

Primary Battery File

National Archives, Washington D.C.

Record Group 77

Correspondence of the Chief of Engineers

Entry 103

File, Fort, Battery:

44537

Ft. Wetherill

Btly Wheaton

77-103
44537
9/24/02
obt 12/7/08

Office of the Chief of Engineers,
United States Army,

Washington, September 24, 1902.

Major G. W. Goethals,
Corps of Engineers,
Newport, R. I.

Major:

The Chief of Engineers has been unofficially informed that the Secretary of War has approved the report of the Board for the test of disappearing carriages provided for in the fortification appropriation Act approved June 6, 1902, and that in its report the Board favored the use of the disappearing carriage for all 8-inch, 10-inch, and 12-inch rifles.

In order that there may be the least possible delay in commencing actual construction after the action of the Secretary of War has been officially communicated, you are requested to submit, at your early convenience, plans and estimates for the construction of emplacements for two 12-inch rifles on disappearing carriages, L.F., model 1901, near Fort Wetherill, R. I.

By command of Brig. Gen. Gillespie:

Very respectfully,

Your obedient servant,

Frederic V. Allen

Major, Corps of Engineers.

44537

77-103
44537-
11/17/02
obt 12/7/08

SUBJECT:

Office of the Chief of Engineers,
United States Army,

Washington, November 17, 1902.

Maj. G. W. Goethals,
Corps of Engineers,
Newport, R. I.

Major:

With reference to the letter from this office of September 24, 1902, calling upon you for plans and estimates for the construction of emplacements for two 12-inch rifles on disappearing carriages, L. F., model 1901, near Fort Wetherill, R. I., you are informed that the Ordnance Department desires to issue, within the next four or five months, two carriages of this type. As the emplacements near Fort Wetherill will probably be ready for these carriages before those at any other point to which carriages have not yet been ordered shipped, it appears desirable to this office to request that the two carriages in question be sent to your district. You are requested to report, at your early convenience, whether you will be able to receive and care for these carriages if they are shipped within the next four or five months.

By order of the Acting Chief of Engineers:

Very respectfully,

Your obedient servant,

Frederick V. Colburn
Major, Corps of Engineers.

44537

U. S. Engineer Office,

Newport, R. I., December 9, 1902.

Brig. Gen. G. L. Gillespie,

Chief of Engineers, U. S. Army,

Washington, D.C.

General:

1. In compliance with instructions contained in Department letter of September 24, 1902, E.D.F.M.No.44537, I have the honor to forward herewith in separate package a tracing of emplacements for two 12-inch rifles on disappearing carriages on Conanicut Island near Fort Wetherill, R.I., and to submit the following estimates for their construction.

2. The site for this 12-inch gun battery is between the 10-inch gun battery now under construction and the battery of six-inch guns on the knoll to the east. In view of the fact that this locality is also to provide space for three 6-inch gun emplacements on disappearing carriages, it was necessary to change the plans that had previously been made and to restrict the front of the 12-inch gun battery to a minimum consistent with proper service. Sites for the remaining 6-inch gunbatteries to be constructed on Conanicut Island in this locality will also be restricted in view of the extended interval required between the gun platforms, but in view of the excessive cost of land, it has been deemed best to accommodate the proposed defenses to the land already acquired, or in process of acquisition, by the government, since crowding the batteries at this locality is not detrimental to the defense, as it will be impossible for an enemy's fleet to bring an enfilade fire on the

line from any points within effective range of ships' fire.

3. The ground between the 10-inch gun battery now in course of construction and the 6-inch gun battery on the knoll to the east is known as swamp land and in view of the heavy mass of concrete that must be supported, test pits were sunk with a view of determining the character of the subsoil and the depth to rock. The subsoil is very poor, even when drained of water, and in order to secure the necessary stability, the walls have been carried down to the bed-rock and the gun platforms also. The location of the rock along the front of the battery is indicated in the cross section M-1-2-N. Provision has also been made for draining the area as indicated on the drawing. While this method of construction will materially increase the cost of the battery, it is an expenditure that in my opinion is warranted.

4. In this battery, arrangements have been made to construct the magazines entirely separate and distinct from the outside masses of concrete, allowing the minimum space of 18 inches between the roof of the magazine and the superimposed mass of concrete, so as to permit access to all parts of the roof should repairs at any time be found necessary. It is proposed to cover the roofs of the magazines with lead, as is the case with the 10-inch gun battery at Fort Wetherill and the Fox Hill batteries; the other rooms to be covered with asbestos felt.

5. It is proposed to use Shawnee brick throughout for the interior linings of the walls of all the rooms, as has been done in the batteries recently constructed and under construction in this same locality. The hollow tile used at Fox Hill is not satisfactory.

Condensation has appeared on the hardest of the tiles whereas at no time has condensation appeared on the walls lined with the Shawnee brick. While the Shawnee brick is more expensive than the hollow tile, the results so far noted are much more satisfactory, so far as keeping out condensation is concerned, and the additional expense is more than warranted. In the case of the magazines the portions outside the lining are to be of common red brick, a wall of this material accommodating itself more easily to changes of temperature than one of Shawnee brick backed by concrete, as is also evidenced in the 10-inch gun battery at Fort Wetherill.

6. MATERIAL-	E S T I M A T E .		PRICE.-	COST-
	QUANTITY-			
Embankment,	7380 cu.yds.		50¢	\$ 3,690
Excavation, earth	7700 " "		50¢	3,850
rock,	2240 " "		\$1.75	3,920
hard-pan				
(foundation,)	8340 " "		\$1	8,340
hard pan,	3000 " "		75¢	2,250
Sodding,	2960 sq. "		60¢	1,776
Crushed stone				
(foundation)	160 cu. "		\$3	480
Concrete (foundation)	2800 " "		\$6.50	18,200
Concrete, grade IV	2780 " "		\$6.50	18,070
Concrete, grade III	2700 " "		\$7.50	20,250
Concrete, grade II	2700 " "		\$10	27,000
Concrete, grade I	720 " "		\$10	7,200
Forms,				8,000
Brickwork,	22000 sq.ft.		75¢	16,500
Waterproofing,	2800 " yds.		\$2	5,600
Roofs of magazines,	1510 " ft.		\$2	3,020
Anchor bolts & plates,	24		\$15	360
Ring bolts,	6		\$10	60
Twisted steel bars &				
I beams,	52000 lbs.		6¢	3,120
Columns, iron,	14		\$12	168
Doors & windows &				
frames (steel)	47		\$100	4,700
Gates, iron,	20		\$75	1,500
Speaking tubes,	420 ft.		60¢	252
Carried forward,				<u>\$158,306</u>

Brought forward,			\$158,306
Hand rails,	525 ft.	\$1.80	585
Ammunition hoists,	2	\$2500	5,000
Cranes,	4	200	800
Trolleys,	450 ft.	3	1,350
Corners, (cast iron),	170	10	1,700
Ventilators, flues, gratings,			200
Conduits,			1,000
Manholes,	6	75	450
Drains, 18"	300 ft.	3	900
12"	270 "	1.50	405
6"	160 "	60¢	96
4"	1240 "	15¢	186
Ditch,	250 "	\$20	5,000
Water supply,			400
Latrine,			1,000
Roadway,			437
Plant,			5,000
Guns, moving & mounting,			4,000
			<u>\$186,815</u>
Engineering and contingencies, 10%,			<u>18,681</u>
			<u><u>\$205,496</u></u>

Very respectfully,

Your obedient servant,

G. W. Goodrich
Major, Corps of Engineers, U.S.A.

Thro' Col. Chas. R. Suter,
Corps of Engineers, U. S. A.,
Division Engineer, Northeast Division.

December 18, 1902

Respectfully returned to Me Goethals for the changes suggested by the Division Engineer, return with new estimates.

The present estimated cost is so high that it is hoped that no increase will be necessitated by the modifications. The difficulties of the site and the local cost of labor are appreciated, but the estimates are fully a third higher than the average cost of the latest type of emplacements for 12-inch breech-loading rifles on disappearing carriages, and it would seem possible to cover the new hoist, etc., under the present estimate. These papers to be returned.

By

Francis V. Allen
Major, Corps of Engineers

44537

2

Incl. 3 in sep. roll.

Through Col. CHAS. D. SMITH,

Division Engineer, Artillery Division.

Easting, Dec. 20, 1902.

so that the former may not run over the railing. This is now being carried out in several of the older works.

To carry out these recommendations will increase the size of the enclosures and may require some interior readjusting of rooms and passages. It is recommended that Major Goethals be authorized to suggest such changes as he may find necessary for the purpose.

Chas. D. Smith
Colonel, Corps of Engineers,
Division Engineer.

229 - 1902.

1 incl. (tr) in sep. roll.

1st

December 15, 1902.

Respectfully forwarded to the Chief of Engineers, U.S. Army.

The accompanying plans conform to the present type and to the expressed wishes of the Dept., so far as known to me. The Board of Engineers have new type drawings under consideration and some conclusions reached might to advantage be embodied in these plans.

1st. The Board has decided to recommend duplicate hoists in all cases as it is thought that the risk with a single one is ^{entirely} too great. This feature should be introduced in this case.

2d. The Board has learned from the Chief of Ordnance that the space allowed for ramming in the type plans is too small for the extreme traverse of guns. To meet this objection, the traverse wall should be at least 47.5' from centre line of platform for 70° traverse, and 43.75' for 60°.

3d. The platform should extend in rear of gun centre 52' for a 12" gun

Goethals,
Major Geo. W.

Newport, R. I.,
Dec. 9, 1902.

In compl. with Dept. letter of Sept. 24, 1902, forwards tracing of empls. for two 12-inch guns on his carriages, on Conanicut Id. near Fort Wetherill, R. I.

States condition of the site with reasons for the location, & methods of construction proposed. Estimate, \$205,496.

1 incl. (tr.) *5-1*

FILED 25 1902 - *With & Major*
Goethals, M. J. No. 3.

Incl. 3 accy.

NO 1003

3rd indorsement.
NORTHEAST DIVISION
ENGINEER OFFICE.

New York, December 20, 1902.

Respectfully forwarded to Major
Goethals, inviting attention to
the preceding indorsement.

Chas. R. Suter
Colonel, Corps of Engineers,
Division Engineer.
229-1902.

Inclo. 1 (tr) in sep. roll.

4th indorsement. ✓

U.S. Engineer Office,
Newport, R.I., January 7, 1903.

Respectfully returned to
the Chief of Engineers, U.S. Ar-
my, inviting attention to re-
vised estimates and plans.

Goethals
Major, Corps of Engineers.

44537

2 Inclo. 3 in sep. roll.
Thro' Col. Chas. R. Suter,
Corps of Engineers, U.S.A.,
Division Eng'r-N.E. Division.

38-2963

ford

5th indorsement.
NORTHEAST DIVISION
ENGINEER OFFICE.

New York, January 9, 1903.

Respectfully forwarded to the
Chief of Engineers, U.S. Army.

Chas. R. Suter
Colonel, Corps of Engineers,
Division Engineer.

229 - 1902

Inclo. 2 accomp.

Inclos. 1 & 3 (tr.) in sep. roll.

ENGINEER OFFICE

JAN 10 1903

obt 12/7/98

SUBJECT:

Washington, December 31, 1902.

Major:

No expenditures should be made from this allotment without additional authority from this office.

By command of Brig. Gen. Gillespie:

Very respectfully,

Your obedient servant,

Major, Corps of Engineers.

44537

Subject: Plans & Estimates- 2 12-gun emplacements at Ft. Wetherill.

U. S. Engineer Office,

Newport, R. I., January 7, 1903.

Brig. Gen. G. L. Gillespie,
 Chief of Engineers, U.S. Army,
 Washington, D.C.

General:

1. In compliance with the second indorsement on letter from this office dated December 9, 1902, submitting plans and estimates for the construction of two 12-inch gun emplacements at Fort Wetherill, R.I., E.D.F.M. No. 44537-2, I have the honor to forward herewith a tracing incorporating the changes suggested in the first indorsement, and revised estimates.

2. Estimates:

Material and labor.	Quantity.	Price.	Cost.
Embankment,	7380 cu. yds.	50¢	\$ 3,690
Excavation, earth,	7700 " "	50¢	3,850
" rock,	2240 " "	\$1.75	3,920
" hard-pan,	3000 " "	1.00	3,000
" Foundation(hard-pan)	8340 " "	1.00	8,340
Sodding,	2980 sq. "	0.60	1,776
Crushed stone foundation,	160 cu. "	3.00	480
Rubble masonry foundation,	3000 " "	2.50	7,500
Concrete, grade IV	2780 " "	6.50	18,070
" " III	2700 " "	7.50	20,250
" " II	2700 " "	10.00	27,000
" " I	720 " "	10.00	7,200
Forms,			8,000
Brickwork,	22000 sq. ft.	0.75	16,500
Waterproofing,	2800 " yds.	2.00	5,600
Roofs of magazines,	1510 " ft.	2.00	3,020
Anchor bolts & plates,	24 No.	15.00	360
Ring bolts,	6 "	10.00	60
Twisted steel rods & I beams,	68000 lbs.	0.06	4,080
Columns, cast iron,	22 No.	12.00	264
Doors, windows & frames, (steel)	46 "	100.00	4,600
Gates, iron,	20 "	75.00	1,500
Speaking tubes,	420 ft.	0.60	252
Carried forward,			\$149,312

Material and labor.	Quantity.	Price.	Cost.
Brought forward,			\$149,312
Hard rails,	360 ft.	\$1.80	648
Ammunition hoists,	4 No.	2500	10,000
Cranes,	4 "	200	800
Trolleys,	450 ft.	3	1,350
Corners, cast iron,	140 No.	10	1,400
Ventilators, flues & gratings,			200
Conduits,	6 "	75	450
Manholes,	300 ft.	3	900
Drains, 18-inch,	270 "	1.50	405
" 12-inch,	160 "	0.60	96
" 6-inch,	1240 "	0.15	186
" 4-inch,	250 "	20.00	5,000
Ditch,			400
Water supply,			437
Roadway,			5,000
Plant,			4,000
Guns, moving & mounting,			\$181,584
Engineering and contingencies, 10%,			18,158
Total,			\$199,742

Very respectfully,

Your obedient servant,

Major, Corps of Engineers, U.S.A.

1 inclo. (trans. sep. roll).

Thro' Col. Chas. R. Suter,
Corps of Engineers, U.S.A.,
Division Engineer, Northeast Division.

229

1902

Jan 8, 1903

44537

14

Newport, R. I.,
January 7, 1903

Goethals,
Major Geo. W.

Forwards tracing with revised estimate for construction of two 12-inch emplacements at Fort Wetherill, R. I.

Also 5 in New Steer: Rn. 26, 24. 185

Inc., E. D. (Tracing.)

W. H. H. H.

W. H. H. H.

Check up

Dec 29 1902

4. FEB 4 1903
Inc 2, 3 & 5 accy.

1st indorsement.

NORTHEAST DIVISION

ENGINEER OFFICE.

New York, January 9, 1903.

Respectfully forwarded to the Chief of Engineers, U. S. Army, recommended for approval.

Chas. R. Suter

Colonel, Corps of Engineers,
Division Engineer.

229/2 - 1902.

2d indorsement.

Office Chief of Engineers,

U. S. ARMY.

January 17, 1903.

Respectfully returned to Major Goethals approved.

It is suggested that it might be well to have an observing station (crows nest), on the right flank of the battery in case of westerly winds.

The sum of \$5,000 of the provisional allotment of December 31, 1902, is hereby withdrawn, and the balance is made immediately available for work.

By command of Brig. Gen. Gillespie:

Frederic V. Allen

Major, Corps of Engineers.

44537

4

Inclo. 2 accomp.
Inclos. 3&5 in sep. roll.

Through Col. CHAS. R. SUTER,

Corps of Engineers,

Division Engineer, Northeast Division.

3rd indorsement.

NORTHEAST DIVISION

ENGINEER OFFICE.

New York, January 23, 1903.

Respectfully forwarded to Maj. Goethals, inviting attention to the preceding indorsement.

Chas. R. Suter

Colonel, Corps of Engineers,
Division Engineer.

229, 1902.

2

229 accomp.

Inclos. 1 & 3 (trs.) in sep. roll.

4th indorsement.

U. S. ENGINEER OFFICE,

NEWPORT, R. I. *July 2, 1903*

Respectfully returned to the Chief of Engineers, U. S. Army, the necessary record having been made.

Major, Corps of Engineers.

44537

4

Inclo. 3 accomp.
Thro' Col. Chas. R. Suter,

Corps of Engineers, U. S. A.,

Division Engineer, Northeast Division.

38-3127

Neesby, Feb 3, 1903

5th indorsement.

NORTHEAST DIVISION

ENGINEER OFFICE.

New York, February 3, 1903.

Respectfully forwarded to Chief of Engineers, U. S. Army.

Chas. R. Suter

Colonel, Corps of Engineers,
Division Engineer.

229, 1902.

2

229 accomp.

Inclos. 1 & 3 (trs.) in sep. roll

Subject: 12" emplacements-Fort Wetherill, R.I.

U. S. Engineer Office,

Newport, R. I., January 11, 1904.

Brig. Gen. G. L. Gillespie,

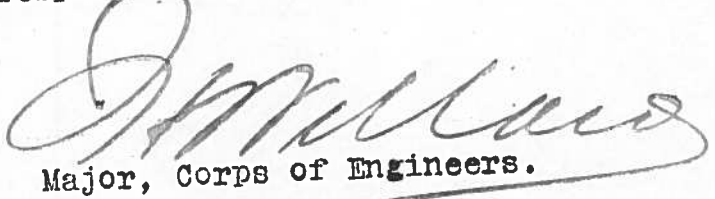
Chief of Engineers, U. S. Army,

Washington, D. C.

General :

I have the honor to state that the two 12-inch gun emplacements at Fort Wetherill, R.I., are ready for the guns.

Very respectfully,

A handwritten signature in cursive script, appearing to read "J. M. Maud".

Major, Corps of Engineers.

31 44537
32455
87

Newport, R.I., Jan. 11, 1904.

Willard,

Major J.H.

States that the two 12-inch gun
emplacements at Fort Wetherill, R.
I., are ready for the guns.

1st

January 16, 1904.

1. Respectfully referred to the
Chief of Ordnance, U.S. Army, for
his information, and with request
for the approximate date when these
guns and carriages may be expected.
2. The return of this paper is
requested.

Ed. Thompson

44537
9

32455-87.

Mt.

2nd Endorsement.

OFFICE OF THE CHIEF OF ORDNANCE
Washington, January 19, 1904.

1. Respectfully returned to
the Chief of Engineers, U.S.A.,
with the information that of
the two 12-inch disappearing
carriages, J.F., model of 1901,
destined to Fort Wetherill, one
is expected to be completed
about April 1st, and the other
about August 1st, 1904.

Alfred H. ...
Brig. Gen., Chief of Ordnance.

3d

January 21, 1904.

1. Respectfully returned to
Major Willard, inviting atten-
tion to the 2d endorsement.
2. To be returned.

Francis V. Allen

44537
9

4th Endorsement.

January 25, 1904

Very respectfully,
S. W. ...

Corps of Engineers.

HEAD OFFICE CHIEF OF ENGRS. JAN 6 1904

26

JAN 20 1904