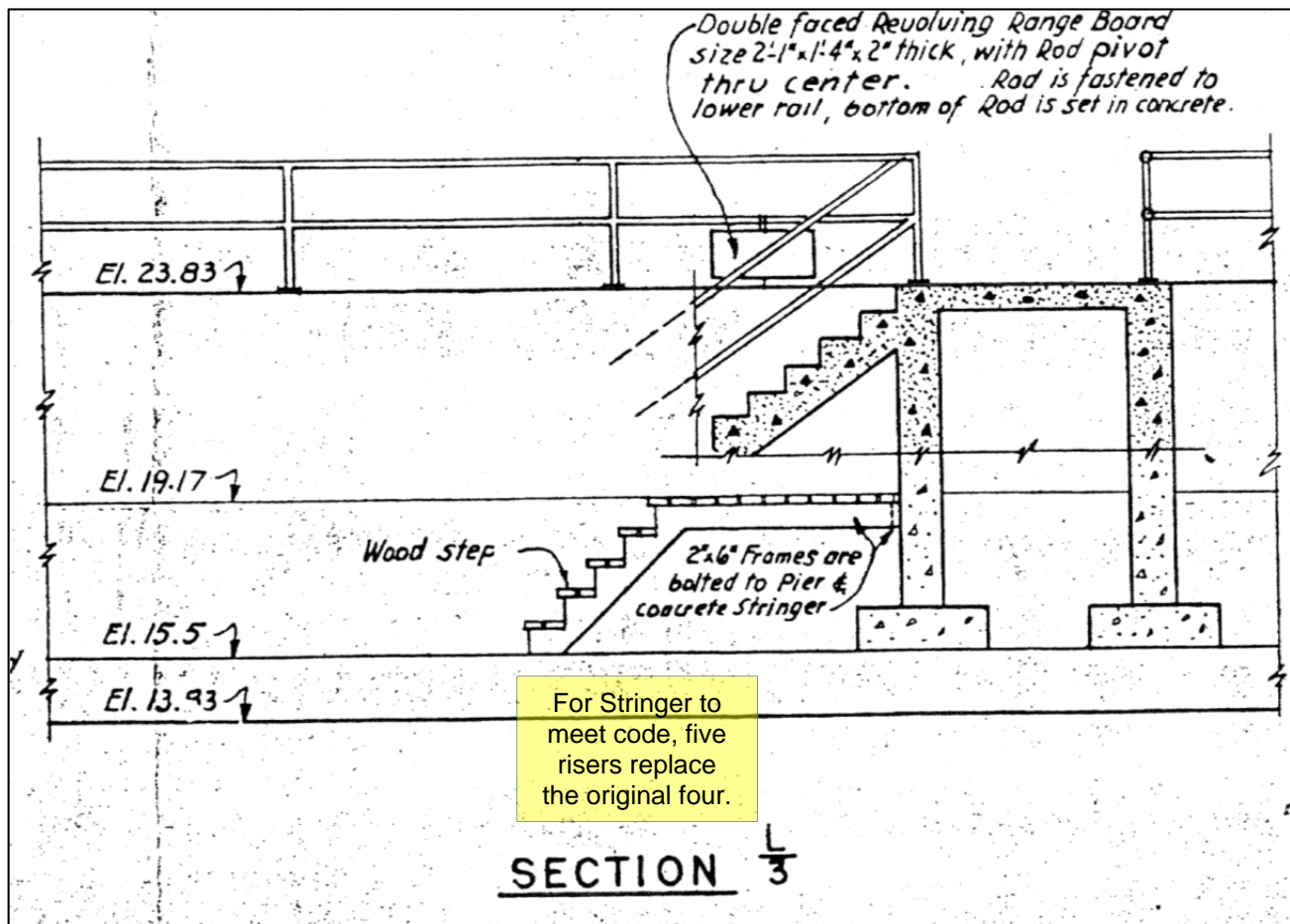


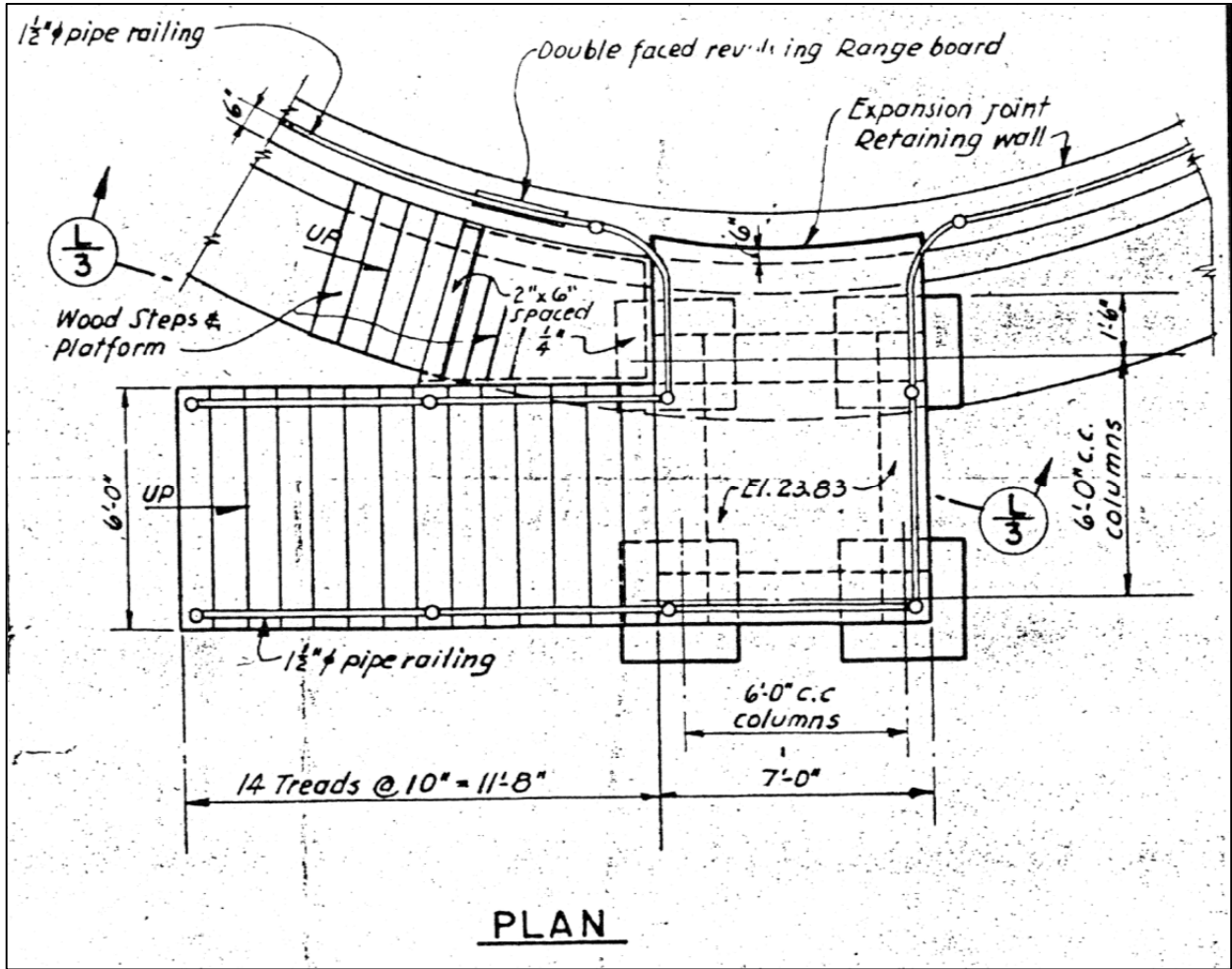
Restoration of the Range Board Operator's Station *Ft. Hancock, New Jersey*

Army Ground Forces Association has completed the rebuild of the Range Board Operator's platform station on Gun #1. The platform and stairs were originally constructed in 1943 with the conversion of the battery. We will interpret the elevation data function for the guns as outlined in the battery emplacement book and Field Manual (FM) 4-75 - Service of the Piece 6-inch gun BC - 1940.

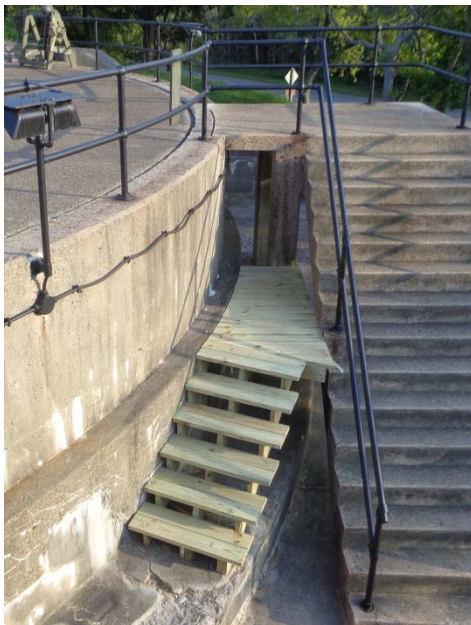
We used pressure treated lumber supplied by the NPS, to include stair stringers. AGFA purchased all remaining required materials to include stainless steel anchors. The extract from the 1943 conversion drawings below outlines the plan as the Army developed and implemented it. The drawing shows four treads. The stringers are pre-fabricated in order to meet code and the available stringers provide five treads to match the correct rise over run.



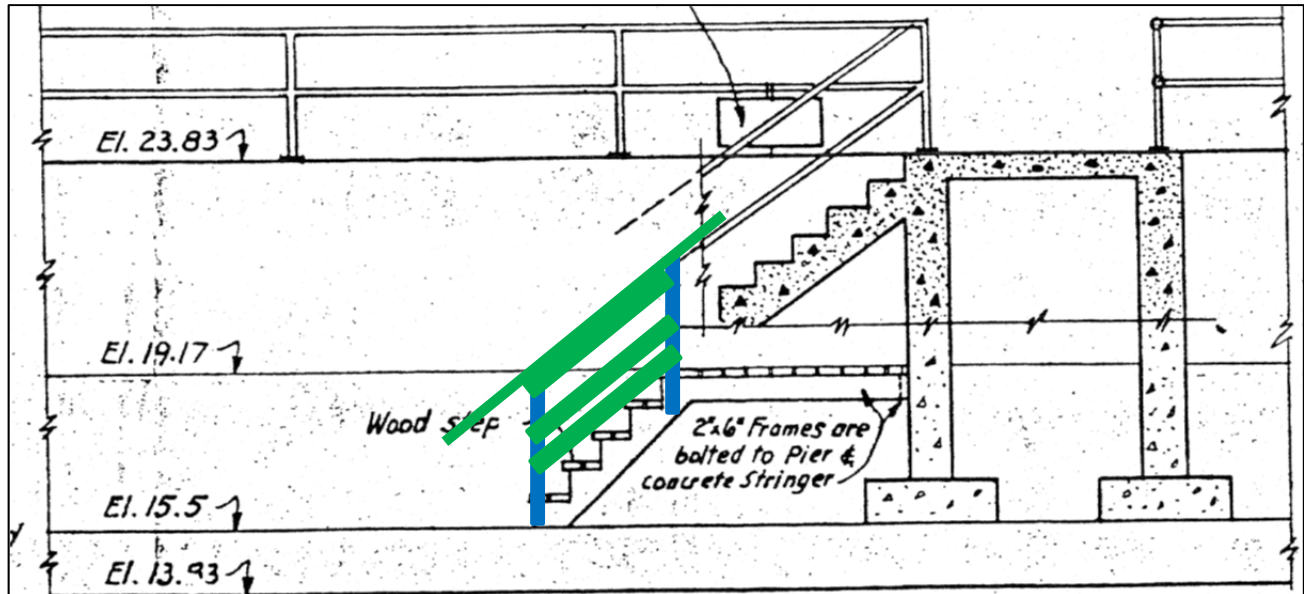
Below is a "plan view" of the concrete and wooden range board stairs from the 1943 Army construction drawing.



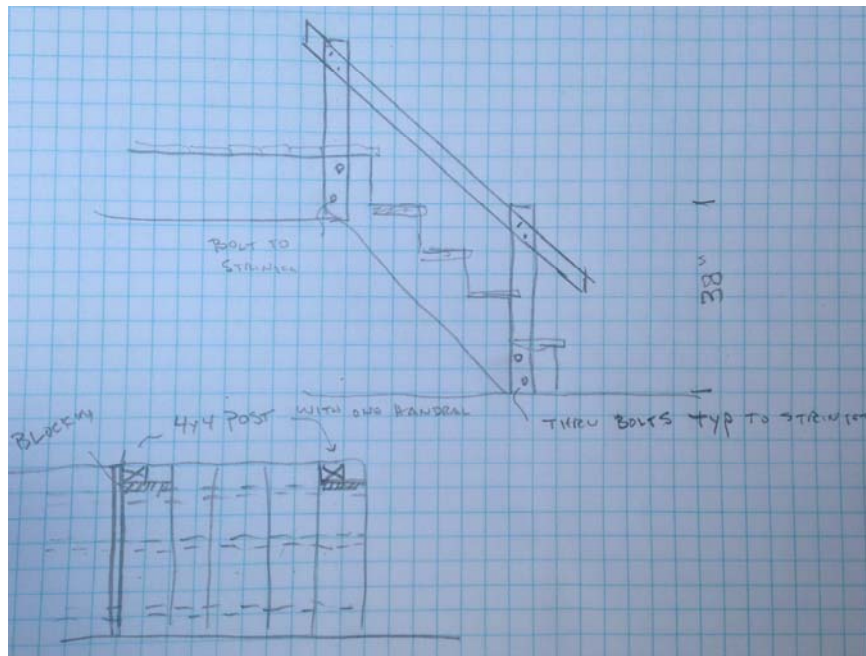
The stairs as originally designed and installed lacked a guard rail. In the photos below notice the yellow arrow in the right photo. The arrow shows a potential safety hazard that was addressed in the original Army plans.



To solve the safety problem between the two sets of stairs, AGFA has installed a single 2x4 handrail secured on top of two 4x4 posts, about 34 inches above the front of the risers (steps). Three guard rails have also been installed. The Guardrail is shown superimposed on the 1943 drawing below in blue for the 4x4 posts and green for the 2x4 hand rail and 5/4x6 guard rails. The posts are bolted to the stringer with two carriage bolts apiece. AGFA purchased all required wood to finish the guard rail installation.



Below is a "hand drawing" of the basic proposed hand rail installation (w/o guard rails). This view looks from the gun block towards the concrete stairs going to the gun platform. The guard rails were added after this drawing was developed.



The elevation board operator's platform and stairs was not designed with or built with a hand rail or total guard rail structure in 1943. The driving need for such a level of protection is public presence outside of the times when AGFA and/or NPS personnel are present.

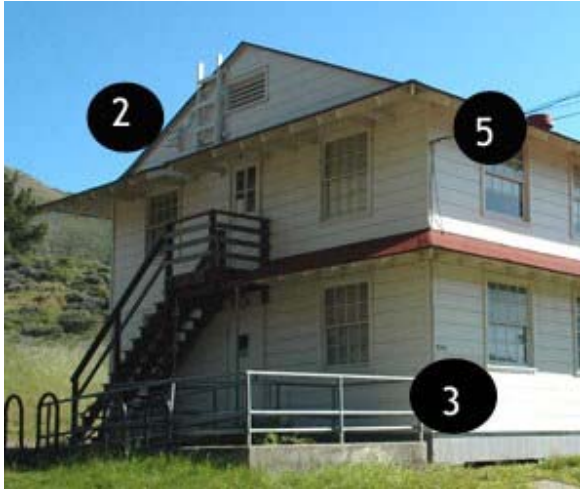
Wooden hand and guard rails were chosen as they are in consonance with temporary construction techniques common for wooden structures during WWII. This is documented in Field Manuals 5-10, 5-15 and 5-35. We can look to Army temporary construction standards or the battery commander's station stairs and ammunition bridge guard rails as guides for our ultimate selection of the final guard rail approach.

Army temporary construction, like that for WWII wood and temporary fortifications, used much lumber and did not generally continue the ornate features of past Army construction. This can be seen in the WWII wood construction of WWII and in the 1940s built fortifications such as Fort Miles, Delaware, the Aleutian Islands in Alaska, all modern (1940s) 6-inch and 16-inch batteries built during WWII.

The guard rail as installed is shown below. Final finish touches such as rounding corners were applied.



Wooden hand and guard rails are common WWII construction by Army Engineers. The photos below are from <https://www.nps.gov/goga/learn/historyculture/world-war-ii-temporary-construction.htm> and shows (left) a WWII 800 series building at Presidio of San Francisco and on the right from Fort Cronkhite in 1942. Notice the horizontal guard rails on the fire escape. While these likely are greater than four inches apart, they are a good temporary solution for current safety concerns.



The photo below (GATE #192) shows WWII wood barracks behind 9-gun battery. Notice the fire escapes are similar in construction to the Ft Chronkhite barracks.



The photo below shows Bldg #119 at Fort Hancock and the NPS approach to guard rail installation. The photo in the center (GATE #18203) is cropped to show the fire escape and its wooden construction. The photo on the right (GATE #3050) is cropped to show the hand and guard rails.



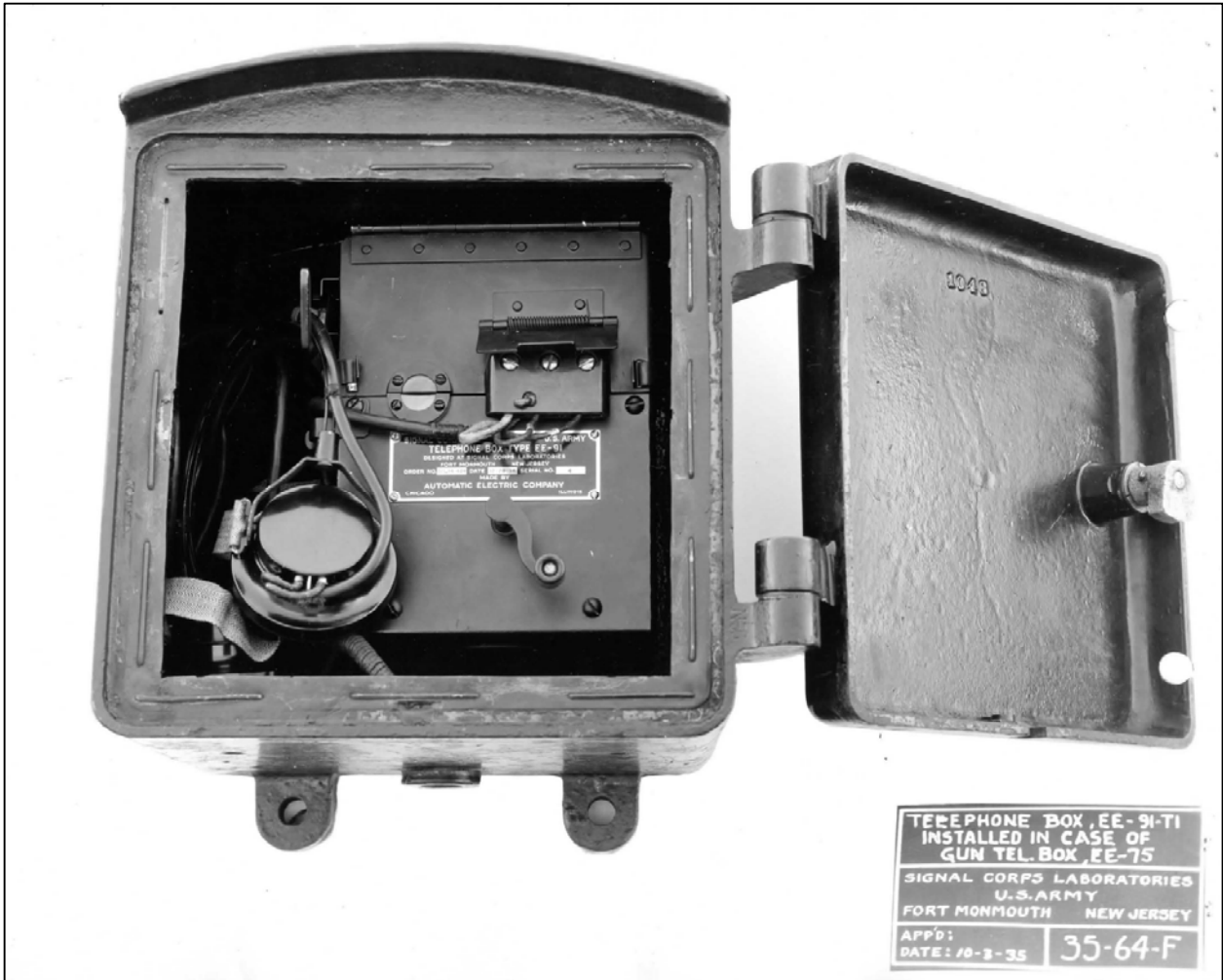
The two other components of the elevation board platform station are the elevation chalk board and the EE-91 fire control telephone. The two photos below show the actual elevation chalk board (left picture) as installed. The photo on the left shows the chalk board. The photo on the right shows the upper bracket that remains on the railing when the board is in storage when the battery is closed.



The other component of the elevation board platform station is the EE-91 fire control telephone. The EE-91 fire control telephone is shown mounted on a wooden board. The location of this mount is using the existing anchor holes. The holes match the pattern required for the BE-75 gun telephone box. The wood board is temporary pending replacement by a BE-75 gun telephone box.



Below is an Army photo of the BE-75 Gun Telephone box with an EE-91 installed.



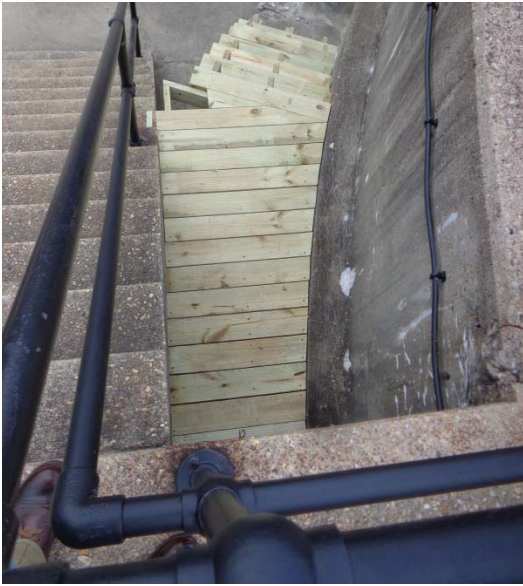
There are a total of three such boxes required for each gun emplacement. Both emplacements at Battery Gunnison/New Battery Peck have the gun pointer and gun commander's telephone boxes. Both of these boxes are shown in the photo below on the extreme right and left of the photos (See arrows). We are looking for a third box.



The following pictures show the platform under construction (17 to 20 July 2019).



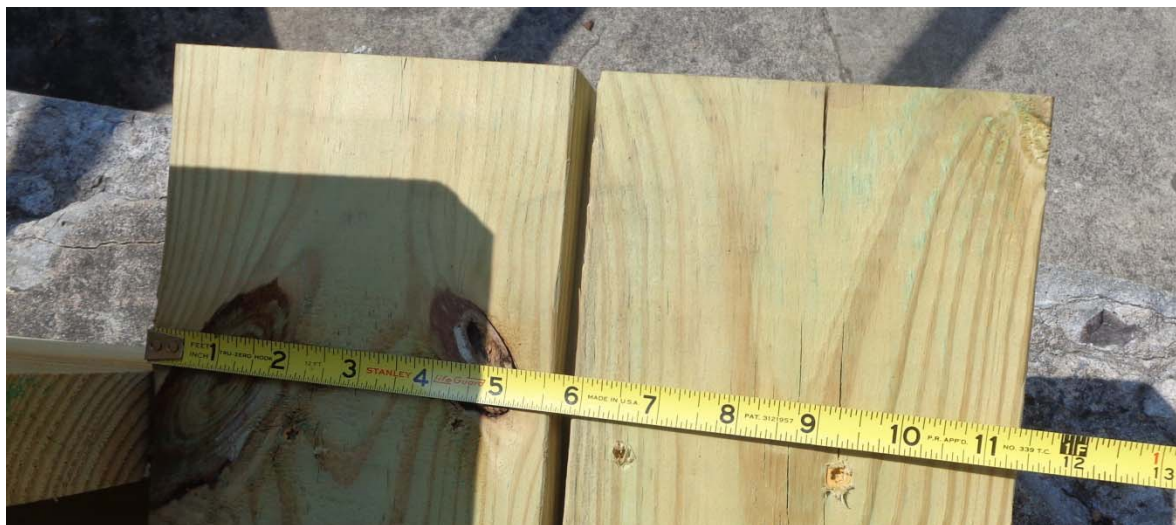
Additional construction photos are below:



These photos show final construction details of the stairs and platform proper.



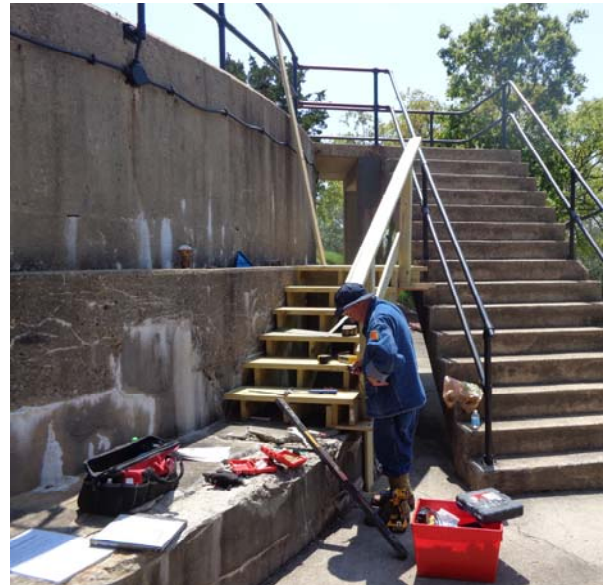
The treads are 11 inches deep and 3 feet wide.



The platform is approximately 7 feet deep.



The installation of the guard rails is shown below.





ASSESSMENT OF ACTIONS HAVING AN EFFECT ON HISTORIC PROPERTIES

A. DESCRIPTION OF UNDERTAKING

1. Park: Gateway National Recreation Area

2. Project Description:

Project Name: Reinstall Range Board Operator Platform Battery Gunnison

Prepared by: Marilou Ehrler Date Prepared: 09/14/2018 Telephone: 718-354-4561

PEPC Project Number: 82305

Locations:

County, State: Monmouth, NJ

Describe project:

The Army Ground Forces will reinstall the Range Operator Platform at Battery Gunnison on Gun Number 1 which sits to the South side of the Battery. The reinstall will include two sets of five stringer wood stairs and a platform set below the existing concrete stairs facing west.(see drawing) The purpose of the platform was to inform the gunners of trajectory and plotting the path of the shells being fired. The platform will be reinstalled using the existing holes and sleeves (see attached planning document)

Area of potential effects (as defined in 36 CFR 800.16[d])

Battery Gunnison and the Fort Hancock and Sandy Hook Proving Ground NHL District

3. Has the area of potential effects been surveyed to identify historic properties?

No
 Yes

Source or reference:

4. Potentially Affected Resource(s):

Archeological Resources Affected: No

Historical Structures/Resources Affected: Yes

Property Name: Fort Hancock-Battery Gunnison 337 LCS:

Cultural Landscapes Affected: No

Cultural Landscapes Notes: Battery Gunnison is outside of the designated cultural landscape

Ethnographic Resources Affected: No

5. The proposed action will: (check as many as apply)

- No Destroy, remove, or alter features/elements from a historic structure
- Yes Replace historic features/elements in kind
- Add non-historic features/elements to a historic structure
- No Alter or remove features/elements of a historic setting or environment (inc. terrain)
- No Add non-historic features/elements (inc. visual, audible, or atmospheric) to a historic setting or cultural landscape
- No Disturb, destroy, or make archeological resources inaccessible
- No Disturb, destroy, or make ethnographic resources inaccessible
- No Potentially affect presently unidentified cultural resources
- No Begin or contribute to deterioration of historic features, terrain, setting, landscape elements, or archeological or ethnographic resources
- No Involve a real property transaction (exchange, sale, or lease of land or structures)
- Other (please specify): _____

6. Supporting Study Data:

(Attach if feasible; if action is in a plan, EA or EIS, give name and project or page number.)

B. REVIEWS BY CULTURAL RESOURCE SPECIALISTS

The park 106 coordinator requested review by the park's cultural resource specialist/advisors as indicated by check-off boxes or as follows:

[X] 106 Advisor

Name: Holly Staggs

Date: 08/06/2018

Comments: This project will entail no ground disturbance, and no archeological work is recommended.

Check if project does not involve ground disturbance []

Assessment of Effect: No Potential to Cause Effect No Historic Properties Affected No Adverse Effect Adverse Effect Streamlined Review

Recommendations for conditions or stipulations:

[X] Historical Architect

Name: Marilou Ehrler

Date: 09/14/2018

Comments: Reconstruction of the Range Board Operator Platform although not included as a recommendation in the HSR, this platform played a role in the operation of the battery and reconstruction is warranted.

Check if project does not involve ground disturbance []

Assessment of Effect: No Potential to Cause Effect No Historic Properties Affected No Adverse Effect Adverse Effect Streamlined Review

Recommendations for conditions or stipulations: Stipulations: 1. The SOW indicates the intent to remove the existing bolts and anchors and secure the new construction to the existing piers; it notes that if the bolts and nuts

cannot be removed; new bolts will be installed. Any new anchors are to be SS and are to be installed in existing holes. No new holes are to be made in the historic fabric. 2. The new stair and platform must be maintained.

Doc Method: Streamlined Review (PA)

Streamlined Activity:

- 1. Preservation Maintenance and Repair of Historic Properties

Historical Landscape Architect

Name: David Uschold

Date: 08/06/2018

Comments: Replacement of the platform will return a lost historic feature, and the additional construction of the stairs will have minimal effect on the battery, no adverse effect on the cultural landscape of Sandy Hook.

Check if project does not involve ground disturbance

Assessment of Effect: No Potential to Cause Effect No Historic Properties Affected No Adverse Effect Adverse Effect Streamlined Review

Recommendations for conditions or stipulations: Park historic architect should determine if this project qualifies for Streamlined Review or requires Standard 4-Step Process (based on potential effects from stair construction).

No Reviews From: Curator, Archeologist, Historian, Other Advisor, Anthropologist

C. PARK SECTION 106 COORDINATOR'S REVIEW AND RECOMMENDATIONS

1. Assessment of Effect:

- No Potential to Cause Effects
- No Historic Properties Affected
- No Adverse Effect
- Adverse Effect

2. Documentation Method:

A. Standard 36 CFR Part 800 Consultation

Further consultation under 36 CFR Part 800 is needed.

B. Streamlined Review Under the 2008 Servicewide Programmatic Agreement (PA)

The above action meets all conditions for a streamlined review under section III of the 2008 Servicewide PA for Section 106 compliance.

Applicable Streamlined Review Criteria

(Specify 1-16 of the list of streamlined review criteria.)

- 1. Preservation Maintenance and Repair of Historic Properties.

C. Undertaking Related to Park Specific or Another Agreement

The proposed undertaking is covered for Section 106 purposes under another document such as a park, region or statewide agreement established in accord with 36 CFR 800.7 or 36 CFR 800.14.

D. Combined NEPA/NHPA Process

Process and documentation required for the preparation of an EA/FONSI or an EIS/ROD to comply with Section 106 is in accord with 36 CFR 800.8.c.

E. Memo to Project File

3. Consultation Information

SHPO Required: No

SHPO Sent:

SHPO Received:

THPO Required:

THPO Sent:

THPO Received:

SHPO/THPO Notes:

Advisory Council Participating: No

Advisory Council Notes:

Additional Consulting Parties: No

4. Stipulations and Conditions: Following are listed any stipulations or conditions necessary to ensure that the assessment of effect above is consistent with 36 CFR Part 800 criteria of effect or to avoid or reduce potential adverse effects.

1. The SOW indicates the intent to remove the existing bolts and anchors and secure the new construction to the existing piers; it notes that if the bolts and nuts cannot be removed; new bolts will be installed. Any new anchors are to be SS and are to be installed in existing holes. No new holes are to be made in the historic fabric. 2. The new stair and platform must be maintained

5. Mitigations/Treatment Measures: Measures to prevent or minimize loss or impairment of historic/prehistoric properties: (Remember that setting, location, and use may be relevant.)

No Assessment of Effect mitigations identified.

6. Assessment of Effect Notes:

Reconstruction of the Range Board Operator Platform was not included as a recommendation in the HSR. This platform played a role in the operation of the battery and reconstruction is warranted.

D. RECOMMENDED BY PARK SECTION 106 COORDINATOR:

Compliance Specialist:

NHPA Specialist

Assessment of Effect Form - Reinstall Range Board Operator Platform Battery Gunnison - PEPC ID: 82305

Marilou Ehrler

Date: _____

Holly Staggs



Date: 9/21/18

E. SUPERINTENDENT'S APPROVAL

The proposed work conforms to the NPS *Management Policies* and *Cultural Resource Management Guideline*, and I have reviewed and approve the recommendations, stipulations, or conditions noted in Section C of this form.

Signature

Superintendent: _____


Jennifer T. Nersesian

Date: 9/18/18

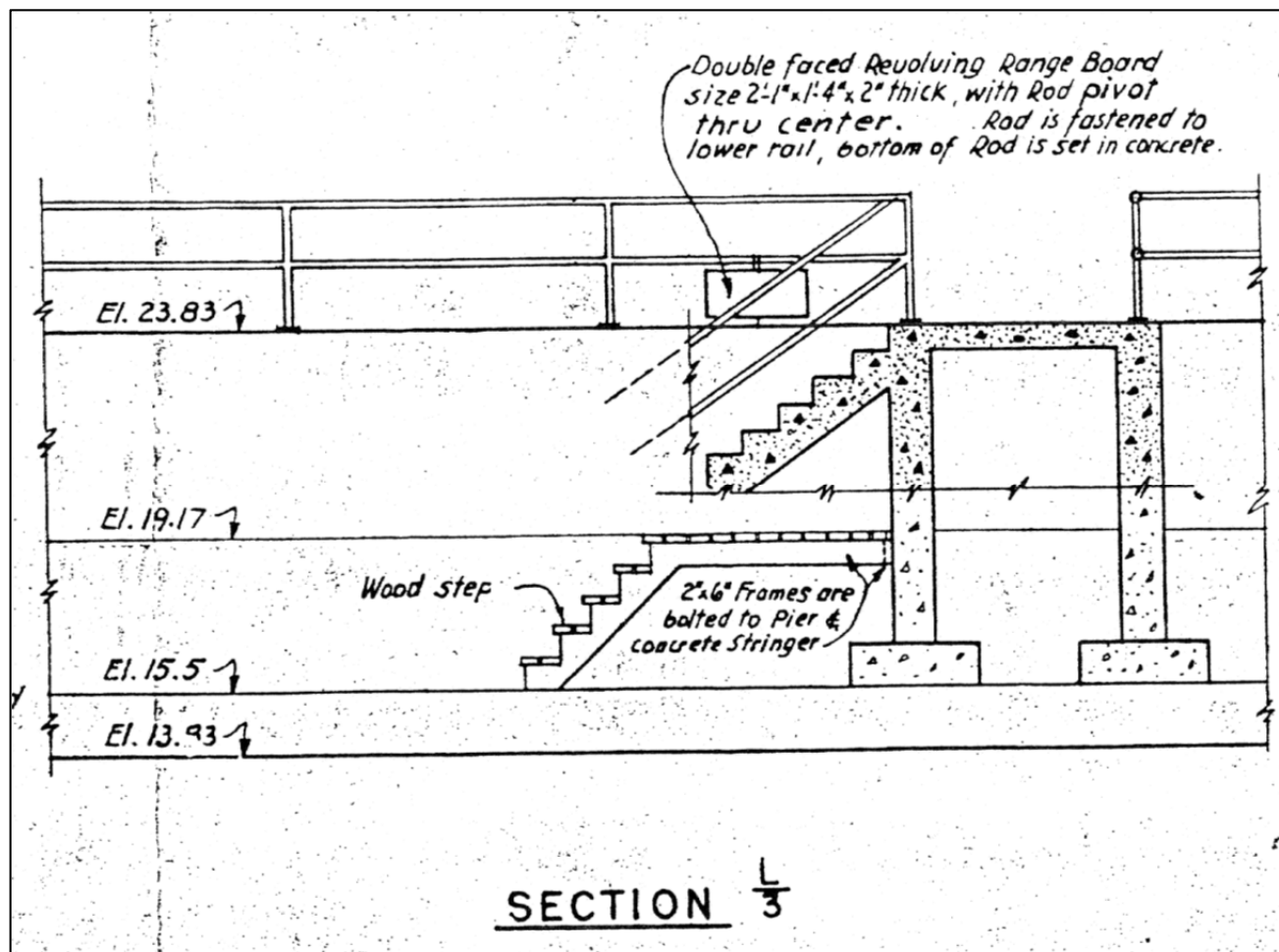
Restoring the Range Board Operator's Platform *Ft. Hancock, New Jersey*

Army Ground Forces Association proposes to rebuild the Range Board Operator's platform on Gun #1 and later on Gun #2. The platform and stairs was originally constructed in 1943 with the conversion of the battery.

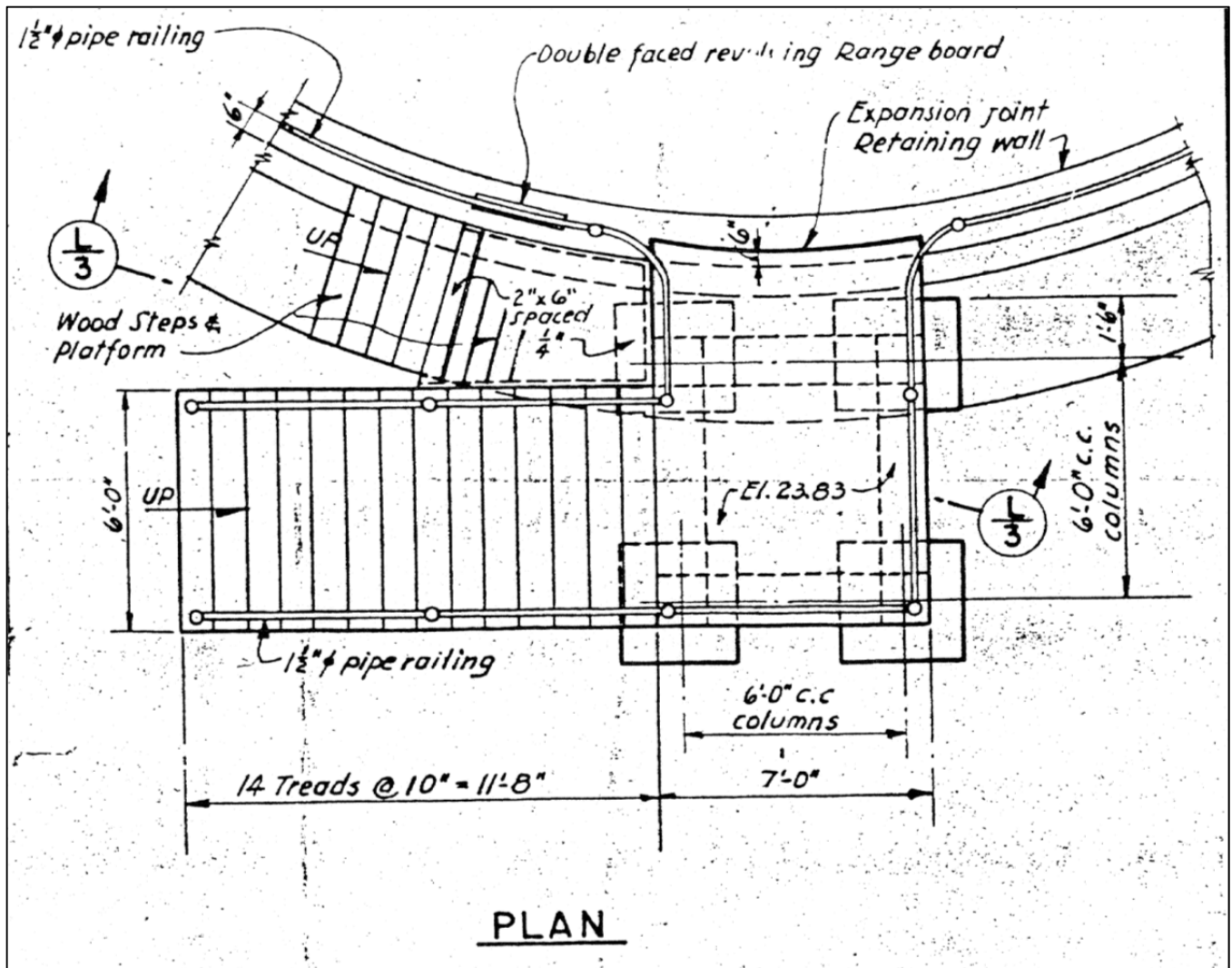
Finishing one set of stairs and platform for Gun #1 will require approximately twelve 10 foot 2x6 lumber and two five step stair stringers. If NPS can supply the wood and some of the fastening materials as outlined on the DI-1, AGFA will provide the required 4x4 boards and remaining fastening materials. AGFA recommends pressure treated lumber for long life.

AGFA has on hand many of the parts for the range board proper (chalk board and frame) and will procure the remaining items. AGFA will paint it after one year of weathering. AGFA will reinstall the bolts in the piers. Likely the bolts can be removed and the existing embedded nuts can be reused. If this is not possible, we will insert completely new bolts and nuts.

The extract from the 1943 conversion drawings below outlines the plan as the Army developed and implemented it. This is a section view that also provides insight to the materials required. The drawing shows four treads. The wooden platform is 3 feet, 9 inches above the sidewalk where the concrete stair supports rest.



Below is a "plan view" of the concrete and wooden range board stairs.



The need is for two of these - one for each gun emplacement. AGFA recommends replacing the one for Gun #1 first. The platform for Gun #2 should be replaced once the gun is ready for interpretation (approximately 2021 time period).

This restoration could be considered a form of an "exhibit support". None of the material being "returned" is historic fabric, though the side supports will be bolted into the existing concrete stair supports as the original platform supports were installed.

The HSR is silent on restoring this capability to the gun platforms. However, to accurately conduct the gun drills as they were performed in the 1940s, this elevation board operator's platform is required.

As currently conducted, the range board operator cannot operate the range board once installed. Further, the telephone mount on the railing is historically incorrect. The mounting of the phone on the frame of the stairs is currently very apparent and within the capability of AGFA to replicate. This is the appropriate manner in which to interpret the elevation data function for the guns as outlined in the battery emplacement book and Field Manual (FM) 4-75 - Service of the Piece 6-inch gun BC - 1940.