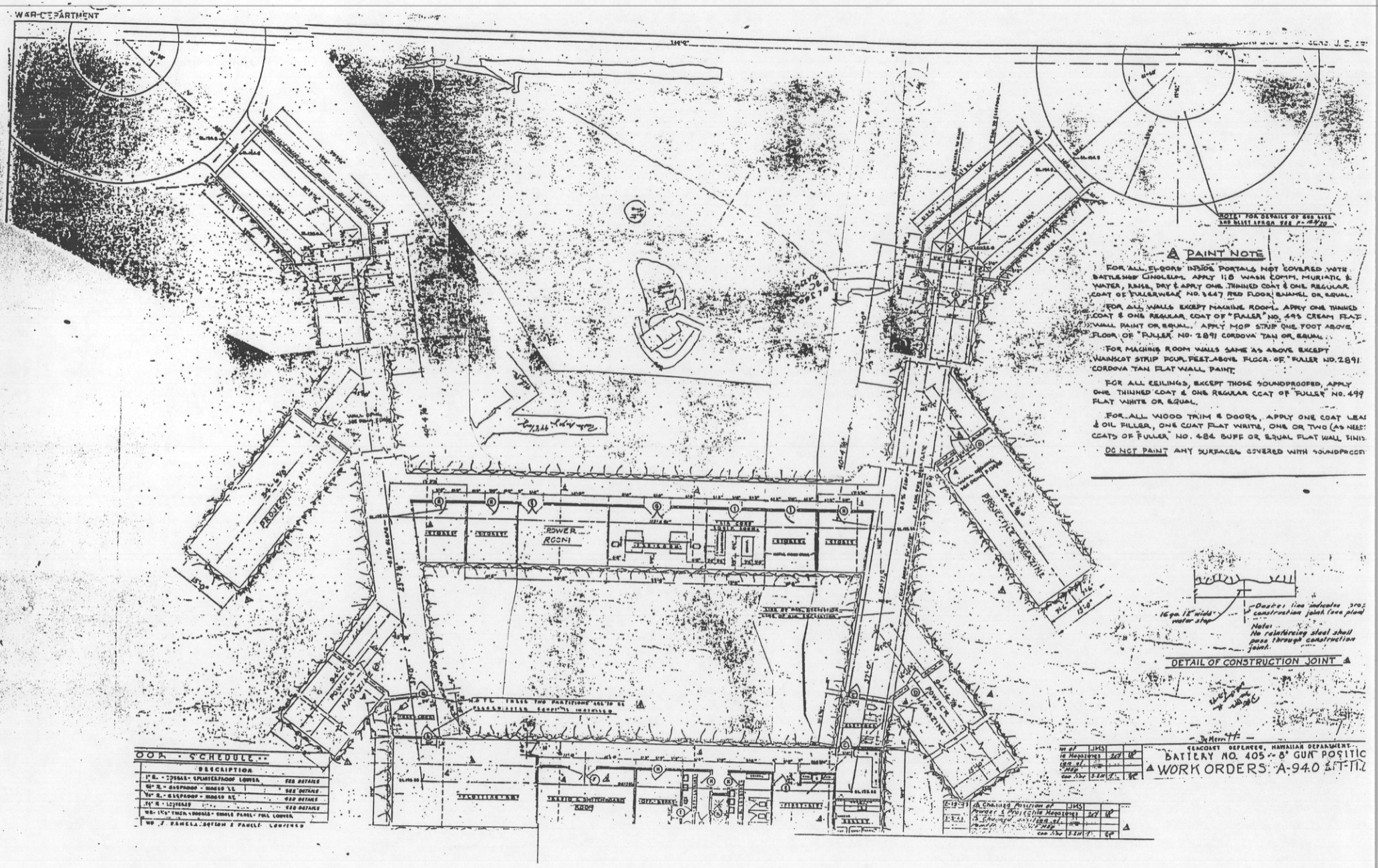
HAWAIIAN DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 301 - 6" GUN POSITI
KANEOHE BAY, OAHU, T. H.

GENERAL PLAN AND SECTIONS

U. S. ENGINEER OFFICE, HONOLULU, T. H.

WAR DEPARTMENT


POWER ROOM
PROJECTILE MAGAZINE
POWDER MAGAZINE
PROJECTILE MAGAZINE
POWDER MAGAZINE
TRAINING & SWITCHBOARD ROOM
TELEPHONE
TELEPHONE
TOILET
TOILET
TOILET

660 B (Honolulu) 131

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~xxxxxxxxxxxxxxxxxx~~)

HARBOR DEFENSES OF PEARL HARBOR
~~XXXX~~ ULUPAU HEAD
STRUCTURE FIRE CONTROL STATION "J"

Form 2. Corrected to November 29, 1940

STRUCTURE:	
Location	Ulupau Head, Oahu, T. H.
Date of transfer	November 5, 1940
Cost to that date	$6,450
Type of construction	Struc-
(a) ~~Xxxx~~ Fire Control ture	Reinforced Concrete (16'x15')
(b) Power Plant Bldg. ~~xxxxxxxxxxxxxxxxxxxx~~	Reinforced Concrete (6'x8')
(c) Barracks	Frame (10'x50')
How concealed	Partially concealed by rock
How protected	Partially protected by rock
Height above concealment	None
Height above protection	None
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source ~~xx~~	D. C. power unit to be provided by troops.
Kilowatts required	1.5 kw.
Type of lighting fixtures	Overhead lighting fixtures connected to power plant.
HEAT:	
How heated	None
WATER AND SEWER:	
Connected to water mains	No
Connected to sewer	No
Type of latrine	Latrine to be provided by troops.
Permanent or temporary inst'ln	———
Present condition	———
REFERENCE:	
Reference of site	Approximately 650 feet above mean lower low water.
~~Reference of instrument axis~~	
~~Type and capacity of crane~~	
~~Max. dim. of reel handled~~	

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	to be provided by troops.
Type of plotting board	
DATA TRANSMISSION:	to be provided by troops.
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

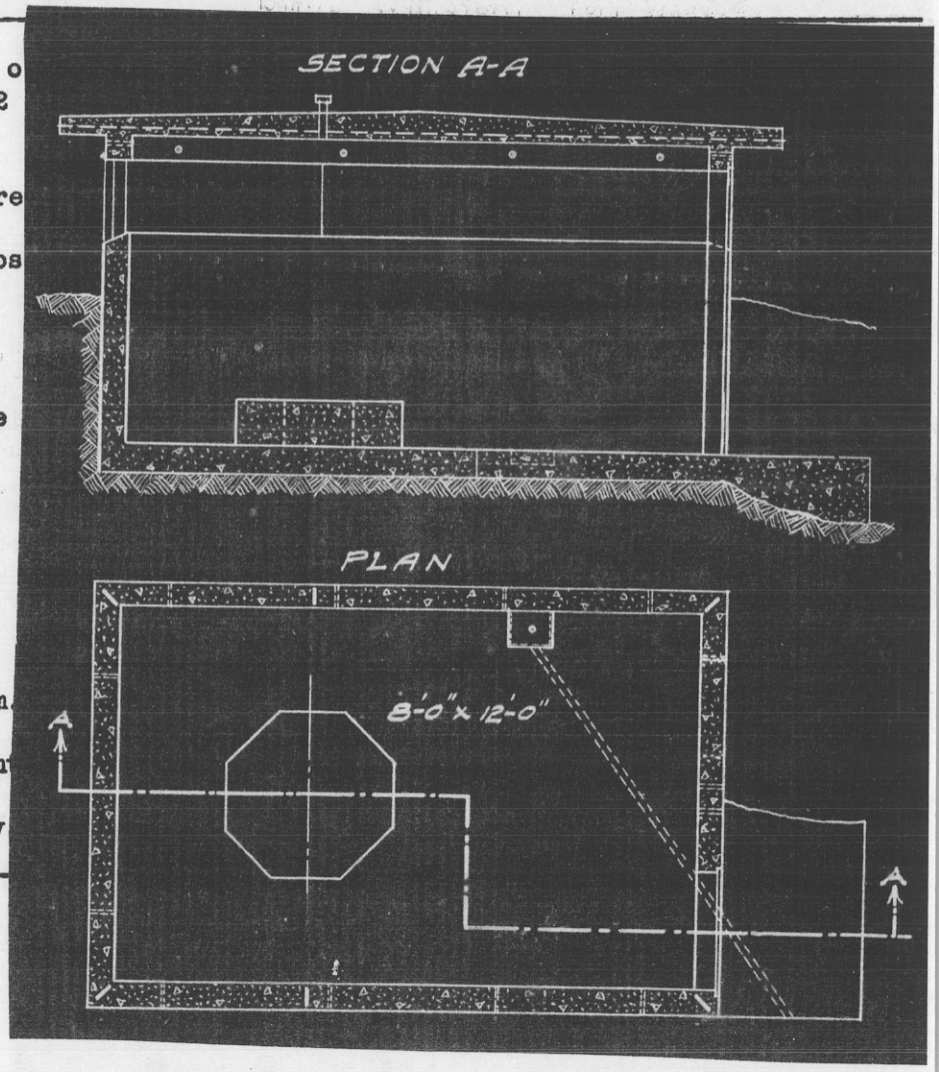
Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to February 20, 1932

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: Fire Control Station J,
Ulupau Head, Oahu, T. H.

Location	Northeast point o
Date of transfer	January 22, 1932
Cost to date	$3,162.86
Type of construction:	
(a) Roof	Reinforced concre
(b) Remainder of building	Concrete
How concealed	Upper 3 ft. expos
How protected	Dug-in type
Height above concealment	3 ft.
Height above protection	3 ft.
Conspicuous at 500 yards	Yes
Source of electric current	Portable storage
Kilowatts required	0.1
Type of lighting fixtures	Commercial
How heated	Not heated
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	700± ft. above m
Reference of instr. axis	Not determined
Type of observing instr.	D.P.F. instrumen
Type of plotting board	None
Type of data transmission	None as yet prov



REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Forrected to Oct. 4, 1927.

ULUPAU.
BATTERY See Below
No. of Guns, None. Caliber ____ Carriages
2 Emplacements for 240 MM Howitzer

Battery commenced	April 11, 1927		
Battery completed	May 20, 1927	Source of electric current	None
Date of transfer	Sept. 27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$4,515.75 *	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	How ventilated	Not required
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail; materials hauled by Q.M.C.

A R M A M E N T

None mounted

H O I S T S

None

M O T O R

None

REPORT OF COMPLETED WORKS

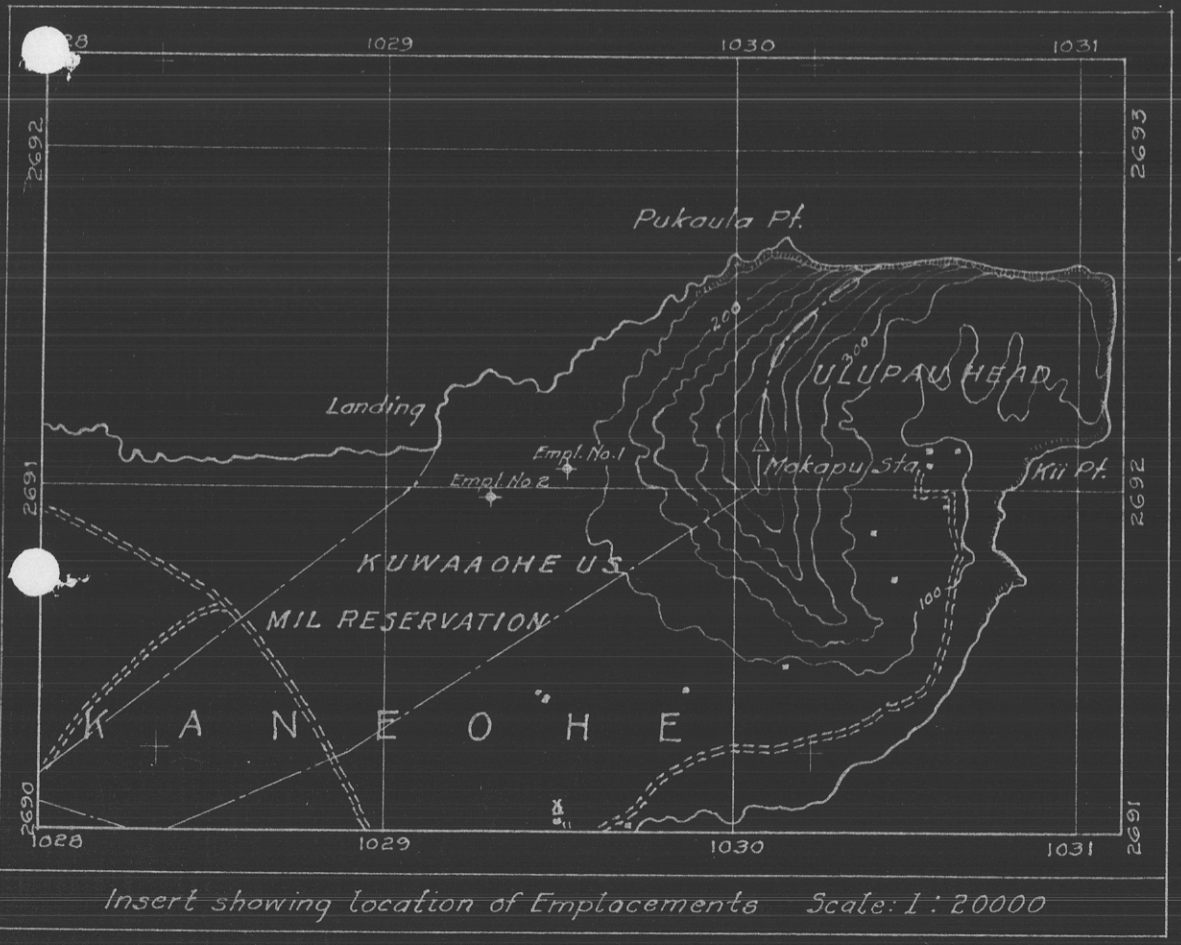
(General Plan)

August 1927.

Form T.

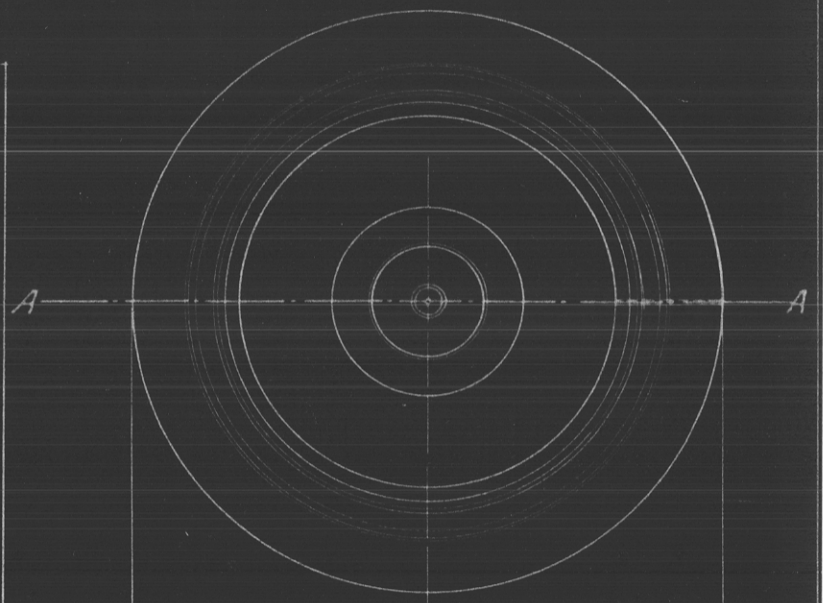
ULUPAU HEAD
2 EMPLACEMENTS

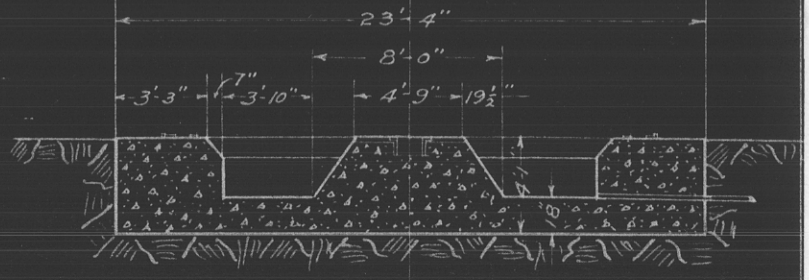
(Graphic Scales)
0 500' 1000' 2000' 3000' 4000'
12" 0 5' 10' 15' 20'



Insert showing location of Emplacements Scale: 1 : 20000

PLAN





SECTION A-A
Scale: 1"=8'-0"

REPORT OF COMPLETED WORKS

(General Plan)

August 1927.

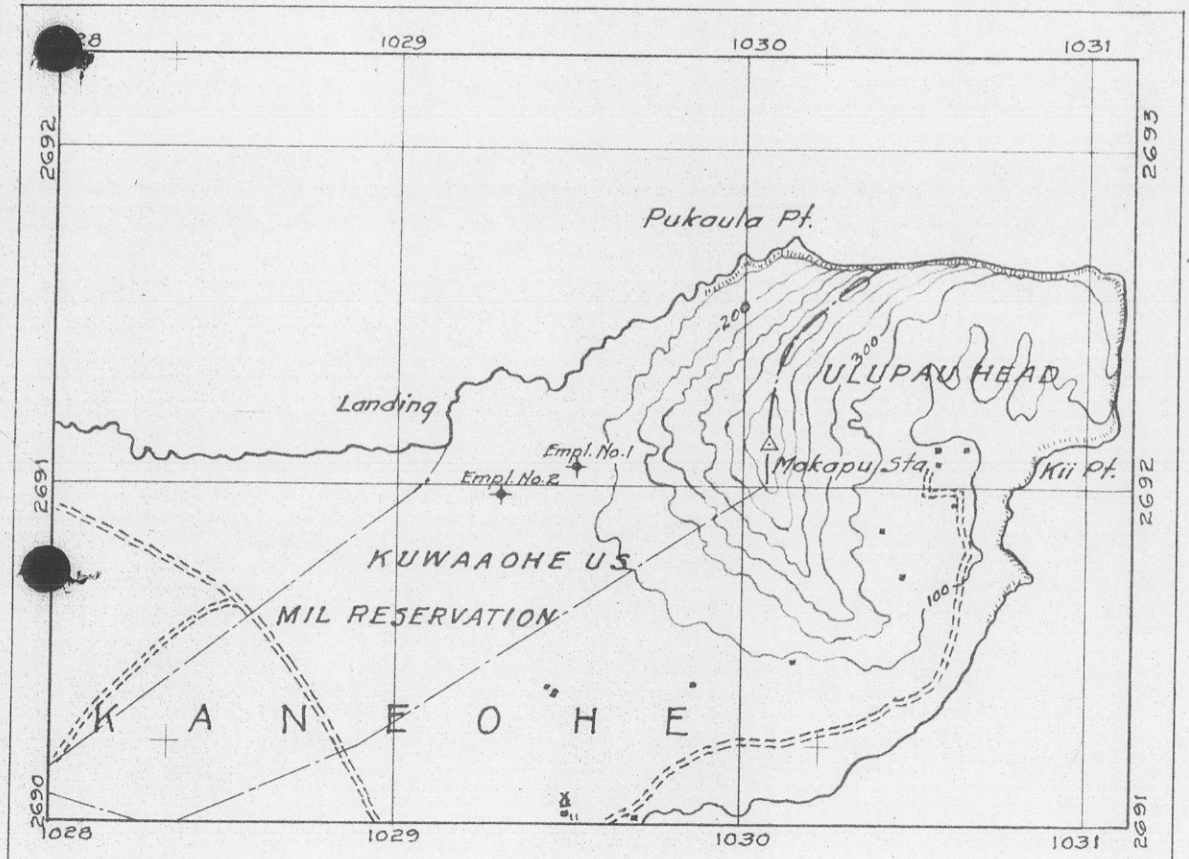
Form T.

ULUPAU HEAD
2 EMPLACEMENTS

(Graphic Scales)

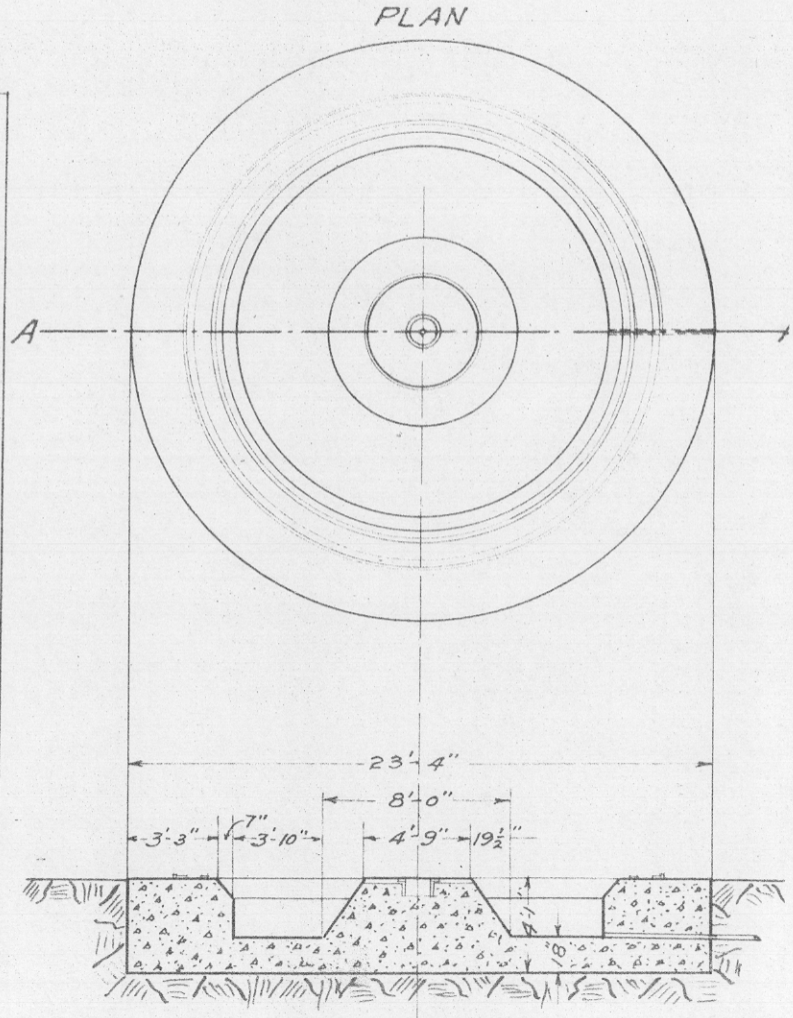
0 500' 1000' 2000' 3000' 4000'

12" 0 5' 10' 15' 20'



Insert showing location of Emplacements Scale: 1 : 20000

PLAN



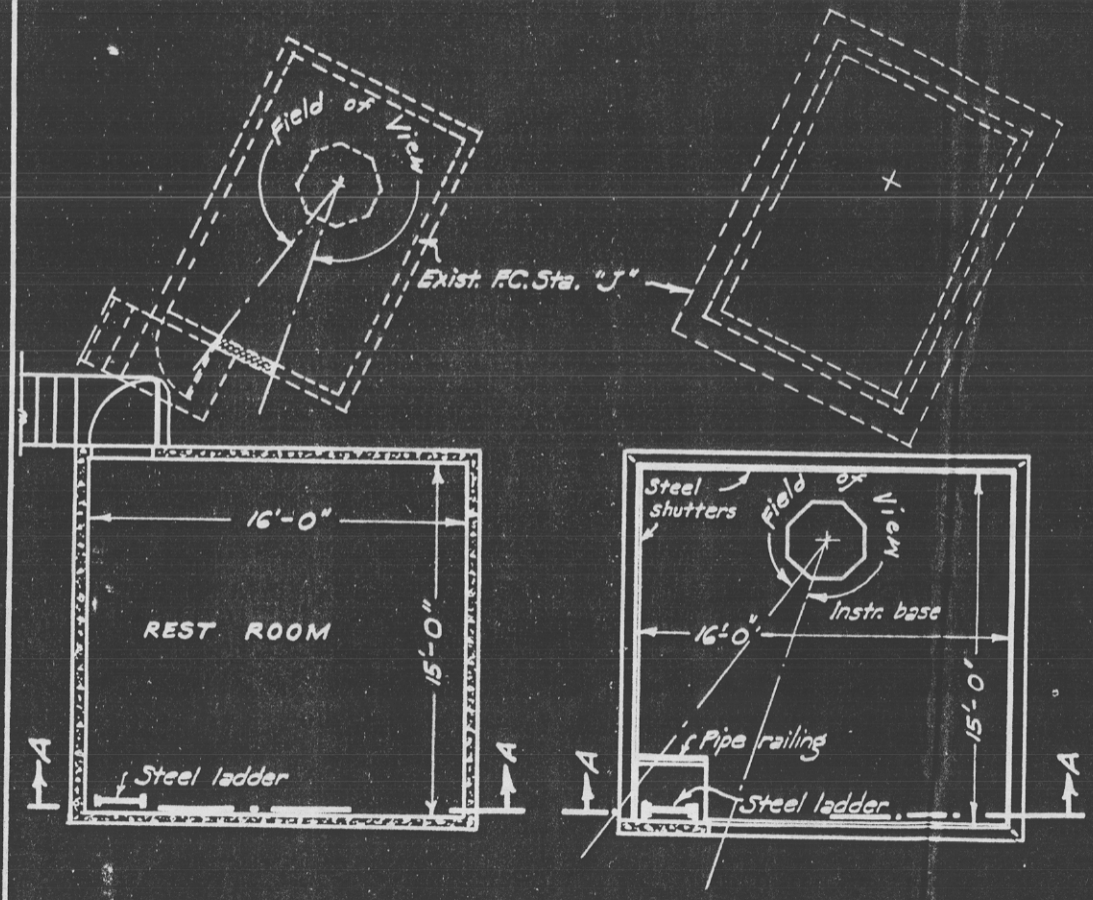
SECTION A-A

Scale: 1"=8'-0"

G-451

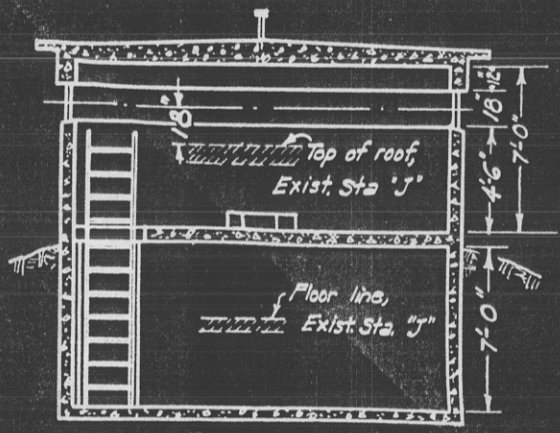
WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PLAN
LOWER FLOOR

PLAN
UPPER FLOOR



SECTION A-A

U. S. ENGINEER OFFICE
HONOLULU, T. H.

PROPOSED
FIRE CONTROL STATION
AND REST ROOM
ULUPAU HEAD, OAHU, T.H.

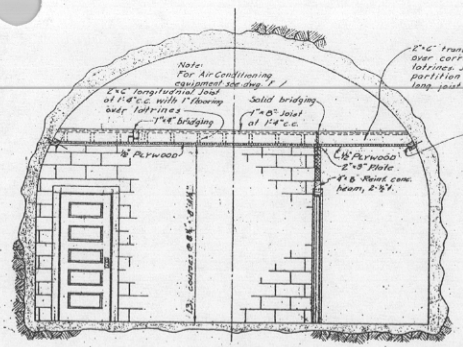
SCALE: $\frac{3}{16}$" = 1'-0"
IN 1 SHEET

REVISIONS

SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED: J.C.M.				
DRAWN: K.M.				
TRACED: K.M.			8-30-35	F 1062
CHECKED:	ASSOC. ENGR.	MAJOR C.E. DIST. ENGR.		

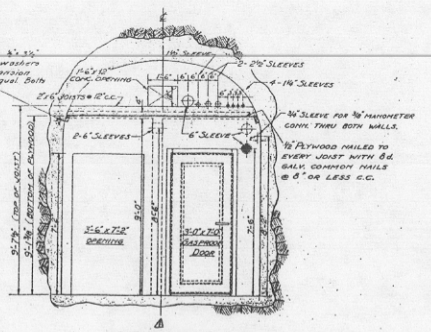
WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



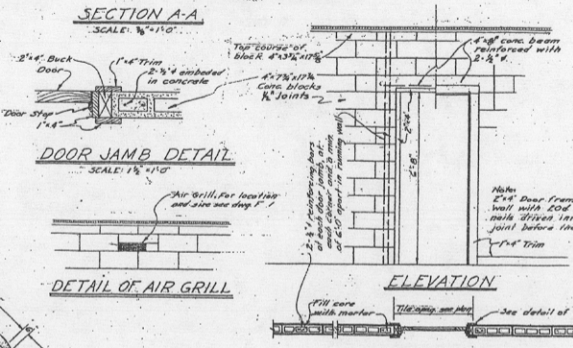
SECTION A-A

SCALE: ⅜"=1'-0"



SECTION B-B

SCALE: ⅜"=1'-0"



DOOR JAMB DETAIL

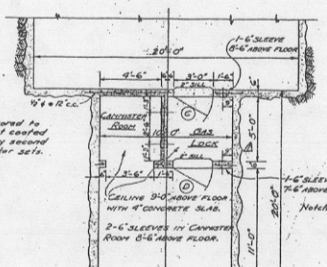
SCALE: 1½"=1'-0"

DETAIL OF AIR GRILL

ELEVATION

SECTION TYPICAL DOOR DETAIL

SCALE: ½"=1'-0"



PLAN

SECTION

DETAIL OF RACEWAY

SCALE: 1"=1'-0"

PLAN

SCALE: ¼"=1'-0"

DOOR SCHEDULE			
Mark.	No.	Size	Remarks
A	1	3'-0"x7'-0"	G.P.-¾"R- Rt. hand swing-see dwg. T-1
B	1	2'-6"x7'-0"	G.P.-¾"R-L.H. " " " "
C	2	3'-0"x7'-0"	G.P.-¾"R-L.H. " " " "
D	2	3'-0"x7'-0"	G.P.-¾"R-Rt. " " " "
E	1	3'-4"x6'-8"	Wood panel bottom two panels louvered.
F	5	2'-6"x6'-8"	Double wooden panel-bottom panel louvered.
G	2	2'-6"x6'-8"	Wood Panel bottom two panels louvered.
H	3	2'-6"x6'-8"	Wood Panel Two louvered.

General Notes.

⚠ Masonry walls to be of hollow concrete tile of 6" nominal thickness. Longitudinal mortar joints to be reinforced at approx. sixteen inch (16") maximum intervals with strips of 18" x 22 ga. expanded metal mesh 3" wide. All corners to be reinforced with similar strips 2'-6" long crossing vertical mortar joint and in each horizontal joint.

⚠ Tile partitions shall be reinforced vertically with 2-½"ø bars at all corners and at points not over 6'-0" apart.

Where conc. block wall bonds against tunnel wall it shall be anchored to the tunnel wall with ⅝"ø rods 1'-6" long, grouted 6" into tunnel wall. Anchors shall be placed in every third masonry joint.

All walls and partitions to be painted a flat white with a kick strip 8'-0" high of flat gray, eke epk. as noted.

Floors of the Plotting Room, Radio & Switch Board Room, Officers Quarters, First Aid and Galley shall be covered with Battleship Linoleum.

In corridor apply a wash to the floor of 1 to 8 muriatic acid and water, rinse with clean water and dry thoroughly. Paint with 3 coats of cement waterproofing in accordance with Federal Specifications.

All rooms shall have Plywood ceilings unless otherwise noted. For details of Signal Corps ducts and power ducts See Duct layout.

DATE	REVISION	BY	CHK.	APP.
6-1-42	Changed ceilings, fills and floors, App. by HTS			

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 302-6" GUN POSITION

WORK ORDERS-600.118 T-1.0 & A 94.1

PLAN & SECTIONS OF REAR TUNNEL

SCALE: AS SHOWN IN SHEETS SHEET NO

U.S. ENGINEER OFFICE, HONOLULU, T.H. JUNE 1942

SUBMITTED: H. Peltz, HEAD ENGINEER, CHIEF ENGINEERING DIVISION

APPROVED: Lewis Brereton, BRIGADIER GENERAL, U.S. ARMY, DISTRICT ENGINEER

DESIGNED M.A.S. G.E.W. | DRAWN M.A.S. | TRACED | CHECKED | TO ACCOMPANY

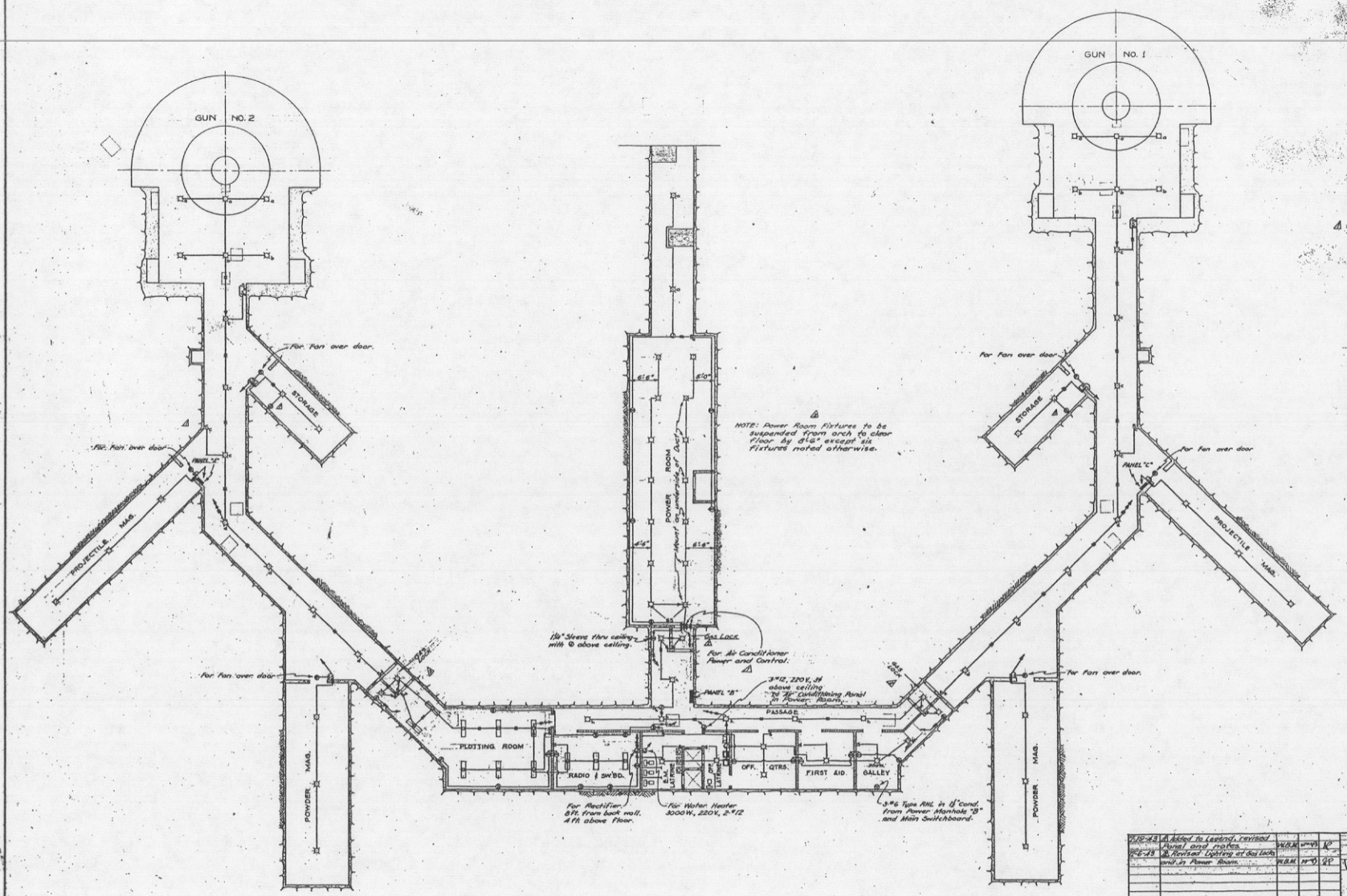
WORK ORDER NO. 600.118-T-1.0 & A 94.1

CORPS ST. SERIAL NO.

FILE

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PANEL SCHEDULE

PANELS "A" AND "C"

BRANCHES	LOAD	BREAKER	POLES
5	Lights & Fans	20 A.	1
3	Spare	20 A.	1

MAINS: 50 Amp, 3 Wire, Solid Neutral, Lugs in Main, 120/208 Volts, Single Phase.
SERVICE: 3 Conductor #8, Type RHL Cable in 1¼" Conduit to Power Manhole "E" and "D" and to Main Switchboard in Power Duct.

PANEL "B"

BRANCHES	LOAD	BREAKER	POLES
10	Lights and Outlets	20 A.	1
3	De-gas Units	20 A.	1
1	Telephone Rectifier	20 A.	1
1	Water Heater	20 A.	2
5	Spares	20 A.	1

MAINS: 100 Amp, 4 Wire, Solid Neutral, Lugs in Main, 120/208 Volts, Three Phase.
SERVICE: 3 Conductor #4, Type RHL Cable and 1-#4 Bare Copper Wire in 1¼" Conduit to Power Manhole "A" and to Main Switchboard in Power Duct.

FIXTURE SCHEDULE

LOCATION	TYPE	WATTS	QUANTITY
Plotting Room	Vapor proof Fluorescent	2/40	8
Radio & Swbd. Room	"	3/40	3
Officers' Quarters	Crouse Hinds Type ARB	200	2
First Aid	"	200	1
Galley	"	200 / 100	1
All other locations at lower level.	"	100	72

NOTE: Fixtures in Casemates and in outer tunnels shall have half-shades.
Suspend Lights in Magazines from under side of duct.
Stagger 1 ft. off center to clear sprinkler system pipe in Powder Magazine.

LEGEND

- Vapor-tight, 100 Watt Lighting Fixture consisting of Crouse Hinds GRFX229 Body, GASK643 Gasket and AR891 Lamp Fixture Assembly. For 200 W. Fixture, substitute AR893 for AR891 Lamp Fixture Assembly.
- Fluorescent Fixture, 3-40 Watt 48" Tubes in approved housing, equivalent to the fluorescent fixture shown on Bureau of Ships, Navy Dept. Drawing Index-9, Group-5, File No. 5346-L-Att. 2, dated April 10, 1942, (Revision No. 2). Fixtures conforming to these specifications may be obtained from: Mobile Color and Light Co., Jersey City, N.J. or Sight Light Corp., Deep River, Conn.
- Plug-in Box, 2 Pole, 20 Amp., complete with plug, consisting of Crouse Hinds GRFX Body, GASK643 Gasket, AR8327 Receptacle and BP8522 Plug.
- Junction Box, consisting of Crouse Hinds GRFX229 Body, GASK643 Gasket and GRF10 Cover.
- Same as ⊕, for use with Fan.
- 50 Amp., 3 Wire, 120/208 V., 1¼, Range Receptacle, as Hubbell 7350 plus 7914.
- Lighting Switch consisting of Crouse Hinds FS2019 Body, GASK425 Gasket, DS181 Cover, Bryant 4961 Tumbler Switch, 10 Amp., S.P., 125 Volts.
- 1¼" Sleeve thru wall.
- Conductor for Lights and Receptacles to be 2 or 3-#12 Lead Sheathed Armored Cable in accordance with Fed. Spec. JC-121, Par B-1c, Options 2 or 3.

NOTE: For Power Manhole and Duct Layout, see Drawing F-60/1.

DATE	REVISION	BY	CHK.	APP.
7-19-43	Added to Legend, revised Panel and notes	W.B.M.	[illegible]	[illegible]
12-6-43	Revised Lighting at Gas Lock and in Power Room.	W.B.M.	[illegible]	[illegible]

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 302 - 6" GUN POSITION
WORK ORDER NO. 600.118-T-1.0 & A-94.

LIGHTING PLAN

SCALE: 1 IN. = 10 FT. IN SHEETS SHEET NO.

U. S. ENGINEER OFFICE, HONOLULU, T.H. JUNE 1943

SUBMITTED: S. Pelitz, HEAD ENGINEER, CHIEF, ENGINEERING DIVISION

APPROVED: C.H. Kramer, BRIGADIER GENERAL, U.S. ARMY, DISTRICT ENGINEER

DESIGNED: W.B.M. DRAWN: J.W.B. TRACED: CHECKED: [illegible]

TO ACCOMPANY WORK ORDER NO. 600.118-T-1.0 & A-94. CORRESPONDENCE SERIAL NO.

FILE NO. F-60/1

PLUMBING FIXTURES

HOT WATER HEATER	— EQUAL TO WESTINGHOUSE 4-40 W 46 , 30 GALLON CAPACITY , 3000 WATTS.
WATER CLOSET	— A.S.I. COMPLETE WITH BUNA SEATS AND FLOOR FLANGES
LAVATORY	— SQUARE-TO-ROUND P-2000-A
URINAL	— FIG 12 VIT. COMPLETE WITH FLUSH VALVE & EXTERNAL TRAP
SINK, TRIPLE	— D.-SE FIG. 29 , 30"x60" , ROLL RIM WITH BACK , DRAIN & PLUG, H & C FAUCETS
SINK, LAVATORY	— P.I.T. RIM 20"x28" COMPLETE WITH DRAIN & PLUG AND COMBINATION H & C SWING SPOUT FAUCET
SHOWER HEADS	— OUTFIT NO. 2 COMPLETE WITH EXPOSED SUPPLIES AND VALVES
WATER COOLER	— GORDLE TO GENERAL ELECTRIC AT 45° BUBBLER TYPE COOLER , V8 A5, 110 VOLT 60 CYCLE 1 PHASE A.C. COMPRESSOR MOTOR, WATER COOLING CAPACITY TO 50°F TO BE 80% (MIN MAX 5.6 G.P.H. 80°F INLET WATER , 80°F AMBIENT TEMPERATURE.

SEE SECT. D-D FOR AISLE, RISERS AND SLEEVES NOT SHOWN ON PLAN FOR CLARITY.

GENERAL NOTES

LUTE ALL SCREWED PIPING WITH LITHARGE GLYCERINE PASTE ; CAULK ALL WALL PASSAGES WITH OAKUM OR OTHER SUITABLE MATERIAL ; SUPPORT PIPES WITH BAND HANGERS

PLAN - LAVATORY CEILING

SECTION A-A

SECTION B-B

PLAN - LAVATORY FLOOR

SECTION C-C

DEGASSING EQUIPMENT

ITEM NO.	QUAN.	DESCRIPTION	CWO DWG NO.
1	1	CHAMBER, DECONTAMINATING	CS-18-174
2	1	CLOSURE, DECONTAMINATING	CS-18-144
10	5	VALVE, GLOBE, 4"	CS-18-141
12	5	VALVE, ABSOLUTE SEAL, 4"	CS-18-177
19	5	DIRT-SCREEN, 4"	CS-18-177
20	5	GUIDE, CHAIN, 4"	CS-18-170
23	5	VALVE, GATE, 3-WAY, R.H.	CS-18-145
24	5	VALVE, GATE, 3-WAY, R.H.	CS-18-145
28	5	CLAMP, SPRING, 4"	AS-18-052
30	2	HOOK	AS-18-75
31	2	SPRING, PLATFORM	AS-18-76
32	2	SPRING, VALVE	AS-18-65
33	2	SPLIT PIN, 4"	AS-18-77
34	1	BRACKET, RECEIVER MOUNTING	NONE
37	1	MANOMETER	NONE
44	1	CARD, INSTRUCTION, R.H.	CS-18-211
45	1	CARD, INSTRUCTION, L.H.	CS-18-211
61	5	AIR BLAST	CS-18-171

D-D-43	CHANGED DAY LOCK FROM 3'6" TO 3'0"		
4-6-44	ADDED MATERIAL LIST	LDG	

BATTERY NO. 302 - 6" GUN POSITION

WORK ORDER NO. 500.118-A-94.1

DEGASSING - PLUMBING AND DEHUMIDIFYING

SCALE AS SHOWN IN INCHES WAVE NO.

U.S. ENGINEER OFFICE, BOWLING GREEN, KY. JUNE 1943

APPROVED: L. Pilt, HEAD ENGINEER, CORPS OF ENGINEERS, DIVISION

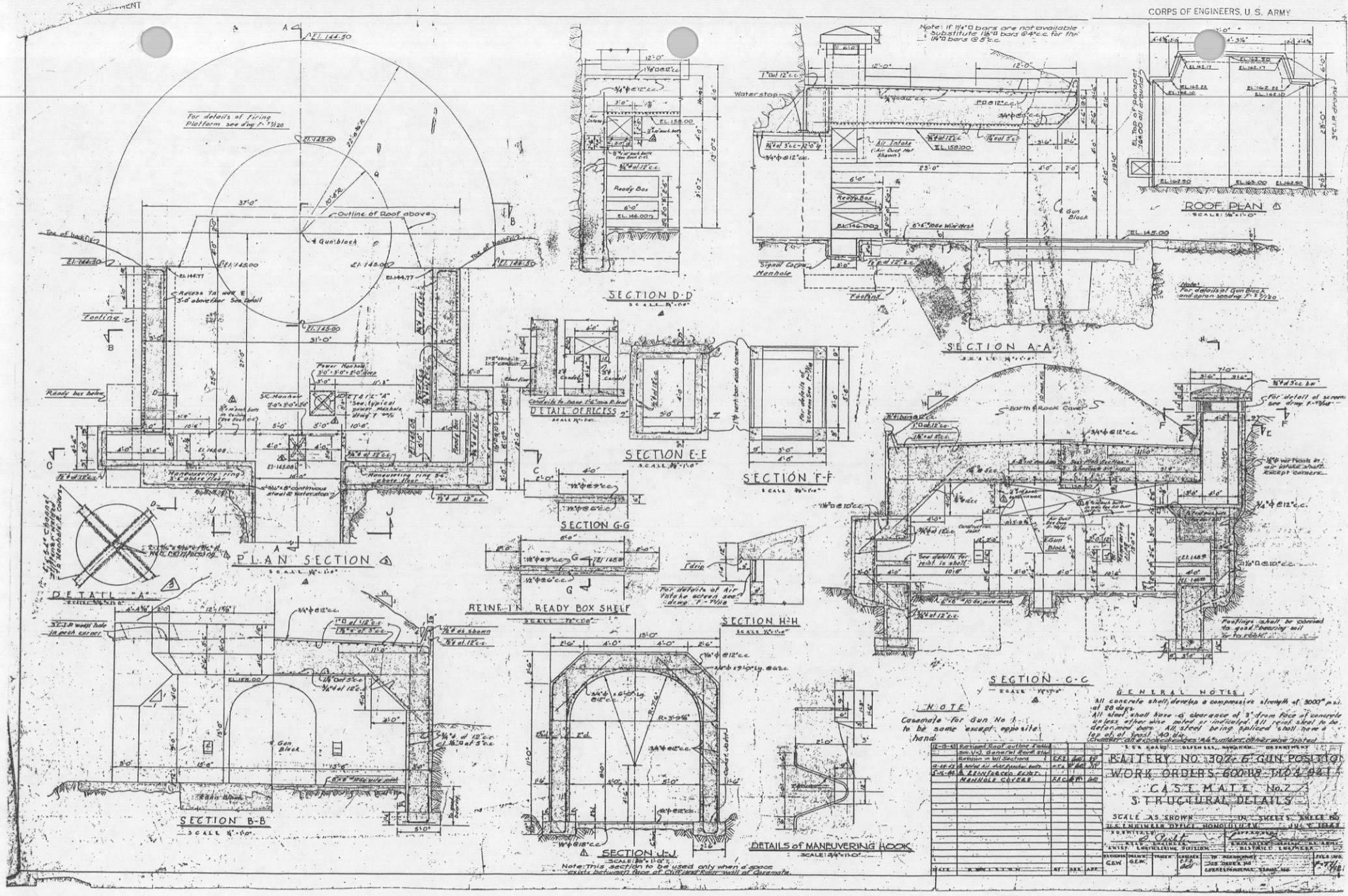
APPROVED: [illegible], BRIGADIER GENERAL, U.S. ARMY, DIVISION ENGINEER

DATE	REVISED	BY	CHK.	APP.
D.-43	D.-44			

SCALE: 1/4" | CHECKED TO ACCOMPANY | USE NO.

WORK ORDER NO. | F-60/M

CONSTRUCTION SERIAL NO.



NOTE

Casemate for Gun No 1 to be same except opposite hand.

GENERAL NOTES

All concrete shall develop a compressive strength of 3000" p.s.i. at 28 days.
All steel shall have ⅜ clearance of 3" from face of concrete unless other wise noted or indicated. All reinf steel to be deformed bars. All steel being spliced shall have a lap of 1ⁱ⁄₂ of steel 40 dia.
Chamfer all exposed edges ¾" unless other wise noted.

12-13-43	Revised Roof outline & detail			
	Sec. V-V, General Reinf. Step			
	Revision in all Sections	E.R.F.	Asst	RP
12-28-43	Added Air Duct Number bolts	M.E.K.	Asst	RP
1-24-44	Revised Sec. F-F	E.R.F.	Asst	RP
	Manhole covers	E.R.F.	Asst	RP

SEA COAST DEFENSES, HONOLULU DEPARTMENT

BATTERY NO. 302 6" GUN POSITION
WORK ORDERS 600-18 & 19
CASEMATE No. 2
STRUCTURAL DETAILS

SCALE AS SHOWN — IN SHEETS — SHEET NO.

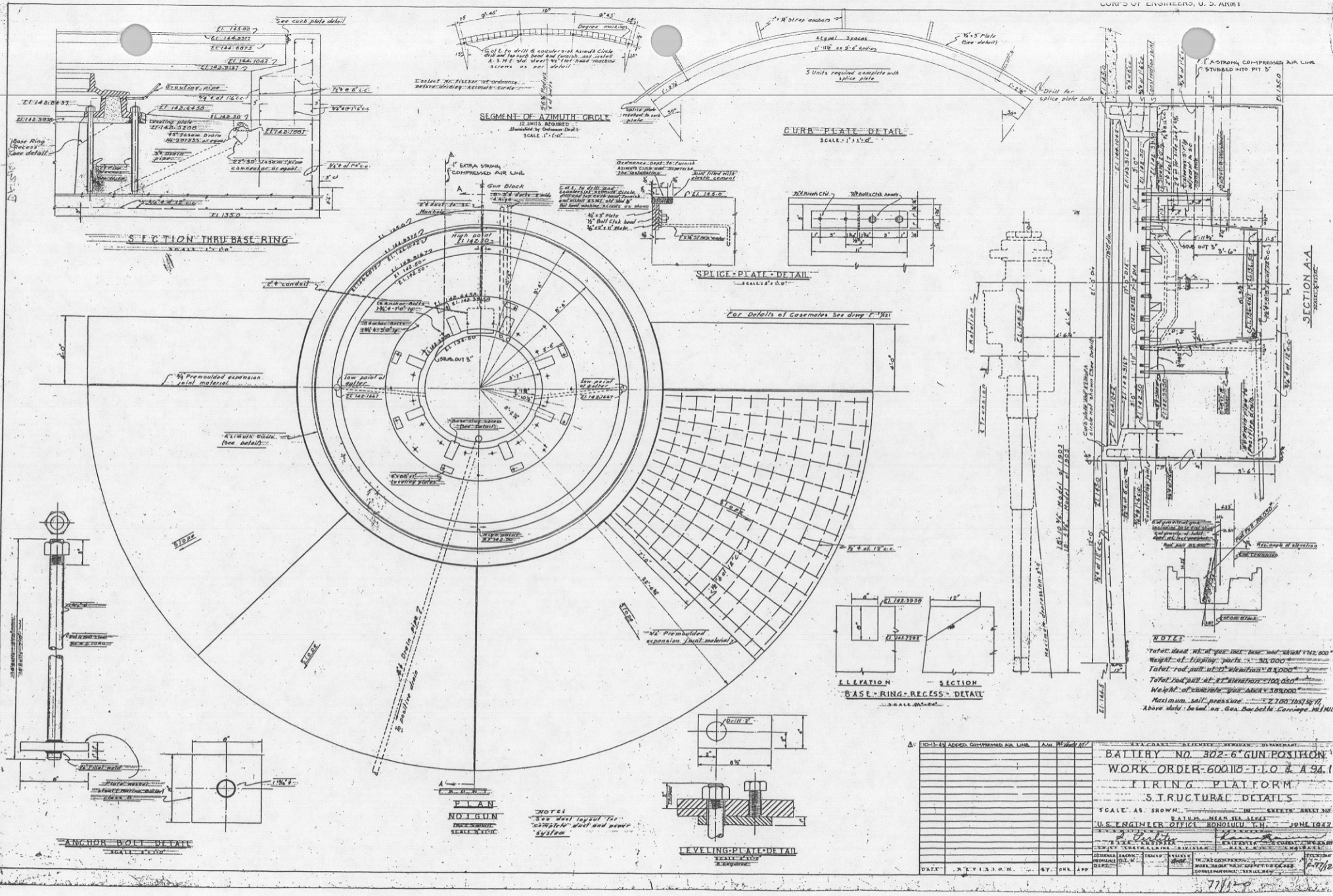
U.S. ENGINEER OFFICE, HONOLULU, T.H. — JULY 1943

SUBMITTED — APPROVED

CHIEF, ENGINEERING DIVISION — EXECUTIVE OFFICER — DISTRICT ENGINEER — LT. COL. C.E.

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES	FILE NO.
C.E.M.	G.E.M.		C.P.S.	JOB ORDER A 348	F-7/121

CORPS OF ENGINEERS, U.S. ARMY



DATE	REVISION	BY	CHK	APP
10-13-43	ADDED COMPRESSED AIR LINE			

EXA COAST DEFENSES HONOLULU DISTRICT

BATTERY NO. 302-6" GUN POSITION

WORK ORDER-600118-I.I.O. & A 94.1

FIRING PLATFORM

STRUCTURAL DETAILS

SCALE AS SHOWN IN SHEETS SHEET NO.

DATUM MEAN SEA LEVEL

U.S. ENGINEER OFFICE HONOLULU, T.H. JUNE 1942

DESIGNED DRAWN TRACED CHECKED QUANTITIES CHECKED

SUBMITTED APPROVED

DIVISION ENGINEER

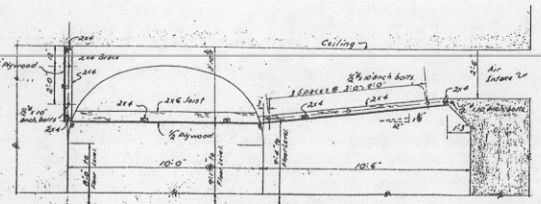
DISTRICT ENGINEER

F-77/2

77/2-0

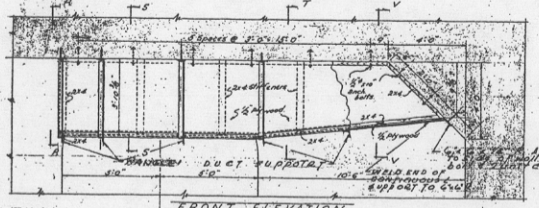
WAR DEPARTMENT

CORPS OF ENGINEERS, U. S. ARMY



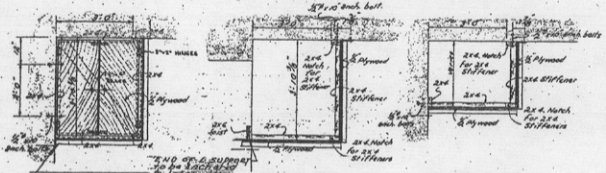
SECTION CC
SCALE 3/8 IN. = 1 FT.

Note: For location of Section CC see drawing F-77/1a1

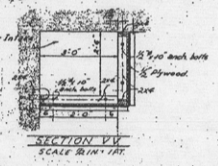


FRONT ELEVATION
SCALE 3/8 IN. = 1 FT.

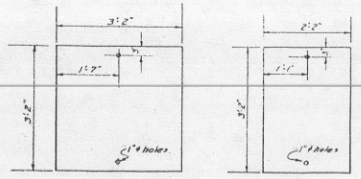
Note: Front elevation taken in same direction as in Section CC



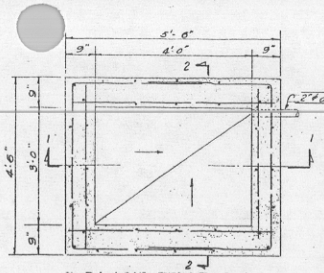
Note: Remove panel from end of duct and cut in half - to make two doors as shown. Place friction catches at top and bottom of doors and drawer knob on each door. These doors must be open when firing guns.



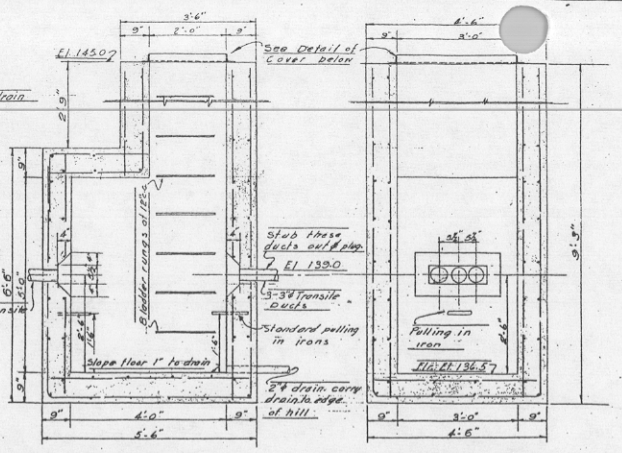
DETAILS OF AIR DUCT



Note: All cover plates to be made from 3/8 checkered plate.



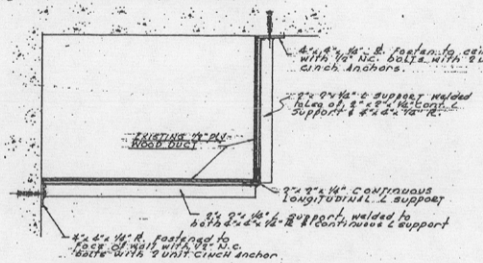
NOTE: All reinf. steel in manholes shall be 3" ϕ of 12" c.c. All steel shall be placed 2" clear from face of conc.



DETAIL OF SIGNAL CORPS MANHOLE No. 2

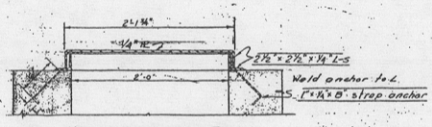
Signal Corps manholes No's 1 & 3 shall be same as No. 2 except that they shall have 2-3¾ transite ducts instead of 3-3¾ transite ducts.

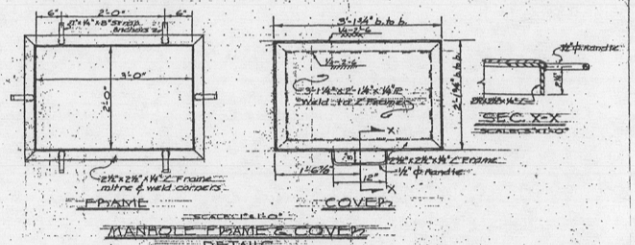
DETAIL OF COVER PLATES

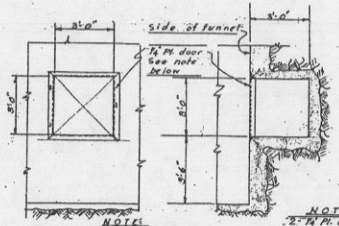


NOTE: See FRONT ELEVATION FOR LOCATION OF ∠ SUPPORTS

TYPICAL DETAILS OF WOODEN DUCT SUPPORT
SCALE: 1" = 1'-0"







NOTE: 2-¼ Pl. doors read: 1 left hand swing for primer storage for Gun No 2 & 1 right hand swing for primer storage for Gun No 3. Doors to be plain with no louver. Leaf size 3'-2"x3'-1". For details of door see drawing F-127/01. Door size 3'-0"x3'-0"

ELEVATION SECTION
DETAIL OF PRIMER STORAGE
SCALE ¾"=1'-0"
1" REQD FOR GUN NO 1
1" REQD FOR GUN NO 2

DATE	REVISIONS	BY	CHK.	APP
12/29/43	Outline Sections EE & FF and minor details of Air duct	RD	AW	AW
2/16/44	Add anchors to Duct	RD	AW	AW
11/3/44	Support, Add Blast Door Section R-R	REG.	BAT	AW

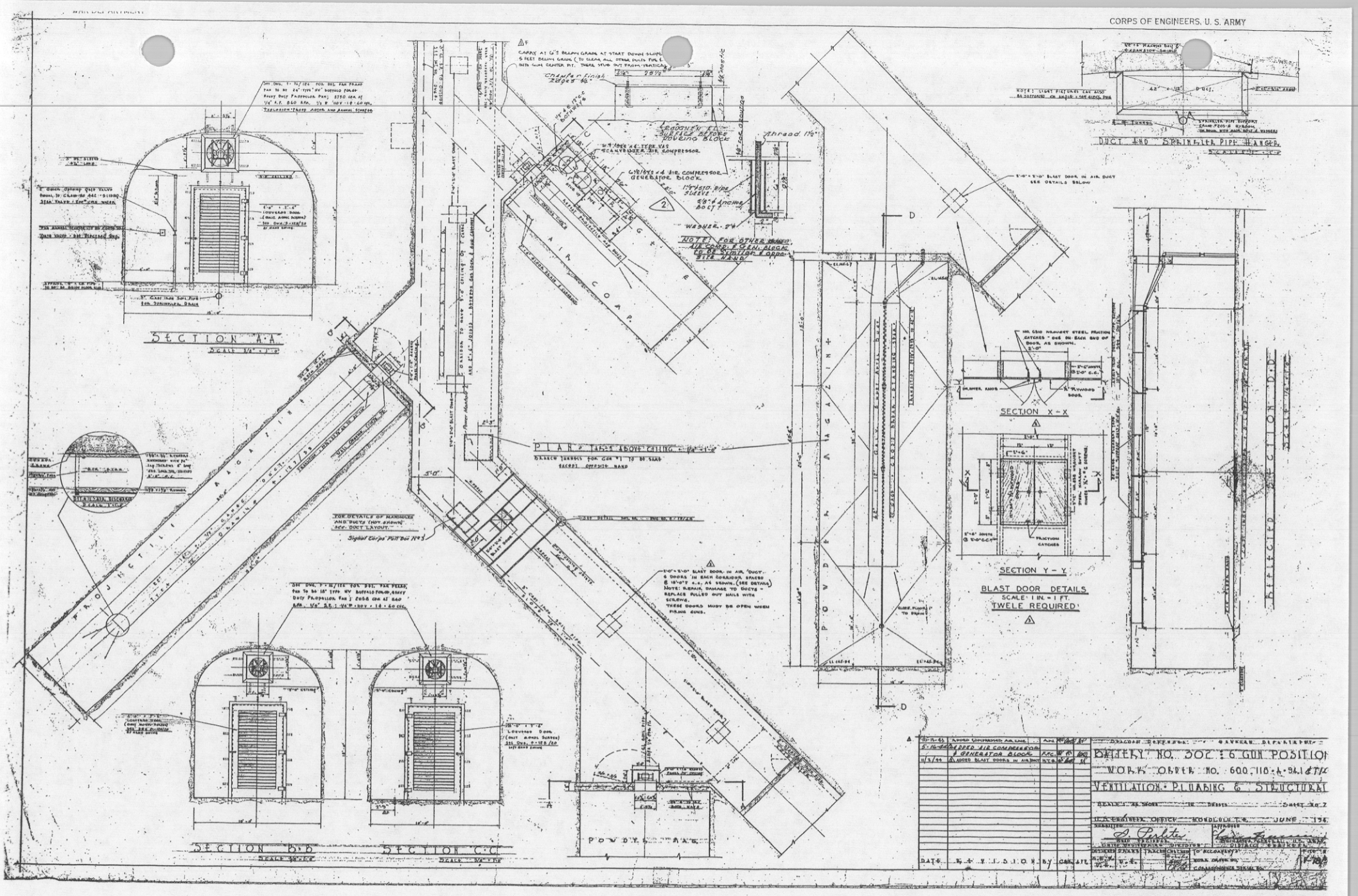
U.S. ENGINEER OFFICE HONOLULU, T.H. JULY 1942

BATTERY NO. 1302 6" GUN POSITION
WORK ORDERS 600118-F1.0 & A 94.1
MISC. STRUCTURAL DETAILS

SCALE AS SHOWN IN SHEETS SHEET NO.

SUBMITTED: [signature] RECOMMENDED: [signature]
CHIEF, MAINTENANCE DIVISION DISTRICT ENGINEER

DESIGNED CLW | DRAWN EEK | CHECKED [signature] | TO ACCOMPANY
WORK ORDER NO. 600118-T-1.0 & A94.1
LOCAL SERIAL NO.
PWD WO 2/19/43



10-11-43	ADDED COMPRESSED AIR LINE			
5-16-44	ADDED AIR COMPRESSOR & GENERATOR BLOCK			
11-3-44	ADDED BLAST DOORS IN AIR DUCT			

DATE | REVISION | BY | CHK. DATE

DISTRICT ENGINEER | DIVISION ENGINEER

BATTERY NO. 302 : 6 GUN POSITION

WORK ORDER NO. 600.110-A-94.1 & 11C

VENTILATION - PLUMBING & STRUCTURAL

SCALE: AS SHOWN | TO DETAILS | SHEET No. 7

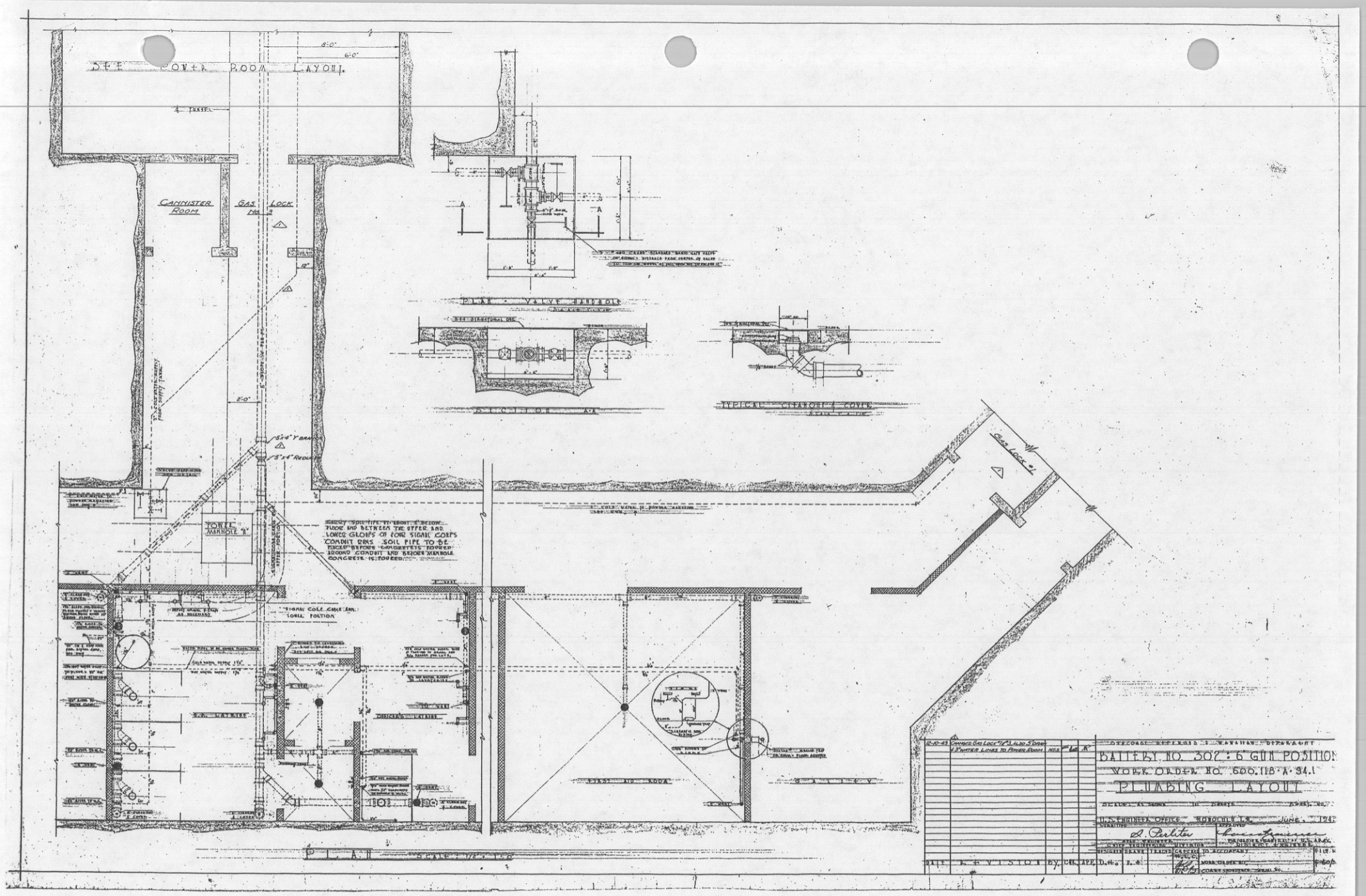
U.S. ENGINEER OFFICE, SOUTHPORT, N.C. JUNE 1944

SUBMITTED | APPROVED

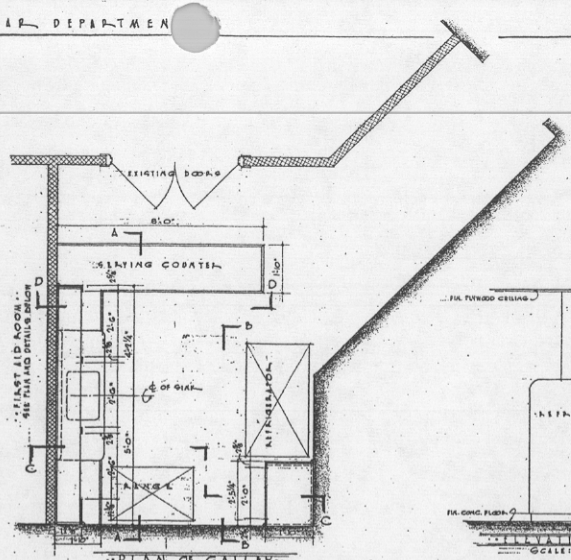
DESIGNED | DRAWN | TRACED | CHECKED | TO ACCOMPANY | FILE No.

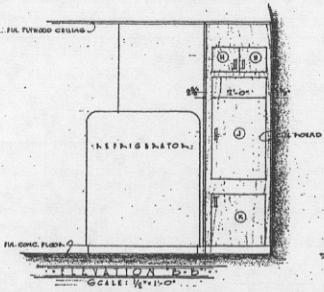
H.D.G. W.O. | W.O. | WORK ORDER NO. | DRAWING NO.

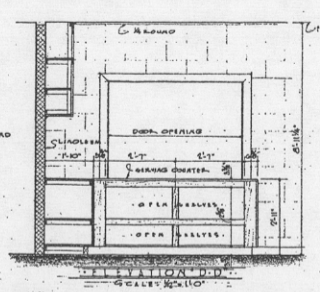
CONTRACTOR'S SERIAL NO.

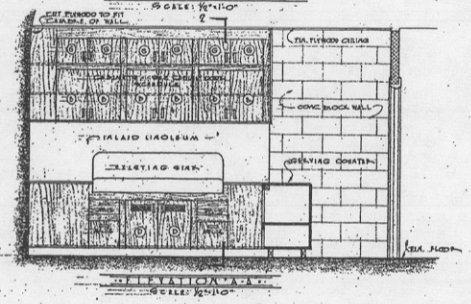

SEE POWER ROOM LAYOUT
CANNISTER ROOM
GAS LOCK No. 2
PLAN - VALVE HANDHOLE
SECTION A-A
TYPICAL CLEANOUT & COVER
GAS LOCK #1
POWER MANHOLE "A"
CARRY SOIL PIPE AT ABOUT 2' BELOW FLOOR AND BETWEEN THE UPPER AND LOWER GROUPS OF FOUR SIGNAL CORPS CONDUIT RUNS. SOIL PIPE TO BE PLACED BEFORE CONCRETE IS POURED AROUND CONDUIT AND BEFORE MANHOLE CONCRETE IS POURED.
SIGNAL CORP. CABLE RUN LOWER PORTION
FIRST AID ROOM
PLAN SCALE 1/2" = 1'-0"
12-10-43 CHANGED GAS LOCK #1 & #3, ALSO 5' DIAM. & 3" WATER LINES TO POWER ROOM
NTS
DATE REVISION BY CHK APP
OFFCOAST DEFENSES & HAWAIIAN DEPARTMENT
BATTERY NO. 302 : 6" GUN POSITION
WORK ORDER NO. 600.118-A-94.1
PLUMBING LAYOUT
SCALE AS SHOWN IN SHEETS
U.S. ENGINEER OFFICE HONOLULU, T.H. JUNE, 1943
SUBMITTED
APPROVED
DESIGNED DRAWN TRACED CHECKED
TO ACCOMPANY
WORK ORDER NO.
CORRESPONDENCE SERIAL NO.
FILE NO.

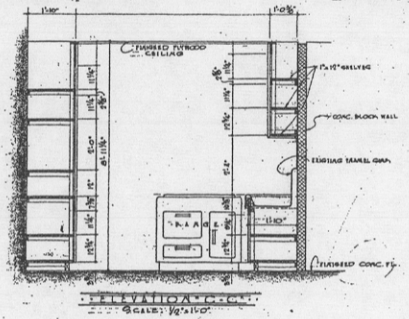
WAR DEPARTMENT — CORPS OF ENGINEERS, U.S. ARMY

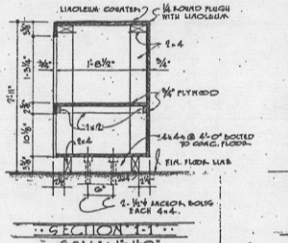


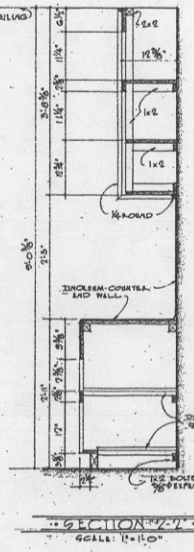


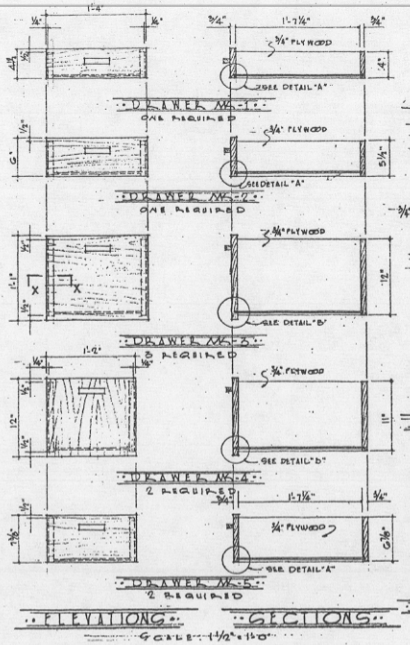


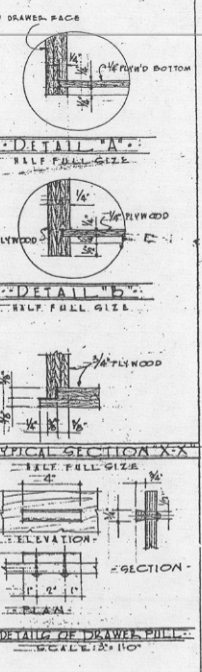


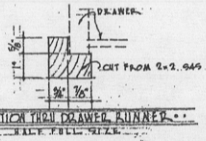




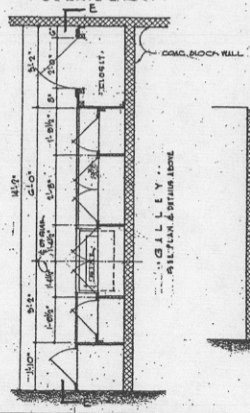


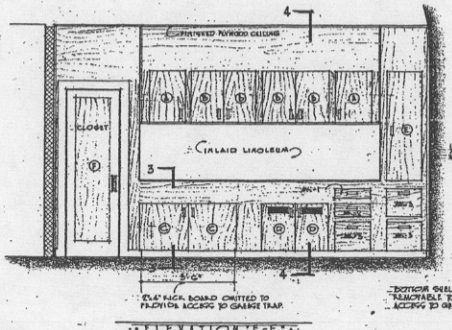


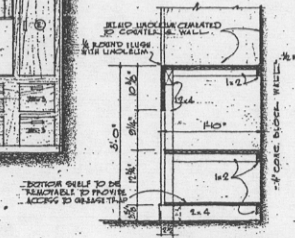


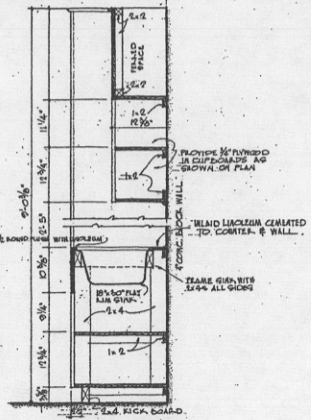


DRAWER DETAILS









CABINET DOOR SCHEDULE				
MARK	HEIGHT	WIDTH	NO REQ'D	REMARKS
(A)	2'-0"	1'-4"	2	¾" PLYWOOD PANEL
(B)	2'-0"	1'-5"	10	¾" PLYWOOD PANEL
(C)	1'-10"	1'-10"	2	¾" PLYWOOD PANEL
(D)	1'-10"	1'-3"	4	¾" PLYWOOD PANEL WITH ¾" DIAMOND METAL BAR INSIDE FACE 5¾ BY OPENING
(E)	4'-8"	3'-4"	1	¾" PLYWOOD PANEL
(F)	6'-6"	2'-0"	1	¾" RIDER DOOR - ¾" PLYWOOD PANEL
(G)	0'-11⅜"	1'-3"	6	¾" PLYWOOD PANEL
(H)	0'-11⅜"	1'-0"	2	¾" PLYWOOD PANEL
(J)	3'-11⅜"	2'-0"	1	¾" PLYWOOD PANEL
(K)	2'-0"	2'-0"	1	¾" PLYWOOD PANEL

SEACOAST DEFENSES, USAPCPA

BATTERY "302" 6" GUN POSITION

WORK ORDERS 600.118-T.1.0 & E.A 94.1

KITCHEN AND FIRST AID ROOM DETAILS

SCALE: AS SHOWN — IN SHEETS — SHEET NO.

U.S. ENGINEER OFFICE, HONOLULU, T.H. JUNE, 1944

SUBMITTED: [signature] HEAD ENGINEER, CHIEF, DESIGN DIVISION

APPROVED: [signature] COLONEL, CORPS OF ENGINEERS, ENGINEER, CPA

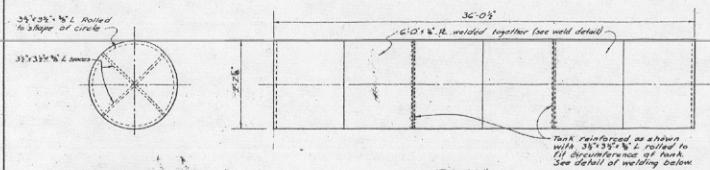
DESIGNED	DRAWN	CHECKED	TO ACCOMPANY	FILE NO.
JD	JD	[illegible]	WORK ORDER NO.	F-779/67
			CORRESPONDENCE SERIAL NO.	

DATE — REVISION — BY — CHK. APP

351

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

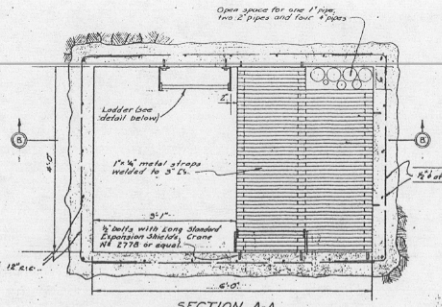


END ELEVATION

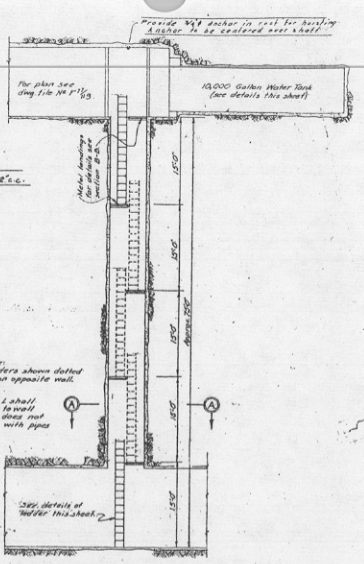
PLAN

SCALE: ¼"=1'-0"

Note: Dimensions of tank given are inside dimensions. Circumference of tank equals 24'-0". See details of tank fixtures below.



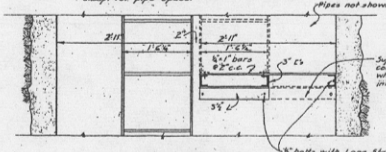
SECTION A-A



SECTION THRU SHAFT

SCALE: ⅜"=1'-0"

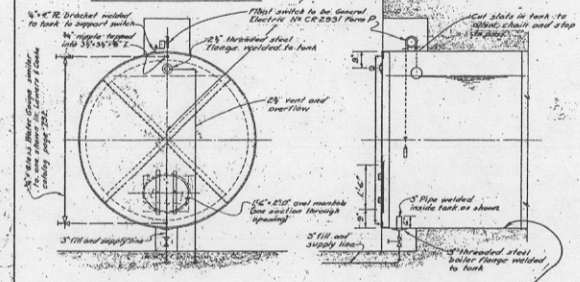
Note: Platform on opposite side of shaft similar except for pipe space.



SECTION B-B

SCALE: 1"=1'-0"

Note: Make 3 landings as shown and 2 opposite third omitting pipe space.

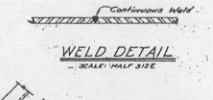


END ELEVATION

℄ SECTION

DETAILS OF TANK FIXTURES

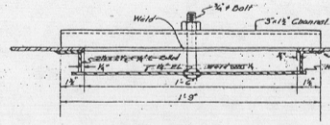
SCALE: ½"=1'-0"



DETAIL OF TANK REINFORCEMENT

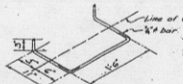
WELD DETAIL

SCALE: HALF SIZE

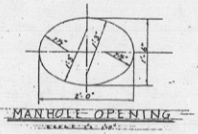


SECTION THRU MANHOLE

SCALE: QUARTER SIZE



LADDER RUNG

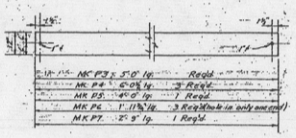


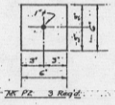
MANHOLE OPENING

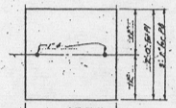
SCALE: ½"=1'-0"

TANK TREATMENT NOTE

Clean inside of tank, in place, thoroughly with wire brush, chipping tools and washing, dry throughly, then apply base coat of coal tar primer and two coats of coal tar enamel, force ventilate until thoroughly dry before closing tank for service.



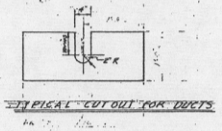




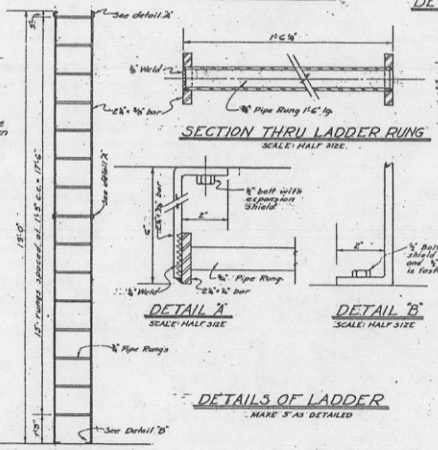
COVER PLATE DETAILS

"ALL" PLATES TO BE ⅜" CHK. PL.
NO SCALE.

All plates shall be field cut to fit ducts and piping



TYPICAL CUT OUT FOR DUCTS



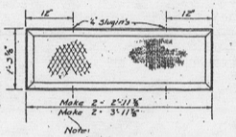
ELEVATION

SCALE: ¾"=1'-0"

SECTION THRU LADDER RUNG

SCALE: HALF SIZE.

DETAILS OF LADDER IN SHAFT



Note: For location of screens see Air Intake of Casemate dwg. file Nº F 1/21

DETAIL OF AIR INTAKE SCREENS

SCALE: 1"=1'-0"

DETAIL 'A'

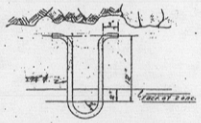
SCALE: HALF SIZE

DETAIL 'B'

SCALE: HALF SIZE

DETAILS OF LADDER

MAKE 3 AS DETAILED



DETAIL OF HOIST ANCH

I R L O D

After turnbolt is fixed, drill, and grout anchor into place. Use care in grouting anchor so that full strength of conc. will be developed

No.	Date	Revision	By	Chk.	Apr.
1	11-1-44	Re Added Tank treatment note	VKE	Wolf	JPP

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY Nº 302-G GUN POSITION

WORK ORDER-600118-T-1.0 & A 9.1

MISCELLANEOUS METAL DETAILS

SCALE: AS SHOWN | IN SHEETS | SHEET Nº

U.S. ENGINEER OFFICE, HONOLULU, T.H. | JUNE 1943

SUBMITTED: L. Perlitz, Asst. CHIEF ENGINEERING DIVISION

APPROVED: [signature], BRIGADIER GENERAL, U.S.A., DISTRICT ENGINEER

DESIGNED C.E.W. | DRAWN M.A.S. | TRACED | CHECKED Old Wolf | TO ACCOMPANY WORK ORDER NO. 600118-T-1.0 & A 9.1 CORRESP. SERIAL 360 | FILE

REPORT ON COMPLETED WORKS - LAND DEFENSES, FIELD WORKS

WAIMANALO, OAHU, T.H.
BATTERY: See below
No. of guns: None
2 Emplacements for 240 m.m. Howitzers

Form No. 1. Corrected to February 20, 1932.

Battery commenced (Remodeling)	October, 1929	Source of electric current	None provided
Battery completed	November, 1929		
Date of transfer	January 22, 1932	Max. kw. required for lights	
		" " motors	
Material of construction	Concrete		
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$1,501.73 *	Rooms wet or dry	None provided
Connected to water supply	No.		
Connected to sewer	No.	Now ventilated	Not required
Type of latrine	None provided	REMARKS:	Armament is storage at
Type of data transmission	None		Hawaiian Ordnance Depot

* Cost of remodeling only. Original emplacements were constructed by troop labor under supervision of the Department Engineer.

A R M A M E N T

None mounted.

H O I S T S

None.

M O T O R

None.

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

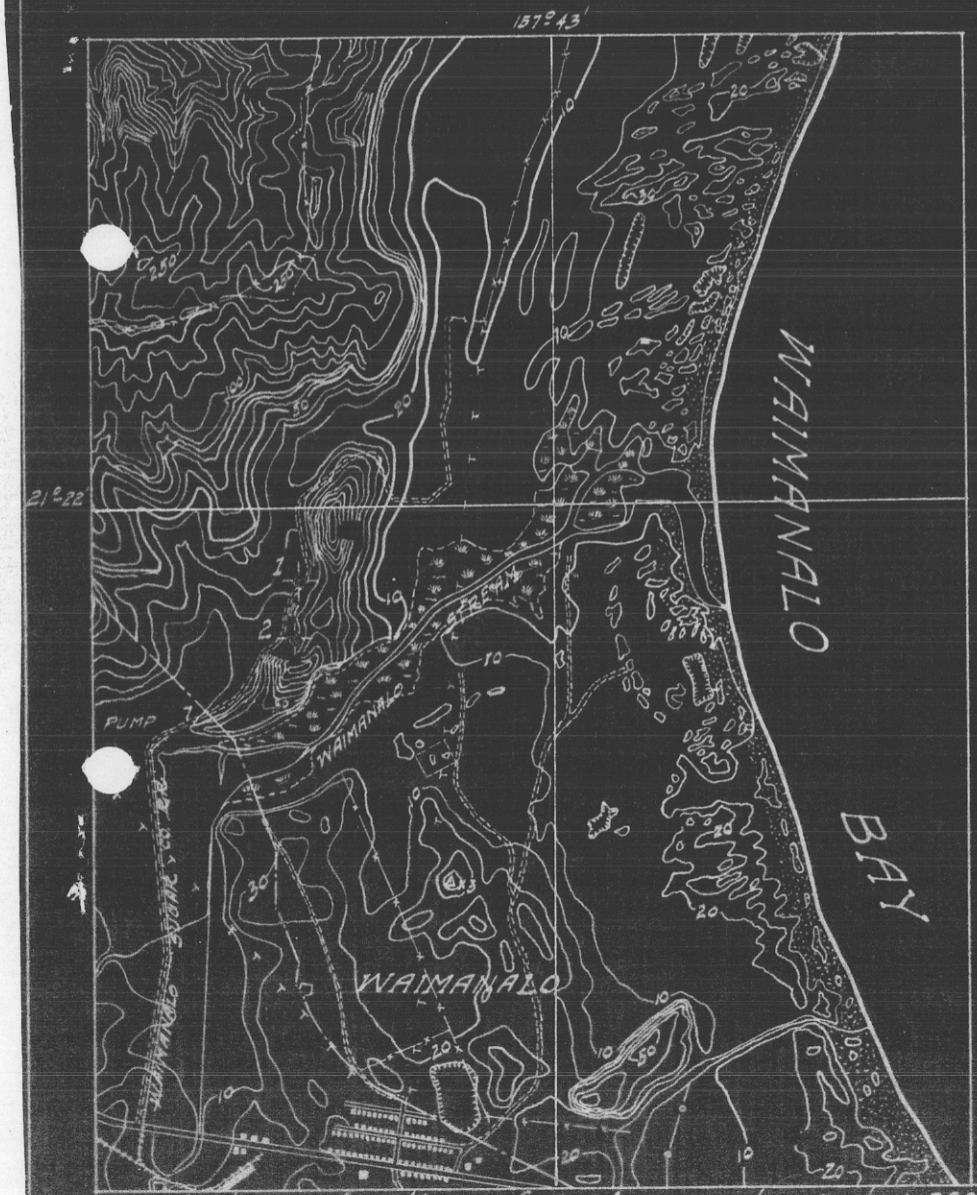
Graphic Scales

0 500' 1000' 2000' 3000'

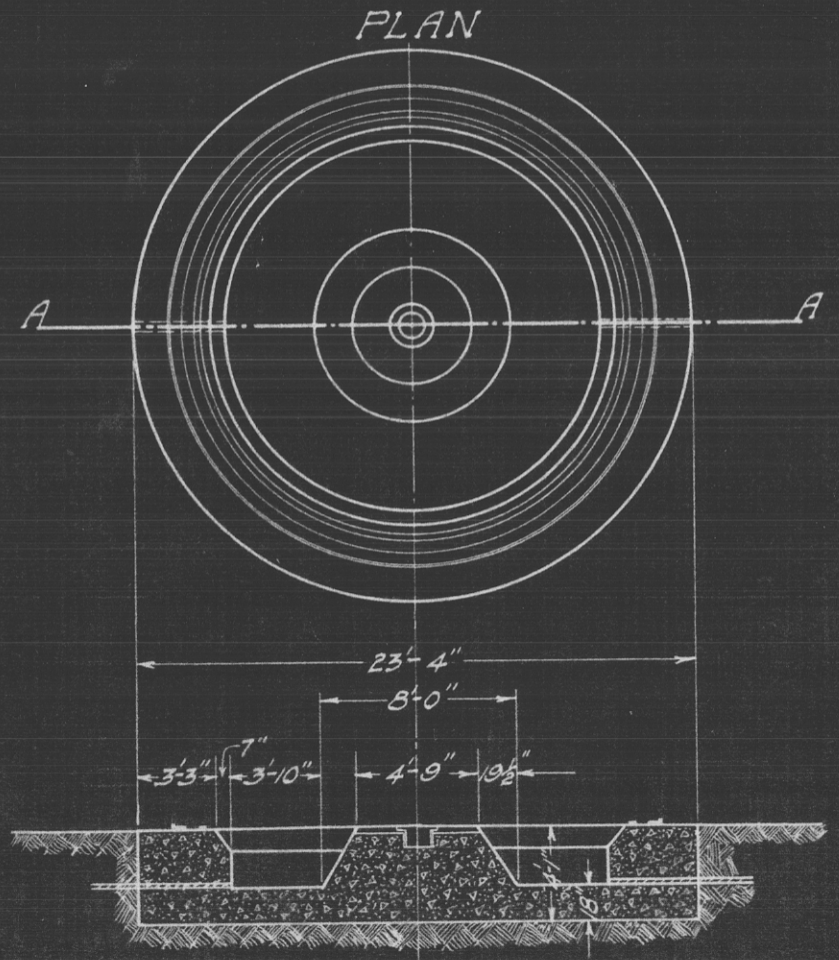
0 5' 10' 15'

WAIMANALO, OAHU, T.H.

2-240 M.M. Howitzer Emplacements



Insert showing location of Emplacements Scale 1:20000
Insert from U.S.G.S. MAP-Mokapu-Quadrangle-Island of Oahu T.H.



SECTION A-A

SCALE = 1 inch = 8 feet

REPORT OF COMPLETED WORKS

General Plan

Form 7 July 1931

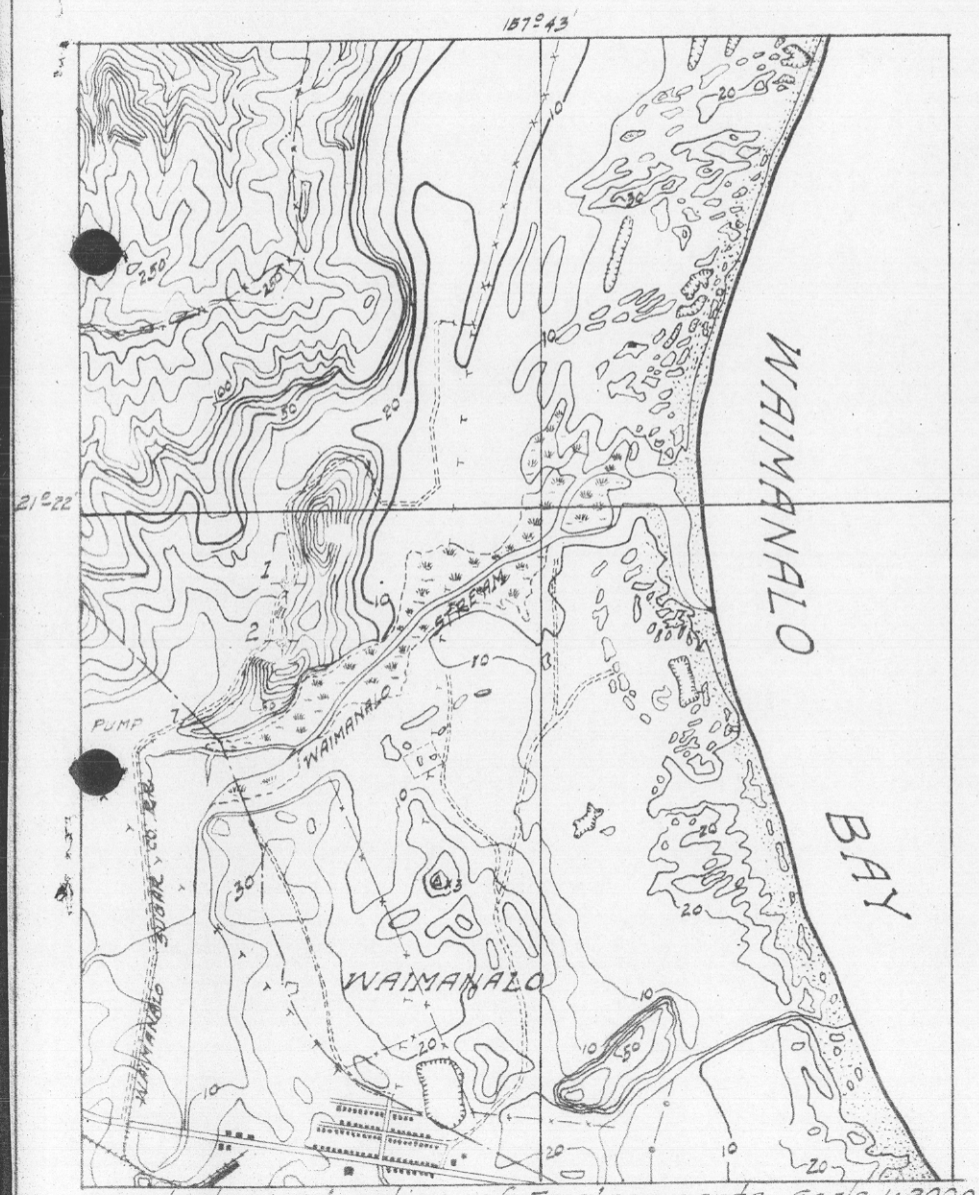
Graphic Scales

9 500' 1000' 2000' 3000'

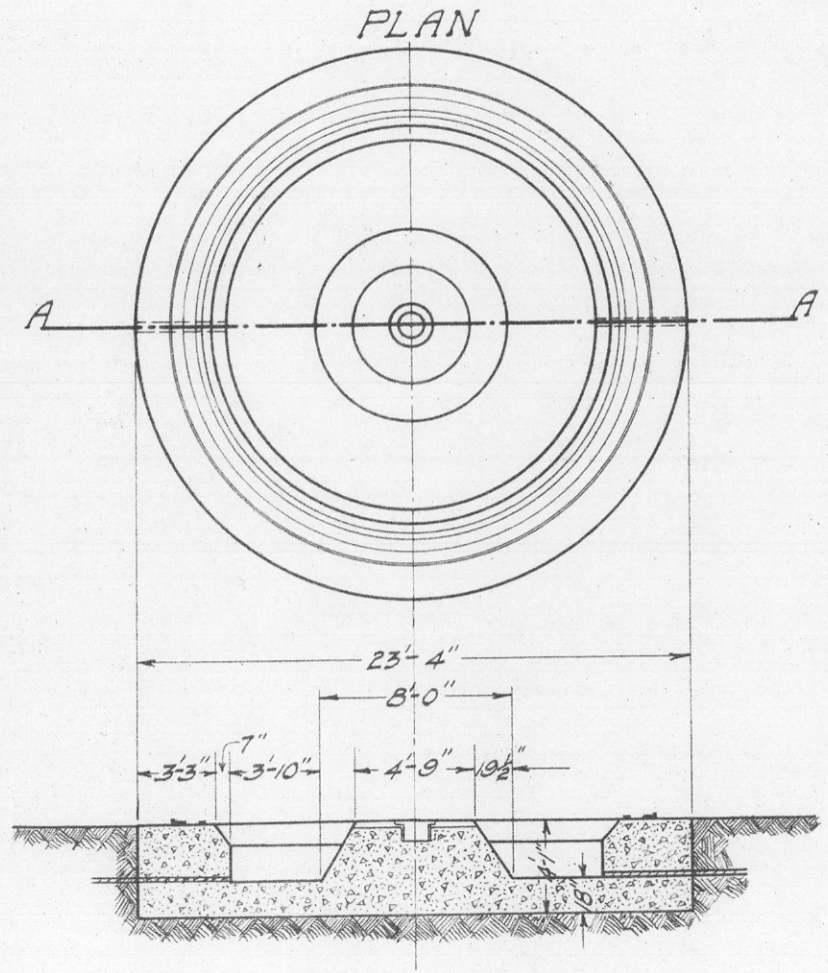
12" 9 5' 10' 15'

WAIMANALO, OAHU, T.H.

2-240 M.M. Howitzer Emplacements



Insert showing location of Emplacements Scale 1:20000
Insert from U.S.G.S. MAP-Mokapu-Quadrangle-Island of Oahu T.H.



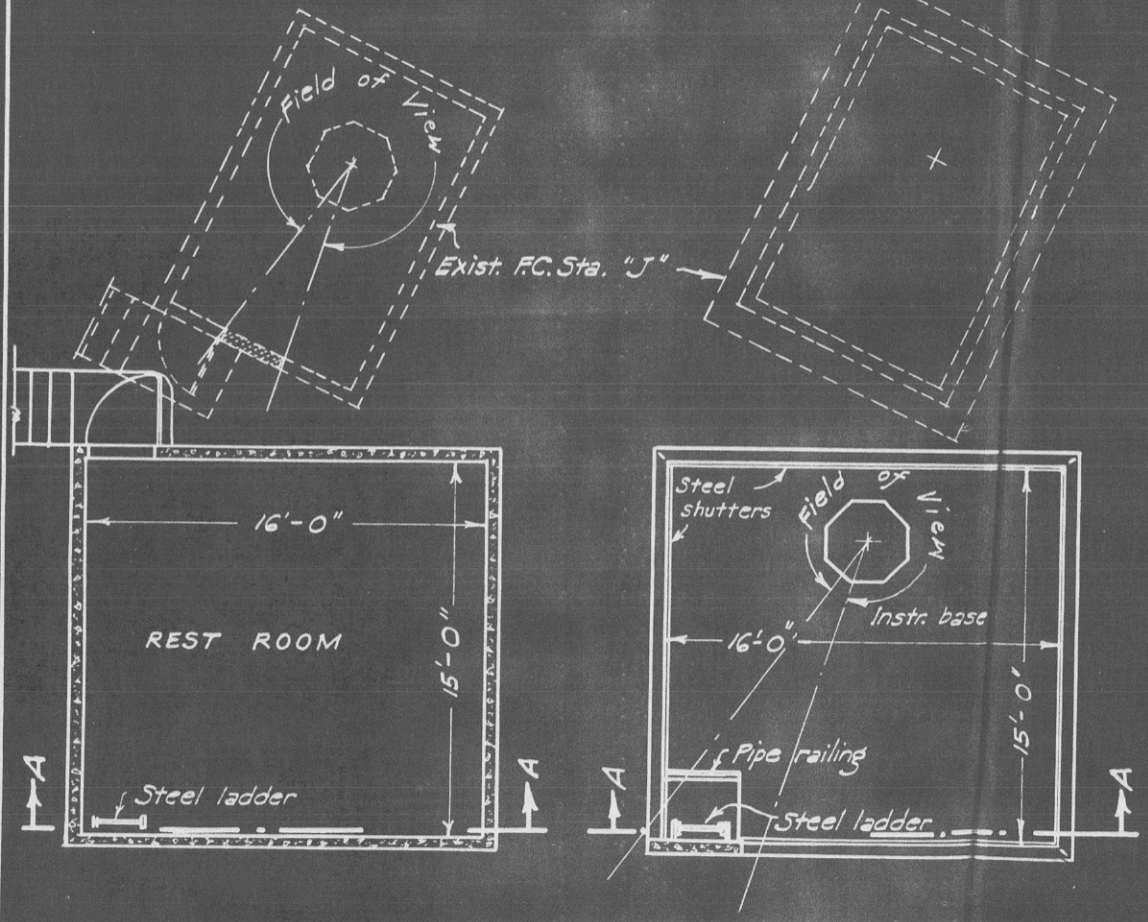
SECTION A-A

SCALE = 1 inch = 8 feet

338/23101/G-451

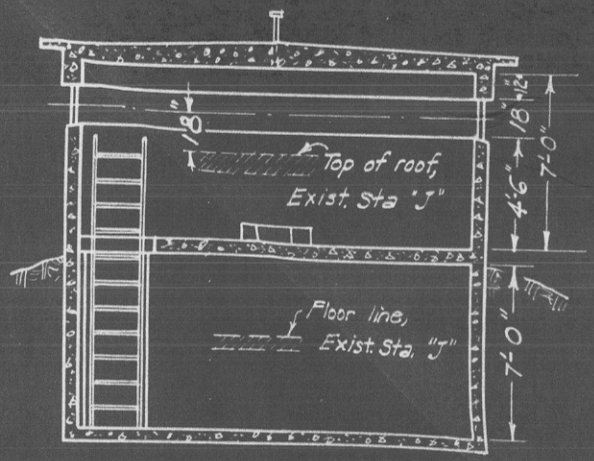
WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PLAN
LOWER FLOOR

PLAN
UPPER FLOOR



SECTION A-A

U. S. ENGINEER OFFICE
HONOLULU, T. H.

PROPOSED
FIRE CONTROL STATION
AND REST ROOM
ULUPAU HEAD, OAHU, T.H.

SCALE: 3/16" = 1'-0"
IN 1 SHEET

REVISIONS

SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED: J.C.M.				
DRAWN: K.M.				
TRACED: K.M.			8-30-35	F 1062
CHECKED:	ASSOC. ENGR.	MAJOR, C.E. DIST. ENGR.		

This is the Original
Plan for F.C. Sta
at Ulupau. Looks like
too much for 6450.
This would be very
Satisfactory

HAR

REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Forrected to Oct. 4, 1927.

ULUPAU.
BATTERY See Below
No. of Guns, None. Caliber ____ Carriages
2 Emplacements for 240 MM Howitzer

Battery commenced	April 11, 1927		
Battery completed	May 20, 1927	Source of electric current	None
Date of transfer	Sept. 27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$4,515.75 *	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	How ventilated	Not required
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail; materials hauled by Q.M.C.

A R M A M E N T

None mounted

H O I S T S

None

M O T O R

None

22

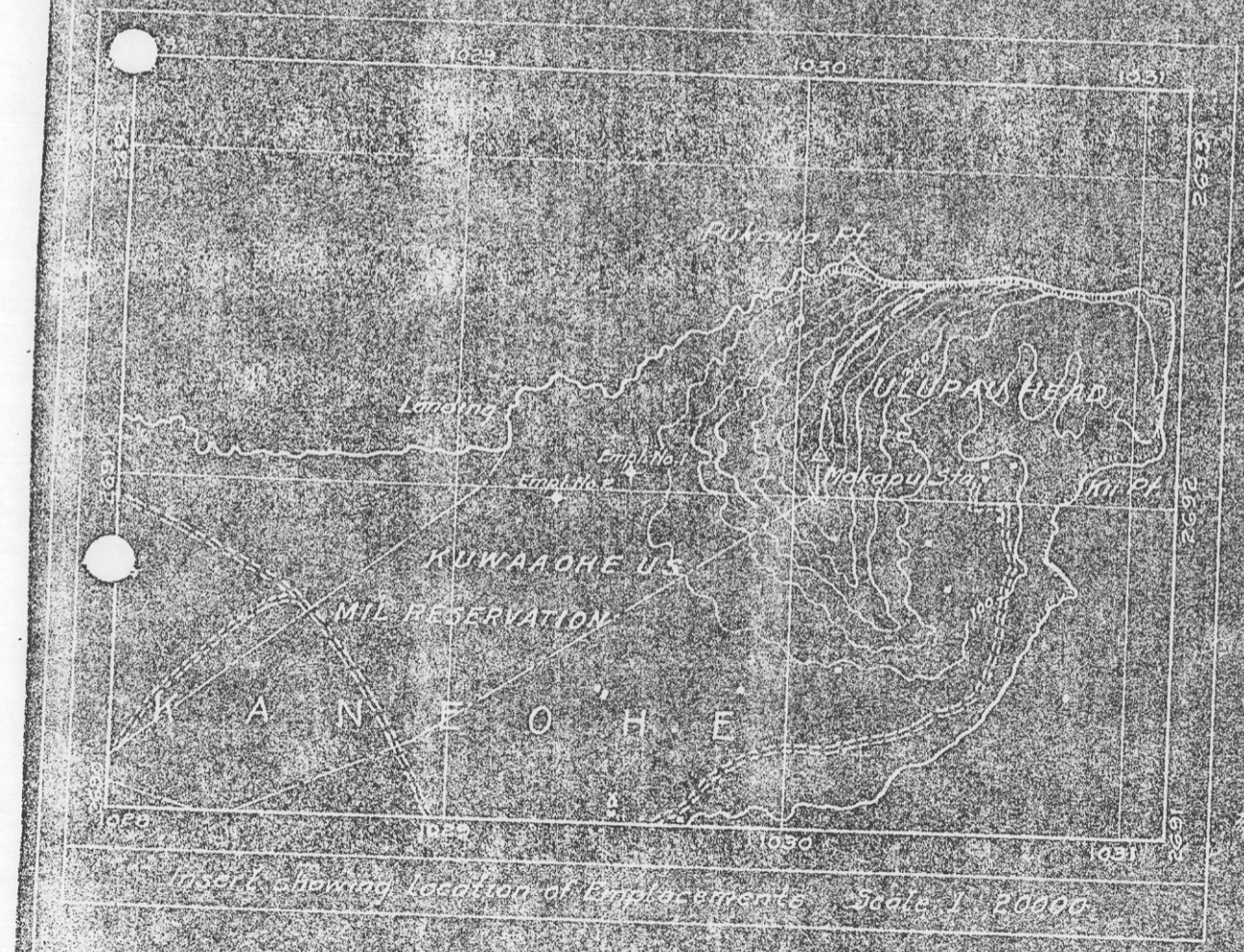
REPORT OF COMPLETED WORKS

(General Plan)

August 1917

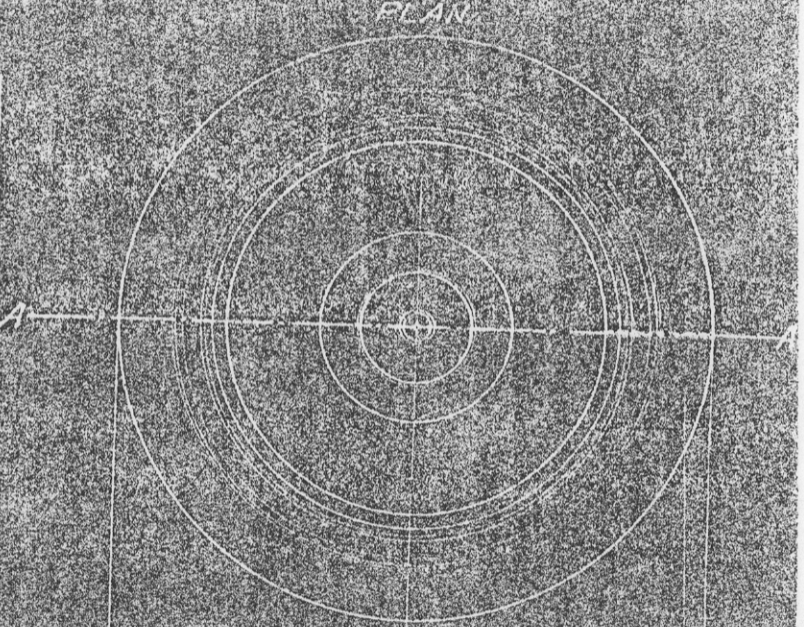
Fort H. T.

KULIPAU HEAD
2 EMPLACEMENTS



Tracing showing location of Emplacements Scale 1" 2000'

PLAN





SECTION A-A

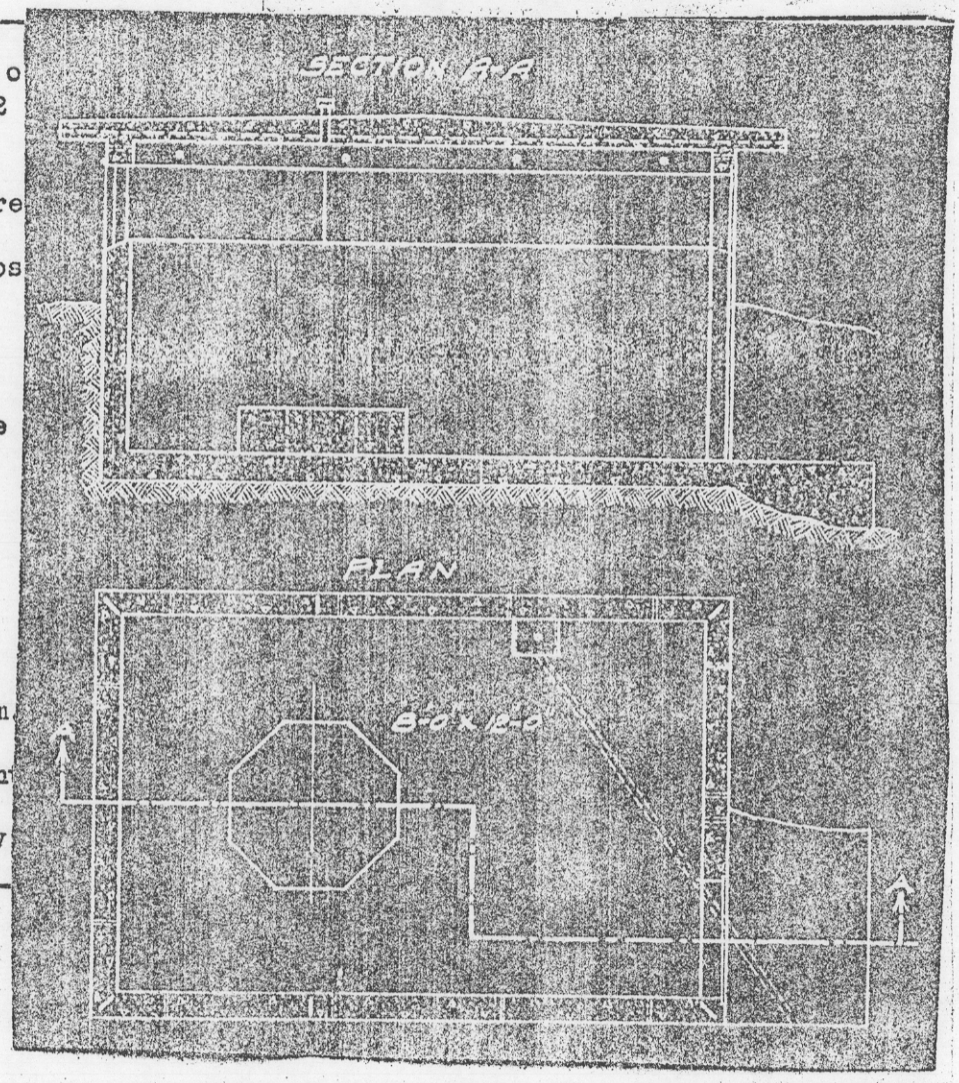
Scale 1" = 8'-0"

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to February 20, 1932

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: Fire Control Station J,
Ulupau Head, Oahu, T. H.

Location	: Northeast point o	Northeast point of Island of Oahu
Date of transfer	: January 22, 1932	January 22, 1932
Cost to date	: $3,162.86	$3,162.86
Type of construction:	:	
(a) Roof	: Reinforced concre	Reinforced concrete
(b) Remainder of building	: Concrete	Concrete
How concealed	: Upper 3 ft. expos	Upper 3 ft. exposed
How protected	: Dug-in type	Dug-in type
Height above concealment	: 3 ft.	3 ft.
Height above protection	: 3 ft.	3 ft.
Conspicuous at 500 yards	: Yes	Yes
Source of electric current	: Portable storage	Portable storage battery
Kilowatts required	: 0.1	0.1
Type of lighting fixtures	: Commercial	Commercial
How heated	: Not heated	Not heated
Connected to water mains	: No	No
Connected to sewer	: No	No
Type of latrine	: None	None
Permanent or temporary	: Permanent	Permanent
Present condition	: Good	Good
Reference of site	: 700± ft. above m	700± ft. above m.l.l.w.
Reference of instr. axis	: Not determined	Not determined
Type of observing instr.	: D.P.F. instrumen	D.P.F. instruments intended
Type of plotting board	: None	None
Type of data transmission	: None as yet prov	None as yet provided



660 B (Honolulu) 131

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~xxxxxxxxxxxxxxxxxxxx~~)

HARBOR DEFENSES OF PEARL HARBOR
~~XXXX~~ ULUPAU HEAD
STRUCTURE FIRE CONTROL STATION "J"

Form 2. Corrected to November 29, 1940

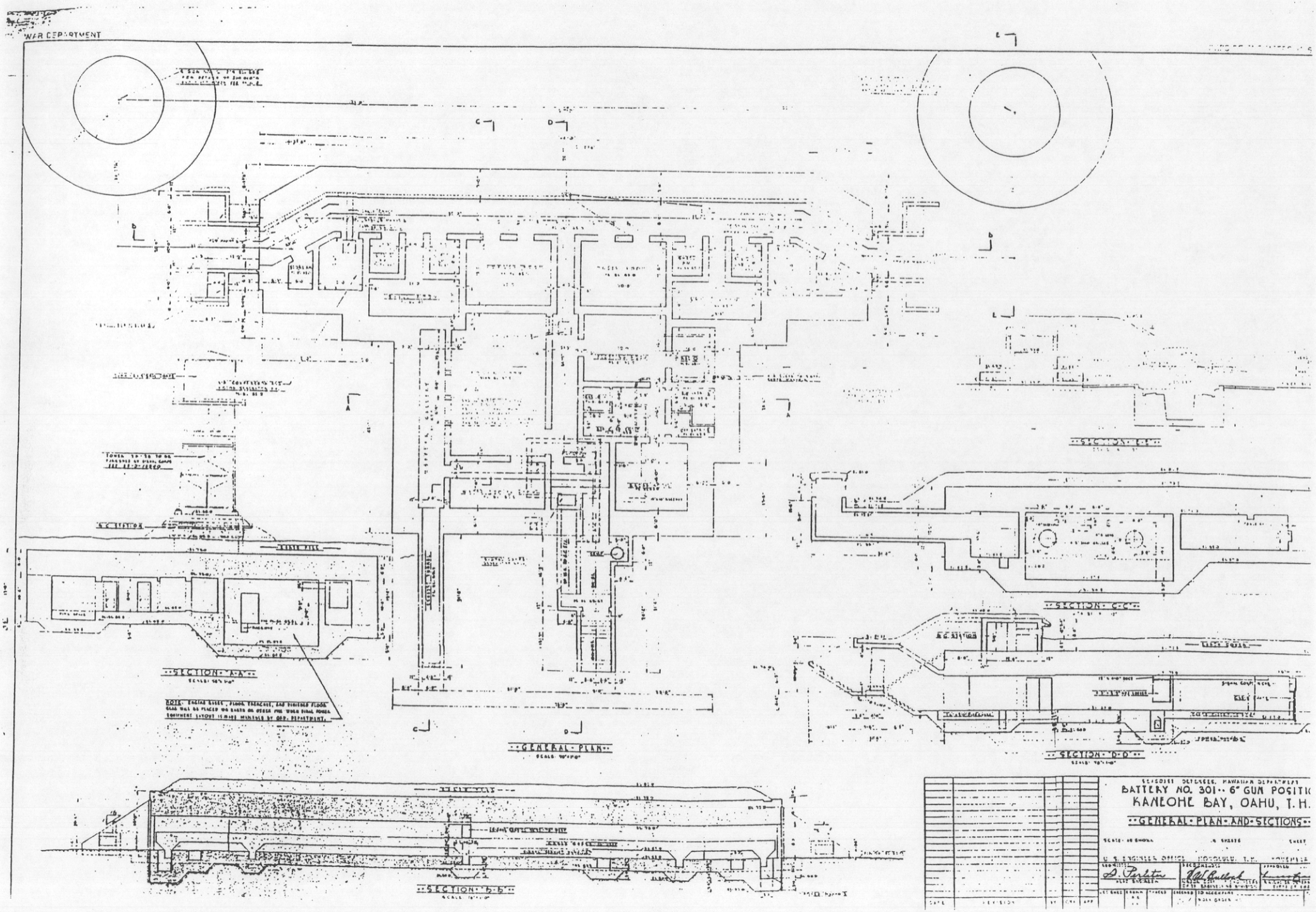
STRUCTURE:	
Location	Ulupau Head, Oahu, T. H.
Date of transfer	November 5, 1940
Cost to that date	$6,450
Type of construction Structure	
(a) ~~Xxxx~~ Fire Control	Reinforced Concrete (16'x15')
(b) Power Plant Bldg. ~~xxxxxxxxxxxxxxxxxxxx~~	Reinforced Concrete (6'x8')
(c) Barracks	Frame (10'x50')
How concealed	Partially concealed by rock
How protected	Partially protected by rock
Height above concealment	None
Height above protection	None
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source ~~xxx~~	D. C. power unit to be provided by troops.
Kilowatts required	1.5 kw.
Type of lighting fixtures	Overhead lighting fixtures connected to power plant.
HEAT:	
How heated	None
WATER AND SEWER:	
Connected to water mains	No
Connected to sewer	No
Type of latrine	Latrine to be provided by troops.
Permanent or temporary inst'ln	
Present condition	
REFERENCE:	
Reference of site	Approximately 650 feet above mean lower low water.
~~Reference of instrument xxxxx~~	
~~Type and capacity of crane xxxx~~	
~~Max. dim. of reel handled~~	

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	to be provided by troops.
Type of plotting board	
DATA TRANSMISSION:	
Type of	to be provided by troops.
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling.

12

WAR DEPARTMENT



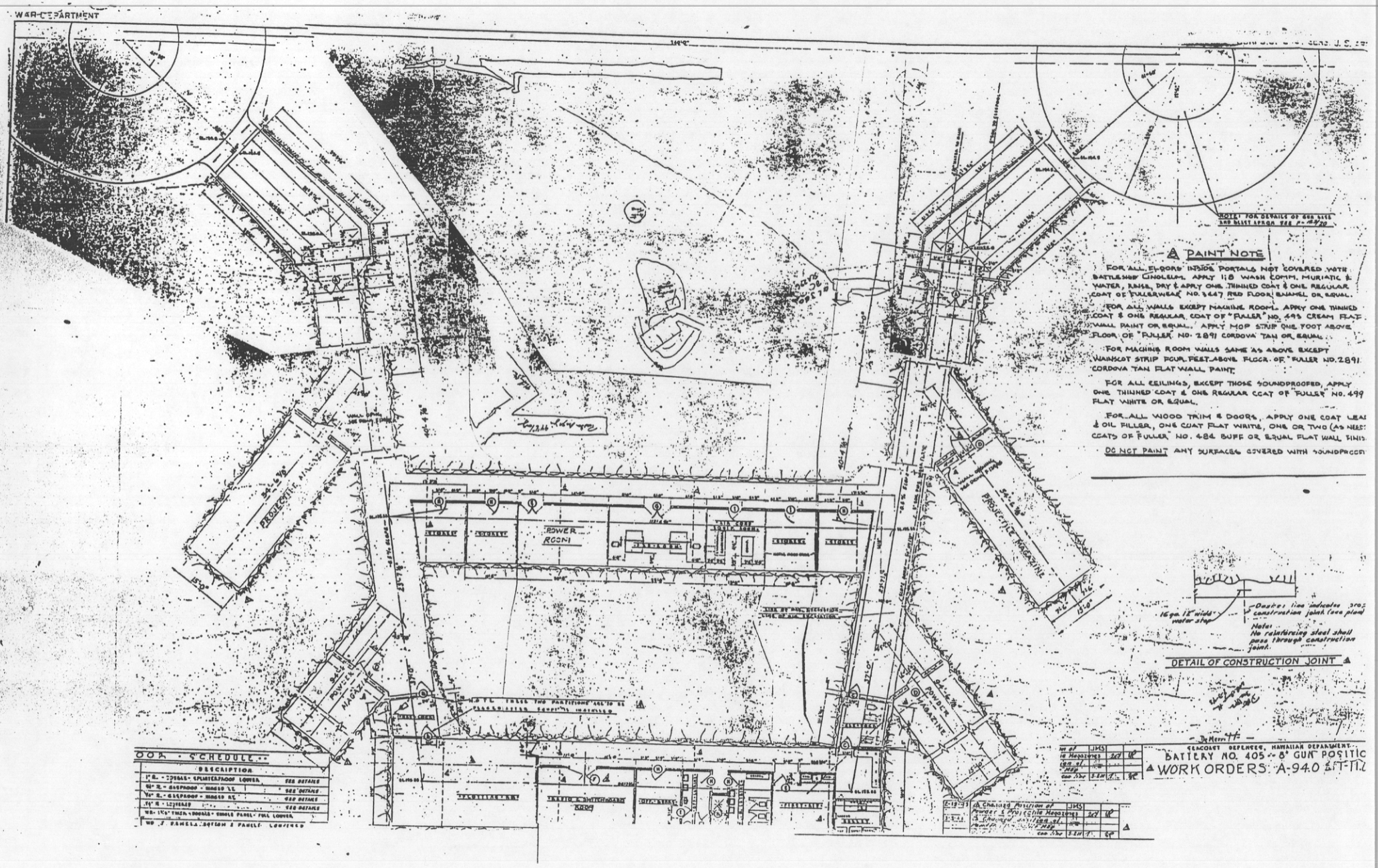
HAWAIIAN DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 301 - 6" GUN POSITI
KANEOHE BAY, OAHU, T. H.

GENERAL PLAN AND SECTIONS

U. S. ENGINEER OFFICE, HONOLULU, T. H.

WAR DEPARTMENT


POWER ROOM
PROJECTILE MAGAZINE
POWDER MAGAZINE
PROJECTILE MAGAZINE
POWDER MAGAZINE
TRAINING & SWITCHBOARD ROOM
TELEPHONE
TELEPHONE
TOILET
TOILET
TOILET

660 B (Honolulu) 131

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control ~~xxxxxxxxxxxxxxxxxx~~)

HARBOR DEFENSES OF PEARL HARBOR
~~XXXX~~ ULUPAU HEAD
STRUCTURE FIRE CONTROL STATION "J"

Form 2. Corrected to November 29, 1940

STRUCTURE:	
Location	Ulupau Head, Oahu, T. H.
Date of transfer	November 5, 1940
Cost to that date	$6,450
Type of construction	Struc-
(a) ~~Xxxx~~ Fire Control ture	Reinforced Concrete (16'x15')
(b) Power Plant Bldg. ~~xxxxxxxxxxxxxxxxxxxx~~	Reinforced Concrete (6'x8')
(c) Barracks	Frame (10'x50')
How concealed	Partially concealed by rock
How protected	Partially protected by rock
Height above concealment	None
Height above protection	None
Conspicuous at 2000 yards	
ELECTRIC CURRENT:	
Source ~~xx~~	D. C. power unit to be provided by troops.
Kilowatts required	1.5 kw.
Type of lighting fixtures	Overhead lighting fixtures connected to power plant.
HEAT:	
How heated	None
WATER AND SEWER:	
Connected to water mains	No
Connected to sewer	No
Type of latrine	Latrine to be provided by troops.
Permanent or temporary inst'ln	———
Present condition	———
REFERENCE:	
Reference of site	Approximately 650 feet above mean lower low water.
~~Reference of instrument axis~~	
~~Type and capacity of crane~~	
~~Max. dim. of reel handled~~	

INSTRUMENTS AND EQUIPMENT:	
Type of observing inst.	to be provided by troops.
Type of plotting board	
DATA TRANSMISSION:	to be provided by troops.
Type of	
Date of transfer	
Cost of data transmission equip.	
For tide stations give description of tide gauge	
For datum points give Forts from which visible	
For dormitories give station served	
For cable hut give S.C. type	

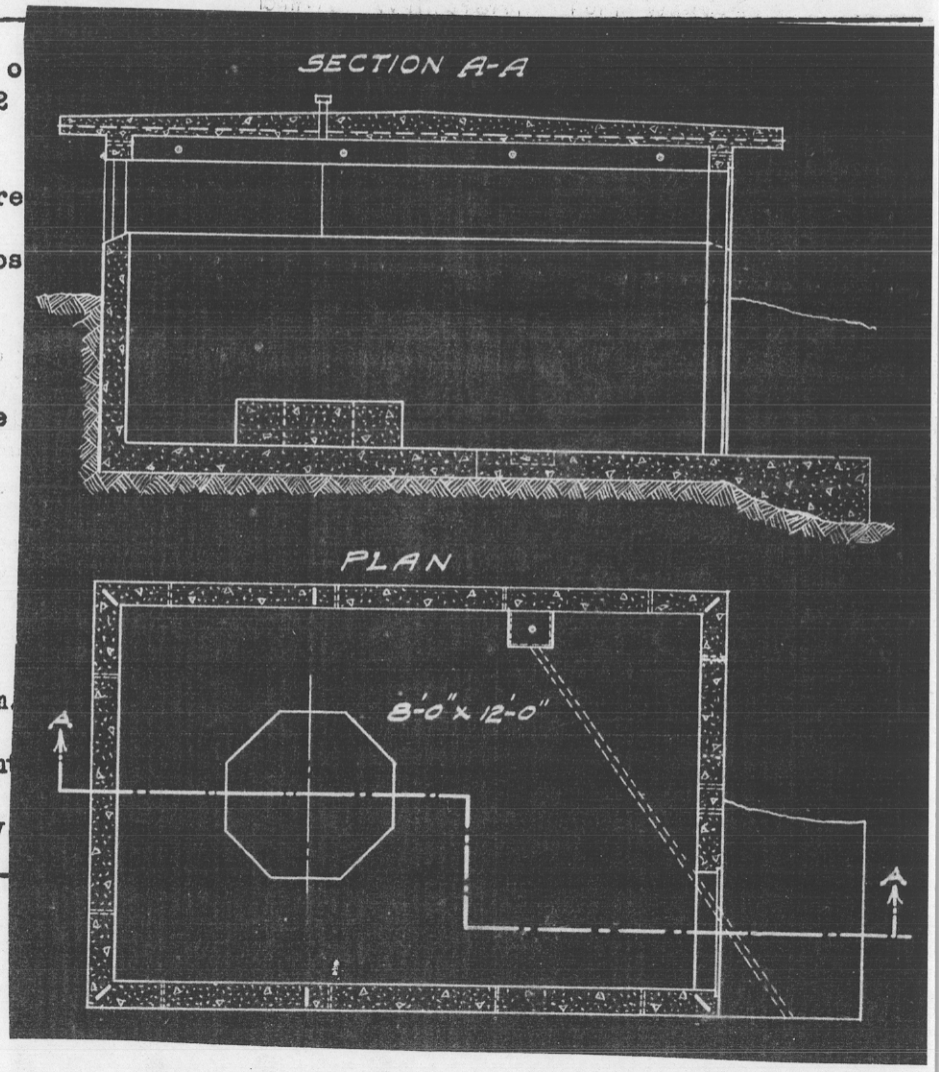
Paste on blueprint showing plan of each story of building, giving principal dimensions, including height of ceiling.

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Form No. 2. Corrected to February 20, 1932

HARBOR DEFENSES OF PEARL HARBOR
STRUCTURE: Fire Control Station J,
Ulupau Head, Oahu, T. H.

Location	Northeast point o
Date of transfer	January 22, 1932
Cost to date	$3,162.86
Type of construction:	
(a) Roof	Reinforced concre
(b) Remainder of building	Concrete
How concealed	Upper 3 ft. expos
How protected	Dug-in type
Height above concealment	3 ft.
Height above protection	3 ft.
Conspicuous at 500 yards	Yes
Source of electric current	Portable storage
Kilowatts required	0.1
Type of lighting fixtures	Commercial
How heated	Not heated
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary	Permanent
Present condition	Good
Reference of site	700± ft. above m
Reference of instr. axis	Not determined
Type of observing instr.	D.P.F. instrumen
Type of plotting board	None
Type of data transmission	None as yet prov



REPORT OF COMPLETED WORKS - LAND DEFENSES, FIELD WORKS.
(Gun and Mortar Batteries)

Form 1. Forrected to Oct. 4, 1927.

ULUPAU.
BATTERY See Below
No. of Guns, None. Caliber ____ Carriages
2 Emplacements for 240 MM Howitzer

Battery commenced	April 11, 1927		
Battery completed	May 20, 1927	Source of electric current	None
Date of transfer	Sept. 27, 1927		
		Max. kw. required for lights	
Material of construction	Concrete	" " " " motors	
Portland or Rosendale cement	Portland	Present condition of battery	Good
Cost to date of transfer	$4,515.75 *	Rooms wet or dry	None provided
Connected to water supply	No		
Connected to sewer	No	How ventilated	Not required
Type of latrine	None	REMARKS:	Armament mounted in
Type of data transmission	None		

* Common labor performed by soldier detail; materials hauled by Q.M.C.

A R M A M E N T

None mounted

H O I S T S

None

M O T O R

None

REPORT OF COMPLETED WORKS

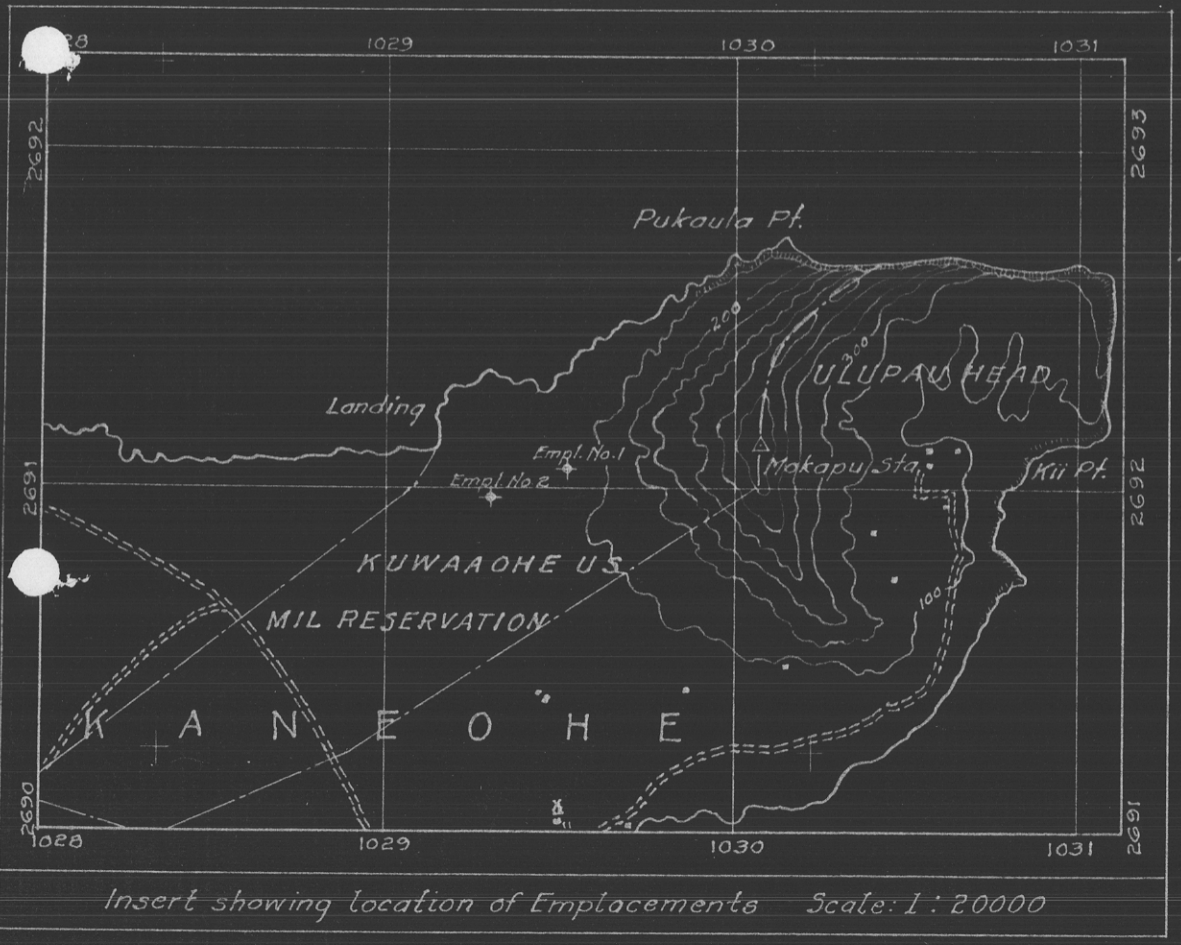
(General Plan)

August 1927.

Form T.

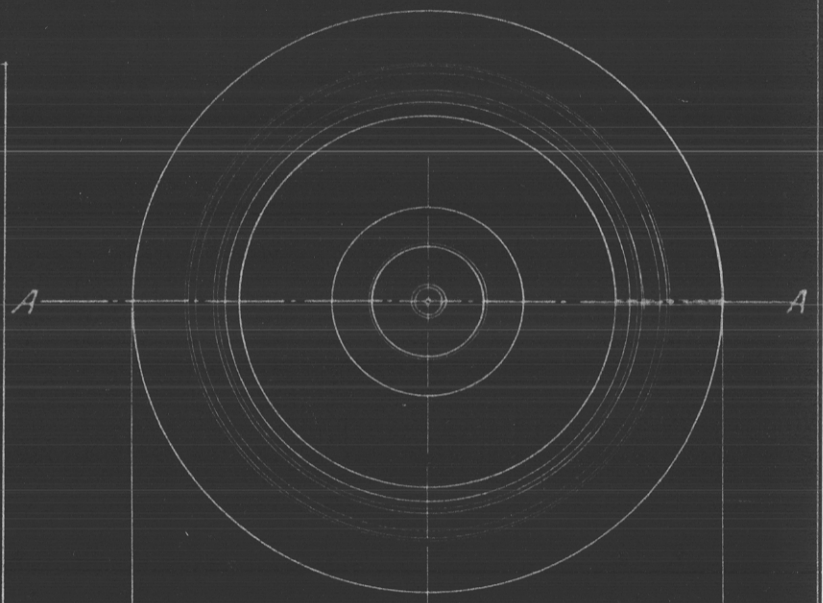
ULUPAU HEAD
2 EMPLACEMENTS

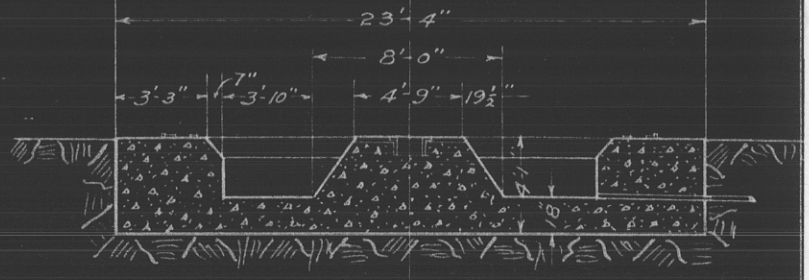
(Graphic Scales)
0 500' 1000' 2000' 3000' 4000'
12" 0 5' 10' 15' 20'



Insert showing location of Emplacements Scale: 1 : 20000

PLAN





SECTION A-A
Scale: 1"=8'-0"

REPORT OF COMPLETED WORKS

(General Plan)

August 1927.

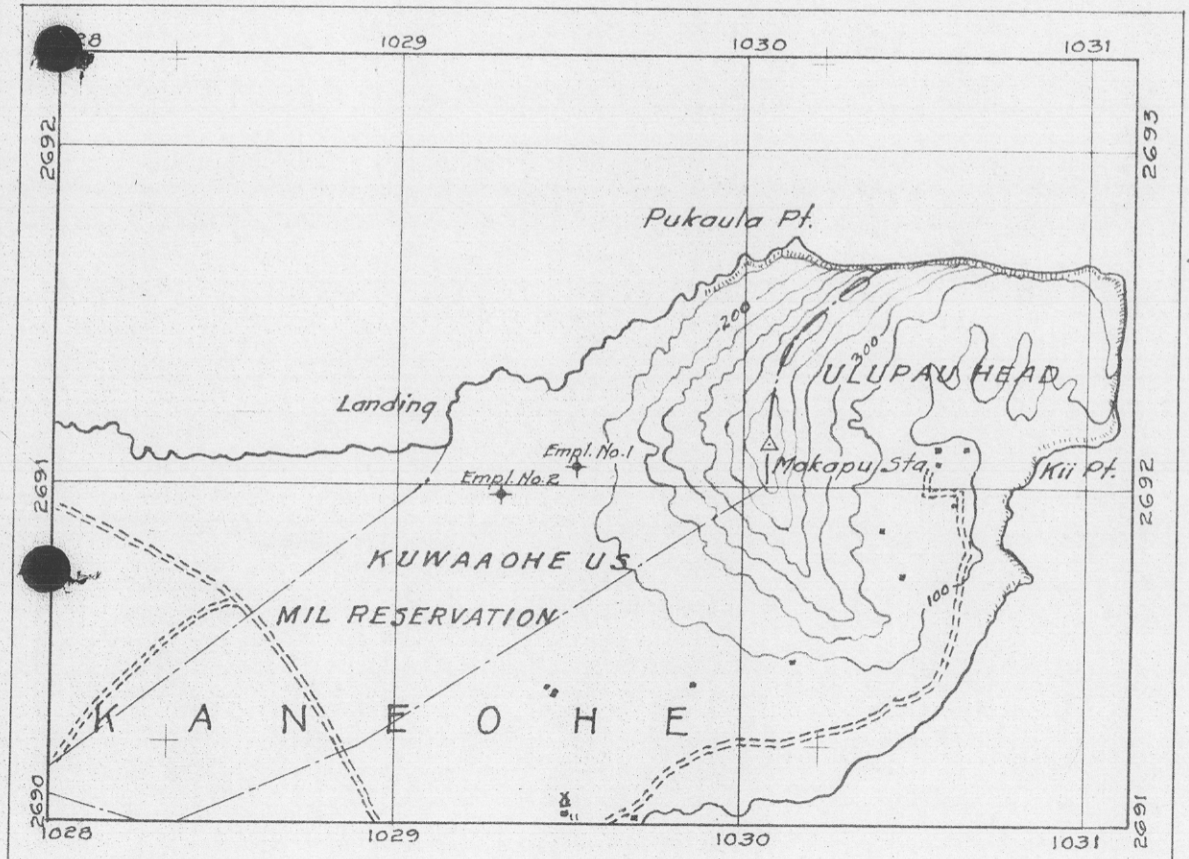
Form T.

ULUPAU HEAD
2 EMPLACEMENTS

(Graphic Scales)

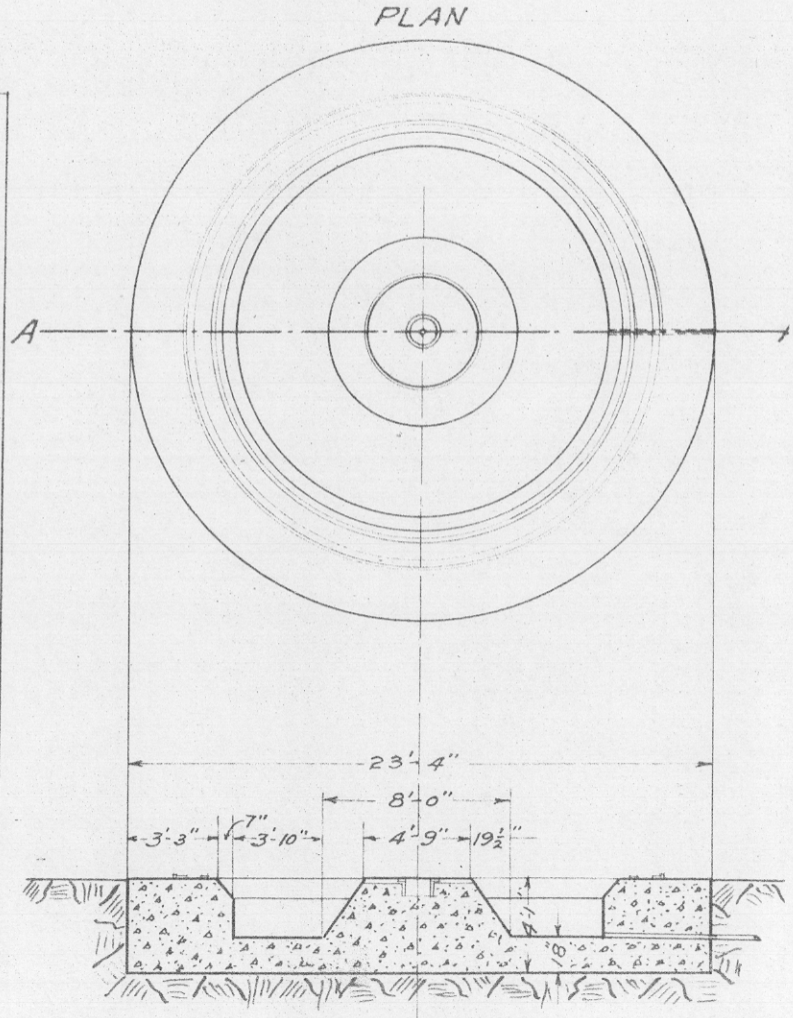
0 500' 1000' 2000' 3000' 4000'

12" 0 5' 10' 15' 20'



Insert showing location of Emplacements Scale: 1 : 20000

PLAN



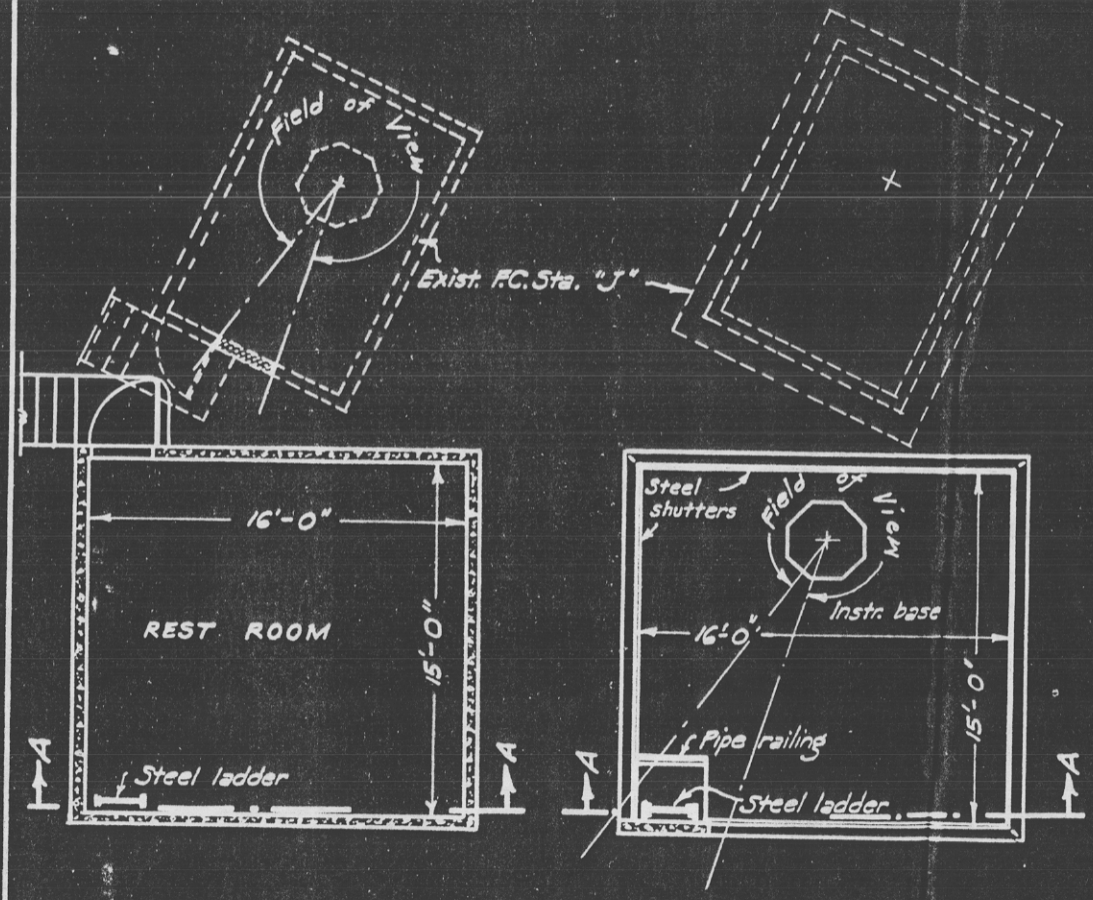
SECTION A-A

Scale: 1"=8'-0"

G-451

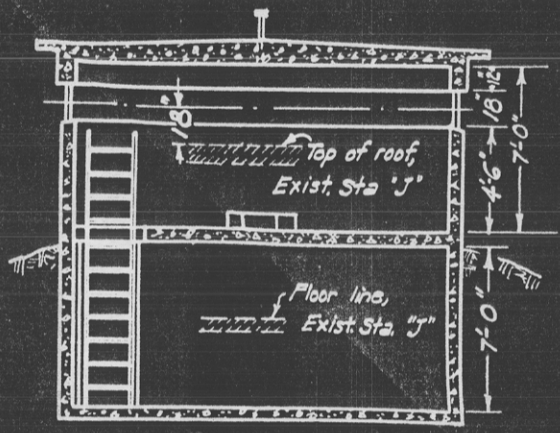
WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PLAN
LOWER FLOOR

PLAN
UPPER FLOOR



SECTION A-A

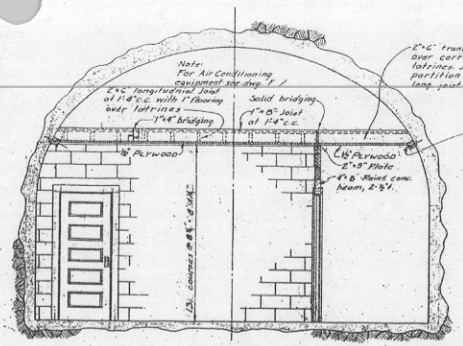
U. S. ENGINEER OFFICE
HONOLULU, T. H.

PROPOSED
FIRE CONTROL STATION
AND REST ROOM
ULUPAU HEAD, OAHU, T.H.

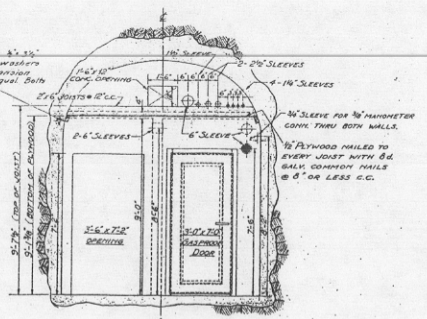
SCALE: $\frac{3}{16}$" = 1'-0"
IN 1 SHEET

REVISIONS

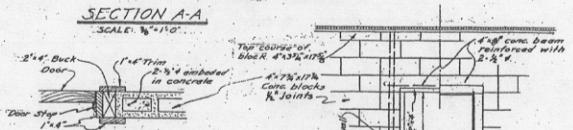
SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED: J.C.M.				
DRAWN: K.M.				
TRACED: K.M.			8-30-35	F 1062
CHECKED:	ASSOC. ENGR.	MAJOR C.E. DIST. ENGR.		



SECTION A-A
SCALE: ⅜"=1'-0"



SECTION B-B
SCALE: ⅜"=1'-0"

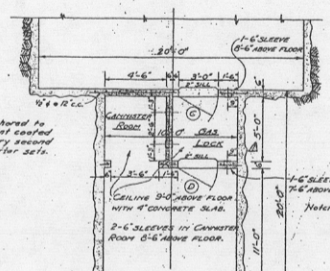


DOOR JAMB DETAIL
SCALE: 1½"=1'-0"

Air Grill, for location and size see dwg. T-1

DETAIL OF AIR GRILL

SECTION
TYPICAL DOOR DETAIL
SCALE: ½"=1'-0"



PLAN SECTION
DETAIL OF RACEWAY
SCALE: 1"=1'-0"

PLAN
SCALE: ⅛"=1'-0"

DOOR SCHEDULE			
Mark	No.	Size	Remarks
A	1	3'-0"x7'-0"	G.P.-¾"R.- Rl. hand swing-see dwg. T-1
B	1	2'-6"x7'-0"	G.P.-¾"R-1-1 " " " "
C	2	3'-0"x7'-0"	G.P.-¾"R-1-1 " " " "
D	2	3'-0"x7'-0"	G.P.-¾"R-R1 " " " "
E	1	3'-4"x6'-8"	Wood panel bottom two panels louvered.
F	5	2'-6"x6'-8"	Double wooden panel-bottom panel louvered.
G	3	2'-6"x6'-8"	Wood Panel bottom two panels louvered.
H	3	2'-6"x6'-8"	Wood Panel Two louvered.

General Notes.

⚠ Masonry walls to be of hollow concrete tile of 6" nominal thickness. Longitudinal mortar joints to be reinforced at approx. sixteen inch (16") maximum intervals with strips of 16"x 22 ga. expanded metal mesh 3" wide. All corners to be reinforced with similar strips 2'-6" long crossing vertical mortar joint and in each horizontal joint.

⚠ Tile partitions shall be reinforced vertically with 2-½"ø bars at all corners and at points not over 6'-0" apart.

Where conc. block wall bonds against tunnel wall it shall be anchored to the tunnel wall with ½"ø rods 1'-6" long, grouted 6" into tunnel wall. Anchors shall be placed in every third masonry joint.

All walls and partitions to be painted a flat white with a kick strip 8'-0" high of flat gray, eke epk. as noted.

Floors of the Plotting Room, Radio & Switch Board Room, Officers Quarters, First Aid and Galley shall be covered with Battleship Linoleum.

In corridor apply a wash to the floor of 1 to 8 muriatic acid and water, rinse with clean water and dry thoroughly. Paint with 3 coats of cement waterproofing in accordance with Federal Specifications.

All rooms shall have ½" plywood ceilings unless otherwise noted. For details of Signal Corps ducts and power ducts See Duct layout.

DATE	REVISION	BY	CHK.	APP.
6-1-42	Changed ceilings, fire wall specs. Approved			

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 302-6" GUN POSITION
WORK ORDERS-600.118 T-1.0 & A 94.1
PLAN & SECTIONS OF REAR TUNNEL

SCALE: AS SHOWN IN SHEETS SHEET NO.

U.S. ENGINEER OFFICE, HONOLULU, T.H. JUNE 1942

SUBMITTED: L. Peltz, HEAD ENGINEER, CHIEF ENGINEERING DIVISION

APPROVED: Lewis Rumsey, BRIGADIER GENERAL, U.S. ARMY, DISTRICT ENGINEER

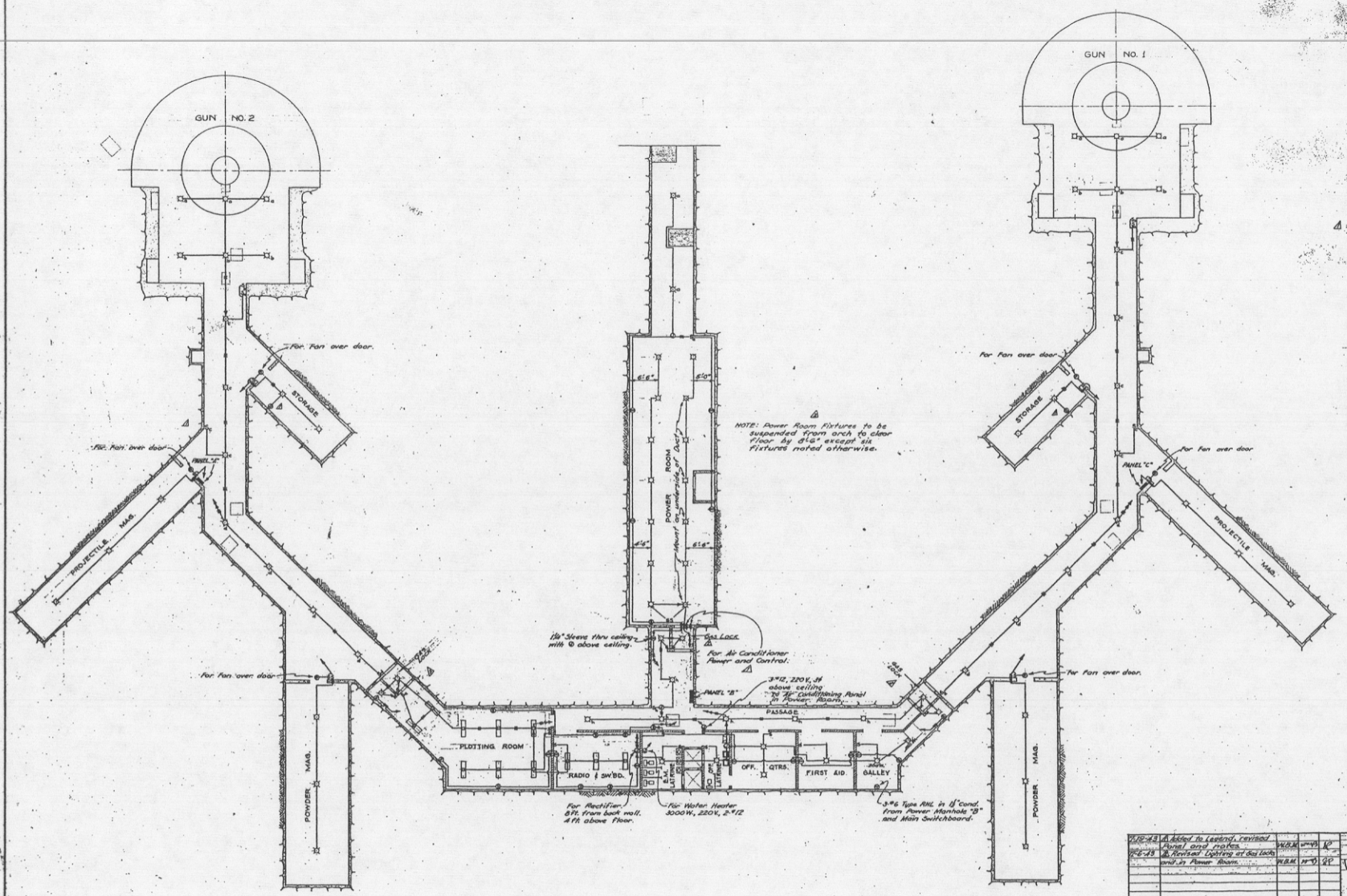
DESIGNED M.A.S. G.E.W. | DRAWN M.A.S. | TRACED | CHECKED | TO ACCOMPANY | FILE

WORK ORDER NO. 600.118-T-1.0 & A 94.1

CORPS OF ENGINEERS SERIAL NO.

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PANEL SCHEDULE

PANELS "A" AND "C"

BRANCHES	LOAD	BREAKER	POLES
5	Lights & Fans	20 A.	1
3	Spare	20 A.	1

MAINS: 50 Amp, 3 Wire, Solid Neutral, Lugs in Main, 120/208 Volts, Single Phase.
SERVICE: 3 Conductor #8, Type RHL Cable in 1¼" Conduit to Power Manhole "E" and "D" and to Main Switchboard in Power Duct.

PANEL "B"

BRANCHES	LOAD	BREAKER	POLES
10	Lights and Outlets	20 A.	1
3	De-gas Units	20 A.	1
1	Telephone Rectifier	20 A.	1
1	Water Heater	20 A.	2
5	Spares	20 A.	1

MAINS: 100 Amp, 4 Wire, Solid Neutral, Lugs in Main, 120/208 Volts, Three Phase.
SERVICE: 3 Conductor #4, Type RHL Cable and 1-#4 Bare Copper Wire in 1¼" Conduit to Power Manhole "A" and to Main Switchboard in Power Duct.

FIXTURE SCHEDULE

LOCATION	TYPE	WATTS	QUANTITY
Plotting Room	Vapor proof Fluorescent	2/40	8
Radio & Swbd. Room	"	3/40	3
Officers' Quarters	Crouse Hinds Type ARB	200	2
First Aid	"	200	1
Galley	"	200 / 100	1
All other locations at lower level.	"	100	72

NOTE: Fixtures in Casemates and in outer tunnels shall have half-shades.
Suspend Lights in Magazines from under side of duct.
Stagger 1 ft. off center to clear sprinkler system pipe in Powder Magazine.

LEGEND

- Vapor-tight, 100 Watt Lighting Fixture consisting of Crouse Hinds GRFX229 Body, GASK643 Gasket and AR891 Lamp Fixture Assembly. For 200 W. Fixture, substitute AR893 for AR891 Lamp Fixture Assembly.
- Fluorescent Fixture, 3-40 Watt 48" Tubes in approved housing, equivalent to the fluorescent fixture shown on Bureau of Ships, Navy Dept. Drawing Index-9, Group-5, File No. 5346-L-Att. 2, dated April 10, 1942, (Revision No. 2). Fixtures conforming to these specifications may be obtained from: Mobile Color and Light Co., Jersey City, N.J. or Sight Light Corp., Deep River, Conn.
- Plug-in Box, 2 Pole, 20 Amp., complete with plug, consisting of Crouse Hinds GRFX Body, GASK643 Gasket, AR8327 Receptacle and BP8522 Plug.
- Junction Box, consisting of Crouse Hinds GRFX229 Body, GASK643 Gasket and GRF10 Cover.
- Same as ⊕, for use with Fan.
- 50 Amp., 3 Wire, 120/208 V., 1¼, Range Receptacle, as Hubbell 7350 plus 7914.
- Lighting Switch consisting of Crouse Hinds FS2019 Body, GASK425 Gasket, DS181 Cover, Bryant 4961 Tumbler Switch, 10 Amp., S.P., 125 Volts.
- 1¼" Sleeve thru wall.
- Conductor for Lights and Receptacles to be 2 or 3-#12 Lead Sheathed Armored Cable in accordance with Fed. Spec. JC-121, Par B-1c, Options 2 or 3.

NOTE: For Power Manhole and Duct Layout, see Drawing F-60/1.

DATE	REVISION	BY	CHK.	APP.
7-19-43	Added to Legend, revised Panel and notes	W.B.M.	[illegible]	[illegible]
12-6-43	Revised Lighting at Gas Lock and in Power Room.	W.B.M.	[illegible]	[illegible]

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY NO. 302 - 6" GUN POSITION
WORK ORDER NO. 600.118-T-1.0 & A-94.

LIGHTING PLAN

SCALE: 1 IN. = 10 FT. IN SHEETS SHEET NO.

U. S. ENGINEER OFFICE, HONOLULU, T.H. JUNE 1943

SUBMITTED: S. Pelitz, HEAD ENGINEER, CHIEF, ENGINEERING DIVISION

APPROVED: C.H. Kramer, BRIGADIER GENERAL, U.S. ARMY, DISTRICT ENGINEER

DESIGNED: W.B.M. DRAWN: J.W.B. TRACED: CHECKED: [illegible]

TO ACCOMPANY WORK ORDER NO. 600.118-T-1.0 & A-94. CORRESPONDENCE SERIAL NO.

FILE NO. F-60/1

PLUMBING FIXTURES

HOT WATER HEATER	— EQUAL TO WESTINGHOUSE 4-40 W 46 , 30 GALLON CAPACITY , 3000 WATTS.
WATER CLOSET	— A.S.I. COMPLETE WITH BUNA SEATS AND FLOOR FLANGES
LAVATORY	— SQUARE-TO-ROUND P-2000-A
URINAL	— FIG 12 VIT. COMPLETE WITH FLUSH VALVE & EXTERNAL TRAP
SINK, TRIPLE	— D.-SE FIG. 29 , 30"x60" , ROLL RIM WITH BACK , DRAIN & PLUG, H & C FAUCETS
SINK, LAVATORY	— P.I.T. RIM 20"x28" COMPLETE WITH DRAIN & PLUG AND COMBINATION H & C SWING SPOUT FAUCET
SHOWER HEADS	— OUTFIT NO. 2 COMPLETE WITH EXPOSED SUPPLIES AND VALVES
WATER COOLER	— GORDLE TO GENERAL ELECTRIC AT 45° BUBBLER TYPE COOLER , V8 A5, 110 VOLT 60 CYCLE 1 PHASE A.C. COMPRESSOR MOTOR, WATER COOLING CAPACITY TO 50°F TO BE 80% (MIN MAX 5.6 G.P.H. 80°F INLET WATER , 80°F AMBIENT TEMPERATURE.

SEE SECT. D-D FOR AISLE, RISERS AND SLEEVES NOT SHOWN ON PLAN FOR CLARITY.

GENERAL NOTES

LUTE ALL SCREWED PIPING WITH LITHARGE GLYCERINE PASTE ; CAULK ALL WALL PASSAGES WITH OAKUM OR OTHER SUITABLE MATERIAL ; SUPPORT PIPES WITH BAND HANGERS

PLAN - LAVATORY CEILING

SECTION A-A

SECTION B-B

PLAN - LAVATORY FLOOR

SECTION C-C

DEGASSING EQUIPMENT

ITEM NO.	QUAN.	DESCRIPTION	CWO DWG NO.
1	1	CHAMBER, DECONTAMINATING	CS-18-174
2	1	CLOSURE, DECONTAMINATING	CS-18-144
10	5	VALVE, GLOBE, 4"	CS-18-141
12	5	VALVE, ABSOLUTE SEAL, 4"	CS-18-177
19	5	DIRT-SCREEN, 4"	CS-18-177
20	5	GUIDE, CHAIN, 4"	CS-18-170
23	5	VALVE, GATE, 3-WAY, R.H.	CS-18-145
24	5	VALVE, GATE, 3-WAY, R.H.	CS-18-145
28	5	CLAMP, SPRING, 4"	AS-18-052
30	2	HOOK	AS-18-75
31	2	SPRING, PLATFORM	AS-18-76
32	2	SPRING, VALVE	AS-18-65
33	2	SPLIT PIN, 4"	AS-18-77
34	1	BRACKET, RECEIVER MOUNTING	NONE
37	1	MANOMETER	NONE
44	1	CARD, INSTRUCTION, R.H.	CS-18-211
45	1	CARD, INSTRUCTION, L.H.	CS-18-211
61	5	AIR BLAST	CS-18-171

D-D-43	CHANGED DAY LOCK FROM 3'6" TO 3'0"		
4-6-44	ADDED MATERIAL LIST	LDG	

BATTERY NO. 302 - 6" GUN POSITION

WORK ORDER NO. 500.118-A-94.1

DEGASSING - PLUMBING AND DEHUMIDIFYING

SCALE AS SHOWN IN INCHES WAVE NO.

U.S. ENGINEER OFFICE, BOWLING GREEN, KY. JUNE 1943

APPROVED: L. Pilt, HEAD ENGINEER, CORPS OF ENGINEERS, DIVISION

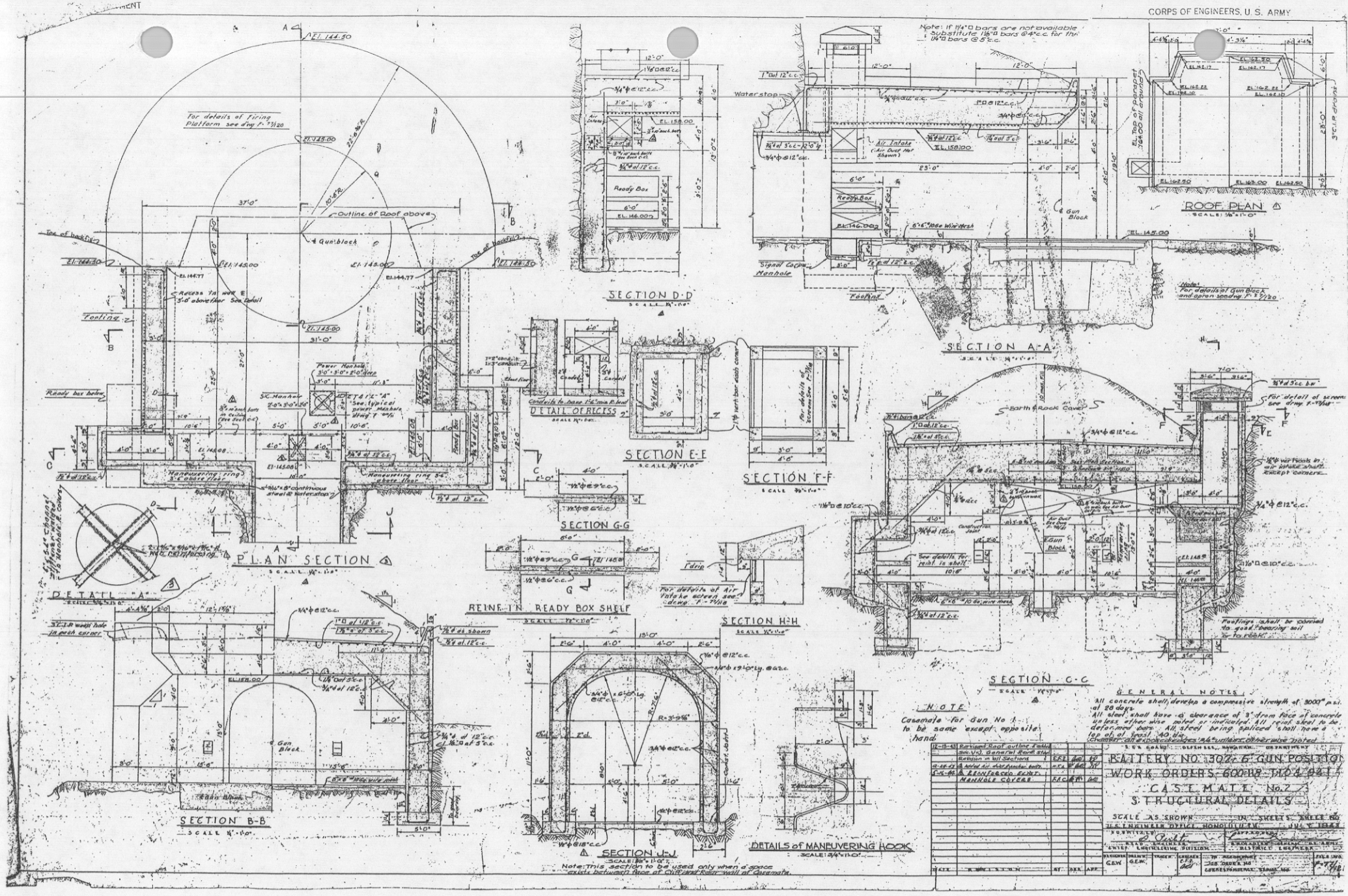
APPROVED: [illegible], BRIGADIER GENERAL, U.S. ARMY, DIVISION ENGINEER

DATE	REVISED	BY	CHK.	APP.
D.-43	D.-44			

SCALE: 1/4" | CHECKED TO ACCOMPANY | USE NO.

WORK ORDER NO. | F-60/M

CONSTRUCTION SERIAL NO.



NOTE

Casemate for Gun No 1 to be same except opposite hand.

GENERAL NOTES

All concrete shall develop a compressive strength of 3000" p.s.i. at 28 days.
All steel shall have ⅜ clearance of 3" from face of concrete unless other wise noted or indicated. All reinf steel to be deformed bars. All steel being spliced shall have a lap of 1ⁱ⁄₂ of steel 40 dia.
Chamfer all exposed edges ¾" unless other wise noted.

12-13-43	Revised Roof outline & detail			
	Sec. V-V, General Reinf. Step			
	Revision in all Sections	E.R.F.	Asst	RP
12-28-43	Added Air Duct Number bolts	M.E.K.	Asst	RP
1-24-44	Revised Sec. F-F	E.R.F.	Asst	RP
	Manhole covers	E.R.F.	Asst	RP

SEA COAST DEFENSES, HONOLULU DEPARTMENT

BATTERY NO. 302 6" GUN POSITION
WORK ORDERS 600-18 & 19
CASEMATE No. 2
STRUCTURAL DETAILS

SCALE AS SHOWN — IN SHEETS — SHEET NO.

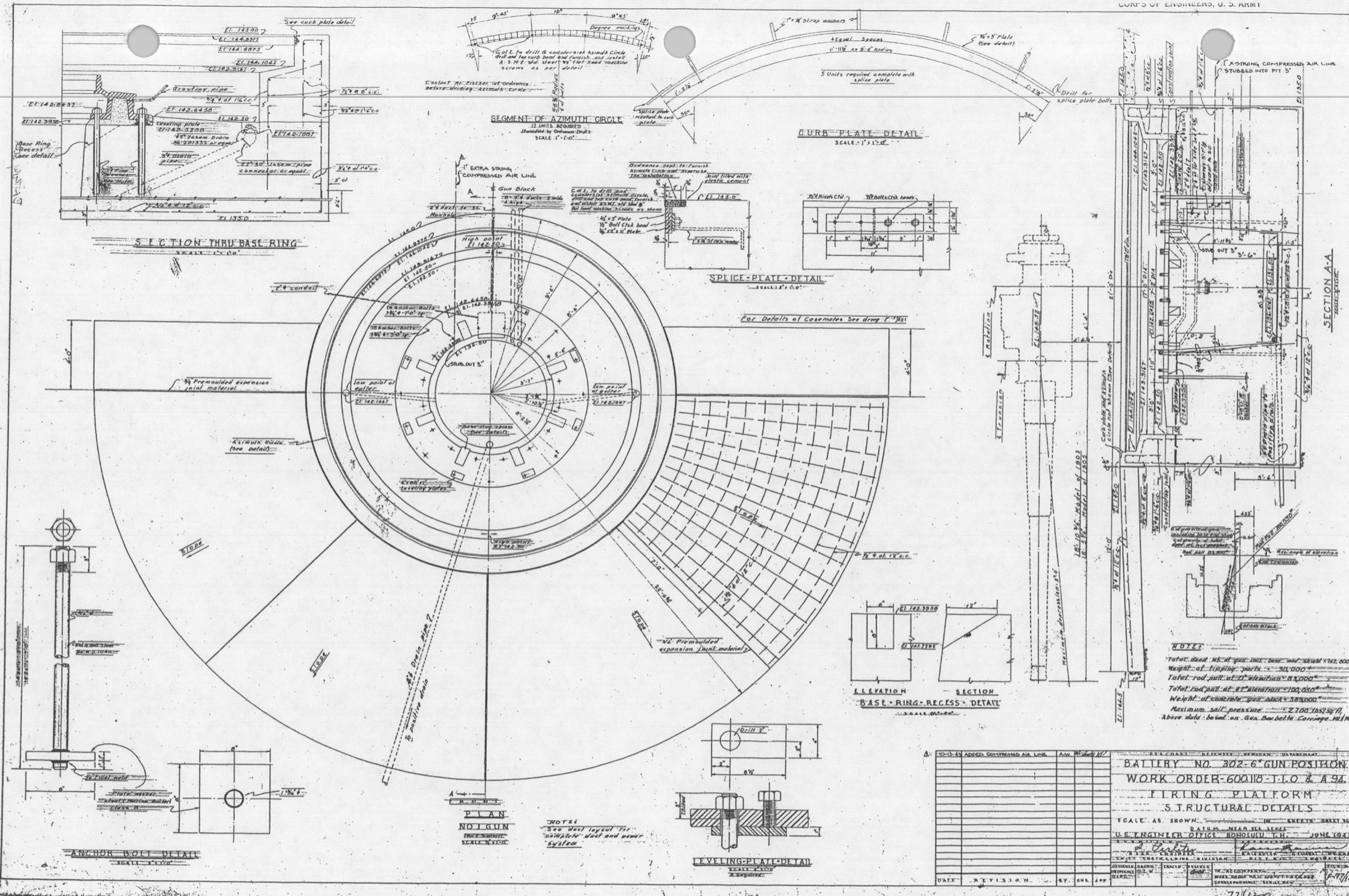
U.S. ENGINEER OFFICE, HONOLULU, T.H. — JULY 1943

SUBMITTED — APPROVED

CHIEF, ENGINEERING DIVISION — EXECUTIVE OFFICER — DISTRICT ENGINEER — LT. COL. C.E.

DESIGNED	DRAWN	TRACED	CHECKED	QUANTITIES	FILE NO.
C.E.M.	G.E.M.		C.P.S.	JOB ORDER A 348	F-7/121

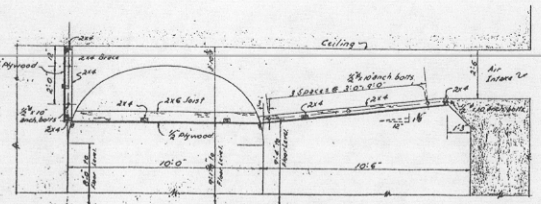
CORPS OF ENGINEERS, U.S. ARMY



CORPS OF ENGINEERS, U. S. ARMY
SECTION THRU BASE RING
SCALE 1"=1'-0"
See curb plate detail
Grouting pipe
Base Ring Recess see detail
Leveling plate El 142.5208
45° Josam Drain No 201335 or equal
3/4" Drain pipe
22°30' Josam pipe connector or equal
El 135.0
SEGMENT OF AZIMUTH CIRCLE
12 UNITS REQUIRED
Furnished by Ordnance Dept.
SCALE 1"=1'-0"
Degree markings
C of E to drill & countersink Azimuth Circle drill and tap curb band and furnish and install A.S.M.E. std. steel 1/2" flat head machine screws as per detail
Contact Mr. Fischer at Ordnance before drilling Azimuth Circle
5 Units required complete with splice plate
Splice plate riveted to curb plate
Drill for splice plate bolts
CURB PLATE DETAIL
SCALE 1"=1'-0"
Ordnance Dept. to furnish Azimuth Circle and supervise the installation
Joint filled with elastic cement
SPLICE-PLATE-DETAIL
1" EXTRA STRONG COMPRESSED AIR LINE
Gun Block
2" conduit
For Details of Casemates See drwg F-77/121
3/4 Premoulded expansion joint material
low point of gutter
High point El 142.50
Azimuth Circle (See detail)
4 ea of leveling plates
STUB OUT 3"
Slope
4" Drain pipe
To positive drain
PLAN
NO 1 GUN
NOTE: See duct layout for complete duct and power system
ANCHOR BOLT DETAIL
SCALE 3"=1'-0"
Plate washer steel (Marine Boiler) class B
LEVELING-PLATE-DETAIL
ELEVATION
SECTION
BASE-RING-RECESS-DETAIL
1" X-STRONG COMPRESSED AIR LINE STUBBED INTO PIT 3"
SECTION A-A
Construction joint
Rotation
Trunnion
18'-10 3/4" Model of 1903
18'-5 1/2" Model of 1905
Maximum depression 5°0'
Max angle of elevation
NOTES:
Total dead wt. of gun incl. base and shield = 142,600#
Weight of tipping parts = 30,000#
Total rod pull at 0° elevation = 85,000#
Total rod pull at 47° elevation = 100,050#
Weight of concrete gun block = 389,000#
Maximum sail pressure = 2,700 lbs/sq ft
Above data based on Gun Barbette Carriage M1 [illegible]
10-13-43 ADDED COMPRESSED AIR LINE
DATE REVISION BY CHK APP
SEACOAST DEFENSES HAWAIIAN DEPARTMENT
BATTERY NO. 302-6" GUN POSITION
WORK ORDER-600118-T.I.O & A 94.1
FIRING PLATFORM
STRUCTURAL DETAILS
SCALE AS SHOWN
DATUM MEAN SEA LEVEL
U.S. ENGINEER OFFICE HONOLULU, T.H. JUNE 1942
F-77/120

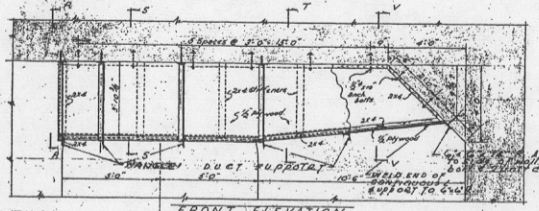
WAR DEPARTMENT

CORPS OF ENGINEERS, U. S. ARMY



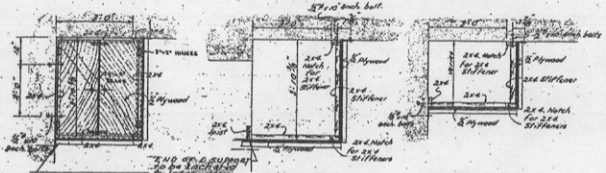
SECTION CC
SCALE 3/8 IN. = 1 FT.

Note: For location of Section CC see drawing F-77/1a1

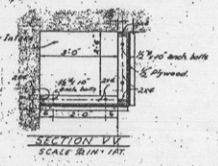


FRONT ELEVATION
SCALE 3/8 IN. = 1 FT.

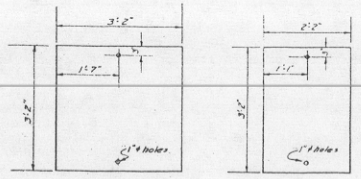
Note: Front elevation taken in same direction as in Section CC



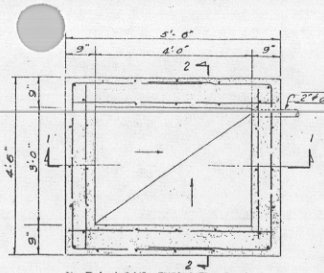
Note: Remove panel from end of duct and cut in half - to make two doors as shown. Place friction catches at top and bottom of doors and drawer knob on each door. These doors must be open when firing guns.



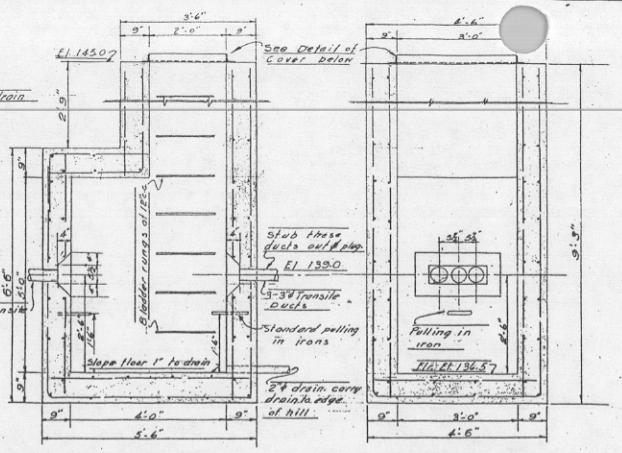
DETAILS OF AIR DUCT



Note: All cover plates to be made from 3/8 checkered plate.



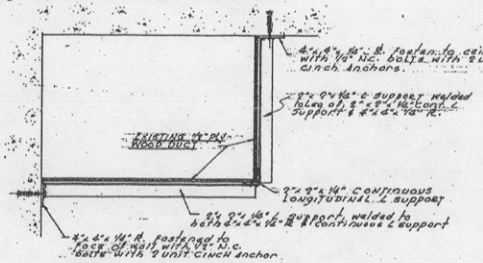
NOTE: All reinf. steel in manholes shall be 3" ϕ of 12" c.c. All steel shall be placed 2" clear from face of conc.



DETAIL OF SIGNAL CORPS MANHOLE No. 2

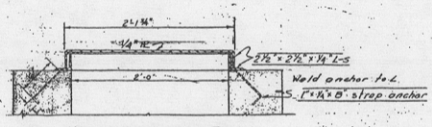
Signal Corps manholes No's 1 & 3 shall be same as No. 2 except that they shall have 2-3¾ transite ducts instead of 3-3¾ transite ducts.

DETAIL OF COVER PLATES

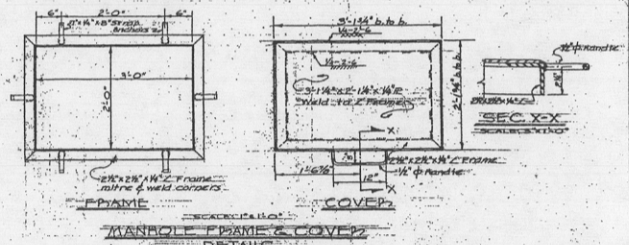


NOTE: See FRONT ELEVATION FOR LOCATION OF ∠ SUPPORTS

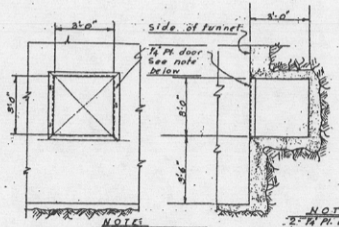
TYPICAL DETAILS OF WOODEN DUCT SUPPORT
SCALE: 1" = 1'-0"



ASSEMBLED SECTION
SCALE: 1½" = 1'-0"



MANHOLE FRAME & COVER DETAILS



NOTE: 2-¼ Pl. doors read. 1 left hand swing for primer storage for Gun No 2 & 1 right hand swing for primer storage for Gun No 3. Doors to be plain with no louver. Leaf size 3'-2"x 3'-2" For details of door see drawing F-127/01. Door size 3'-0"x 3'-0"

ELEVATION SECTION
DETAIL OF PRIMER STORAGE
SCALE ¾"=1'-0"
1" REQD FOR GUN NO 1
1" REQD FOR GUN NO 2

DATE	REVISIONS	BY	CHK.	APP
12/29/43	Outline Sections EE & FF and detail details of Air duct	RD & AW	AW	JK
2/16/44	Add anchors to Duct	AW	FFC	JK
11/3/44	Add Blast door section B-B	REG.	BAT	JK

U.S. ENGINEER OFFICE HONOLULU, T.H. JULY 1942

BATTERY NO. 1302 6" GUN POSITION

WORK ORDERS 600118-F1.0 & A 94.1

MISC. STRUCTURAL DETAILS

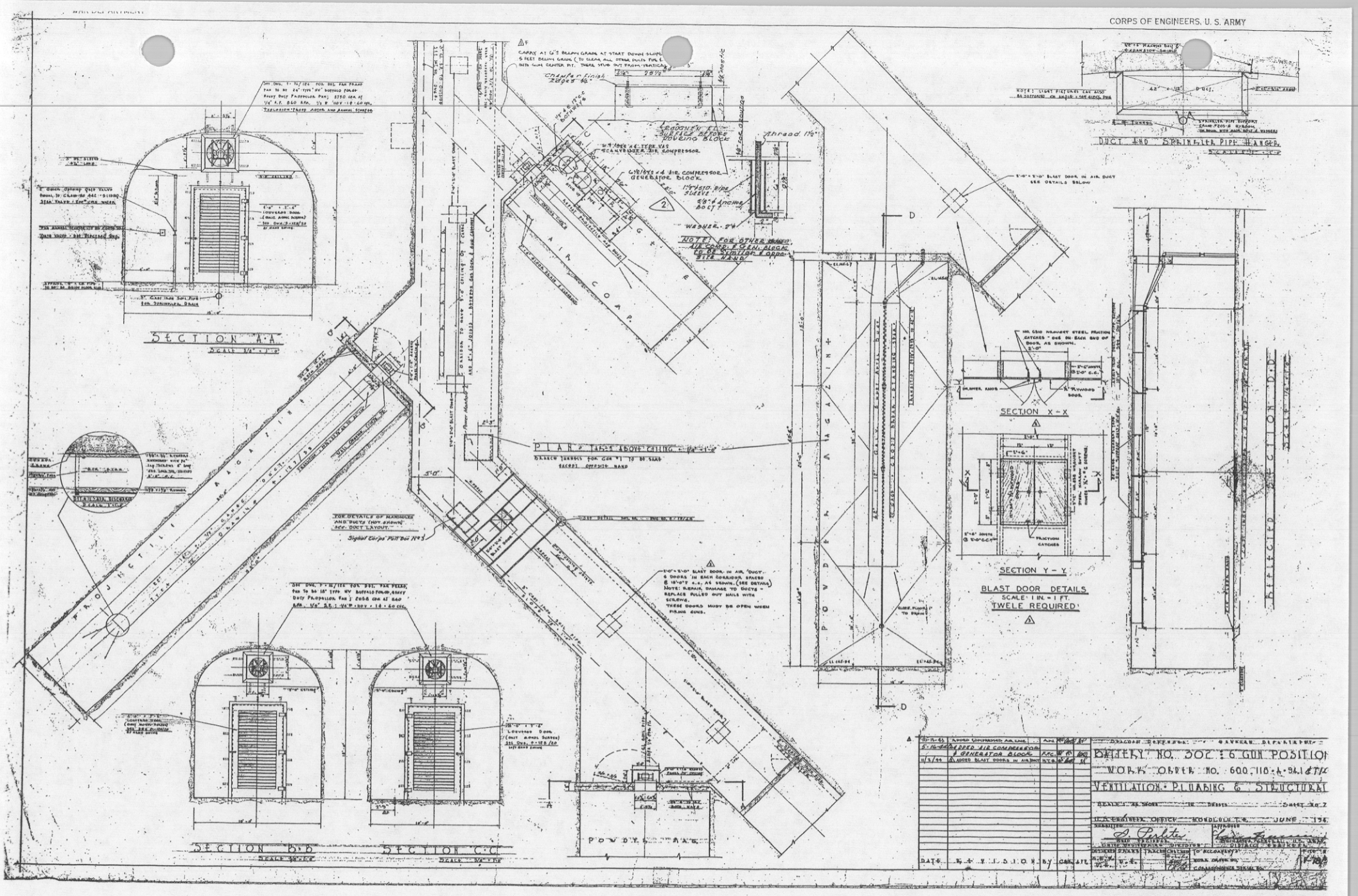
SCALE AS SHOWN IN SHEETS SHEET NO.

SUBMITTED: [illegible] APPROVED: [illegible]
CHIEF ENGINEER
RECOMMENDED: [illegible] APPROVED: [illegible]
CHIEF, MAINTENANCE DIVISION
DISTRICT ENGINEER

DESIGNED CLW | DRAWN EEK | CHECKED | QUANTITIES | TO ACCOMPANY

WORK ORDERS NO. 600118-T-1.0 & A94.1
LETTER SERIAL NO.

PWD WW FILED 8/31



10-11-43	ADDED COMPRESSED AIR LINE			
5-16-44	ADDED AIR COMPRESSOR & GENERATOR BLOCK			
11-3-44	ADDED BLAST DOORS IN AIR DUCT			

DATE | REVISION | BY | CHK. DATE

DISTRICT ENGINEER | DIVISION ENGINEER

BATTERY NO. 302 : 6 GUN POSITION

WORK ORDER NO. 600.110-A-94.1 & 11C

VENTILATION - PLUMBING & STRUCTURAL

SCALE: AS SHOWN | TO DETAILS | SHEET No. 7

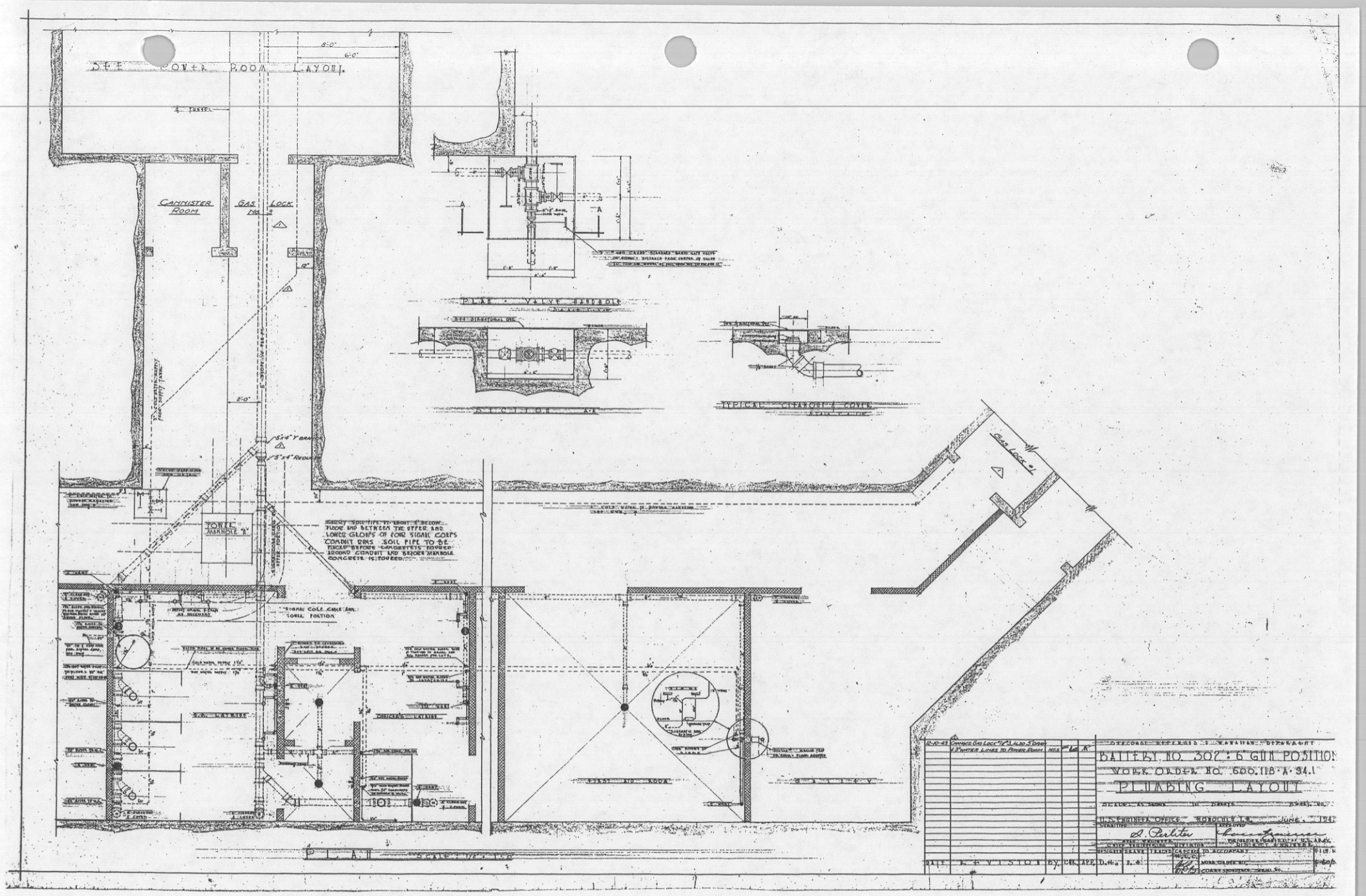
U.S. ENGINEER OFFICE, SOUTHPORT, N.C. JUNE 1944

SUBMITTED | APPROVED

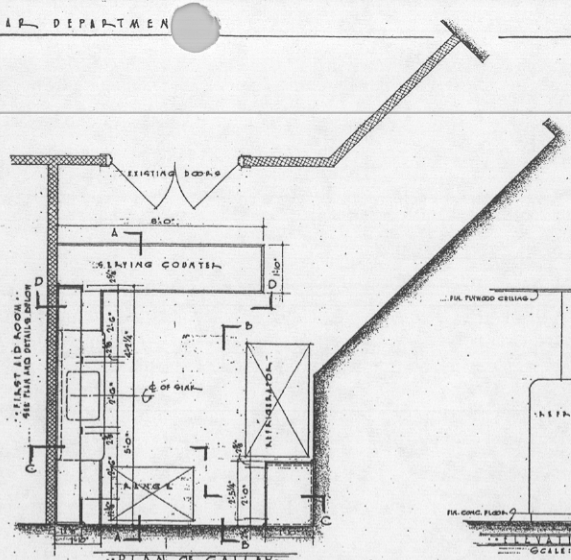
DESIGNED | DRAWN | TRACED | CHECKED | TO ACCOMPANY | FILE No.

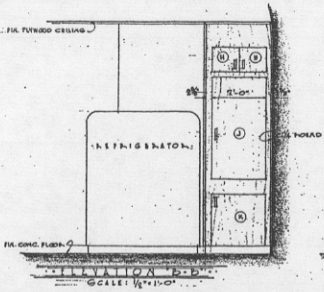
H.D.G. W.O. | W.O. | WORK ORDER NO. | DRAWING NO.

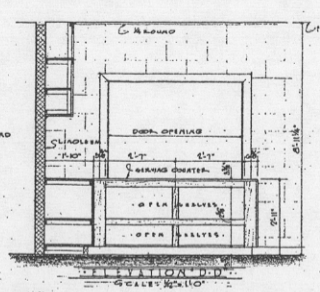
CONTRACTOR'S SERIAL NO.

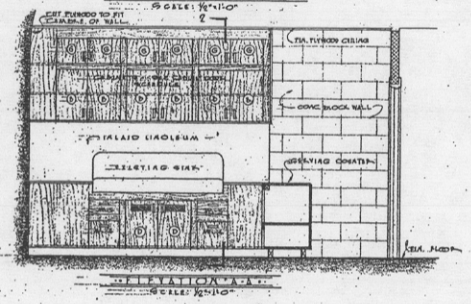

SEE POWER ROOM LAYOUT
CANNISTER ROOM
GAS LOCK No. 2
PLAN - VALVE HANDHOLE
SECTION A-A
TYPICAL CLEANOUT & COVER
GAS LOCK #1
POWER MANHOLE "A"
CARRY SOIL PIPE AT ABOUT 2' BELOW FLOOR AND BETWEEN THE UPPER AND LOWER GROUPS OF FOUR SIGNAL CORPS CONDUIT RUNS. SOIL PIPE TO BE PLACED BEFORE CONCRETE IS POURED AROUND CONDUIT AND BEFORE MANHOLE CONCRETE IS POURED.
SIGNAL CORP. CABLE RUN LOWER PORTION
FIRST AID ROOM
PLAN SCALE 1/2" = 1'-0"
12-10-43 CHANGED GAS LOCK #1 & #3, ALSO 5' DIAM. & 3" WATER LINES TO POWER ROOM
NTS
DATE REVISION BY CHK APP
OFFCOAST DEFENSES & HAWAIIAN DEPARTMENT
BATTERY NO. 302 : 6" GUN POSITION
WORK ORDER NO. 600.118-A-94.1
PLUMBING LAYOUT
SCALE AS SHOWN IN SHEETS
U.S. ENGINEER OFFICE HONOLULU, T.H. JUNE, 1943
SUBMITTED
APPROVED
DESIGNED DRAWN TRACED CHECKED
TO ACCOMPANY
WORK ORDER NO.
CORRESPONDENCE SERIAL NO.
FILE NO.

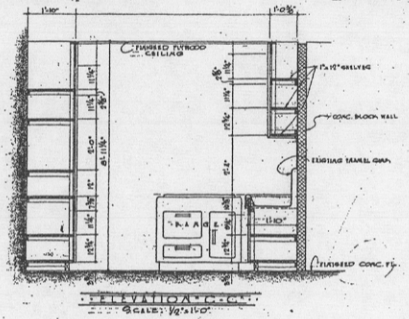
WAR DEPARTMENT — CORPS OF ENGINEERS, U.S. ARMY

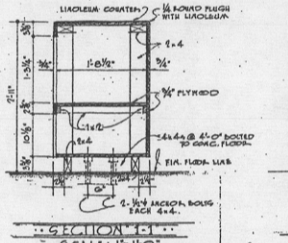


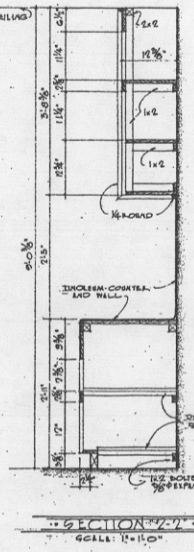


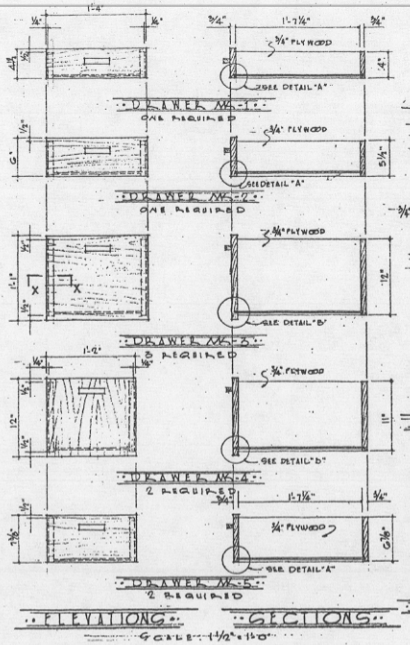


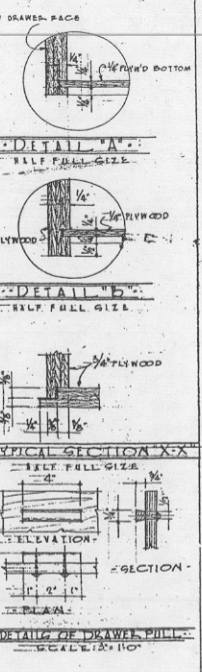


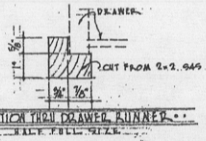




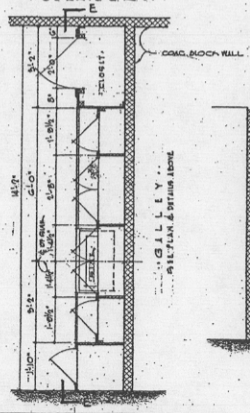


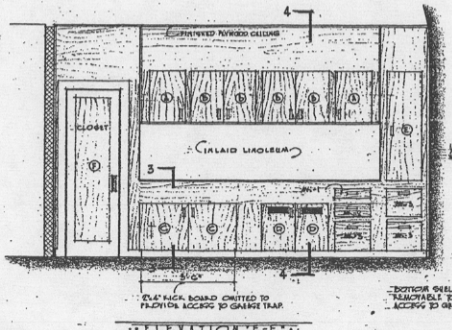


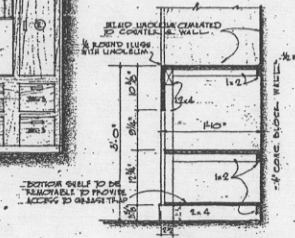


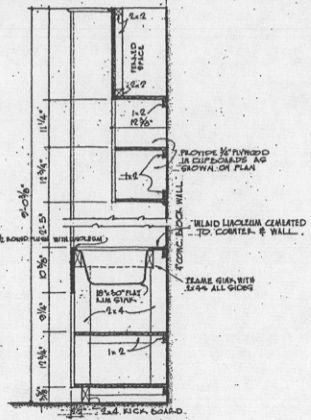


DRAWER DETAILS









CABINET DOOR SCHEDULE				
MARK	HEIGHT	WIDTH	NO REQ'D	REMARKS
(A)	2'-0"	1'-4"	2	¾" PLYWOOD PANEL
(B)	2'-0"	1'-5"	10	¾" PLYWOOD PANEL
(C)	1'-10"	1'-10"	2	¾" PLYWOOD PANEL
(D)	1'-10"	1'-3"	4	¾" PLYWOOD PANEL WITH ¾" PLYWOOD METAL BAND INSIDE FACE 5¾" CUT AWAY
(E)	4'-8"	3'-4"	1	¾" PLYWOOD PANEL
(F)	6'-6"	2'-0"	1'-1"	¾" SIDE DOOR - ¾" PLYWOOD PANEL
(G)	0'-11⅜"	1'-3"	6	¾" PLYWOOD PANEL
(H)	0'-11⅜"	1'-0"	2	¾" PLYWOOD PANEL
(J)	3'-11⅜"	2'-0"	1	¾" PLYWOOD PANEL
(K)	2'-0"	2'-0"	1	¾" PLYWOOD PANEL

SEACOAST DEFENSES, USAFICPA

BATTERY "302" 6" GUN POSITION

WORK ORDERS 600.118-T.1.0 & E.A 94.1

KITCHEN AND FIRST AID ROOM DETAILS

SCALE: AS SHOWN — IN SHEETS — SHEET NO.

U.S. ENGINEER OFFICE, HONOLULU, T.H. JUNE, 1944

SUBMITTED: D. Pulis, HEAD ENGINEER, CHIEF, DESIGN DIVISION

APPROVED: B.M. Winn, COLONEL, CORPS OF ENGINEERS, ENGINEER, CPA

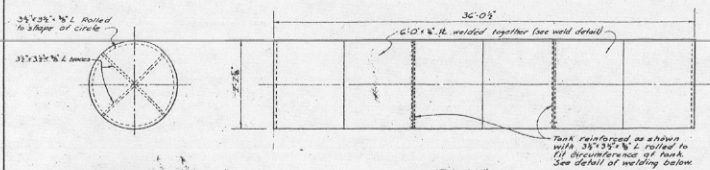
DESIGNED	DRAWN	CHECKED	TO ACCOMPANY WORK ORDER NO.	FILE NO.
JD	JD	BY FCB	CORRESPONDENCE 881 NO.	F-779/67

DATE	REVISION	BY	CHK	APP

881

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY

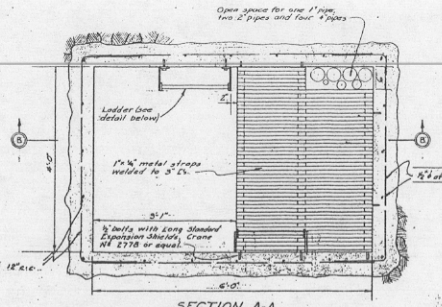


END ELEVATION

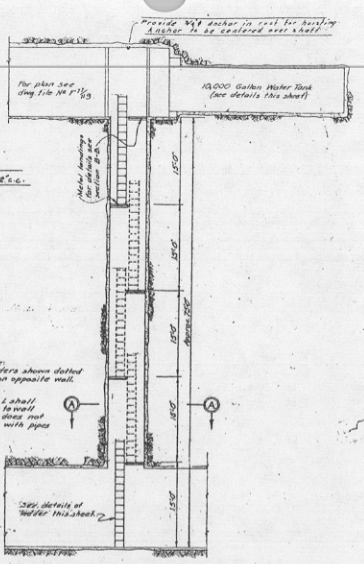
PLAN

SCALE: ¼"=1'-0"

Note: Dimensions of tank given are inside dimensions. Circumference of tank equals 24'-0". See details of tank fixtures below.



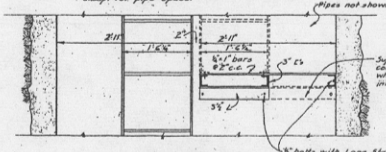
SECTION A-A



SECTION THRU SHAFT

SCALE: ⅜"=1'-0"

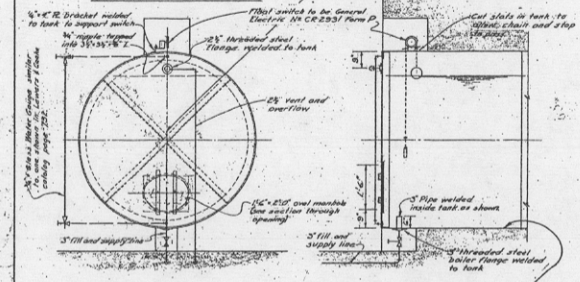
Note: Platform on opposite side of shaft similar except for pipe space.



SECTION B-B

SCALE: 1"=1'-0"

Note: Make 3 landings as shown and 2 opposite third omitting pipe space.

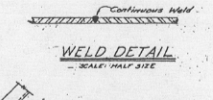


END ELEVATION

℄ SECTION

DETAILS OF TANK FIXTURES

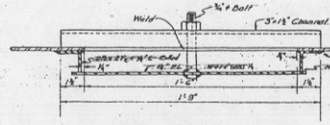
SCALE: ½"=1'-0"



DETAIL OF TANK REINFORCEMENT

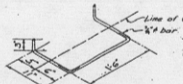
WELD DETAIL

SCALE: HALF SIZE

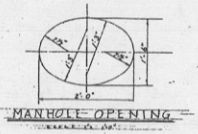


SECTION THRU MANHOLE

SCALE: QUARTER SIZE



LADDER RUNG

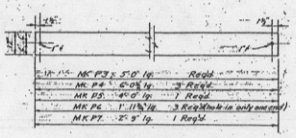


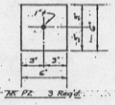
MANHOLE OPENING

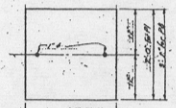
SCALE: ½"=1'-0"

TANK TREATMENT NOTE

Clean inside of tank, in place, thoroughly with wire brush, chipping tools and washing, dry throughly, then apply base coat of coal tar primer and two coats of coal tar enamel, force ventilate until thoroughly dry before closing tank for service.



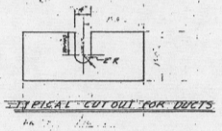




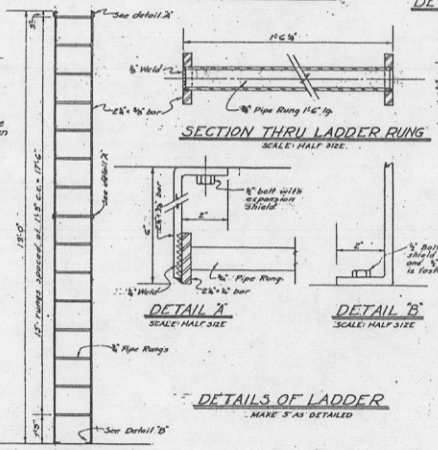
COVER PLATE DETAILS

"ALL" PLATES TO BE ⅜" CHK. PL.
NO SCALE.

All plates shall be field cut to fit ducts and piping



TYPICAL CUT OUT FOR DUCTS



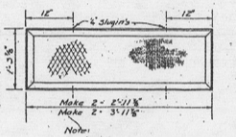
ELEVATION

SCALE: ¾"=1'-0"

SECTION THRU LADDER RUNG

SCALE: HALF SIZE.

DETAILS OF LADDER IN SHAFT



Note: For location of screens see Air Intake of Casemate dwg. file Nº F 1/21

DETAIL OF AIR INTAKE SCREENS

SCALE: 1"=1'-0"

DETAIL 'A'

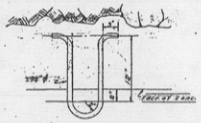
SCALE: HALF SIZE

DETAIL 'B'

SCALE: HALF SIZE

DETAILS OF LADDER

MAKE 5 AS DETAILED



DETAIL OF HOIST ANCHOR

I R L 9 0

After turnbuckle is lined, drill, and grout anchor into place. Use care in grouting anchor so that full strength of concrete will be developed

DATE	REVISION	BY	CHK.	APR.
1-11-44	Add'l Tank Treatment Note	JKC	Wolf	JP

SEACOAST DEFENSES, HAWAIIAN DEPARTMENT

BATTERY Nº 302-G GUN POSITION

WORK ORDER-600118-T-1.0 & A 9.1

MISCELLANEOUS METAL DETAILS

SCALE: AS SHOWN | IN SHEETS | SHEET Nº

U.S. ENGINEER OFFICE, HONOLULU, T.H. | JUNE 1943

SUBMITTED: L. Perlitz, Asst. CHIEF ENGINEERING DIVISION

APPROVED: [signature], BRIGADIER GENERAL, U.S.A., DISTRICT ENGINEER

DESIGNED C.E.W. | DRAWN M.A.S. | TRACED | CHECKED Old | TO ACCOMPANY WORK ORDER NO. 600118-T-1.0 & A 9.1 CORRESP. SERIAL 360 | FILE

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF **PEARL HARBOR**
~~FORT~~ **ONEULA**
BATTERY **PANAMA MOUNTS**
No. of guns: **4** Caliber: **155 mm** Carriage: **Split trail.**

SECRET

Form 1. Corrected to **June 30, 1937**

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	**May 26, 1937**	Sources of	**None**
Battery completed	**June 30, 1937**		
Date of transfer	**Sept. 27, 1937**	Max. kw. required for lights	- - -
Cost to date of transfer	**$6,348.96**	Max. kw. required for motors	- - -
Materials of construction	**Reinforced concrete**		
Type of cement	**Portland**		
WATER AND SEWER:		Present condition of battery	**Good**
Connected to water supply	**No**	Rooms wet or dry	**No rooms**
Connected to sewer	**No**		
Type of latrine	**None**	How ventilated	- - -
		Type of data transmission	**Telephone**
Trunnion elevation in btry.	**Approx. 10. feet**		
Datum plane	**M.L.L.W.**	Remarks	**Guns not permanently emplaced.**

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

UNCLASSIFIED RESTRICTED
REGRADED
ORDER SEC ARMY
CONFIDENTIAL

REPORT OF COMPLETED WORKS — SEACOAST FORTIFICATIONS

GENERAL PLAN

SECRET

FORM 7 CORRECTED TO JUNE 30, 1937

HARBOR DEFENSES OF PEARL HARBOR

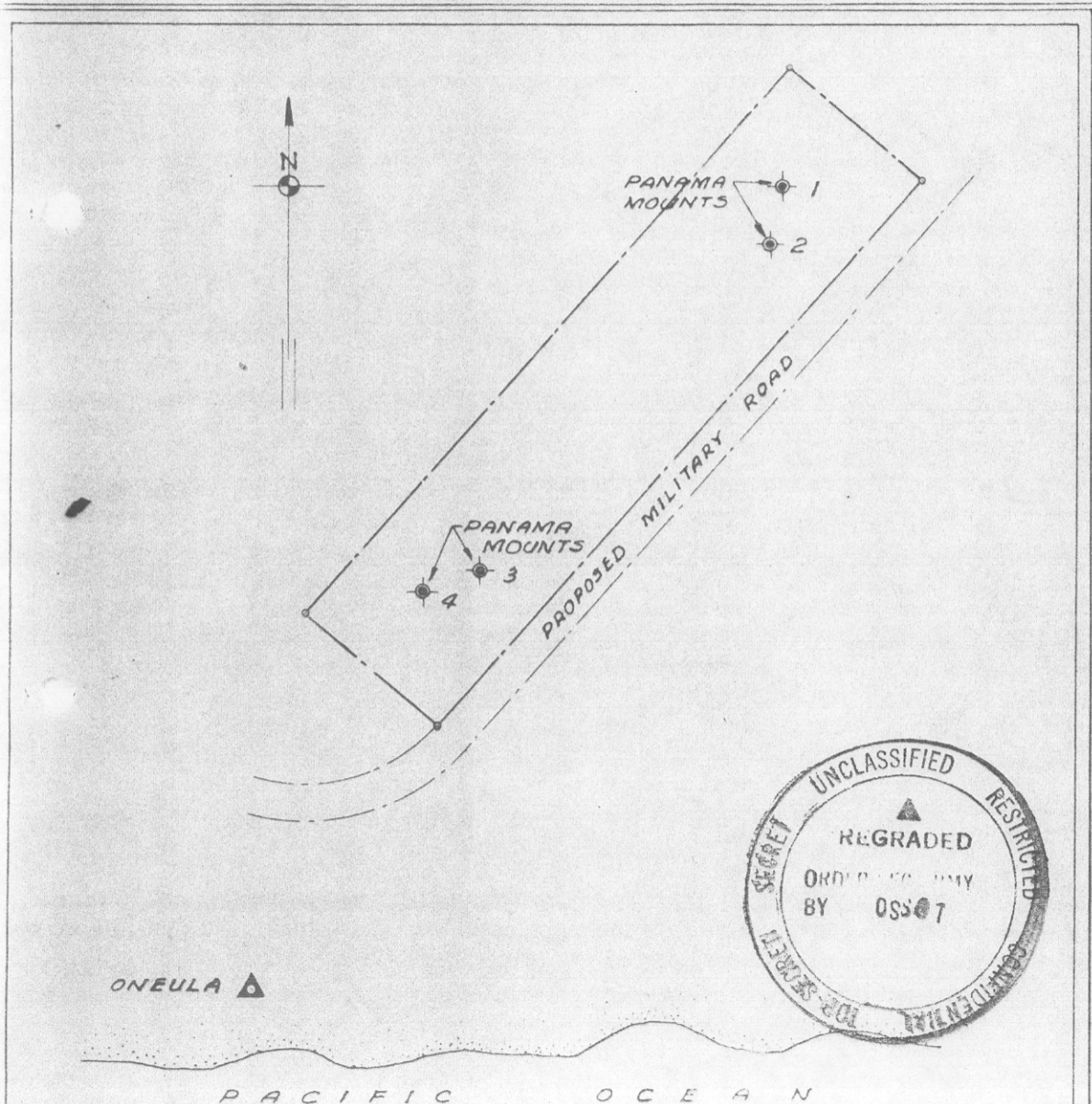
ONEULA

4-PANAMA MOUNTS FOR 155 MM GUNS

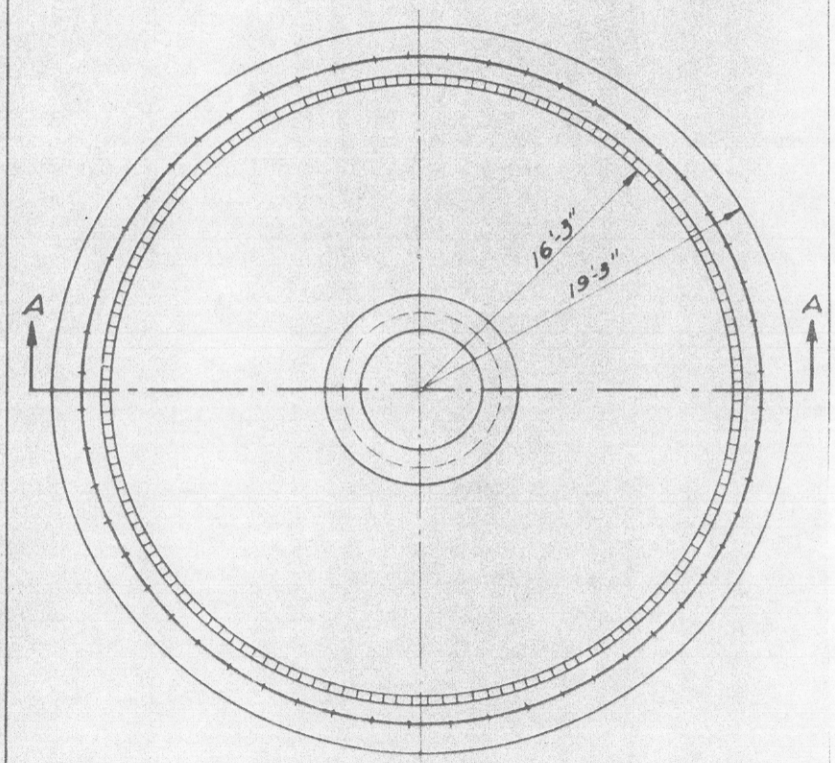
GRAPHIC SCALES

10 0 10 20 FT.

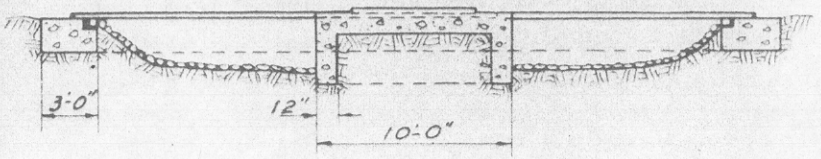
100 0 1 2 3 4 500 FT.



UNCLASSIFIED
RESTRICTED
CONFIDENTIAL
SECRET
TOP SECRET
REGRADED
ORDER OF ... BY OSS 7



PLAN



SECTION A-A

660 B (Honolulu) - 143

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Chief

HARBOR DEFENSES OF HONOLULU HARBOR
FORT ARMSTRONG
BATTERY KALIHI
240 MM Howitzer
No. of guns: 2 Caliber: 240MM Carriage: Model 1918 (Schneider)

Form 1. Corrected to

1 of 5

SECRET

By Authority of the District Engineer, Honolulu, T. H.

12-26-41 WPM
Date Officer Affixing

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	1-27-41	Sources of	)
Battery completed	2-24-41		) None
Date of transfer	6-26-41	Max. kw. required for lights	)
Cost to date of transfer	$371.73	Max. kw. required for motors	)
Materials of construction	Reinforced Concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	)
Connected to water supply	)	Rooms wet or dry	) None
Connected to sewer	) None		
Type of latrine	)	How ventilated	Open
		Type of data transmission	Field Telephone
Trunnion elevation in btry.	(1) 1029.3' (2)1047.3'		
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Guns are not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
NONE										

Note: This work covers additions & betterments to existing battery.

SECRET

REPORTED COMPLETED WORKS
(GENERAL PLAN)

w/1600 (Honolulu) - 143

Form 7

240 MM POSITION
KALIHI MILITARY RESERVATION

GRAPHIC SCALE 6 5 4 3 2 1 0 12

GRAPHIC SCALE 50 40 30 20 10 0 50 100

SECRET

SERIAL NO. I

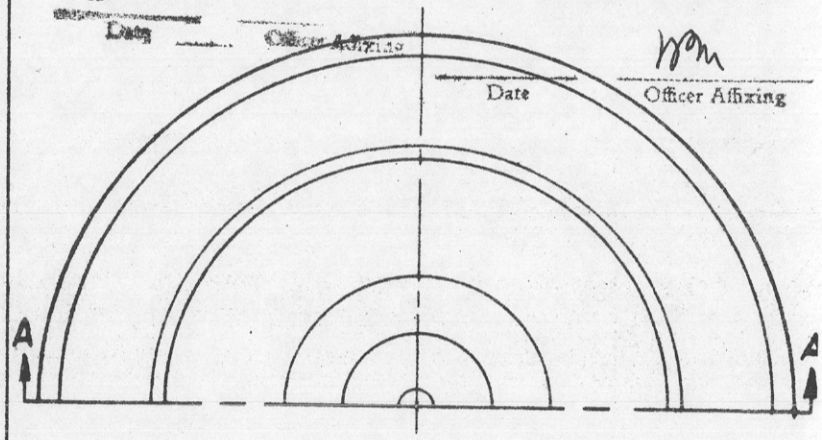
COPY NO. 1

By Authority of the District Engineer,
Honolulu, T. H.

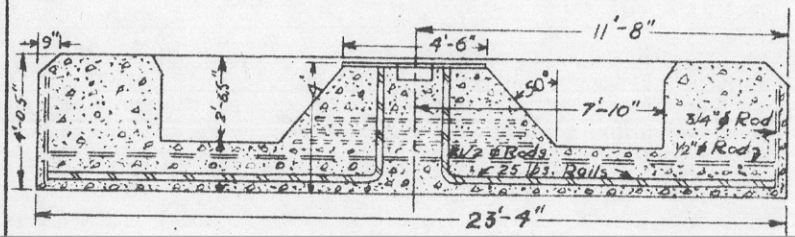
SECRET

By Authority of the District Engineer,
Honolulu, T. H.

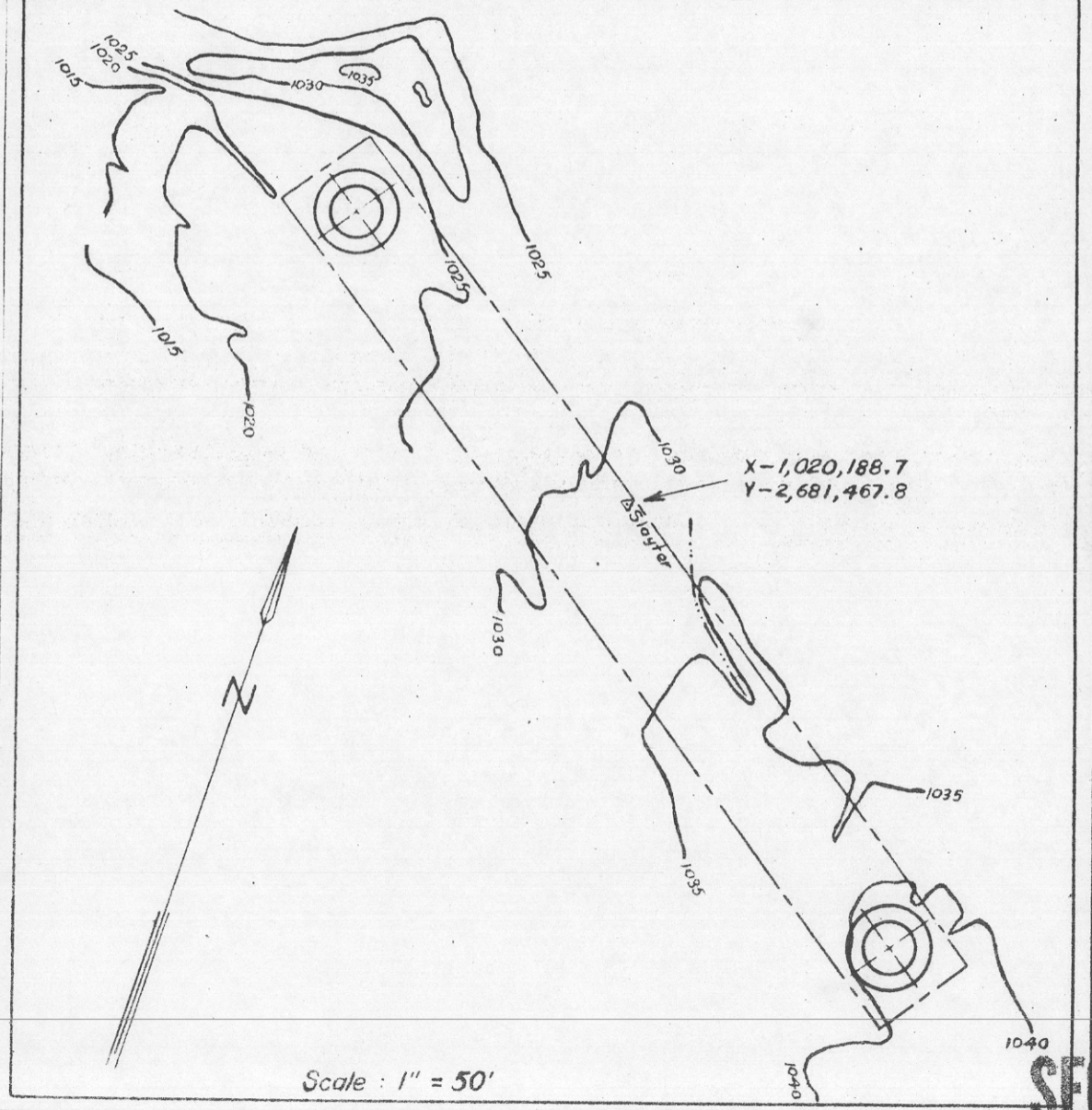
Date Officer Affixing



PLAN



SECTION A-A
Scale: 1"=6'



Scale : 1" = 50'

SECRET

E.A.L.

FILE NO 1/9

G-633

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF HONOLULU HARBOR
FORT ARMSTRONG
BATTERY KALIHI
No. of guns: 2 Caliber: 240MM Carriage: 240MM Howitzer Model 1918 (Schneider)

Form 1. Corrected to

GENERAL:	
Battery commenced	1-27-41
Battery completed	2-24-41
Date of transfer	6-26-41
Cost to date of transfer	$371.73
Materials of construction	Reinforced Concrete
Type of cement	Portland
WATER AND SEWER:	
Connected to water supply	)
Connected to sewer	) None
Type of latrine	)
Trunnion elevation in btry.	(1) 1029.3' (2) 1047.3'
Datum plane	M.L.L.W

ELECTRIC CURRENT:	
Sources of	)
	) None
Max. kw. required for lights	)
Max. kw. required for motors	)
Present condition of battery	)
Rooms wet or dry	) None
How ventilated	Open
Type of data transmission	Field Telephone
Remarks	Guns not permanently emplaced.

SECRET
By Authority of the District Engineer, Honolulu, T. H.
12/26/41 Date
Officer Affixing
#5 of 5

ARMAMENT

Emplacement or Mortar No.	Guns or Mortars: Caliber	Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Guns are not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
NONE										

Note: This work covers additions & betterments to existing battery.

SECRET

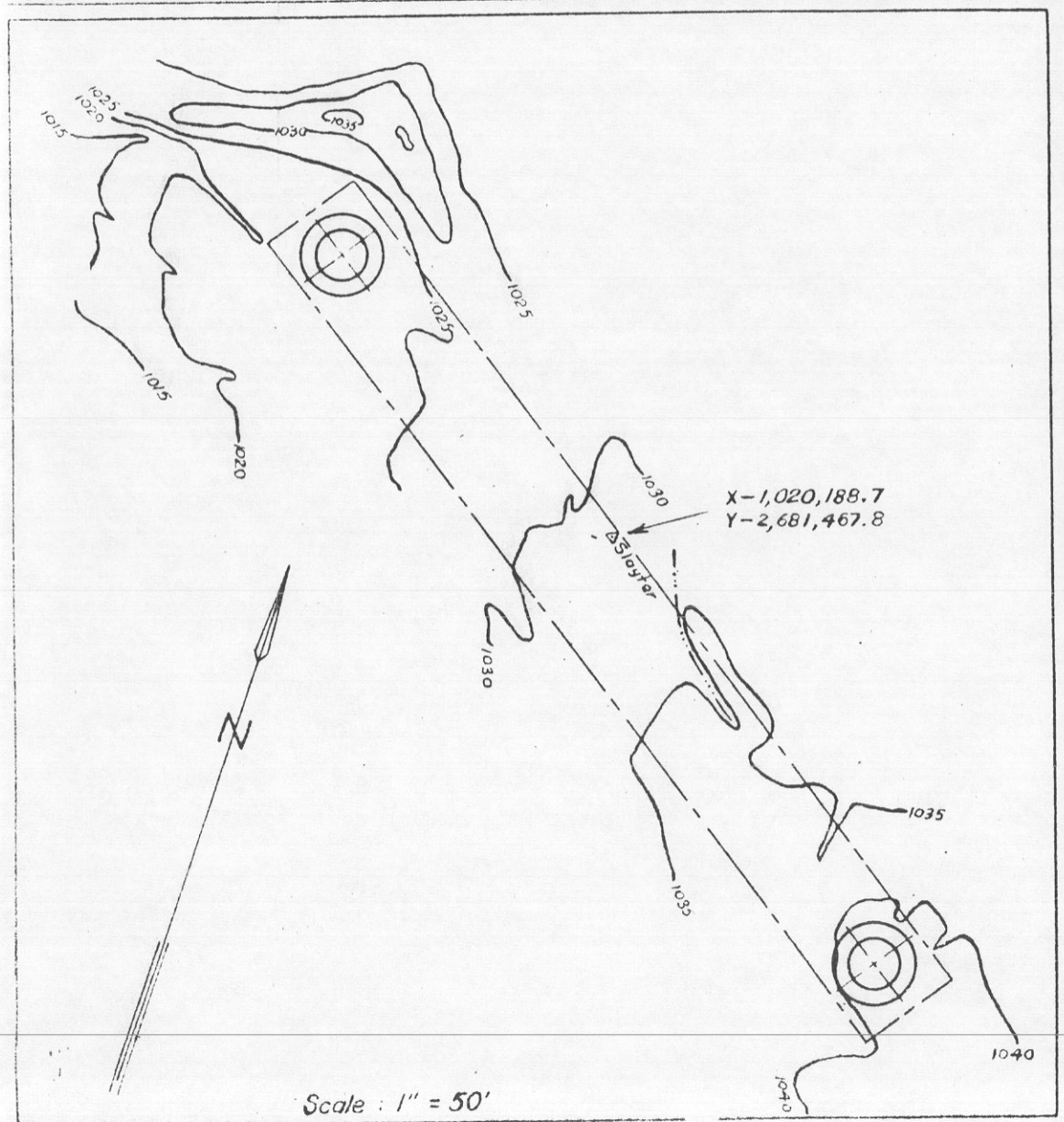
REPORTED COMPLETED WORKS
(GENERAL PLAN)

240 MM POSITION
KALIHI MILITARY RESERVATION

GRAPHIC SCALE 6 5 4 3 2 1 0 6 12

GRAPHIC SCALE 50 40 30 20 10 0 50 100

Form 7



SECRET

SERIAL NO. 7

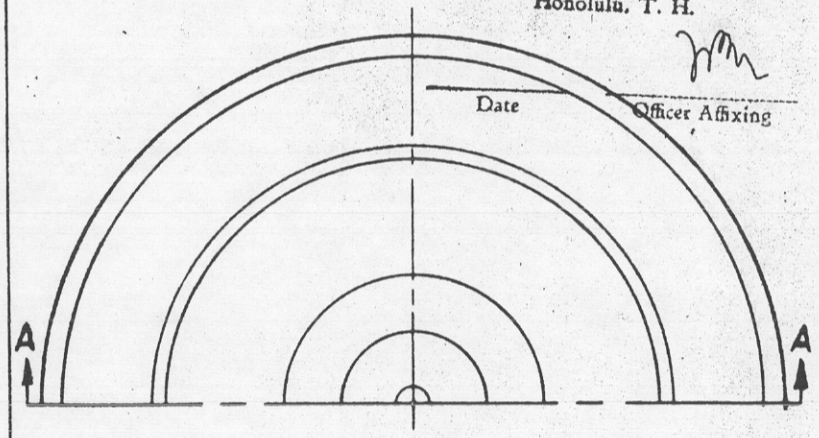
COPY NO. 4

SECRET

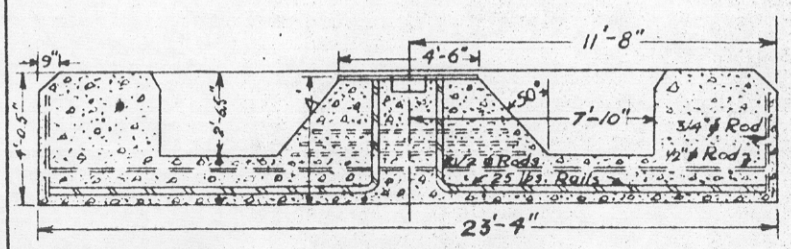
By Authority of the District Engineer,
Honolulu, T. H.

Date

Officer Affixing



PLAN



SECTION A-A

Scale : 1"=6'

E.A.L.

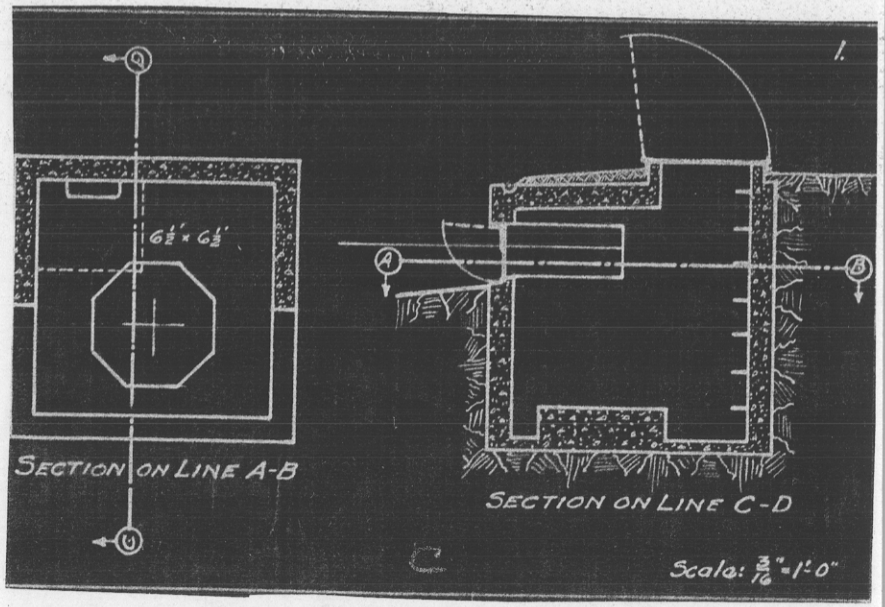
FILE NO. 1/95

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2 Corrected to May 19, 1924.

COAST DEFENSES OF PEARL HARBOR
FORT WEAVER
STRUCTURE: FIRE CONTROL STATION C
FOR BATTERY WILLISTON

Location	: Salt Lake Military Reservation.
Date of transfer	: January 30, 1924.
Cost to that date	: $ 1,295.73
Type of construction:	
(a) Roof	: Concrete.
(b) Remainder of building	: " .
How concealed	: light earth covering.
How protected	: Dug-Out type.
Height above concealment	: Not above.
Height above protection.	: " " .
Conspicuous at 500 yards.	: No.
Source of electric current	: Local battery.(Wet,Edison #207)
Kilowatts required.	: Instrument lights only.
Type of lighting fixtures	: Flash lights.
How heated.	: Not required.
Connected to water mains	: No.
Connected to sewer	: No.
Type of latrine	: None.
Permanent or temporary installation	: Permanent.
Present condition.	: Good.
Reference of site	: 480 Ft. (Top earth cover)
Reference of instrumental axis	: 476.97 Ft. (M.L.L.W.)
Type of observing instrument	: D.P. F. intended.
Type of plotting board	: None.
Type of data transmission	: Telephones.



REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

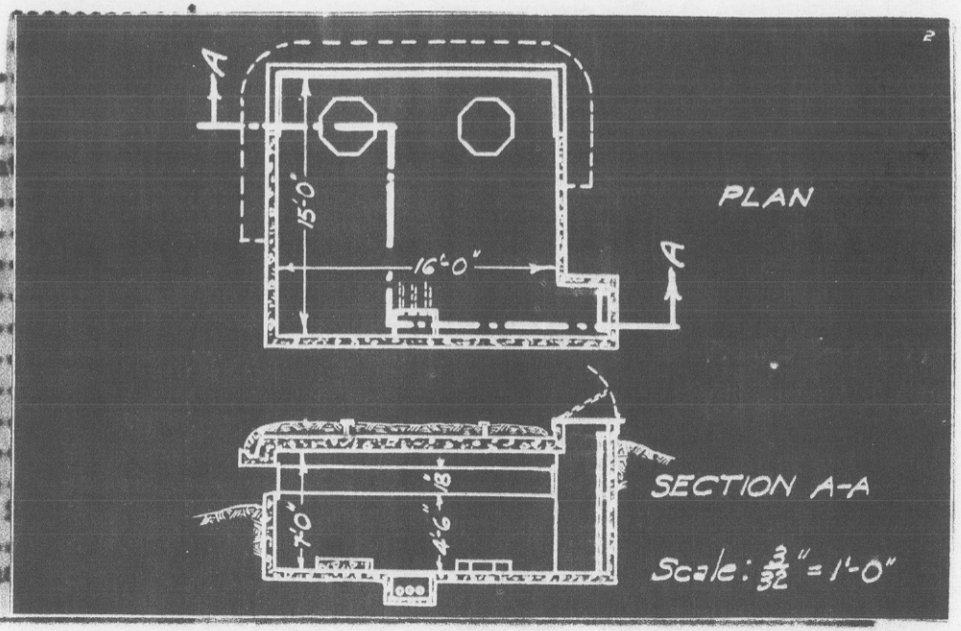
HARBOR DEFENSES OF PEARL HARBOR

#12

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

Form. 2 Corrected to July 14, 1934.

Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$2,624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1.K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' ≠
Type of observing instrument	D.P.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



With 662 B (Oahu) 201

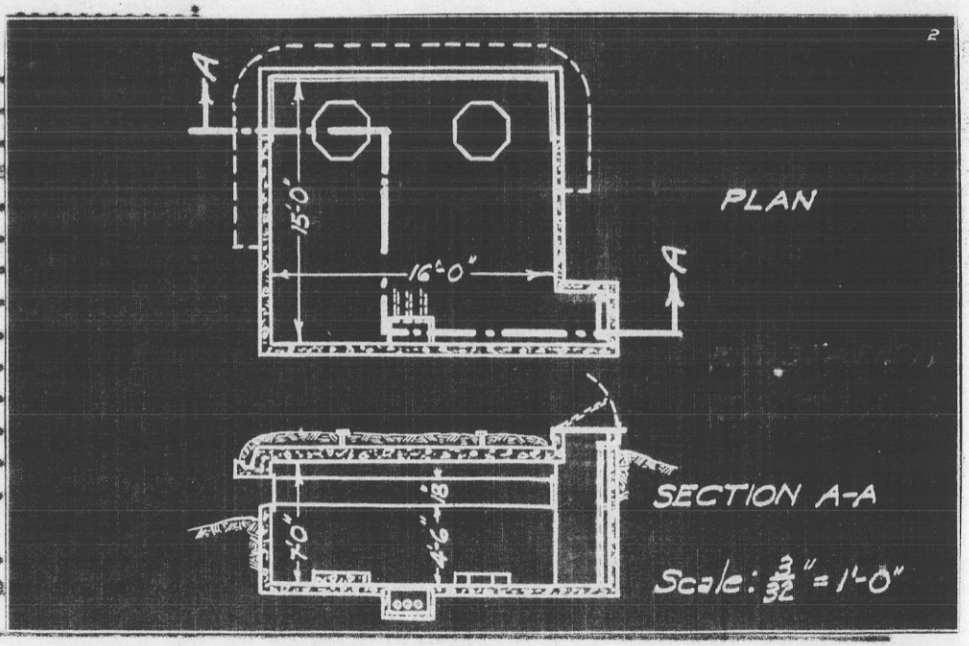
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY ~~KAPOLEI~~ HATCH
FORT ~~KAMEHAMEHA~~, T.H.
BARRETTE,

Form. 2 Corrected to July 14, 1934.

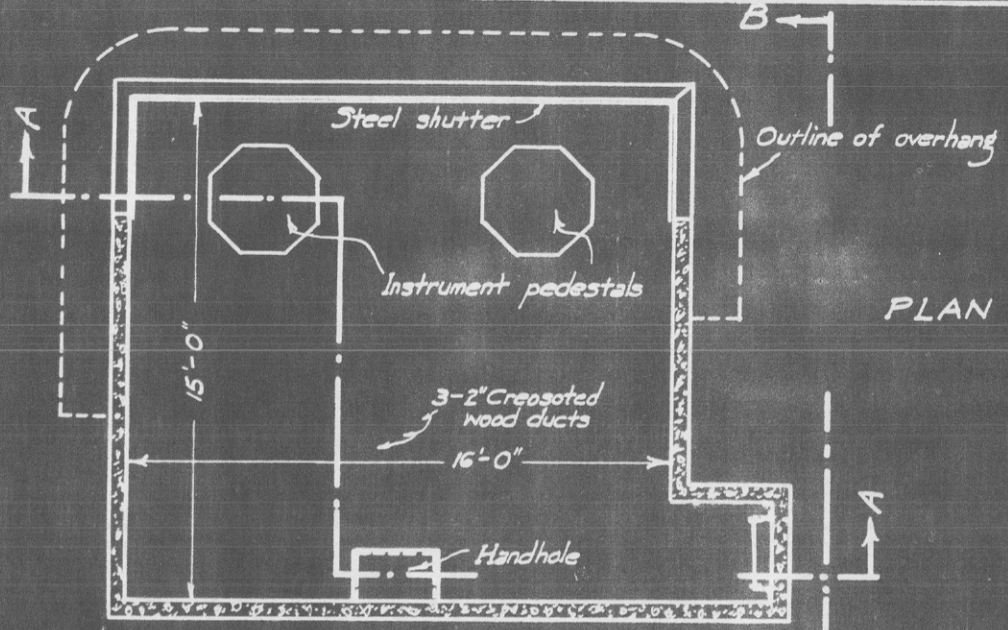
Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$2,624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage bs
Kilowatts required	0.1.K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' +
Type of observing instrument	D.P.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



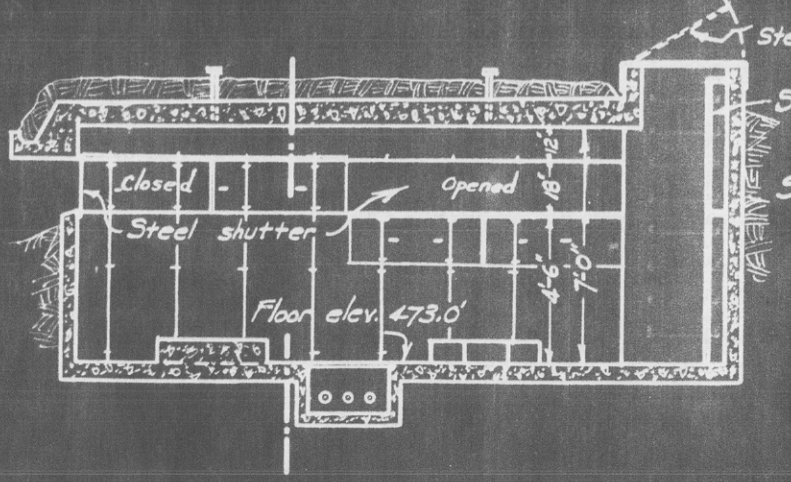
Prior 2

WAR DEPARTMENT

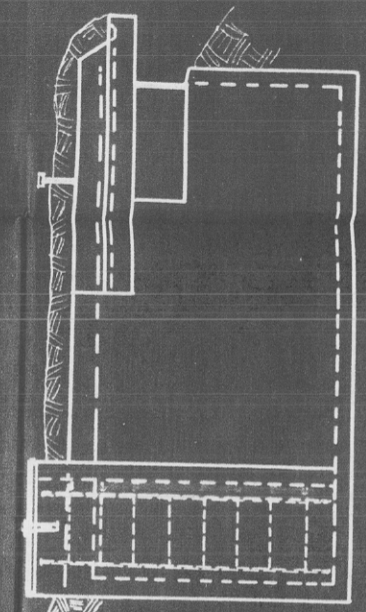
CORPS OF ENGINEERS, U. S. ARMY



PLAN



SECTION A-A



VIEW B-8

U. S. ENGINEER OFFICE
HONOLULU, T. H.

FIRE CONTROL STATION
SALT LAKE

KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

IN 1 SHEET

REVISIONS

SURVEYED	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED				
DRAWN				
TRACED				
CHECKED	ASSOCIATE ENGINEER	MAJOR, C.E., DIST. ENGR.	6/29/34	F10417

6-451

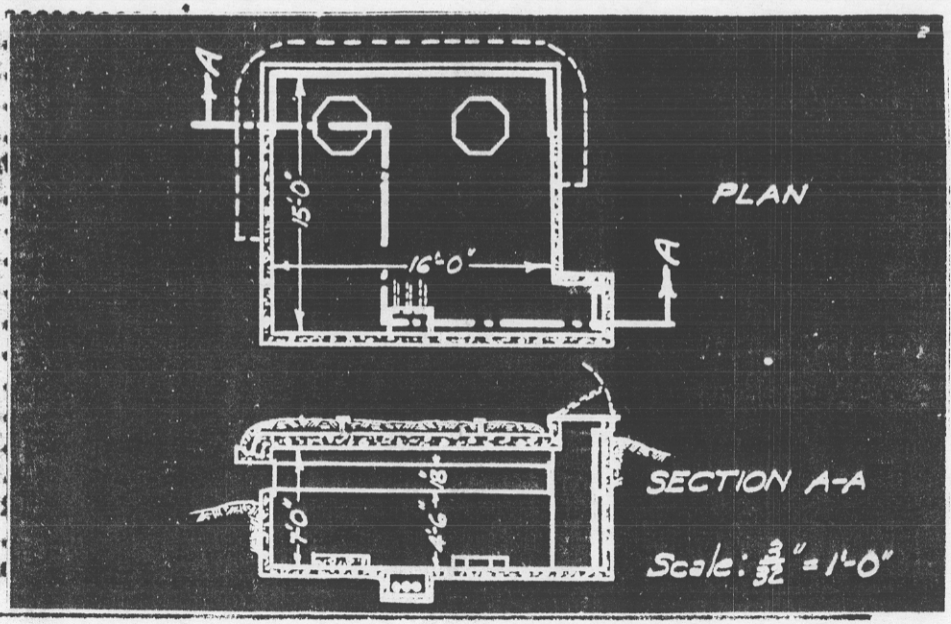
REPORT OF COMPLETED WORK SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

Form. 2 Corrected to July 14, 1934.

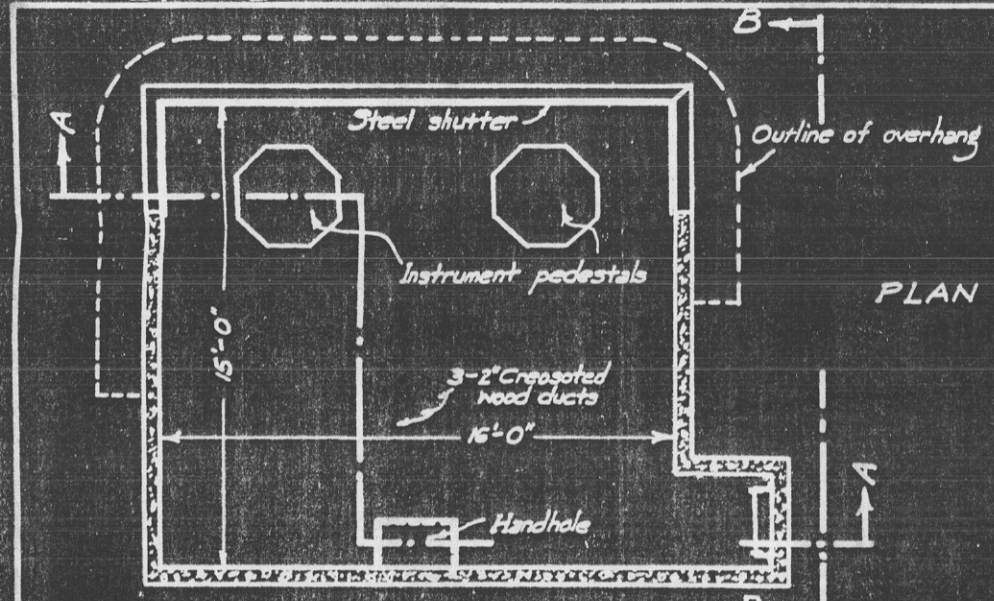
Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$[illegible],624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' ≠
Type of observing instrument	D.C.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



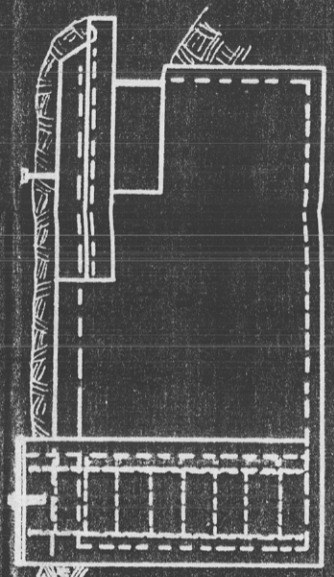
6-451

WAR DEPARTMENT

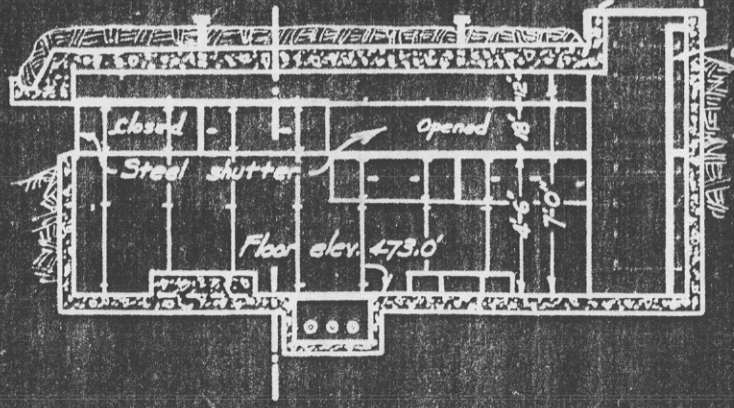
CORPS OF ENGINEERS, U. S. ARMY



PLAN



VIEW B-B



SECTION A-A

U.S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
SALT LAKE

KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

IN 1 SHEET

REVISIONS

SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED:				
DRAWN:				
TRACED:				
CHECKED:	ASSOCIATE ENGINEER	MAJOR, C.E., DIST. ENGR.	6/23/39	FIG 17

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF **PEARL HARBOR**
~~FORT~~ **ONEULA**
BATTERY **PANAMA MOUNTS**
No. of guns: **4** Caliber: **155 mm** Carriage: **Split trail.**

SECRET

Form 1. Corrected to **June 30, 1937**

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	**May 26, 1937**	Sources of	**None**
Battery completed	**June 30, 1937**		
Date of transfer	**Sept. 27, 1937**	Max. kw. required for lights	- - -
Cost to date of transfer	**$6,348.96**	Max. kw. required for motors	- - -
Materials of construction	**Reinforced concrete**		
Type of cement	**Portland**		
WATER AND SEWER:		Present condition of battery	**Good**
Connected to water supply	**No**	Rooms wet or dry	**No rooms**
Connected to sewer	**No**		
Type of latrine	**None**	How ventilated	- - -
		Type of data transmission	**Telephone**
Trunnion elevation in btry.	**Approx. 10. feet**		
Datum plane	**M.L.L.W.**	Remarks	**Guns not permanently emplaced.**

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars					Carriages				
		Length	Model	Serial No.	Manufacturer	Mounted	Type	Model	Serial No.	Manufacturer	Motor
Armament is not permanently emplaced and various guns may be emplaced.											

HOISTS

Emplacement No.	Type	Delivery	Motor						Date of transfer	Remodeled for long points
			Serial No.	Maker	H.P.	Volts	RPM	Type of control		
None										

UNCLASSIFIED RESTRICTED
REGRADED
ORDER SEC ARMY
CONFIDENTIAL

REPORT OF COMPLETED WORKS — SEACOAST FORTIFICATIONS

GENERAL PLAN

SECRET

FORM 7 CORRECTED TO JUNE 30, 1937

HARBOR DEFENSES OF PEARL HARBOR

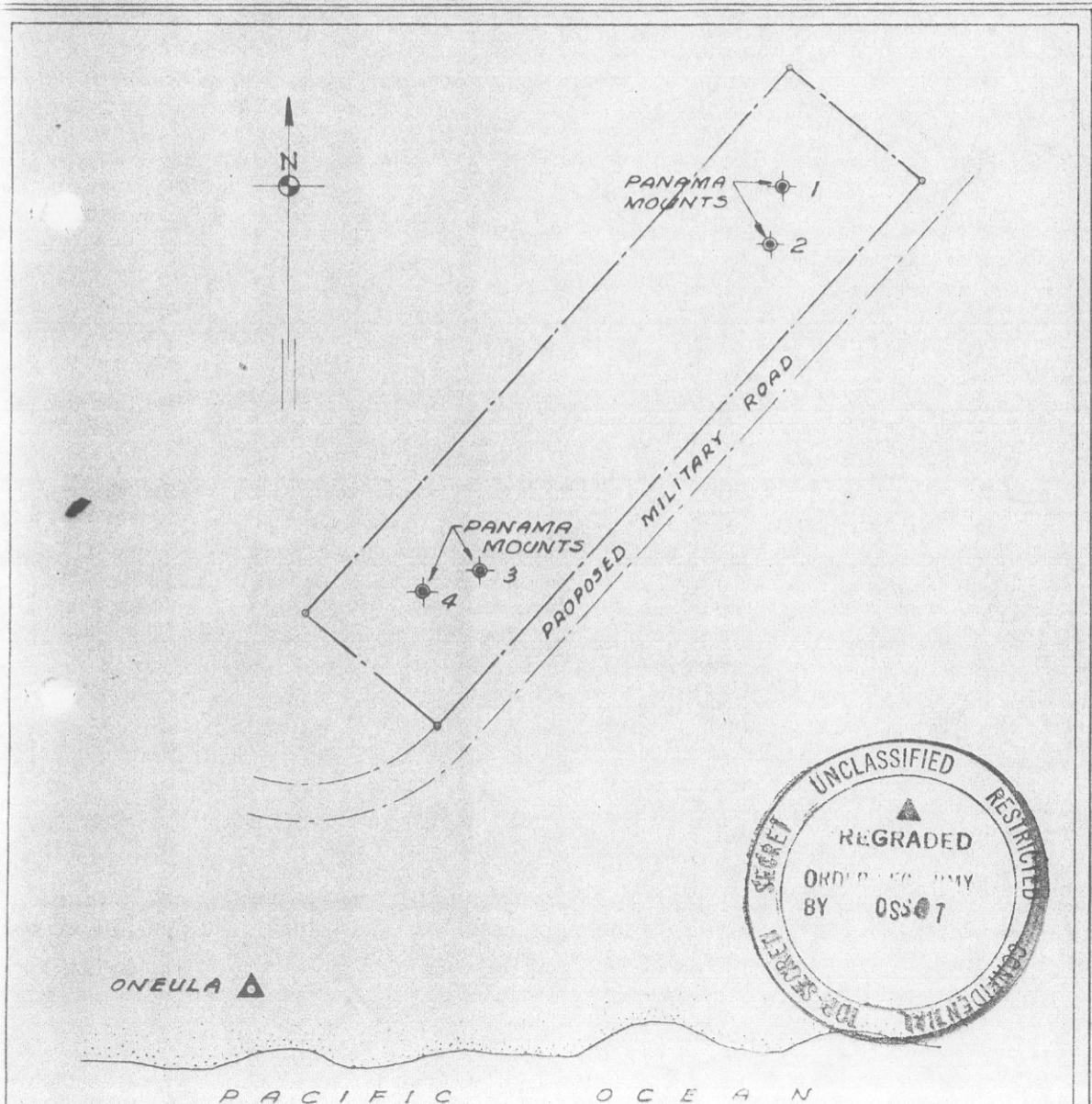
ONEULA

4-PANAMA MOUNTS FOR 155 MM GUNS

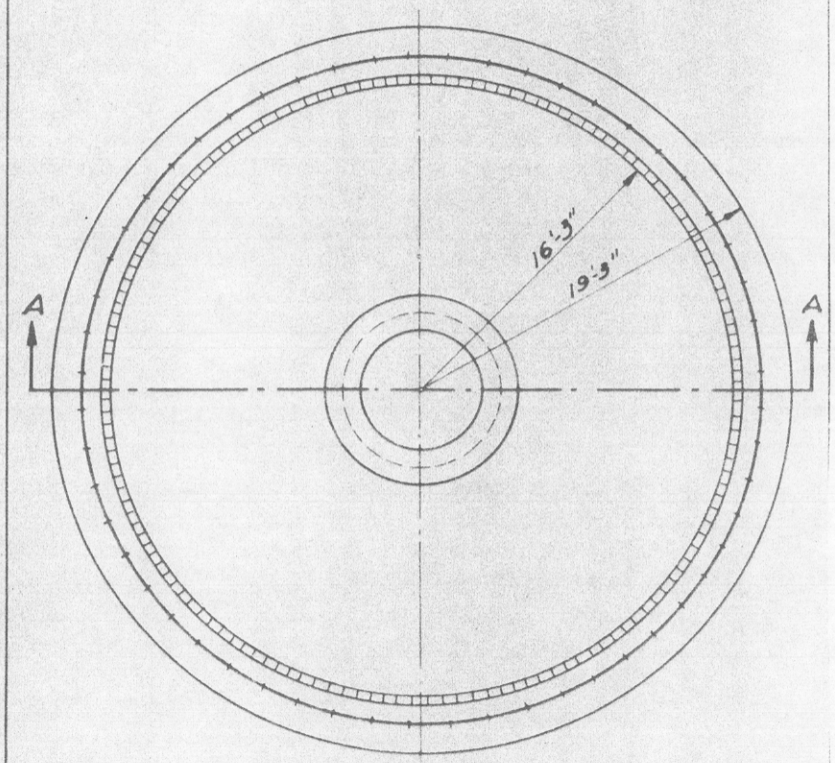
GRAPHIC SCALES

10 0 10 20 FT.

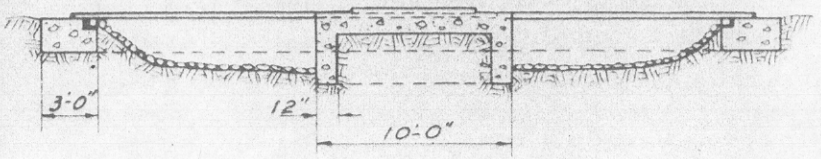
100 0 1 2 3 4 500 FT.



UNCLASSIFIED
RESTRICTED
CONFIDENTIAL
TOP SECRET
SECRET
REGRADED
ORDER OF ... BY OSS 7



PLAN



SECTION A-A

660 B (Honolulu) - 143

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

Chief

HARBOR DEFENSES OF HONOLULU HARBOR
FORT ARMSTRONG
BATTERY KALIHI
240 MM Howitzer
No. of guns: 2 Caliber: 240MM Carriage: Model 1918 (Schneider)

Form 1. Corrected to

1 of 5

SECRET

By Authority of the District Engineer, Honolulu, T. H.

12-26-41 WPM
Date Officer Affixing

GENERAL:		ELECTRIC CURRENT:	
Battery commenced	1-27-41	Sources of	)
Battery completed	2-24-41		) None
Date of transfer	6-26-41	Max. kw. required for lights	)
Cost to date of transfer	$371.73	Max. kw. required for motors	)
Materials of construction	Reinforced Concrete		
Type of cement	Portland		
WATER AND SEWER:		Present condition of battery	)
Connected to water supply	)	Rooms wet or dry	) None
Connected to sewer	) None		
Type of latrine	)	How ventilated	Open
		Type of data transmission	Field Telephone
Trunnion elevation in btry.	(1) 1029.3' (2)1047.3'		
Datum plane	M.L.L.W.	Remarks	Guns not permanently emplaced.

ARMAMENT

Emplacement or Mortar No.	Caliber	Guns or Mortars: Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Guns are not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
NONE										

Note: This work covers additions & betterments to existing battery.

SECRET

REPORTED COMPLETED WORKS
(GENERAL PLAN)

w/1600 (Honolulu) - 143

Form 7

240 MM POSITION
KALIHI MILITARY RESERVATION

GRAPHIC SCALE 6 5 4 3 2 1 0 12

GRAPHIC SCALE 50 40 30 20 10 0 50 100

SECRET

SERIAL NO. I

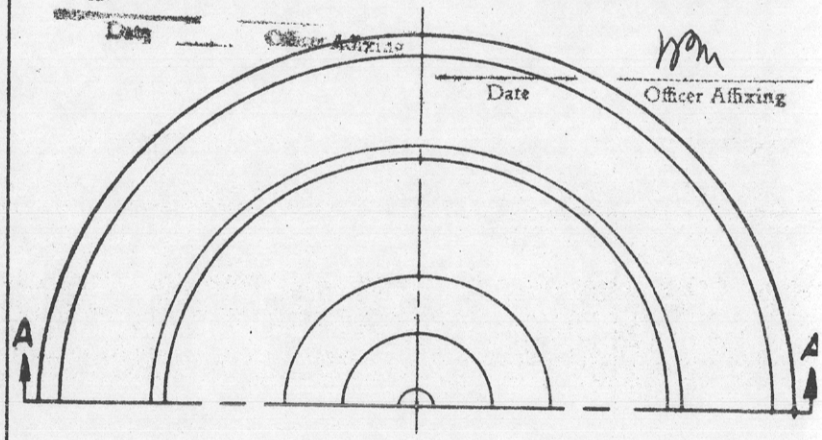
COPY NO. 1

By Authority of the District Engineer,
Honolulu, T. H.

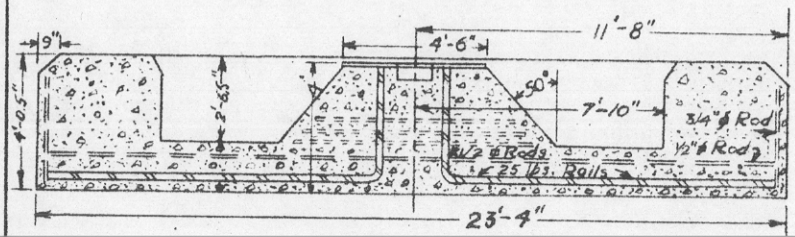
SECRET

By Authority of the District Engineer,
Honolulu, T. H.

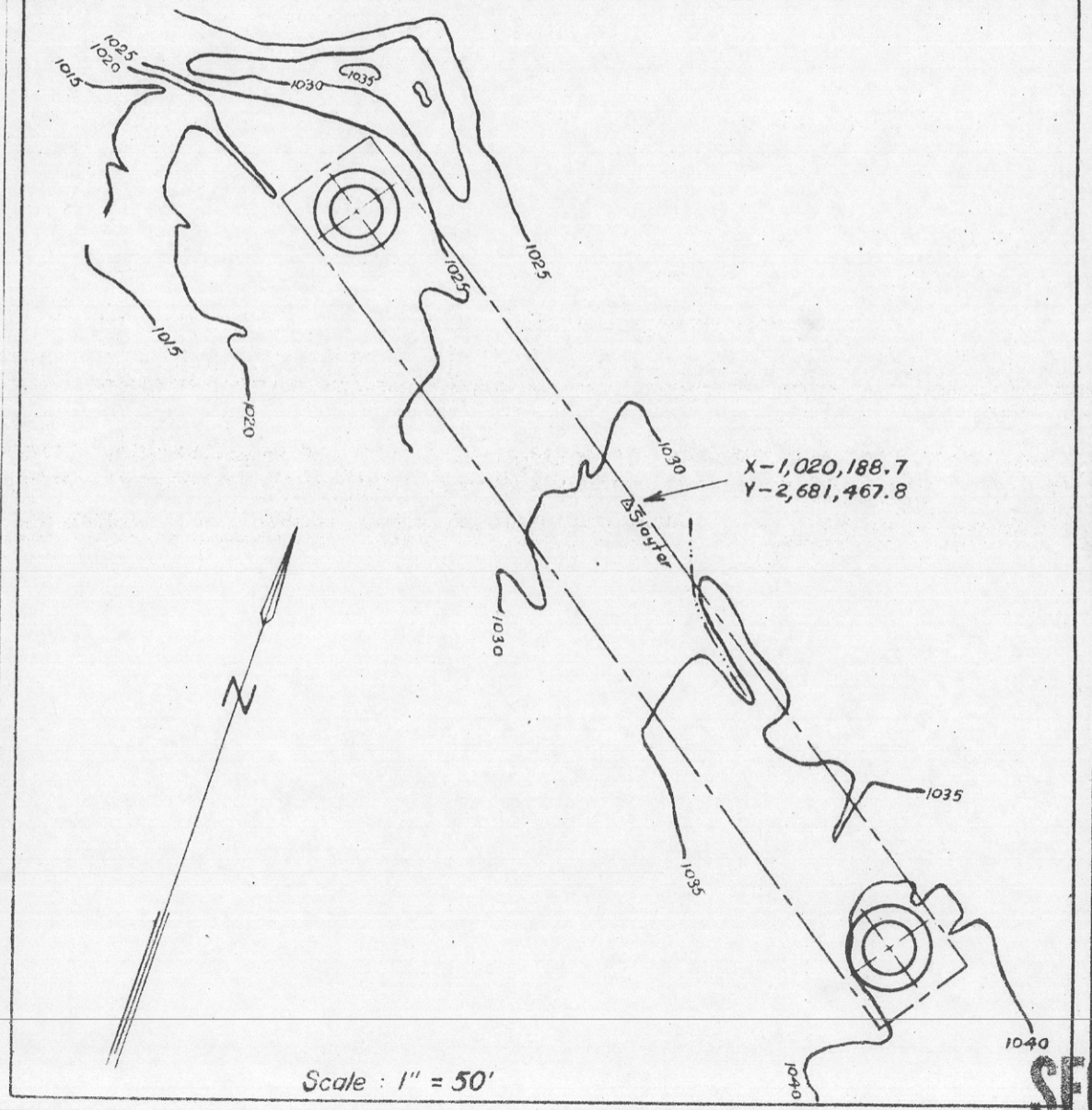
Date Officer Affixing



PLAN



SECTION A-A
Scale: 1"=6'



Scale : 1" = 50'

SECRET

E.A.L.

FILE NO 1/9

G-633

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Gun and Mortar Batteries)

HARBOR DEFENSES OF HONOLULU HARBOR
FORT ARMSTRONG
BATTERY KALIHI
No. of guns: 2 Caliber: 240MM Carriage: 240MM Howitzer Model 1918 (Schneider)

Form 1. Corrected to

GENERAL:	
Battery commenced	1-27-41
Battery completed	2-24-41
Date of transfer	6-26-41
Cost to date of transfer	$371.73
Materials of construction	Reinforced Concrete
Type of cement	Portland
WATER AND SEWER:	
Connected to water supply	)
Connected to sewer	) None
Type of latrine	)
Trunnion elevation in btry.	(1) 1029.3' (2) 1047.3'
Datum plane	M.L.L.W

ELECTRIC CURRENT:	
Sources of	)
	) None
Max. kw. required for lights	)
Max. kw. required for motors	)
Present condition of battery	)
Rooms wet or dry	) None
How ventilated	Open
Type of data transmission	Field Telephone
Remarks	Guns not permanently emplaced.

SECRET
By Authority of the District Engineer, Honolulu, T. H.
12/26/41 Date
Officer Affixing
#5 of 5

ARMAMENT

Emplacement or Mortar No.	Guns or Mortars: Caliber	Length	Model	Serial No.	Manufacturer	Mounted	Carriages: Type	Model	Serial No.	Manufacturer	Motor
					Guns are not permanently emplaced. Guns of various type and caliber may be used.						

HOISTS

Emplacement No.	Type	Delivery	Motor: Serial No.	Maker	H.P.	Volts	RPM	Type of control	Date of transfer	Remodeled for long points
NONE										

Note: This work covers additions & betterments to existing battery.

SECRET

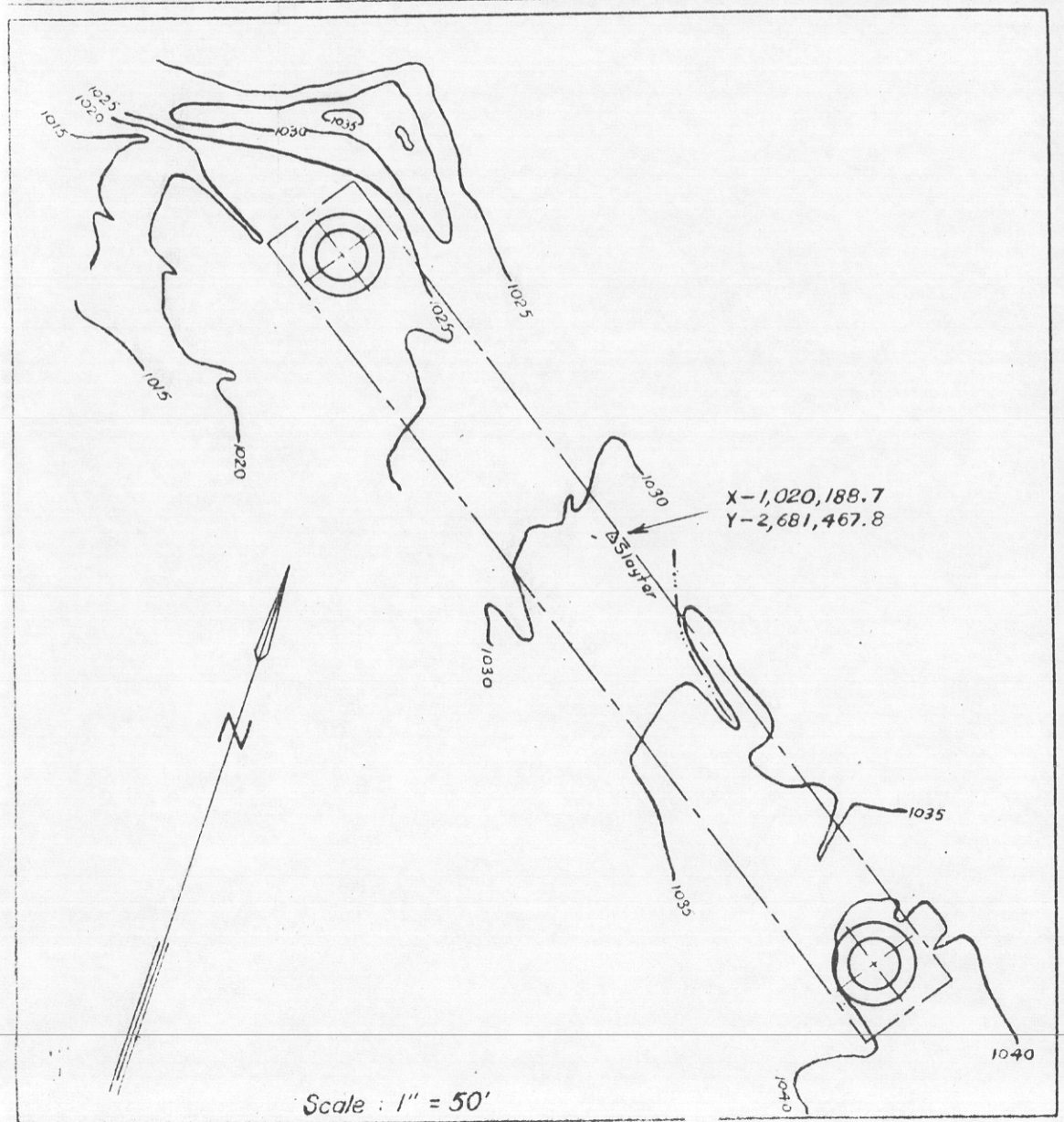
REPORTED COMPLETED WORKS
(GENERAL PLAN)

240 MM POSITION
KALIHI MILITARY RESERVATION

GRAPHIC SCALE 6 5 4 3 2 1 0 6 12

GRAPHIC SCALE 50 40 30 20 10 0 50 100

Form 7



SECRET

SERIAL NO. 7

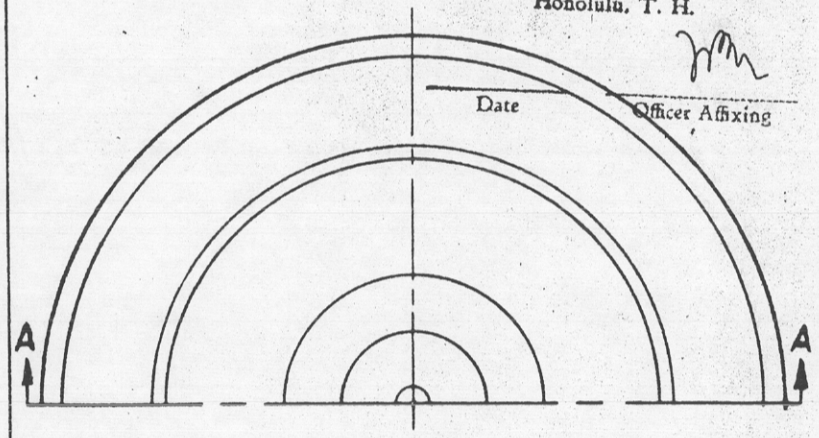
COPY NO. 4

SECRET

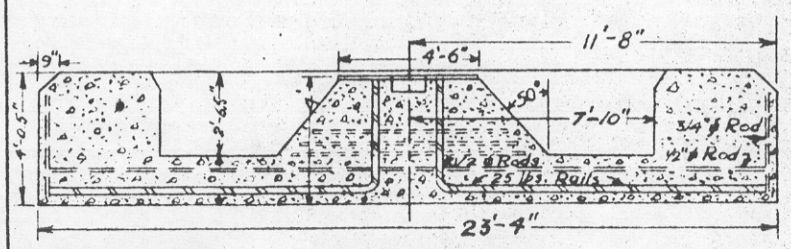
By Authority of the District Engineer,
Honolulu, T. H.

Date

Officer Affixing



PLAN



SECTION A-A

Scale : 1"=6'

E.A.L.

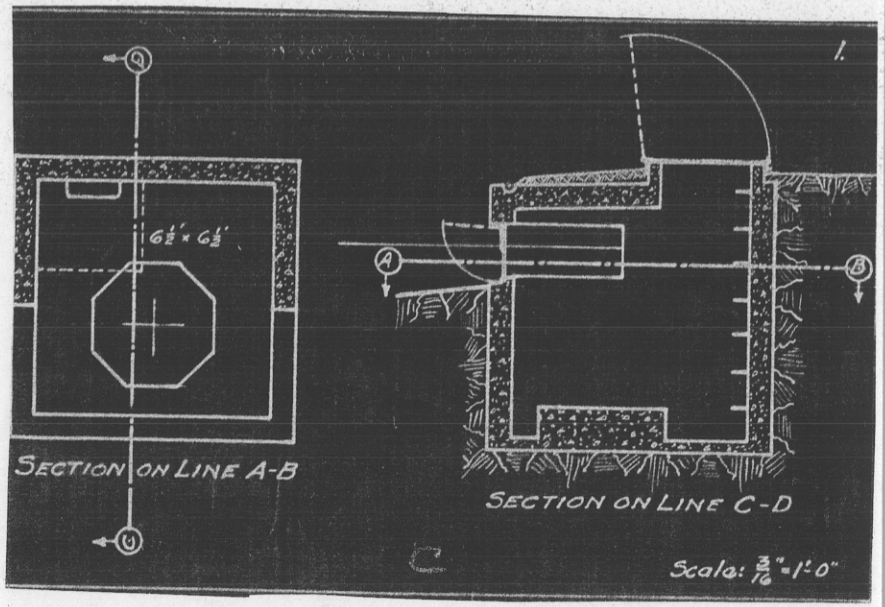
FILE NO. 1/95

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Torpedo Structures)

Form 2 Corrected to May 19, 1924.

COAST DEFENSES OF PEARL HARBOR
FORT WEAVER
STRUCTURE: FIRE CONTROL STATION C
FOR BATTERY WILLISTON

Location	: Salt Lake Military Reservation.
Date of transfer	: January 30, 1924.
Cost to that date	: $ 1,295.73
Type of construction:	
(a) Roof	: Concrete.
(b) Remainder of building	: " .
How concealed	: light earth covering.
How protected	: Dug-Out type.
Height above concealment	: Not above.
Height above protection.	: " " .
Conspicuous at 500 yards.	: No.
Source of electric current	: Local battery.(Wet,Edison #207)
Kilowatts required.	: Instrument lights only.
Type of lighting fixtures	: Flash lights.
How heated.	: Not required.
Connected to water mains	: No.
Connected to sewer	: No.
Type of latrine	: None.
Permanent or temporary installation	: Permanent.
Present condition.	: Good.
Reference of site	: 480 Ft. (Top earth cover)
Reference of instrumental axis	: 476.97 Ft. (M.L.L.W.)
Type of observing instrument	: D.P. F. intended.
Type of plotting board	: None.
Type of data transmission	: Telephones.



REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

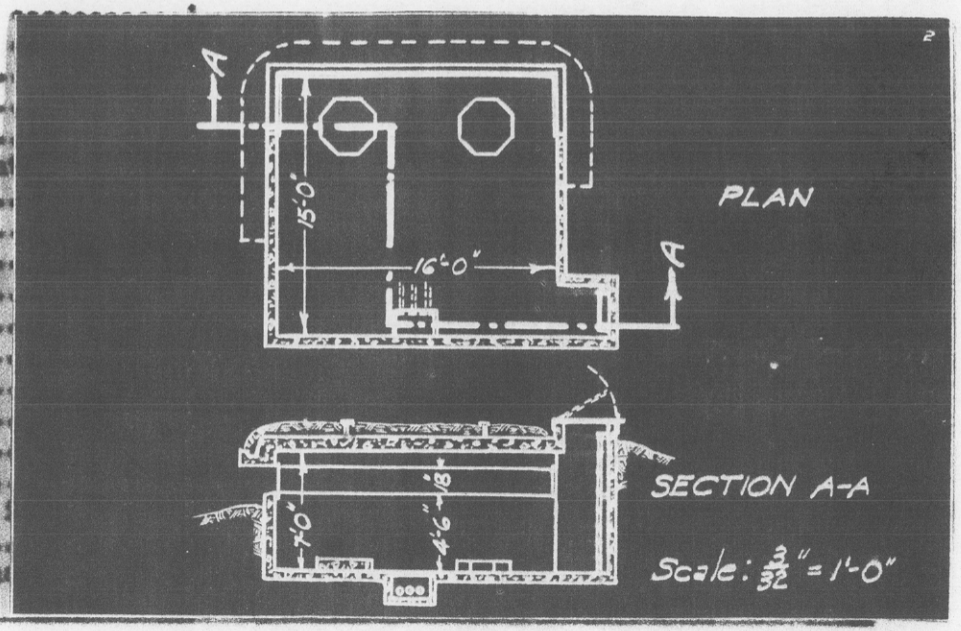
HARBOR DEFENSES OF PEARL HARBOR

#12

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

Form. 2 Corrected to July 14, 1934.

Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$2,624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1.K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' ≠
Type of observing instrument	D.P.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



With 662 B (Oahu) 201

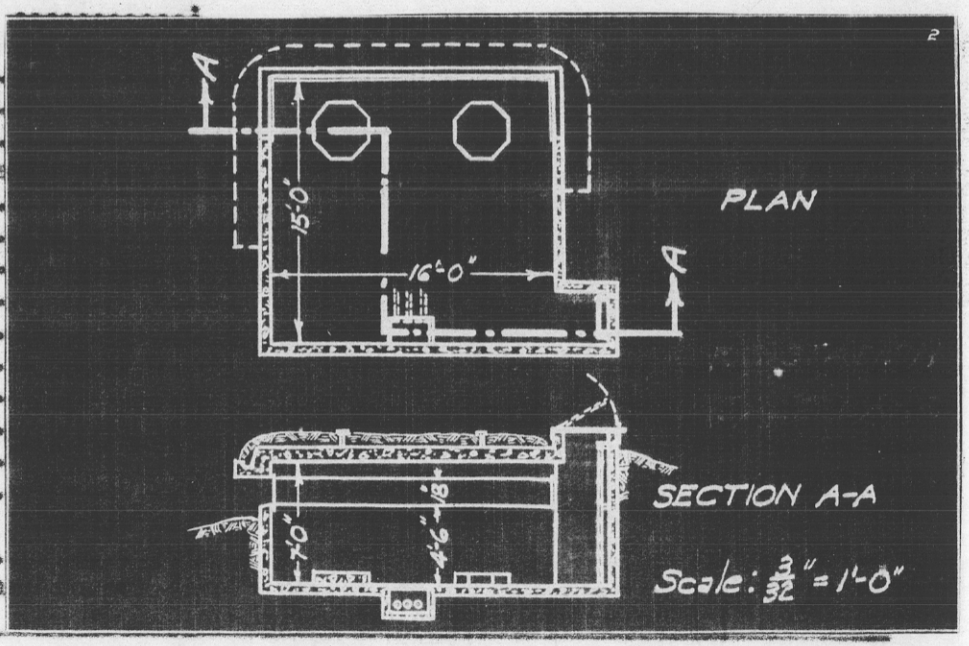
REPORT OF COMPLETED WORKS SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY ~~KAPOLEI~~ HATCH
FORT ~~KAMEHAMEHA~~, T.H.
BARRETTE,

Form. 2 Corrected to July 14, 1934.

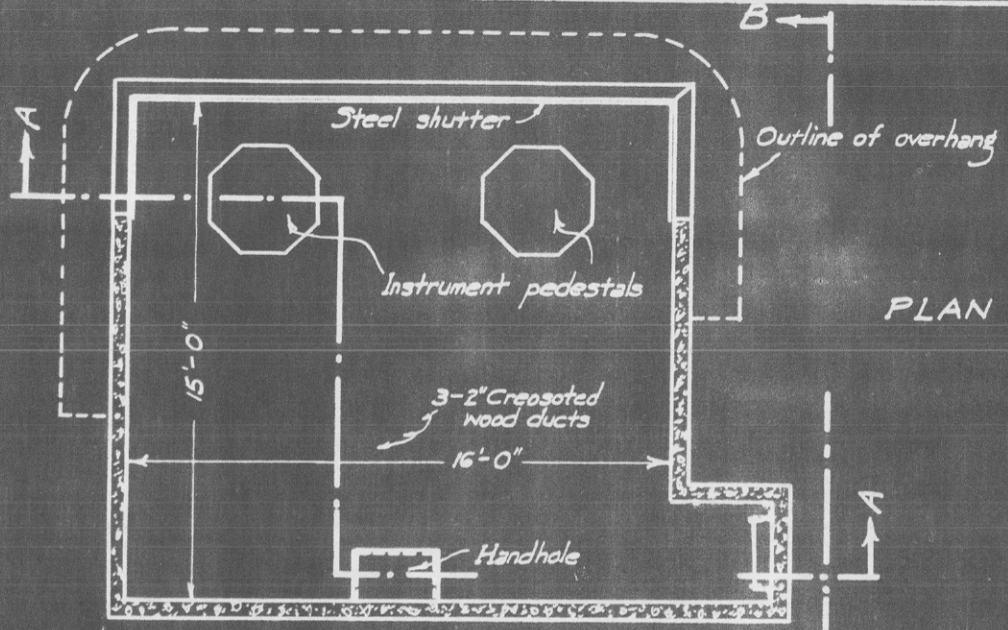
Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$2,624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage bs
Kilowatts required	0.1.K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' +
Type of observing instrument	D.P.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



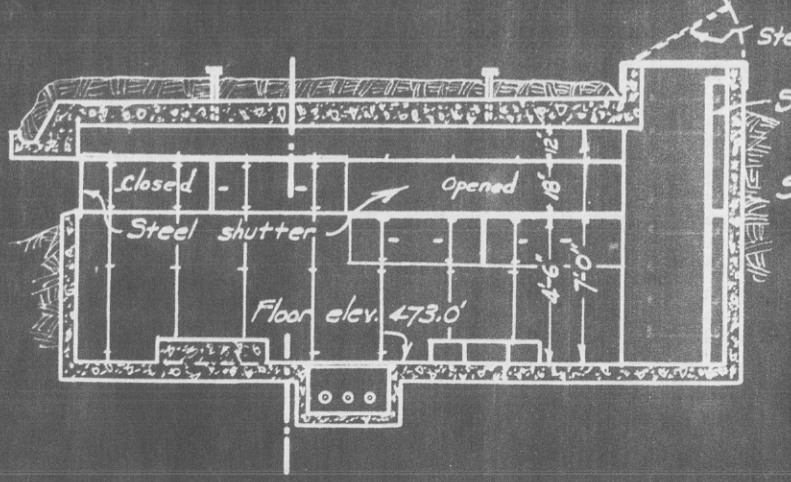
Prior 2

WAR DEPARTMENT

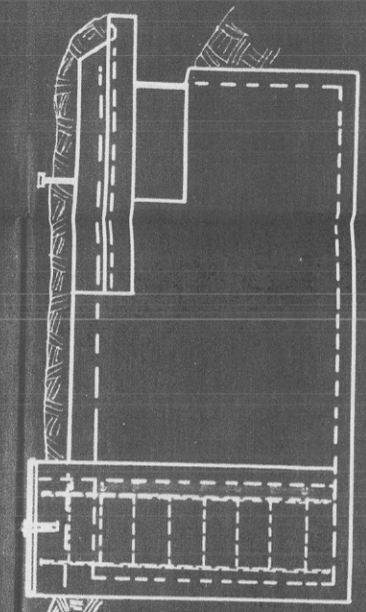
CORPS OF ENGINEERS, U. S. ARMY



PLAN



SECTION A-A



VIEW B-8

U. S. ENGINEER OFFICE
HONOLULU, T. H.

FIRE CONTROL STATION
SALT LAKE

KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

IN 1 SHEET

REVISIONS

SURVEYED	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED				
DRAWN				
TRACED				
CHECKED	ASSOCIATE ENGINEER	MAJOR, C.E., DIST. ENGR.	6/29/34	F10417

6-451

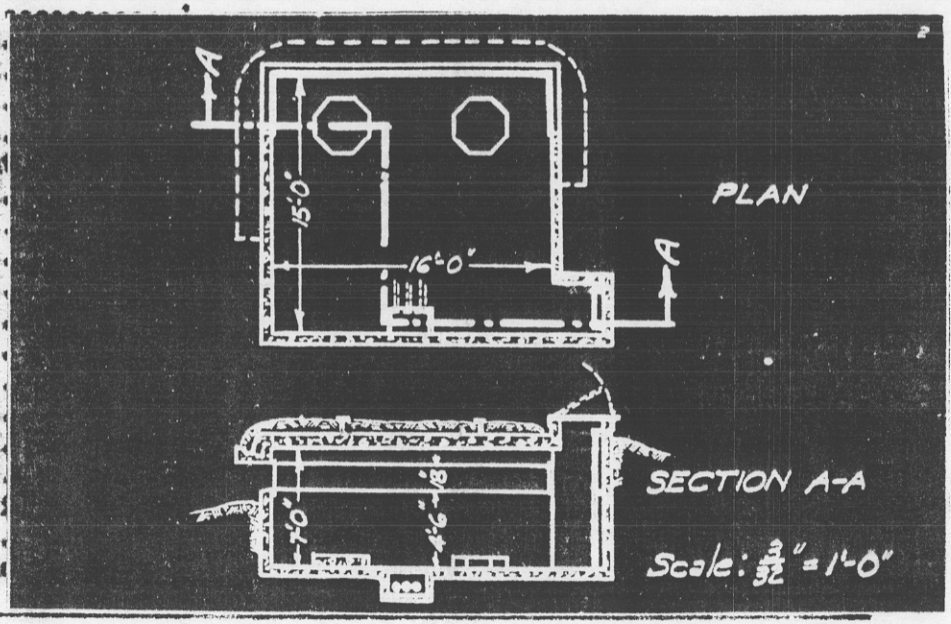
REPORT OF COMPLETED WORK SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF PEARL HARBOR

STRUCTURE: FIRE CONTROL STATION "C" SALT LAKE
FOR BATTERY KAPOLEI
FORT KAMEHAMEHA, T.H.

Form. 2 Corrected to July 14, 1934.

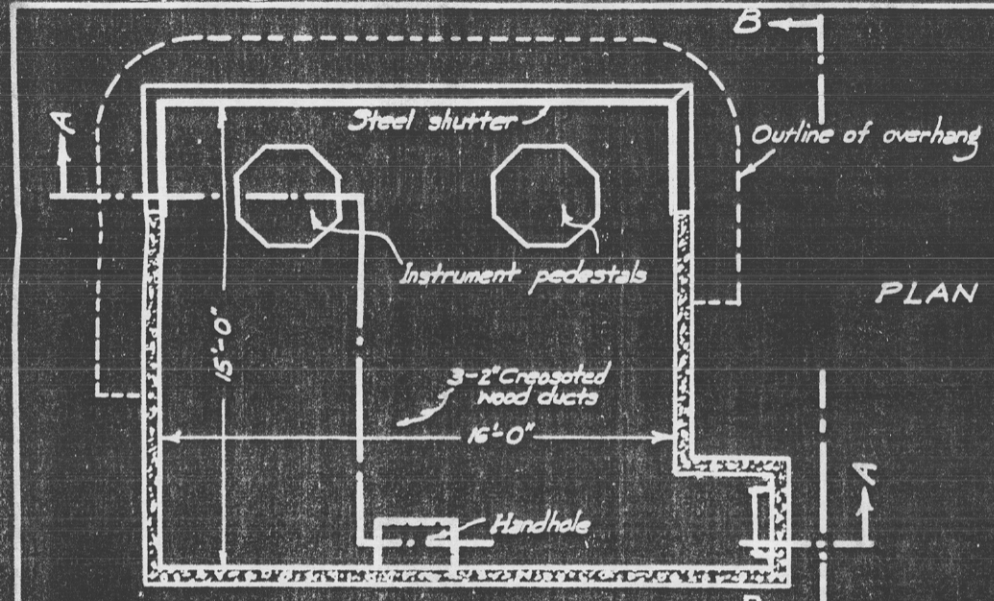
Location	U.S.Gov't. Trig. Station Salt Lake. A. Z. 103°50'- Dist. 167.9'
Date of transfer	July 2, 1934
Cost to date	$[illegible],624.22 complete
Type of Construction:-	
(a) Roof	Reinforced concrete
(b) Remainder of building	Reinforced concrete
How concealed	Earth fill on roof
How protected	Cut and cover type
Height above concealment	Not above
Height above protection	Not above
Conspicious at 500 yards	No
Source of electric current	Portable storage ba
Kilowatts required	0.1 K.W.
Type of lighting fixtures	Commercial
How heated	Not required
Connected to water mains	No
Connected to sewer	No
Type of latrine	None
Permanent or temporary installation	Permanent
Present condition	Good
Reference of site	477.4'
Reference of instrumental axis	478.55' ≠
Type of observing instrument	D.C.F. instruments
Type of plotting board	None
Type of data transmission	Telephone (By Sign



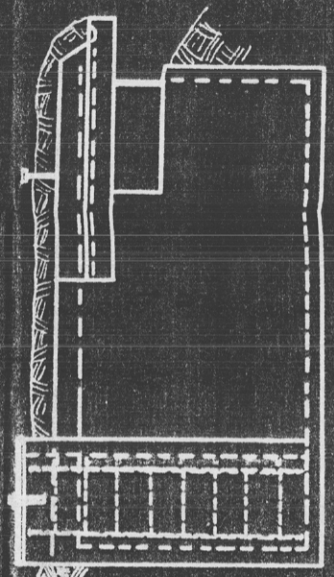
6-451

WAR DEPARTMENT

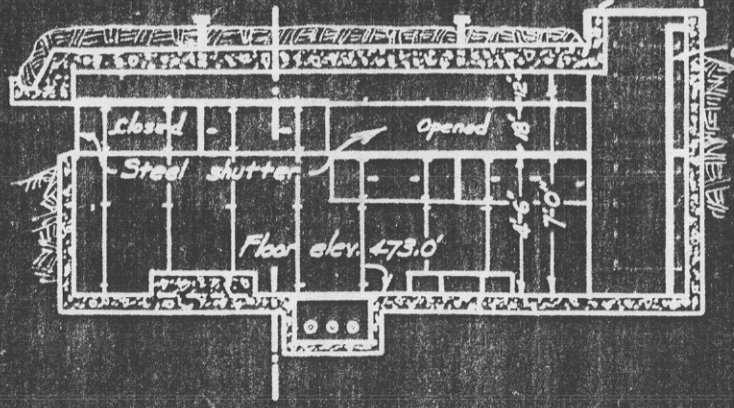
CORPS OF ENGINEERS, U. S. ARMY



PLAN



VIEW B-B



SECTION A-A

U.S. ENGINEER OFFICE
HONOLULU, T.H.

FIRE CONTROL STATION
SALT LAKE

KAPOLEI, OAHU, T.H.

Scale: 1/4" = 1'-0"

IN 1 SHEET

REVISIONS

SURVEYED:	SUBMITTED:	APPROVED:	DATE	FILE
DESIGNED:				
DRAWN:				
TRACED:				
CHECKED:	ASSOCIATE ENGINEER	MAJOR, C.E., DIST. ENGR.	6/23/39	FIG 17