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

Form 1 Corrected to Dec. 10, 1924.

COAST DEFENSES OF Sandy Hook
FORT Hancock, N. J.
BATTERY Mills
No. of guns 2 Caliber 12" Cariage Barbette Model 1917

Battery commenced	Mar. 1917.	Sources of electric current	2 - 25 K.W. sets
Battery completed	Apr. 2, 1921.		
Date of transfer	Apr. 2, 1921.	Max. kw. required for lights:	7.850 K.W.
Material of construction	Concrete	Max. kw. required for motors	15.0 K.W.
Portland or Rosendale cement	Portland		
Cost to date of transfer	$297,933.04		
Connected to water supply	Yes	Present condition battery	Excellent
Connected to sewer Yes	(To septic tank)	Rooms wet or dry	Dry - some condensation.
Type of latrine	Inside sanitary flush jet (tank) Syphon		
Type of data transmission	Telephones and Speaking tubes	How ventilated	Through grating doorways and windows, & motor driven blower connecting to air ducts to magazines. All magazines are separate rooms with air passages between.
Trunnion elevation in battery	Empl#1-14.352 ft. " #2-14.351 ft.	Remarks:	Steam heat installed in Qtrs, Toilets & Plotting Rooms, Sept. 1919.
Datum plane	M.L.W.		

ARMAMENT

Emplacement No. Mortar Moxx	Guns or Mortars: Cal.	Length	Model	Serial No:	Manufacturer	Mounted	Carriages: Type	Model	Ser.No:	Manufacturer:	Motor
1	12"	35 cal.	1895 MI	69	Ordnance Dept.	Nov.1919	Barbette	1917	9	Ordnance Dept	None
2	12"	do.	do.	46	do.	Oct.1919	do	1917	8	do.	none
3											
4											
5											
6											
7											
8											

HOISTS

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

Trolley hoists (hand chain hoists) operating on I beam track are installed in powder and shell rooms.

Superseded:
See Form 1,
June 3, 1937

2 Electric sump pumps installed in M.H. Gun #1 & #2
See Report of Operations December 1936. 2nd C.A.

Over

Major Repair work since July 1, 1923.

F.Y. 1927 - Conc. platforms and retaining walls work at Batty. Kingman. #4200 - This incl. similar

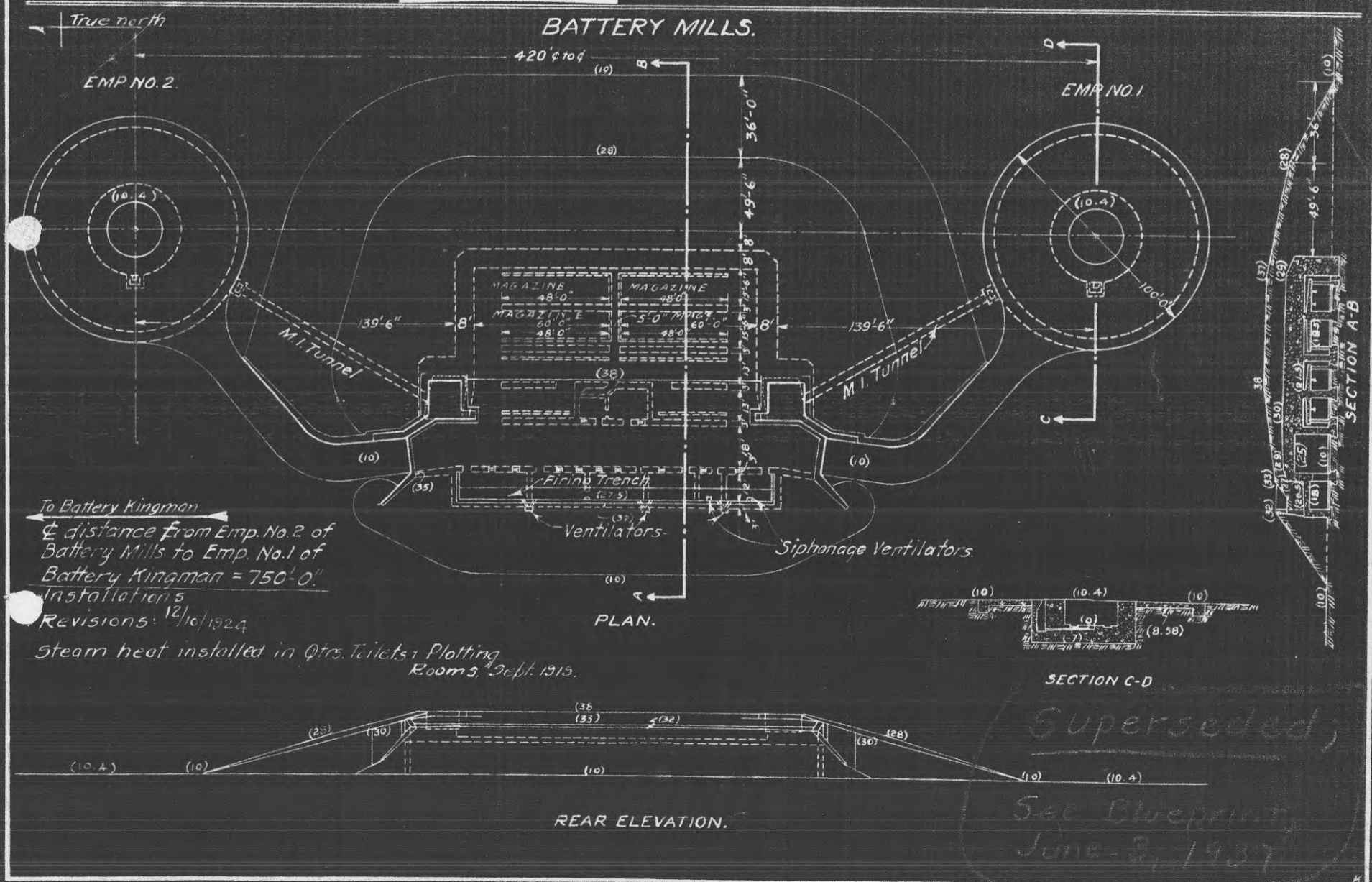
1928 - Service Ry. for Mills & Kingman's. #6210

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Corrected to Dec. 10, 1924.

COAST DEFENSES OF SANDY HOOK.
FORT HANCOCK.
BATTERY MILLS
No. of Guns - 2. Caliber - 12" Carriage - Barbette.
Scale: 1" = 60'

BATTERY MILLS.



To Battery Kingman

℄ distance from Emp. No. 2 of Battery Mills to Emp. No. 1 of Battery Kingman = 750'-0"

Installations

Revisions: 12/10/1924

Steam heat installed in Qtrs. Toilets & Plotting Room 3. Sept. 1919.

Superseded,
See Blueprint
June 3, 1937

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.
(Gun and Mortar Batteries)
With 660 B (Sandy Hook) 18
Form 1 Corrected to June 3, 1937.

HARBOR DEFENSES OF Sandy Hook
FORT Hancock, N. J.
BATTERY Mills
No. of guns 2 Caliber 12" Carriage-Barbette Model 1917

Battery commenced	March 1917.	Sources of electric current	2 - 25 K.W. sets, and 3 phase AC (connected to Jersey Central Power & Light Co. line supplying current to QM)
Battery completed	Apr. 2, 1921.		
Date of transfer	Apr. 2, 1921.	Max.kw. required for lights:	7.850 k.w.
Material of construction	Concrete	Max.k.w. required for gun motors. (Note: One 10 h.p. and one 3 h.p. motor for air conditioning equipment on 3 phase AC line not included in above.)	15.0 k.w.
Portland or Rosendale cement	Portland		
Cost to date of transfer	$297,933.04		
nected to water supply	Yes	Present condition battery	Excellent
Connected to sewer - Yes	(To septic tank)	Rooms wet or dry	Dry - (condensation would exist without air conditioning.)
Type of latrine	Inside sanitary flush Syphon jet (tank)	How ventilated (See also description on reverse side of air conditioning equipment installed.)	Through grating doorways and windows, & motor driven blower connecting to air ducts to magazines. All magazines are separate rooms with air passages between.
Type of data transmission	Telephones and speaking tubes		
Trunnion elevation in battery	Empl#1-14.352 ft. " #2-14.351 ft.	Remarks:	Steam heat installed in quarters, toilets & Plotting Rooms, Sept.1919.
Datum plane	M.L.W.		

ARMAMENT

Emplacement No.	Guns or Mortars					Carriages					
	Cal.	Length	Model	Serial #	Manufacturer	Mounted	Type	Model	Serial #	Manufacturer	Motor
1	12"	35 cal.	1895 MI	69	Ordnance Dept.	Nov. 1919	Barbette	1917	9	Ordnance Dept.	None
2	12"	do.	do.	46	do.	Oct. 1919	do	1917	8	do.	None
3											
4											
5											
6											
7											
8											

HOISTS

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

Trolley hoists (hand chain hoists) operating on I beam track are installed in powder and shell rooms.

(over)

Plan of Air Conditioning Equipt, See O.C.E. 46-100 A-6

Modifications

In January 1937, the installation of dehumidifying and air circulating equipment to eliminate condensation was installed as shown on separate blueprint plan (2) attached, as follows:

Material - Freon gas compressor, cooling coil, heating coil, fan, humidistat, control switches, ducts and grilles -	$2,113.00
Labor -	1,080.00
	$3,193.00

(The cost of installing a three-phase AC line to Battery Mills was $1362, which was not included in above).

The cost of the water supply equipment is as follows:

1 - Pumping unit, (Deming Company's unit #83400, 930 gallons per hour capacity, 1½" discharge, with 1½ h.p. motor) -	$ 121.00
Check and relief valves and gauge -	9.75
Electric panel board with pressure switch and gauge and magnetic starting switch -	44.25
	$ 175.00

(Tanks were from surplus stock.)

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

HARBOR DEFENSES OF SANDY HOOK.

FORT HANCOCK.

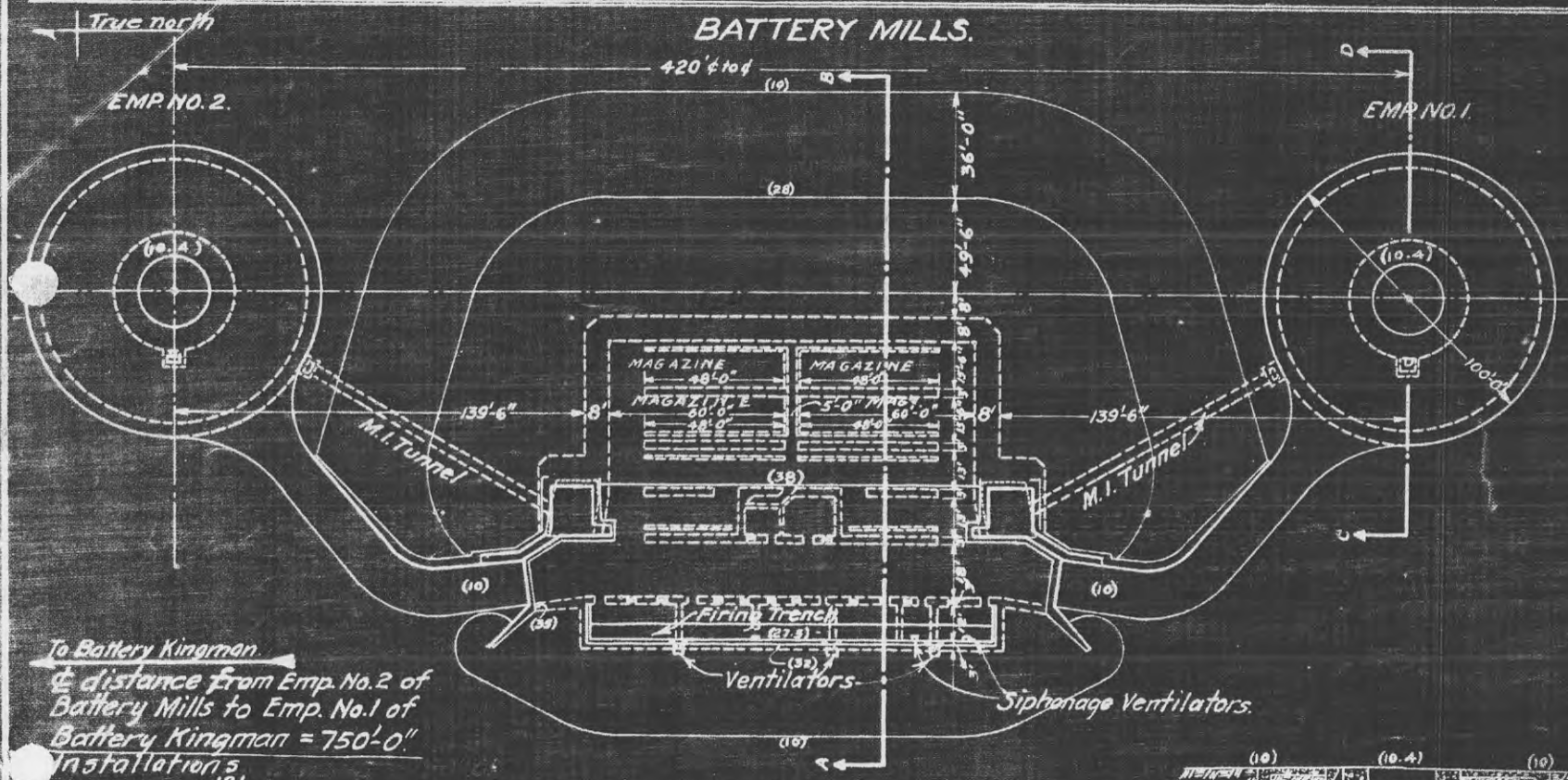
BATTERY MILLS

No. of Guns - 2. Caliber - 12" Carriage - Barbette.

Scale: 1" = 60'

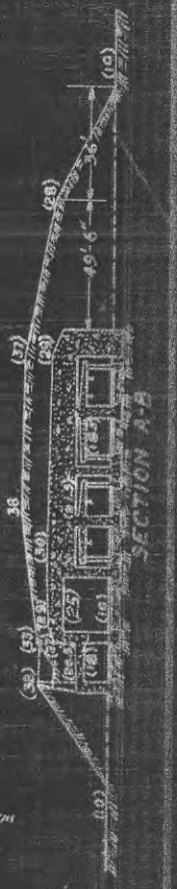
Corrected to JUNE 3. 1937.

BATTERY MILLS.

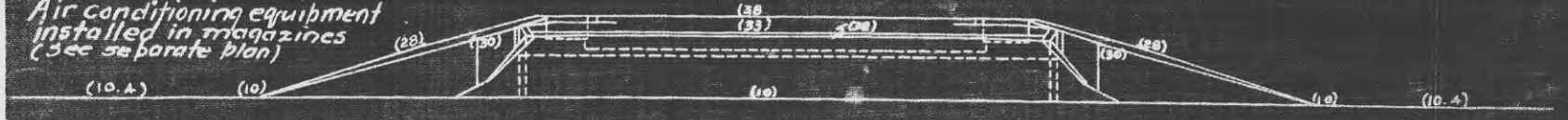


PLAN.

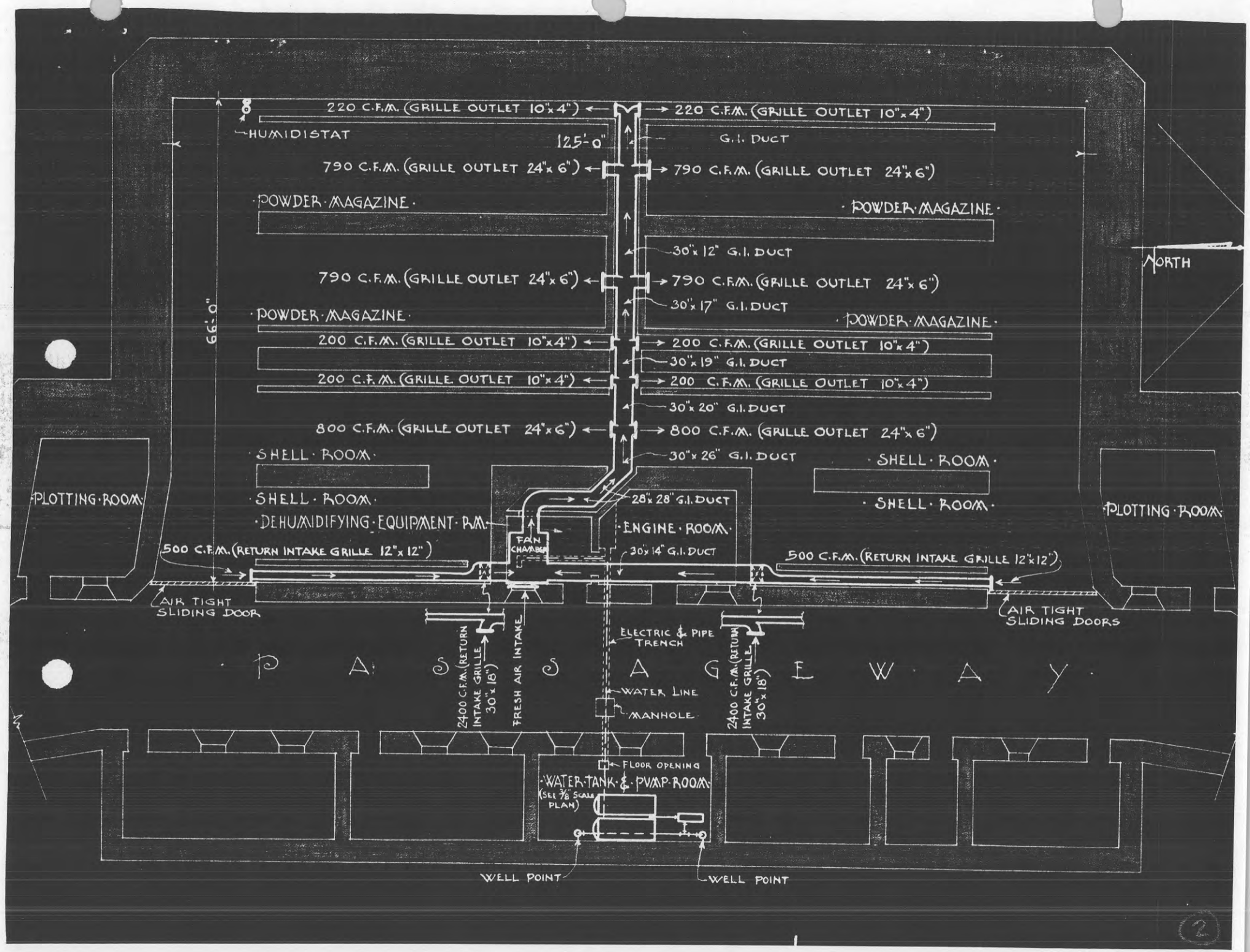
SECTION C-D



SECTION A-B



REAR ELEVATION.


220 C.F.M. (GRILLE OUTLET 10"x 4")
220 C.F.M. (GRILLE OUTLET 10"x 4")
HUMIDISTAT
125'-0"
G.I. DUCT
790 C.F.M. (GRILLE OUTLET 24"x 6")
790 C.F.M. (GRILLE OUTLET 24"x 6")
POWDER MAGAZINE
POWDER MAGAZINE
30"x 12" G.I. DUCT
NORTH
790 C.F.M. (GRILLE OUTLET 24"x 6")
790 C.F.M. (GRILLE OUTLET 24"x 6")
30"x 17" G.I. DUCT
66'-0"
POWDER MAGAZINE
POWDER MAGAZINE
200 C.F.M. (GRILLE OUTLET 10"x 4")
200 C.F.M. (GRILLE OUTLET 10"x 4")
30"x 19" G.I. DUCT
200 C.F.M. (GRILLE OUTLET 10"x 4")
200 C.F.M. (GRILLE OUTLET 10"x 4")
30"x 20" G.I. DUCT
800 C.F.M. (GRILLE OUTLET 24"x 6")
800 C.F.M. (GRILLE OUTLET 24"x 6")
SHELL ROOM
30"x 26" G.I. DUCT
SHELL ROOM
PLOTTING ROOM
SHELL ROOM
28"x 28" G.I. DUCT
SHELL ROOM
PLOTTING ROOM
DEHUMIDIFYING EQUIPMENT R.M.
ENGINE ROOM
FAN CHAMBER
500 C.F.M. (RETURN INTAKE GRILLE 12"x 12")
30"x 14" G.I. DUCT
500 C.F.M. (RETURN INTAKE GRILLE 12"x 12")
AIR TIGHT SLIDING DOOR
AIR TIGHT SLIDING DOORS
ELECTRIC & PIPE TRENCH
2400 C.F.M. (RETURN INTAKE GRILLE 30"x 18")
FRESH AIR INTAKE
2400 C.F.M. (RETURN INTAKE GRILLE 30"x 18")
PASSAGEWAY
WATER LINE
MANHOLE
FLOOR OPENING
WATER TANK & PUMP ROOM
(SEE 3/8" SCALE PLAN)
WELL POINT
WELL POINT
2

600 4(...)/14220

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Batteries)

HARBOR DEFENSES OF NEW YORK
FORT HANCOCK, NEW JERSEY
BATTERY MILLS *
Caliber 12"
No. of Guns 2
Carriage BARBETTE

SPEKM-1

Part I 114220 Corrected to 28 NOV. 1944

GENERAL:

Battery commenced March 1917
Battery completed 2 April 1921
Date of transfer 2 April 1921
Cost to date of transfer $297,933.04 Project 270 funds
Materials of construction Concrete
Battery new or modernized Modernized
(If modernized give detailed statement on reverse side) No. 1 - El. 14.352
Trunnion elevation in Btry. No. 2 - El. 14.351
Datum plane Mean Low Water

UTILITIES:

WATER SUPPLY

Source of Reservation System
Alternate source --
Size of Main 6" Ø Transite

SEWER

Connected to sewer Yes
Type of Disposal Septic Tank
Type of Latrine Sanitary Flush Syphon Jet (Tank)

UTILITIES (Cont'd,)

ELECTRIC POWER

Sources of Engine Generators & Commercial
Procured & installed by (OCE or ORD) Commercial by O.C.E. Engine Generators by Ord.
Characteristics: Voltage 450/120/208 Ac or DC Phase 3
No. of units and capacity 3
Max. K.W. required for utilities 25 KVA
Max. K.W. required for non-battle conditions 25 KVA
Commercial power provided (yes or no) Yes Capacity 50 KVA
Auxiliary power unit provided (yes or no) No Capacity
Type of lighting fixtures Std. U.S.E.D. & Comm. Std. CSF
Dehumidifying Unit..Make and capacity Westinghouse 10 H.P.*
Rooms Wet or Dry Dry
How ventilated Vent shafts (Plott. Rms.) Exhaust fans (Power Rm.)
How heated Steam heat installed in quarters, latrines & plotting rooms - Sept. 1919.

DATA TRANSMISSION

Type Telephones

REMARKS

See attached sheet for additional construction

*3 H P Dehumidifying units in main corridors

ARMAMENT

Emplacement No.	Gun Cal.	Gun Length	Gun Model	Gun Serial No.	Gun Manufacturer	Gun Mounted	Carriage Type	Carriage Model	Carriage Serial No.	Carriage Manufacturer	Carriage Motor
1	12"	35 Cal.	1895 M-1	69	Ordnance Dept.	Nov. 1919	Barbette	1917	9	Ordnance Dept.	None
2											
3	12"	35 Cal.	1895 M-1	46	Ordnance Dept.	Oct. 1919	Barbette	1917	8	Ordnance Dept.	None

* Declared Excess [illegible] AGF
[illegible]

Nature & Cost of Additional Repairs & Modifications (Battery Mills)

1923

Sump pump installation.....$ 200.00

1925

Modifications to Plotting Room..... 1,500.00

January 1937

Installation of dehumidifying and air circulating equipment to eliminate condensation.

Material: Freon gas compressor, cooling coil, heating coil, fan, humidistat, control switches, ducts..... 2,113.00

Labor..... 1,080.00

$ 3,193.00

1937

Electric power installtion - 3 phase AC line to Batt. Mills.....$ 681.00

1937

Water supply system-

Equipment: Pumping unit Deming Co. unit #83400, 930 gallons per hr. capacity, 1½" discharge with 1½ H.P. motor..... 121.00

Check & relief valves and gage..... 9.75

Electric panel board with pressure switch & gauge and magnetic starting switch..... 44.25

(Tanks wer fron surplus stock)

$ 175.00

1942-1943

(a) Casemate & corridors added to original magazine.....475,097.27
(b) Power Room added to C.T. Magazine.....131,745.63
(c) Electrical Power Extension..... 1,760.77
(d) Gasproofing system installed..... 6,582.54
(e) Alterations to original septic tanks..... 1,510.84
(f) Additions to original ventilating system..... 2,463.22
(g) New wood doors (Power Magazine Rooms)..... 590.35
(h) Blastproofing - Modifications resulting from gunfire tests. 4,068.18

Total.....$623,818.80

FS-294 2240.97

626,059.77

1944

Power Room Heating System

This project consists of the installation of oil fired hot water boiler, induced draft fan.

4 unit heaters and necessary piping.

2 new closures to isolate heated areas as follows: Power Room, Water Cooler Room, Muffler Gallery and Corridor.....$2,240.97

1944 - Additional Dehumidification System. FS-996

This project consists of installation of 3 self-contained dehumidifying units with 3 H.P. compressor. Necessary wiring, ductwork, condensate dry wells and closures for corridors.....$ 10,033.72

FS-1434 & 1423

Mills

Nature & Cost of Additional Repairs & Modifications (Cont'd.)

1944 - This project consists of the removal of existing direct current, gasoline engine driven generators, switchboard, jacket water cooling radiators and related equipment. Restoration of floors and miscellaneous repairs.....$ 1,380.00

637,473.49

Statement of nature and cost of all major repairs or modifications on the structure since 1925 -

July 1943 -

Spotting, boiler, generator, C.W.S., and latrine rooms added. Gasproofing and dehumidifying systems installed..... $41,552.12

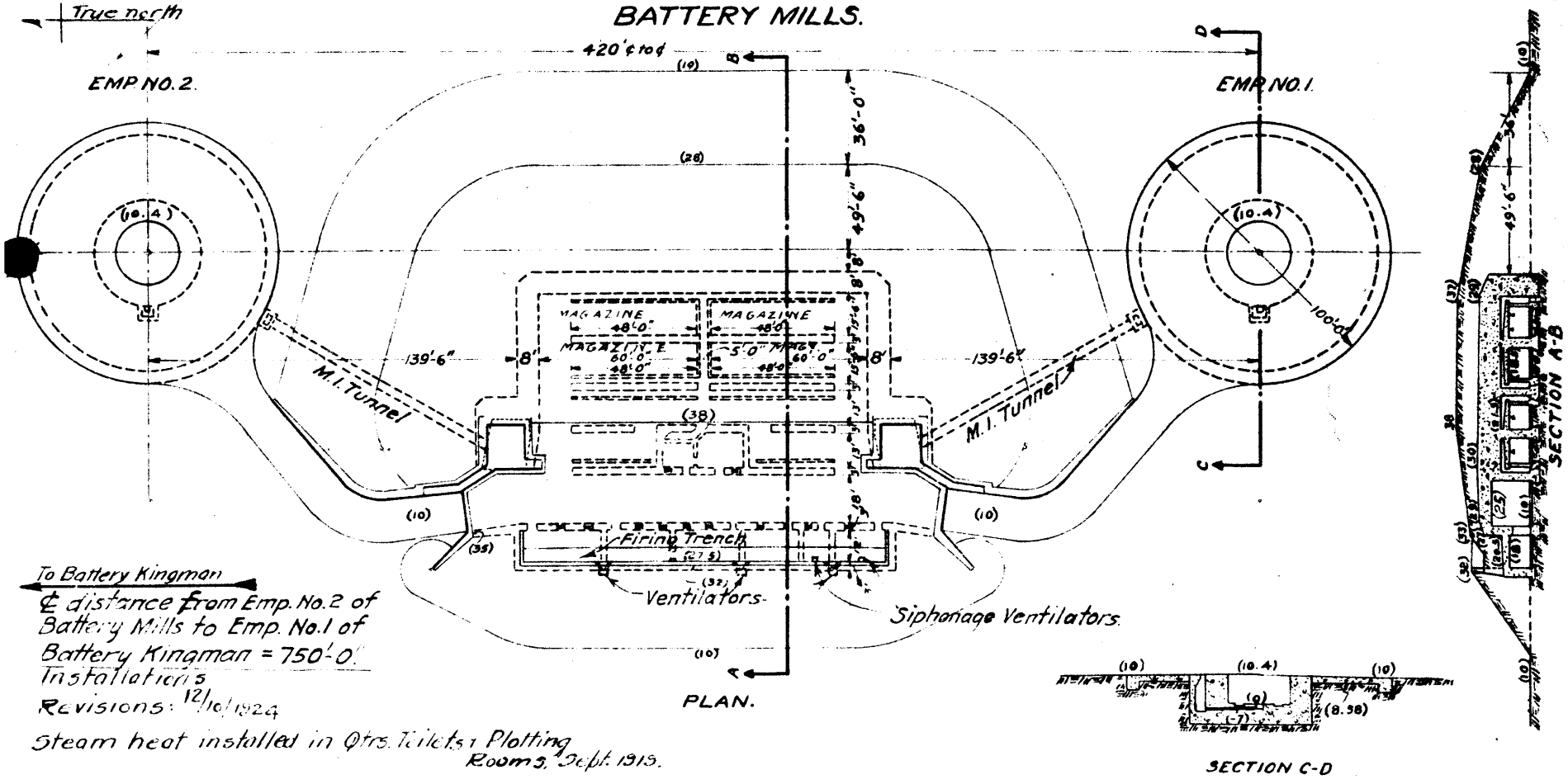
SECRET

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

Corrected to Dec. 10, 1924.

COAST DEFENSES OF SANDY HOOK.
FORT HANCOCK.
BATTERY MILLS
No. of Guns - 2. Caliber - 12" Carriage - Barbette.
Scale: 1" = 60'

BATTERY MILLS.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS — HARBOR DEFENSES OF SANDY HOOK.

FORT HANCOCK.

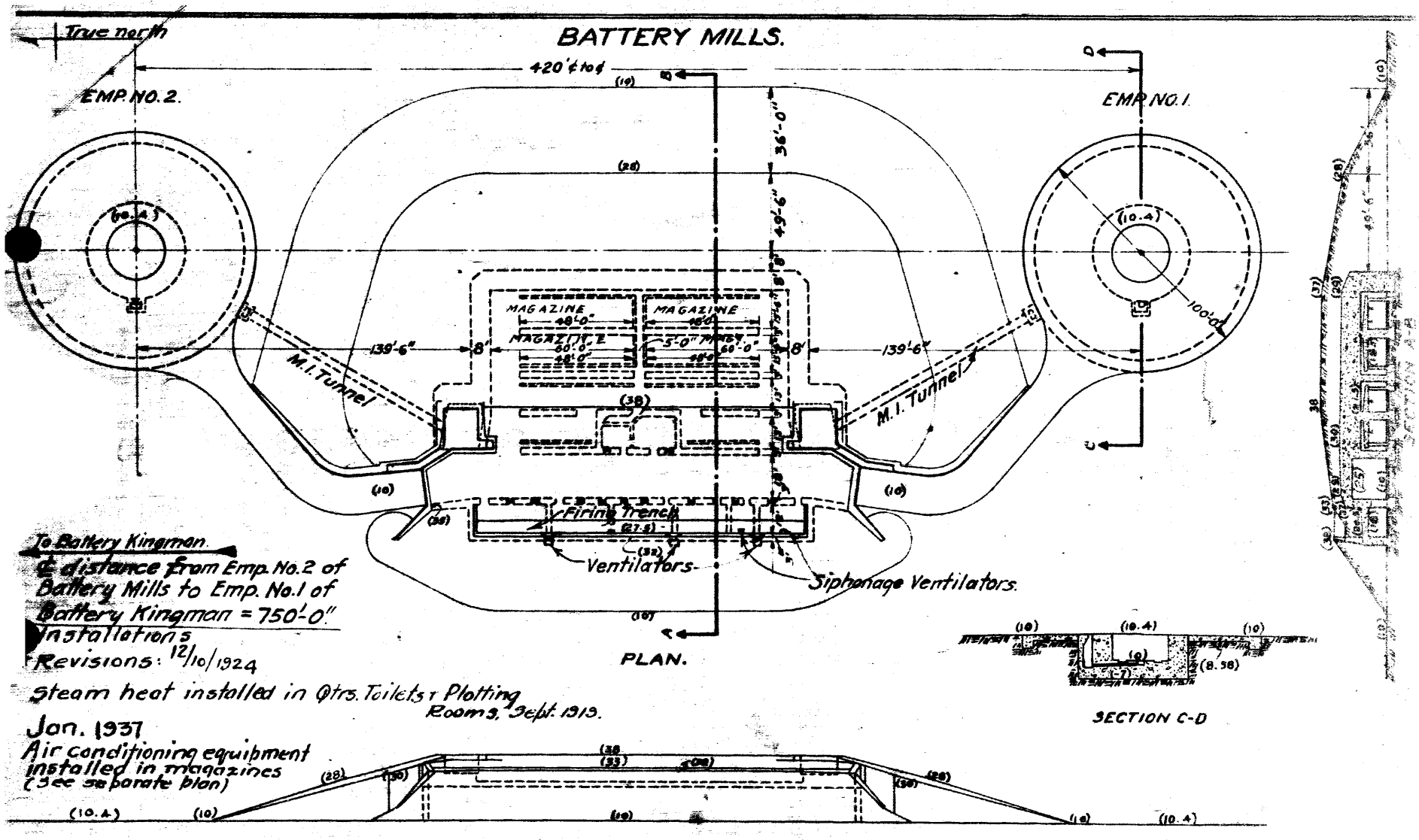
BATTERY MILLS

Corrected to JUNE 3. 1937.

No. of Guns - 2. Caliber - 12" Carriage - Barbette.

Scale: 1" = 60'

BATTERY MILLS.



To Battery Kingman.

¢ distance from Emp. No. 2 of Battery Mills to Emp. No. 1 of Battery Kingman = 750'-0"

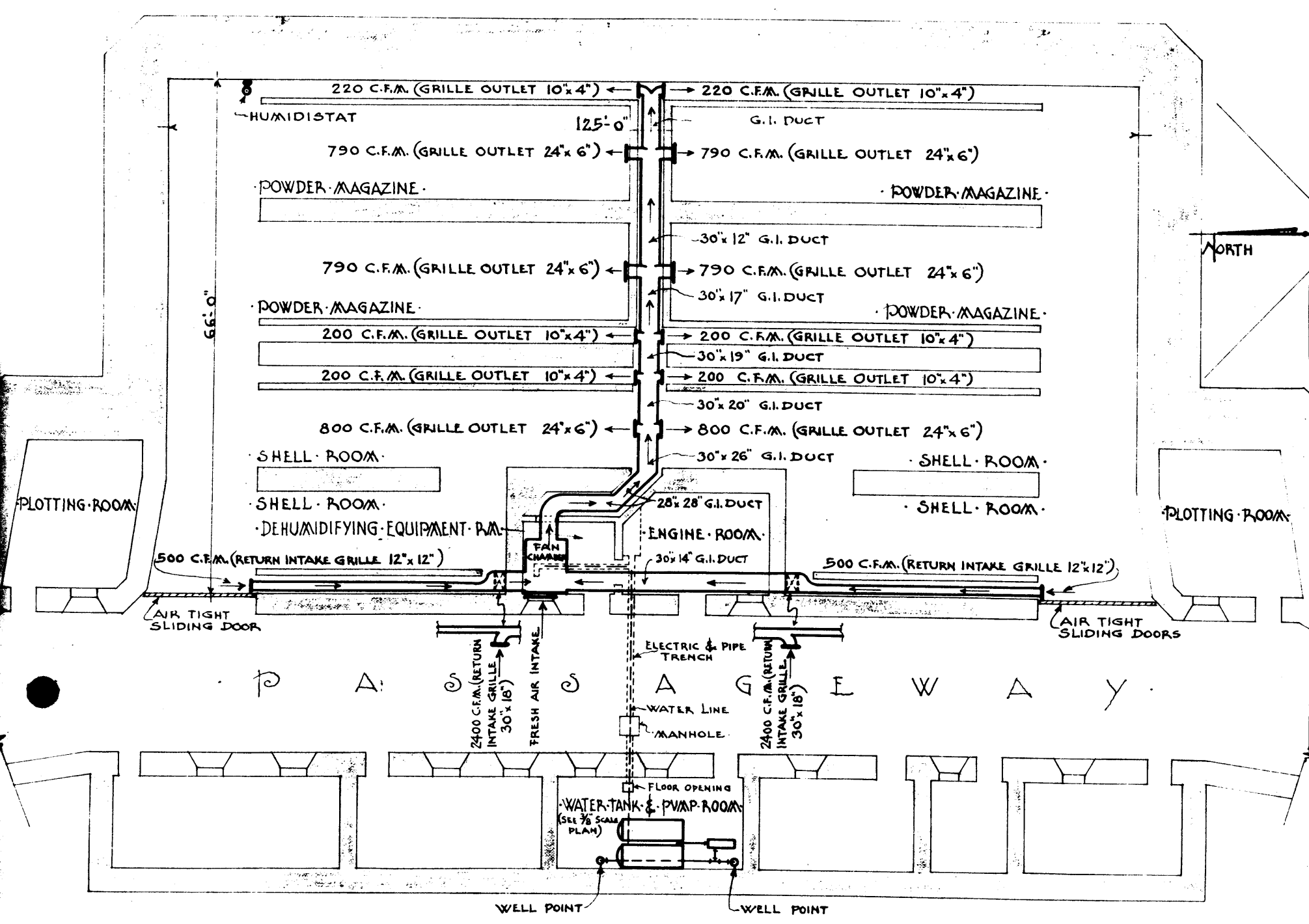
Installations

Revisions: 12/10/1924

Steam heat installed in Qtrs. Toilets Plotting Rooms, Sept. 1919.

Jan. 1937

Air conditioning equipment installed in magazines (See separate plan)


220 C.F.M. (GRILLE OUTLET 10"x 4")
HUMIDISTAT
125'-0"
G.I. DUCT
790 C.F.M. (GRILLE OUTLET 24"x 6")
POWDER MAGAZINE
30"x 12" G.I. DUCT
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200 C.F.M. (GRILLE OUTLET 10"x4")
30"x 19" G.I. DUCT
30"x 20" G.I. DUCT
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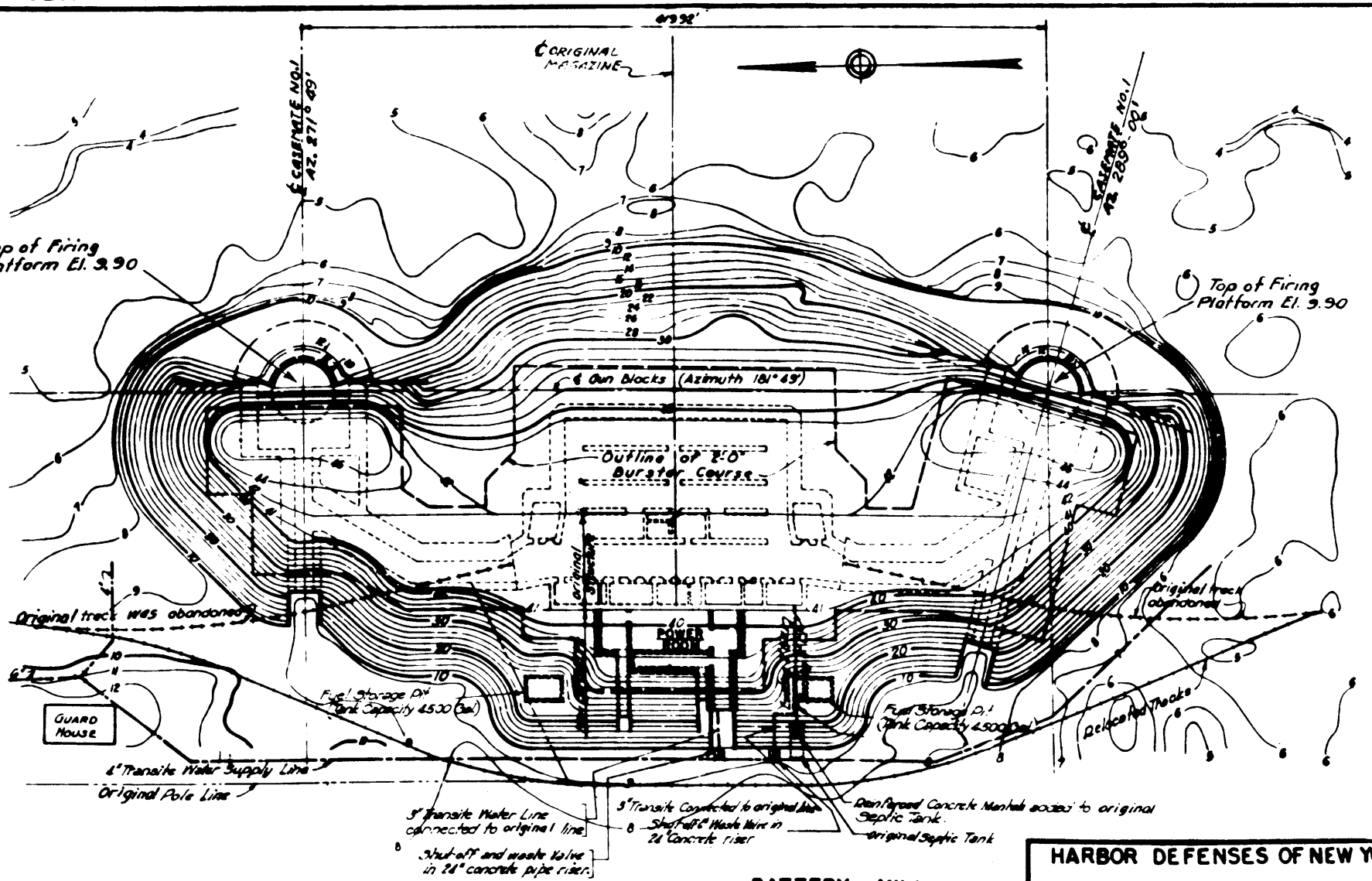
SHELL ROOM
30"x 26" G.I. DUCT
28"x 28" G.I. DUCT
DEHUMIDIFYING EQUIPMENT P.M.
FAN CHAMBER
ENGINE ROOM
30"x 14" G.I. DUCT
500 C.F.M. (RETURN INTAKE GRILLE 12"x 12")
PLOTTING ROOM
AIR TIGHT SLIDING DOOR
AIR TIGHT SLIDING DOORS
NORTH
PASSAGEWAY
2400 C.F.M. (RETURN INTAKE GRILLE 30"x 18")
FRESH AIR INTAKE
ELECTRIC & PIPE TRENCH
WATER LINE
MANHOLE
FLOOR OPENING
WATER TANK & PUMP ROOM
(SEE 3/8" SCALE PLAN)
WELL POINT
WELL POINT

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



BATTERY MILLS

SCALE IN FEET

0 40' 80' 120' 160'

NOTE:
Elevations refer to Mean Low Water Datum

HARBOR DEFENSES OF NEW YORK

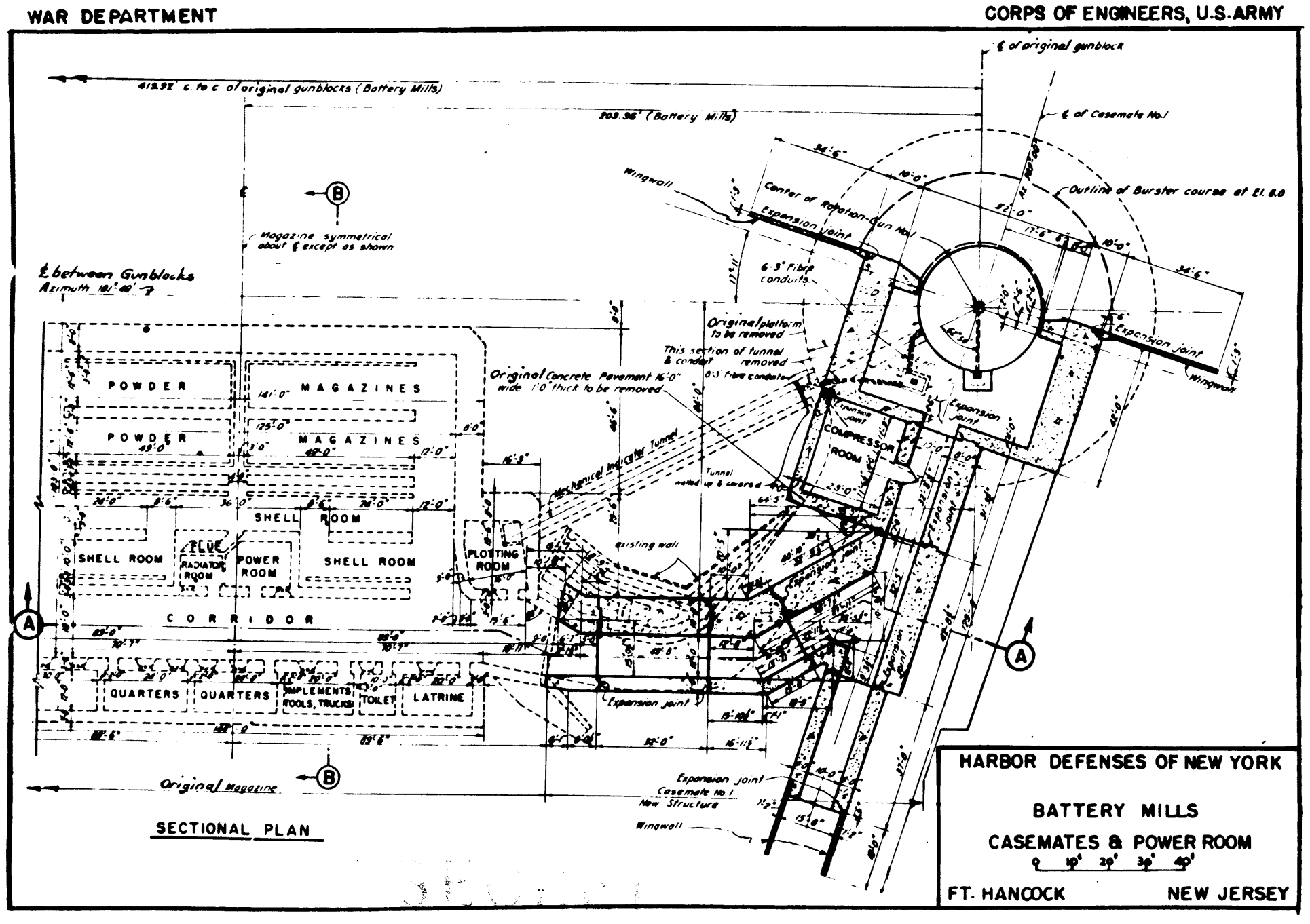
BATTERY MILLS

CASEMATES & POWER ROOM

FORT HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



SECTIONAL PLAN

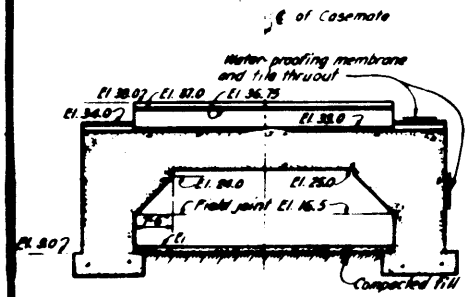
HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

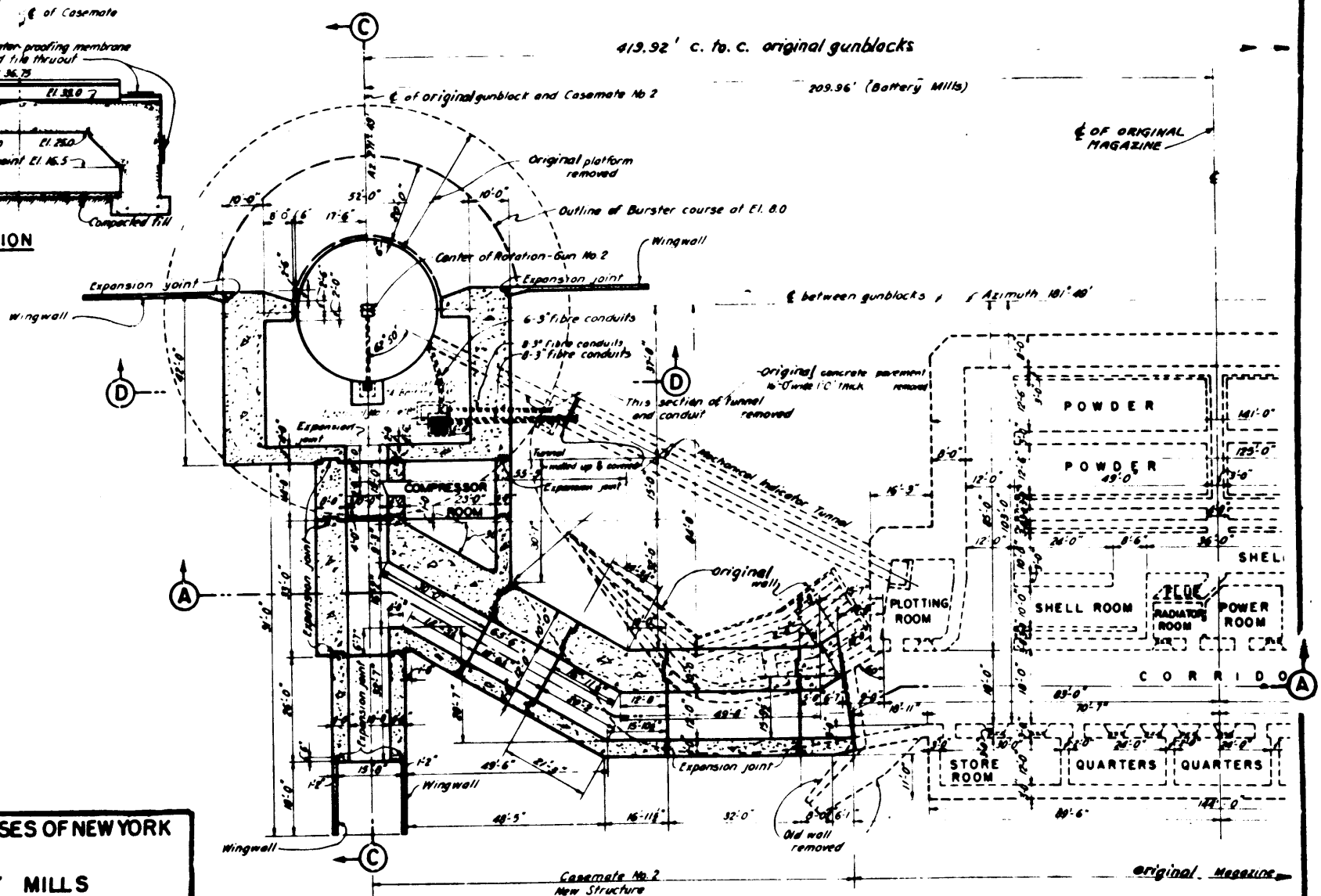
CASEMATES & POWER ROOM

0 10' 20' 30' 40'

FT. HANCOCK NEW JERSEY



SECTION



SECTIONAL PLAN

HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

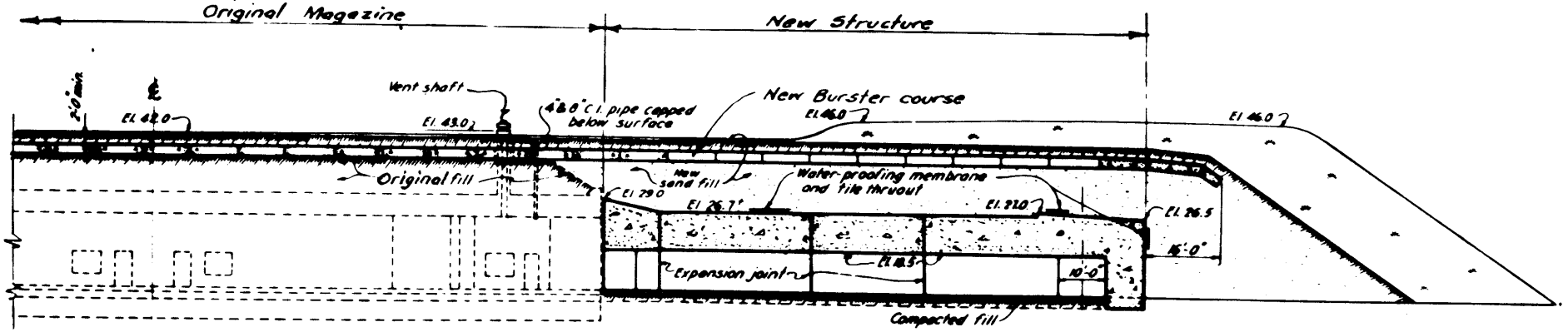
CASEMATES & POWER ROOM

0 10' 20' 30' 40'

FT. HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



SECTION A-A ON ℄ OF CORRIDOR

HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

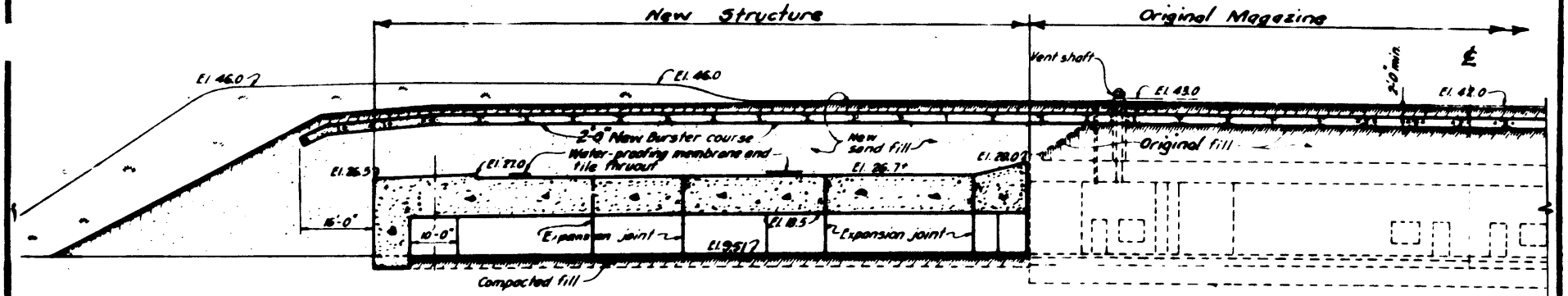
CASEMATES & POWER ROOM

0 15' 30'

FT. HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S.ARMY



SECTION A-A ON ℄ OF CORRIDOR

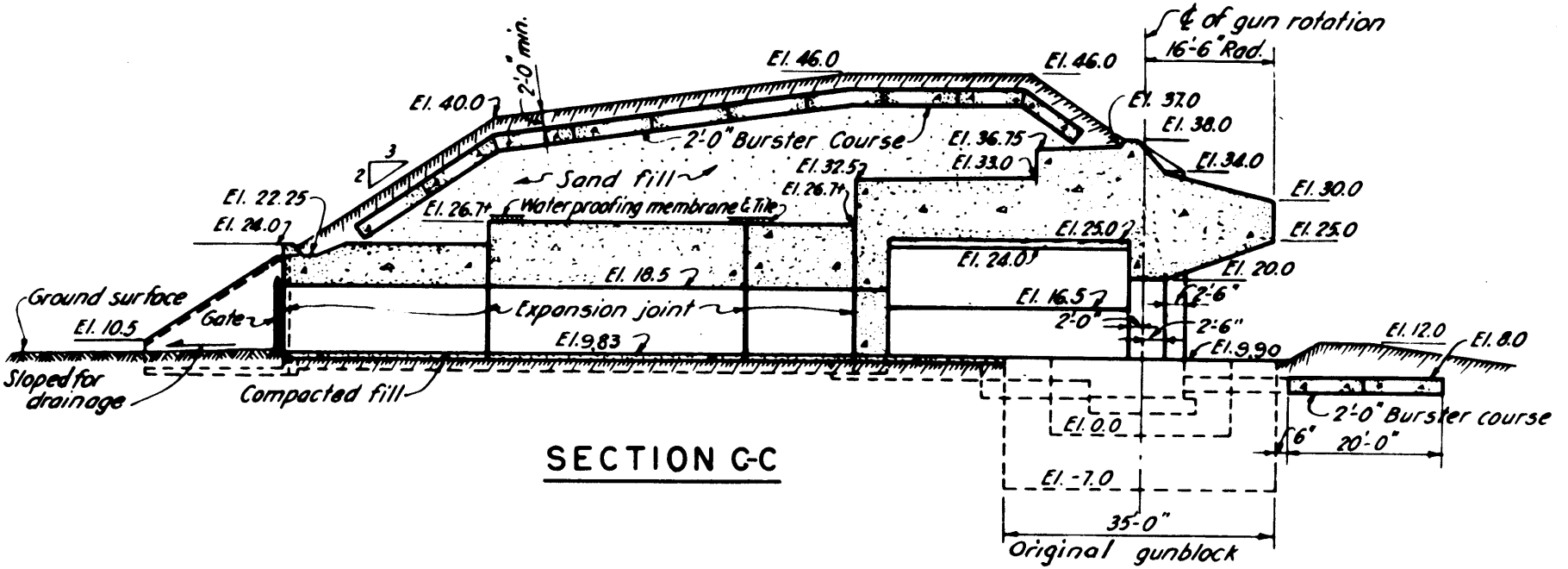
HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

CASEMATES & POWER ROOM

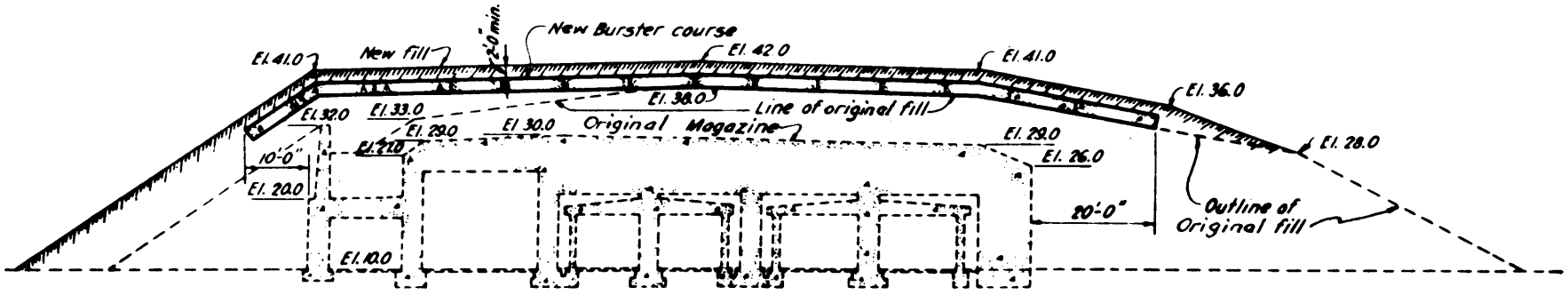
0 15' 30'

FT. HANCOCK NEW JERSEY



SECTION C-C

HARBOR DEFENSES OF NEW YORK	
BATTERY MILLS	
CASEMATES & POWER ROOM	
0 20' 40'	
FT. HANCOCK	NEW JERSEY



SECTION B-B

ORIGINAL MAGAZINE

SECRET

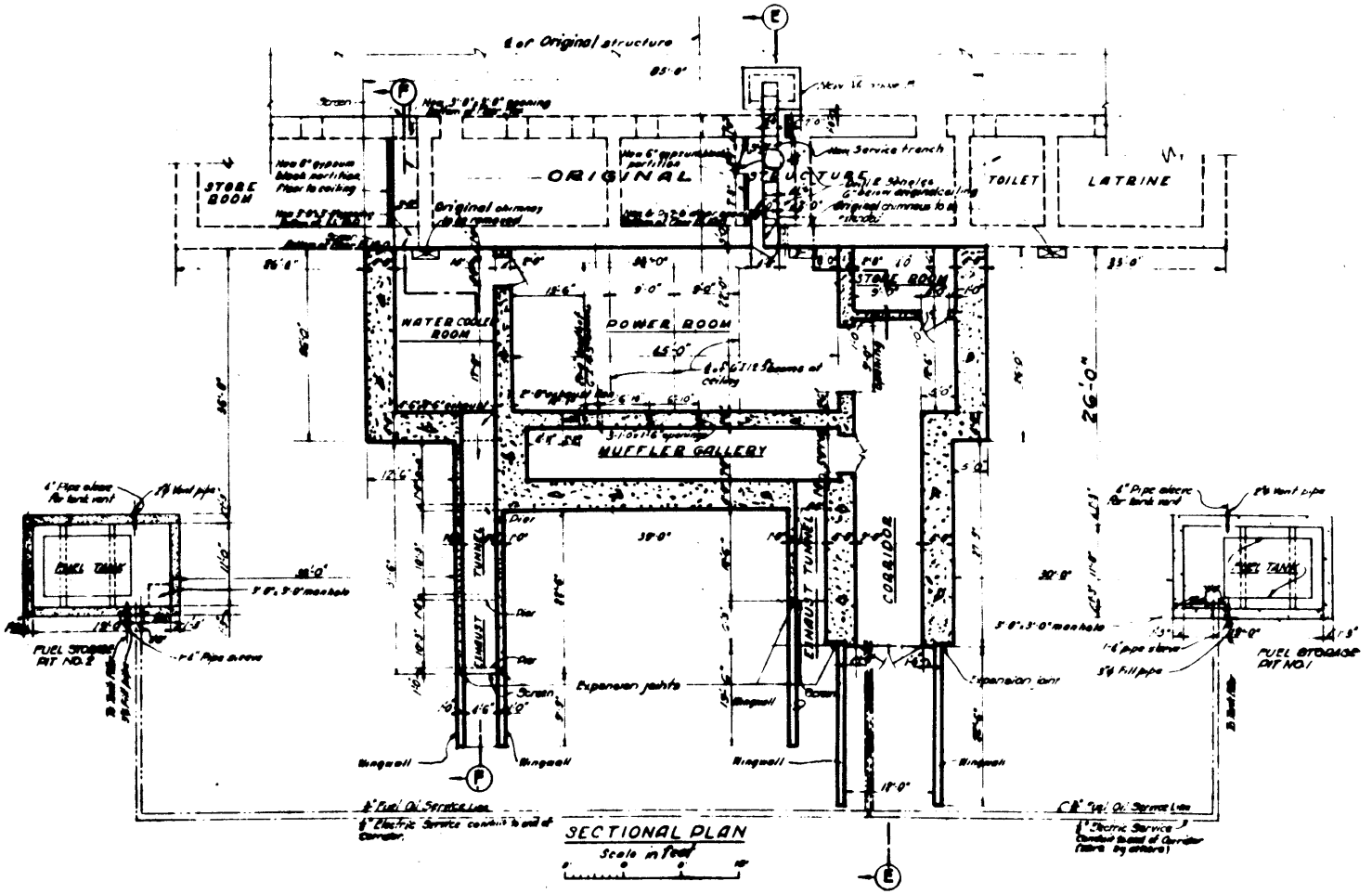
HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

CASEMATES & POWER ROOM

0 20' 40'

FT. HANCOCK NEW JERSEY



SECRET

HARBOR DEFENSES OF NEW YORK

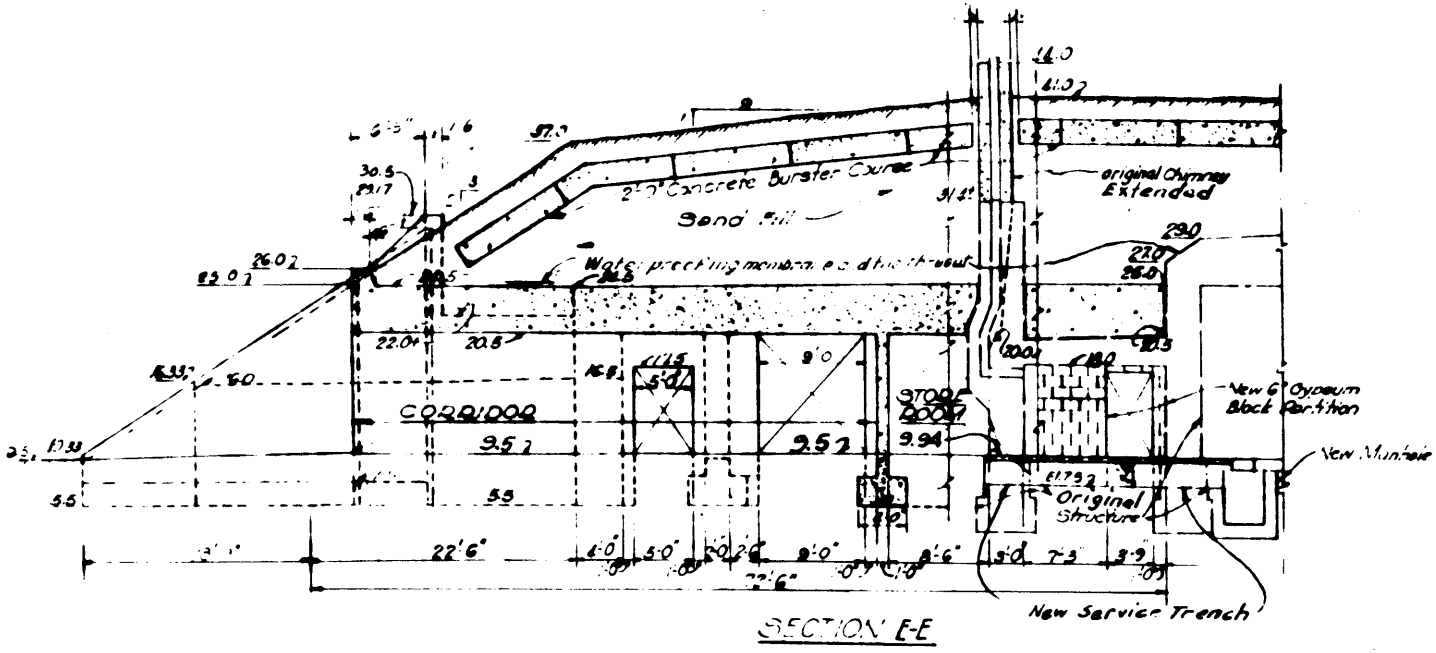
BATTERY MILLS

POWER ROOM

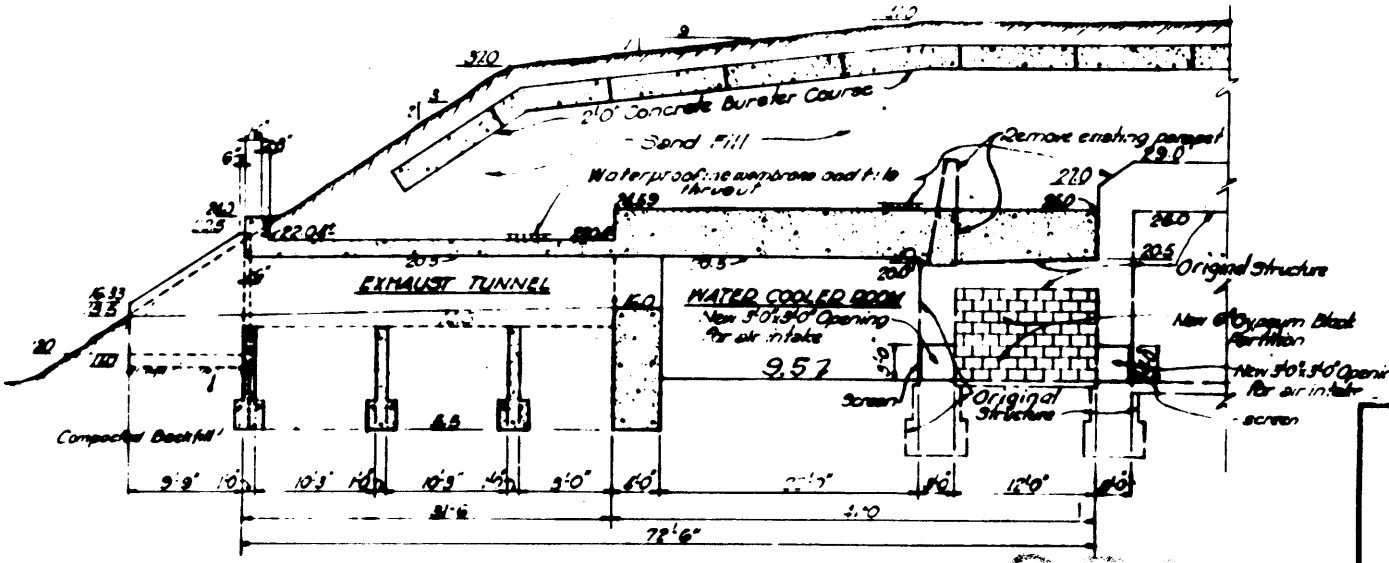
FT. HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



SECTION E-E



SECTION F-F

0 20' 40'

HARBOR DEFENSES OF NEW YORK

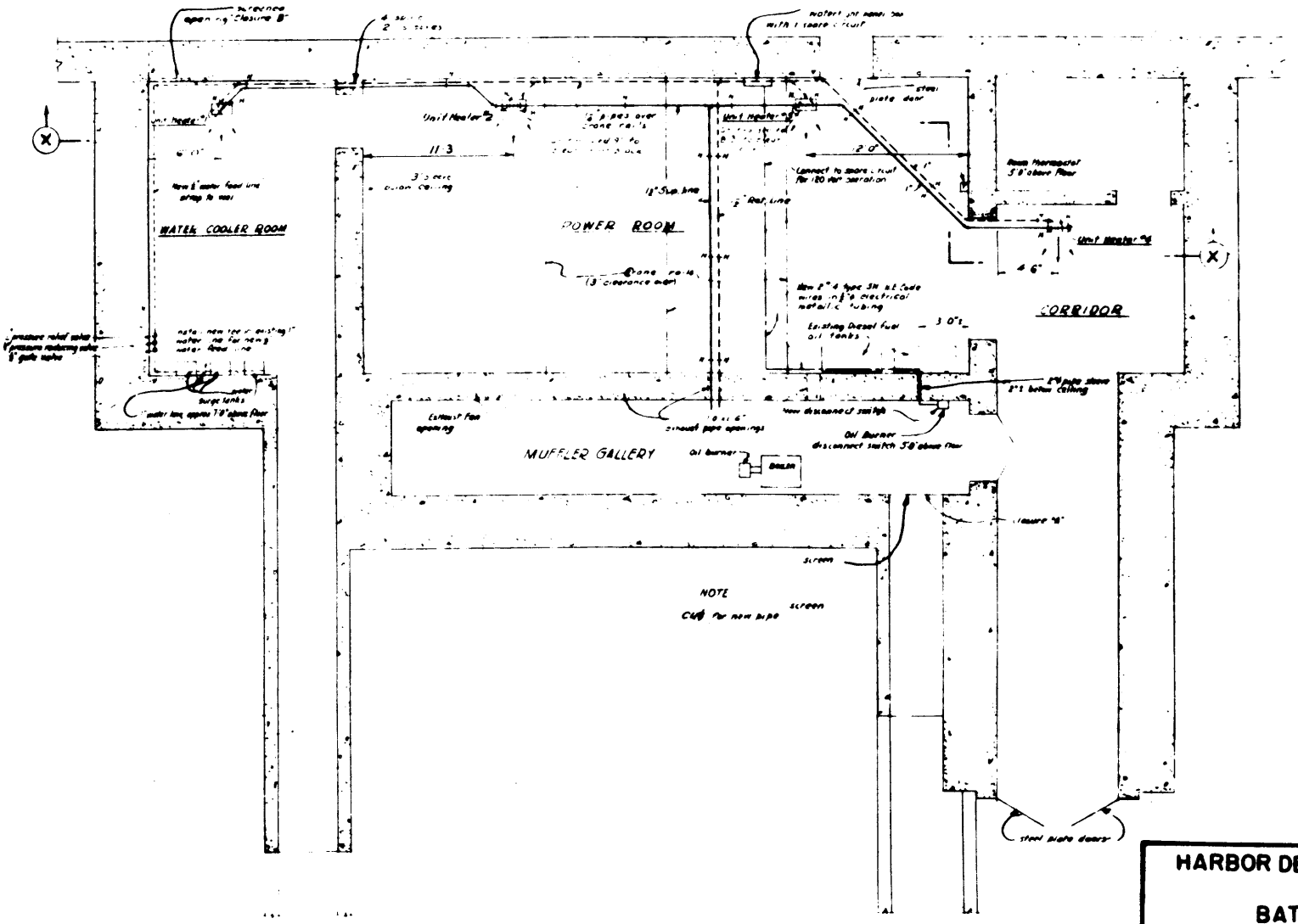
BATTERY MILLS

POWER ROOM

FT. HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

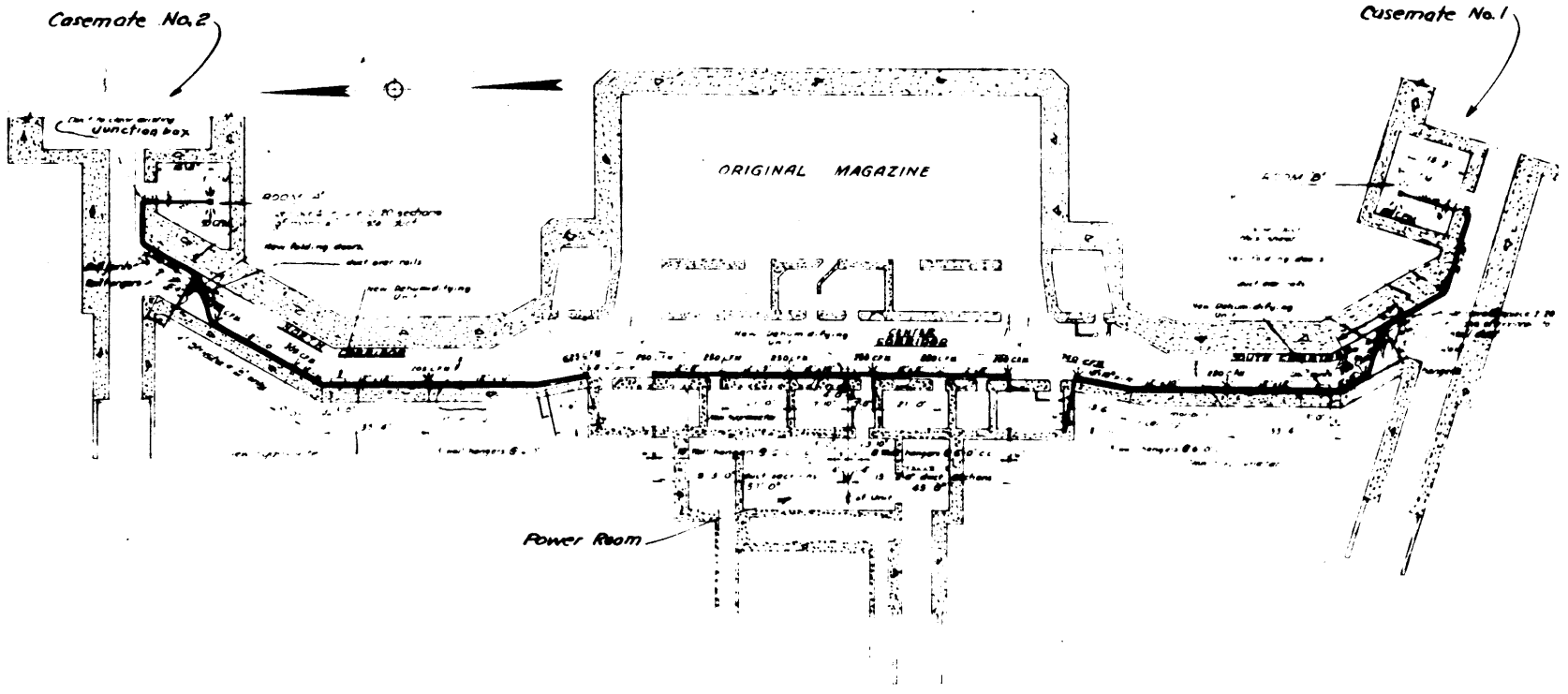
POWER ROOM HEATING SYSTEM

0 6' 12' 18' 24'

FORT HANCOCK NEW JERSEY

WAR DEPARTMENT

CORPS OF ENGINEERS, U.S. ARMY



PLAN

SECRET

HARBOR DEFENSES OF NEW YORK

BATTERY MILLS

ADDITIONAL DEHUMIDIFYING SYSTEM

0 15' 30' 45'

FT. HANCOCK NEW JERSEY